

Genome	Isolation Date	Outbreak	Source (food/human)	Accession number
SRR4063739.1	nov-15	Polish outbreak	Human	SRR4063739
SRR3285443.1	oct-15	Polish outbreak	Human	SRR3285443
TIAC3660	2016	Polish outbreak	Food	SAMN15963373
TIAC3651	2016	Polish outbreak	Food	SAMN15963374
TIAC3670	2016	Polish outbreak	Food	SAMN15963375
TIAC3663_2	2016	Polish outbreak	Food	SAMN15963376
TIAC3659	2016	Polish outbreak	Food	SAMN15963377
TIAC3667	2016	Polish outbreak	Food	SAMN15963378
TIAC3662	2016	Polish outbreak	Food	SAMN15963379
SRR4063700.1	févr-16	Polish outbreak	Human	SRR4063700
S17BD05926	août-17	Polish outbreak	Human faeces	SAMN15963380
S17BD07382	sept-17	Polish outbreak	Human faeces	SAMN15963381
ERR2173854.1	2017	Polish outbreak	Food (eggs)	ERR2173854
S18BD04909	juil-18	Polish outbreak	Human faeces	SAMN15963382
S19BD01263	févr-19	Polish outbreak	Human faeces	SAMN15963383
S19BD01323	févr-19	Polish outbreak	Human faeces	SAMN15963384
S19BD03708	mai-19	Sporadic	Human faeces	SAMN15963385
S19BD03764	mai-19	Sporadic	Human faeces	SAMN15963386
S19BD04434	juin-19	Sporadic	Human blood	SAMN15963387
S19BD04853	juil-19	Sporadic	Human faeces	SAMN15963388
S19BD04889	juil-19	Sporadic	Human faeces	SAMN15963389
S19BD04888	juil-19	Sporadic	Human faeces	SAMN15963390
S19BD04892	juil-19	Sporadic	Human faeces	SAMN15963391
S19BD04976	juil-19	Sporadic	Human faeces	SAMN15963392
S19BD05008	juil-19	Sporadic	Human faeces	SAMN15963393
S19BD04986	juil-19	Sporadic	Human faeces	SAMN15963394
S19BD06604	sept-19	Hotel school outbreak	Human faeces	SAMN15963395
S19BD06627	sept-19	Hotel school outbreak	Human faeces	SAMN15963396
S19BD06641	sept-19	Hotel school outbreak	Human faeces	SAMN15963397
S19BD06642	sept-19	Hotel school outbreak	Human faeces	SAMN15963398
S19BD06633	sept-19	Hotel school outbreak	Human faeces	SAMN15963399
S19FP07382	sept-19	Hotel school outbreak	Food (sample dish)	SAMN15963400
S19FP07576	sept-19	Hotel school outbreak	Food (fish)	SAMN15963401
S19FP07457	sept-19	Hotel school outbreak	Food (potatoes)	SAMN15963402
S19FP07414	sept-19	Hotel school outbreak	Food (sauce)	SAMN15963403
S19FP07575	sept-19	Hotel school outbreak	Food (chicken)	SAMN15963404
metagenomics_sauce	sept-19	Hotel school outbreak	Food (sauce)	SAMN15957186
metagenomics_meal	sept-19	Hotel school outbreak	Food (witness meal)	SAMN15957185

Supplementary Table S1: list of isolates and metagenomics samples used in the study, in chronological order

	Meal (containing sauce)	Sauce
<i>invA</i>	19	19
<i>rpoD</i>	17	17

Supplementary Table S2: qPCR results (Cq) for *invA* and *rpoD* genes (indicators of the presence of Salmonella) in DNA extracts of the metagenomics food samples of the suspect meal and sauce.

These results are based on qPCR conducted on 10 ng of DNA.

Supplementary Table S3: PathogenFinder and Ccmetagen results

Sauce_pathogenFinder

INPUT SEQUENCE INFO:

Input Name: 1_06_07_2020_171459_426247_input.fsa.translated
Sequences: 4429
Total bpp: 1362786
Longest seq: 4963
Shortest seq: 30
Avg seq len: 307.0

RESULTS:

Min Identit: 99.788
Z-THRESHC: 3.0
Prediction: 688.007
Probability: 0.916
Matches: 166
Genome Cc: 3.75
Pathogenic: 166
Non-Patho: 0
The organ: Yes

MATCHED SEQUENCES:

#input_seq NODE_60_length_646563_cov_65.400093_27 # 25857 # 37331 # 1 # ID=55_27;partial=00;start_type=ATG;rbs_motif=AGGAG;rbs_spacer=5-10bp;gc_cont=0.586
#matched_ 30687 AM933172 Salmonella Gammaprc large repet CAR34191 Yes 100.0

#input_seq NODE_16_length_126950_cov_59.128658_1 # 75 # 3371 # 1 # ID=16_1;partial=00;start_type=GTG;rbs_motif=None;rbs_spacer=None;gc_cont=0.585
#matched_ 30687 AM933172 Salmonella Gammaprc host coloni CAR34076 Yes 99.91

#input_seq NODE_15_length_101064_cov_65.558540_1 # 36 # 5327 # 1 # ID=15_1;partial=00;start_type=GTG;rbs_motif=None;rbs_spacer=None;gc_cont=0.576
#matched_ 30687 AM933172 Salmonella Gammaprc putative su CAR34880 Yes 99.94

#input_seq NODE_55_length_227664_cov_64.735596_158 # 182738 # 185770 # -1 # ID=50_158;partial=00;start_type=ATG;rbs_motif=GGAGG;rbs_spacer=3-4bp;gc_cont=0.540
#matched_ 30687 AM933172 Salmonella Gammaprc putative vii CAR31804 Yes 100.0

#input_seq NODE_5_length_103311_cov_67.135666_88 # 92305 # 95301 # 1 # ID=5_88;partial=00;start_type=ATG;rbs_motif=AGGA;rbs_spacer=5-10bp;gc_cont=0.549
#matched_ 30687 AM933172 Salmonella Gammaprc putative ch CAR31609 Yes 100.0

#input_seq NODE_22_length_96475_cov_67.302765_75 # 92585 # 95113 # -1 # ID=22_75;partial=00;start_type=ATG;rbs_motif=AGGA;rbs_spacer=5-10bp;gc_cont=0.554
#matched_ 30687 AM933172 Salmonella Gammaprc outer mem CAR35038 Yes 100.0

#input_seq NODE_71_length_106655_cov_58.589874_1 # 208 # 2652 # 1 # ID=64_1;partial=00;start_type=ATG;rbs_motif=GGA/GAG/AGG;rbs_spacer=5-10bp;gc_cont=0.353
#matched_ 19467 CP001144 Salmonella Gammaprc 2021853, c ACH75604 Yes 100.0

#input_seq NODE_13_length_108117_cov_59.245605_76 # 70884 # 73232 # 1 # ID=13_76;partial=00;start_type=ATG;rbs_motif=AGGA;rbs_spacer=5-10bp;gc_cont=0.476
#matched_ 30687 AM933172 Salmonella Gammaprc secreted pr CAR33644 Yes 100.0

#input_seq NODE_23_length_73727_cov_57.941418_32 # 33932 # 34768 # 1 # ID=23_32;partial=00;start_type=ATG;rbs_motif=GGA/GAG/AGG;rbs_spacer=5-10bp;gc_cont=0.421
#matched_ 18747 CP001113 Salmonella Gammaprc leucine-rich ACF64457 Yes 100.0

#input_seq NODE_43_length_158678_cov_61.287140_102 # 107400 # 109511 # -1 # ID=40_102;partial=00;start_type=ATG;rbs_motif=AGGA;rbs_spacer=5-10bp;gc_cont=0.535
#matched_ 30687 AM933172 Salmonella Gammaprc hypothetical CAR33713 Yes 100.0

#input_seq NODE_60_length_646563_cov_65.400093_181 # 194839 # 196266 # 1 # ID=55_181;partial=00;start_type=ATG;rbs_motif=AGGAG;rbs_spacer=5-10bp;gc_cont=0.556
#matched_ 13086 CP000026 Salmonella Gammaprc hypothetical AAV78633 Yes 99.79

#input_seq NODE_32_length_80799_cov_55.918278_23 # 16925 # 18907 # -1 # ID=30_23;partial=00;start_type=GTG;rbs_motif=AGGAG;rbs_spacer=5-10bp;gc_cont=0.513
#matched_ 30687 AM933172 Salmonella Gammaprc invasin-like CAR32941 Yes 100.0

#input_seq NODE_38_length_90473_cov_62.676788_40 # 38610 # 40538 # 1 # ID=36_40;partial=00;start_type=ATG;rbs_motif=AGGA;rbs_spacer=5-10bp;gc_cont=0.501
#matched_ 20063 CP001138 Salmonella Gammaprc putative sig ACH50577 Yes 100.0

#input_seq NODE_36_length_124741_cov_60.690357_126 # 120475 # 121959 # -1 # ID=34_126;partial=00;start_type=ATG;rbs_motif=None;rbs_spacer=None;gc_cont=0.536
#matched_ 27803 CP000886 Salmonella Gammaprc hypothetical ABX67766 Yes 100.0

#input_seq NODE_61_length_79735_cov_58.559189_72 # 69728 # 71437 # -1 # ID=56_72;partial=00;start_type=ATG;rbs_motif=GGxGG;rbs_spacer=5-10bp;gc_cont=0.494
#matched_ 30687 AM933172 Salmonella Gammaprc Chimeric pi CAR32496 Yes 100.0

#input_seq NODE_25_length_296459_cov_58.314911_90 # 93230 # 94930 # 1 # ID=25_90;partial=00;start_type=ATG;rbs_motif=AGGA;rbs_spacer=5-10bp;gc_cont=0.573
#matched_ 30687 AM933172 Salmonella Gammaprc conserved CAR33157 Yes 100.0

#input_seq NODE_45_length_20957_cov_61.294270_15 # 12972 # 14534 # -1 # ID=42_15;partial=00;start_type=ATG;rbs_motif=AGGA;rbs_spacer=5-10bp;gc_cont=0.485
#matched_ 30687 AM933172 Salmonella Gammaprc putative pr CAR33503 Yes 100.0

#input_seq NODE_26_length_36755_cov_56.073380_30 # 28416 # 29945 # -1 # ID=26_30;partial=00;start_type=ATG;rbs_motif=AGGA;rbs_spacer=5-10bp;gc_cont=0.493
#matched_ 19467 CP001144 Salmonella Gammaprc 2021853, c ACH76829 Yes 100.0

#input_seq NODE_47_length_146561_cov_60.306297_33 # 32498 # 33925 # -1 # ID=44_33;partial=00;start_type=ATG;rbs_motif=GGAG/GAGG;rbs_spacer=5-10bp;gc_cont=0.523
#matched_ 19467 CP001144 Salmonella Gammaprc 2021853, c ACH73670 Yes 100.0

#input_seq NODE_32_length_80799_cov_55.918278_52 # 45878 # 47251 # -1 # ID=30_52;partial=00;start_type=ATG;rbs_motif=GGAG/GAGG;rbs_spacer=5-10bp;gc_cont=0.400

#matched_ 30687 AM933172 Salmonella Gammapro hypothetical CAR32912 Yes 100.0

#input_seq NODE_8_length_79935_cov_65.400261_7 # 7852 # 9114 # -1 # ID=8_7;partial=00;start_type=ATG;rbs_motif=AGGAG;rbs_spacer=5-10bp;gc_cont=0.474

#matched_ 19467 CP001144 Salmonella Gammapro 2021853, c ACH74256 Yes 100.0

#input_seq NODE_60_length_646563_cov_65.400093_38 # 52434 # 53678 # 1 # ID=55_38;partial=00;start_type=ATG;rbs_motif=GGA/GAG/AGG;rbs_spacer=5-10bp;gc_cont=0.623

#matched_ 30687 AM933172 Salmonella Gammapro ferric enter CAR34201 Yes 100.0

#input_seq NODE_61_length_79735_cov_58.559189_74 # 72044 # 72673 # -1 # ID=56_74;partial=00;start_type=ATG;rbs_motif=None;rbs_spacer=None;gc_cont=0.440

#matched_ 19467 CP001144 Salmonella Gammapro 2021853, c ACH75346 Yes 100.0

#input_seq NODE_54_length_31752_cov_61.291225_26 # 19905 # 21047 # -1 # ID=49_26;partial=00;start_type=ATG;rbs_motif=GGA/GAG/AGG;rbs_spacer=5-10bp;gc_cont=0.401

#matched_ 30687 AM933172 Salmonella Gammapro exported p CAR32575 Yes 100.0

#input_seq NODE_13_length_108117_cov_59.245605_47 # 44842 # 45636 # -1 # ID=13_47;partial=00;start_type=ATG;rbs_motif=AGxAGG/AGGxGG;rbs_spacer=5-10bp;gc_cont=0.507

#matched_ 9618 AE017220 Salmonella Gammapro Propanedic AAX65951 Yes 100.0

#input_seq NODE_60_length_646563_cov_65.400093_42 # 57894 # 58946 # -1 # ID=55_42;partial=00;start_type=ATG;rbs_motif=GGAG/GAGG;rbs_spacer=5-10bp;gc_cont=0.443

#matched_ 19467 CP001144 Salmonella Gammapro 2021853, c ACH75240 Yes 100.0

#input_seq NODE_5_length_103311_cov_67.135666_61 # 62624 # 63709 # -1 # ID=5_61;partial=00;start_type=ATG;rbs_motif=AGGA;rbs_spacer=5-10bp;gc_cont=0.521

#matched_ 30687 AM933172 Salmonella Gammapro putative fir CAR35900 Yes 100.0

#input_seq NODE_60_length_646563_cov_65.400093_204 # 217185 # 218138 # 1 # ID=55_204;partial=00;start_type=ATG;rbs_motif=AGGA;rbs_spacer=5-10bp;gc_cont=0.414

#matched_ 19467 CP001144 Salmonella Gammapro 2021853, c ACH75270 Yes 100.0

#input_seq NODE_60_length_646563_cov_65.400093_291 # 321364 # 322440 # -1 # ID=55_291;partial=00;start_type=ATG;rbs_motif=GGA/GAG/AGG;rbs_spacer=5-10bp;gc_cont=0.398

#matched_ 30687 AM933172 Salmonella Gammapro hypothetical CAR34448 Yes 100.0

#input_seq NODE_25_length_296459_cov_58.314911_15 # 16769 # 17842 # -1 # ID=25_15;partial=00;start_type=ATG;rbs_motif=GGA/GAG/AGG;rbs_spacer=5-10bp;gc_cont=0.391

#matched_ 20045 CP001120 Salmonella Gammapro putative S- ACF69408 Yes 100.0

#input_seq NODE_60_length_646563_cov_65.400093_402 # 434619 # 435674 # -1 # ID=55_402;partial=00;start_type=ATG;rbs_motif=AGGAG;rbs_spacer=5-10bp;gc_cont=0.427

#matched_ 19467 CP001144 Salmonella Gammapro 2021853, c ACH75868 Yes 100.0

#input_seq NODE_39_length_153021_cov_61.666740_49 # 47873 # 48316 # -1 # ID=37_49;partial=00;start_type=ATG;rbs_motif=GGA/GAG/AGG;rbs_spacer=5-10bp;gc_cont=0.448

#matched_ 18747 CP001113 Salmonella Gammapro putative in ACF63523 Yes 100.0

#input_seq NODE_25_length_296459_cov_58.314911_176 # 172189 # 173211 # 1 # ID=25_176;partial=00;start_type=ATG;rbs_motif=AGGAG;rbs_spacer=5-10bp;gc_cont=0.554

#matched_ 19467 CP001144 Salmonella Gammapro 2021853, c ACH76599 Yes 100.0

#input_seq NODE_70_length_38284_cov_61.488220_19 # 18313 # 19323 # -1 # ID=63_19;partial=00;start_type=ATG;rbs_motif=AGGA/GGAG/GAGG;rbs_spacer=11-12bp;gc_cont=0.337

#matched_ 241 AE006468 Salmonella Gammapro putative cy AAL22985 Yes 100.0

#input_seq NODE_45_length_20957_cov_61.294270_12 # 11111 # 12118 # 1 # ID=42_12;partial=00;start_type=ATG;rbs_motif=GGA/GAG/AGG;rbs_spacer=5-10bp;gc_cont=0.377

#matched_ 19467 CP001144 Salmonella Gammapro 2021853, c ACH76035 Yes 100.0

#input_seq NODE_60_length_646563_cov_65.400093_514 # 553930 # 554784 # 1 # ID=55_514;partial=00;start_type=ATG;rbs_motif=GGAGG;rbs_spacer=3-4bp;gc_cont=0.532

#matched_ 19467 CP001144 Salmonella Gammapro 2021853, c ACH76566 Yes 100.0

#input_seq NODE_95_length_32400_cov_41.186821_47 # 32344 # 32523 # -1 # ID=78_47;partial=00;start_type=ATG;rbs_motif=GGA/GAG/AGG;rbs_spacer=5-10bp;gc_cont=0.483

#matched_ 19467 CP001143 Salmonella Gammapro 2021853 pl ACH73520 Yes 100.0

#input_seq NODE_6_length_44653_cov_65.363983_27 # 18439 # 19413 # -1 # ID=6_27;partial=00;start_type=ATG;rbs_motif=GGAGG;rbs_spacer=5-10bp;gc_cont=0.541

#matched_ 30687 AM933172 Salmonella Gammapro phage prot CAR33536 Yes 100.0

#input_seq NODE_61_length_79735_cov_58.559189_70 # 67701 # 68669 # -1 # ID=56_70;partial=00;start_type=ATG;rbs_motif=GGA/GAG/AGG;rbs_spacer=5-10bp;gc_cont=0.411

#matched_ 30687 AM933172 Salmonella Gammapro putative ty CAR32499 Yes 100.0

#input_seq NODE_11_length_84132_cov_55.736568_37 # 44928 # 45878 # 1 # ID=11_37;partial=00;start_type=ATG;rbs_motif=None;rbs_spacer=None;gc_cont=0.381

#matched_ 30687 AM933172 Salmonella Gammapro hypothetical CAR33033 Yes 100.0

#input_seq NODE_4_length_129862_cov_68.147278_24 # 21710 # 22534 # -1 # ID=4_24;partial=00;start_type=ATG;rbs_motif=AGGAG;rbs_spacer=5-10bp;gc_cont=0.521

#matched_ 18747 CP001113 Salmonella Gammapro protein ba ACF62390 Yes 100.0

#input_seq NODE_6_length_44653_cov_65.363983_56 # 42726 # 43571 # -1 # ID=6_56;partial=00;start_type=ATG;rbs_motif=AGGA/GGAG/GAGG;rbs_spacer=11-12bp;gc_cont=0.312

#matched_ 30687 AM933172 Salmonella Gammapro hypothetical CAR33562 Yes 100.0

#input_seq NODE_108_length_30650_cov_64.060486_5 # 3766 # 4677 # 1 # ID=83_5;partial=00;start_type=ATG;rbs_motif=AGxAGG/AGGxGG;rbs_spacer=3-4bp;gc_cont=0.368

#matched_ 30687 AM933172 Salmonella Gammapro hypothetical CAR35817 Yes 100.0

#input_seq NODE_43_length_158678_cov_61.287140_58 # 60382 # 61290 # -1 # ID=40_58;partial=00;start_type=ATG;rbs_motif=GGAGG;rbs_spacer=5-10bp;gc_cont=0.549

#matched_ 20993 CP000857 Salmonella Gammapro putative tr ACN45676 Yes 100.0

#input_seq NODE_56_length_16443_cov_54.543636_14 # 15614 # 16510 # -1 # ID=51_14;partial=00;start_type=ATG;rbs_motif=AGGA;rbs_spacer=5-10bp;gc_cont=0.421

#matched_ 30687 AM933172 Salmonella Gammapro conserved CAR32369 Yes 100.0

#input_seq NODE_6_length_44653_cov_65.363983_25 # 17091 # 17972 # -1 # ID=6_25;partial=00;start_type=ATG;rbs_motif=GGA/GAG/AGG;rbs_spacer=5-10bp;gc_cont=0.529

#matched_ 30687 AM933172 Salmonella Gammapro putative DI CAR33534 Yes 100.0

#input_seq NODE_10_length_35970_cov_59.451458_16 # 17771 # 18634 # 1 # ID=10_16;partial=00;start_type=ATG;rbs_motif=GGA/GAG/AGG;rbs_spacer=5-10bp;gc_cont=0.478

#matched_ 19467 CP001144 Salmonella Gammaprc 2021853, c ACH77983 Yes 100.0

#input_seq NODE_6_length_44653_cov_65.363983_23 # 15816 # 16676 # -1 # ID=6_23;partial=00;start_type=ATG;rbs_motif=GGAG/GAGG;rbs_spacer=5-10bp;gc_cont=0.513
#matched_ 30687 AM933172 Salmonella Gammaprc phage prot CAR33532 Yes 100.0

#input_seq NODE_4_length_129862_cov_68.147278_122 # 129456 # 129893 # -1 # ID=4_122;partial=00;start_type=ATG;rbs_motif=3Base/5BMM;rbs_spacer=13-15bp;gc_cont=0.470
#matched_ 30687 AM933172 Salmonella Gammaprc putative tr; CAR35159 Yes 100.0

#input_seq NODE_76_length_41287_cov_66.355003_25 # 26489 # 27346 # 1 # ID=69_25;partial=00;start_type=ATG;rbs_motif=GGAG/GAGG;rbs_spacer=5-10bp;gc_cont=0.445
#matched_ 30687 AM933172 Salmonella Gammaprc hypothetical CAR35662 Yes 100.0

#input_seq NODE_32_length_80799_cov_55.918278_24 # 18982 # 19740 # -1 # ID=30_24;partial=00;start_type=ATG;rbs_motif=GGA/GAG/AGG;rbs_spacer=5-10bp;gc_cont=0.486
#matched_ 19467 CP001144 Salmonella Gammaprc 2021853, c ACH75973 Yes 100.0

#input_seq NODE_38_length_90473_cov_62.676788_43 # 42263 # 42970 # 1 # ID=36_43;partial=00;start_type=ATG;rbs_motif=None;rbs_spacer=None;gc_cont=0.527
#matched_ 27803 CP000886 Salmonella Gammaprc hypothetical ABX68259 Yes 100.0

#input_seq NODE_4_length_129862_cov_68.147278_77 # 82888 # 83697 # -1 # ID=4_77;partial=00;start_type=ATG;rbs_motif=GGA/GAG/AGG;rbs_spacer=5-10bp;gc_cont=0.380
#matched_ 18747 CP001113 Salmonella Gammaprc lipopolysac ACF61845 Yes 100.0

#input_seq NODE_43_length_158678_cov_61.287140_6 # 2895 # 3359 # 1 # ID=40_6;partial=00;start_type=GTG;rbs_motif=AGGA;rbs_spacer=5-10bp;gc_cont=0.555
#matched_ 241 AE006468 Salmonella Gammaprc putative ta AAL21145 Yes 100.0

#input_seq NODE_36_length_124741_cov_60.690357_33 # 26442 # 27122 # 1 # ID=34_33;partial=00;start_type=ATG;rbs_motif=GGA/GAG/AGG;rbs_spacer=5-10bp;gc_cont=0.396
#matched_ 18747 CP001113 Salmonella Gammaprc EnvF ACF63287 Yes 100.0

#input_seq NODE_60_length_646563_cov_65.400093_160 # 174247 # 174996 # -1 # ID=55_160;partial=00;start_type=ATG;rbs_motif=None;rbs_spacer=None;gc_cont=0.463
#matched_ 18747 CP001113 Salmonella Gammaprc invasion pr ACF62882 Yes 100.0

#input_seq NODE_55_length_227664_cov_64.735596_41 # 48775 # 49395 # -1 # ID=50_41;partial=00;start_type=ATG;rbs_motif=GGA/GAG/AGG;rbs_spacer=11-12bp;gc_cont=0.494
#matched_ 20045 CP001120 Salmonella Gammaprc putative se ACF67367 Yes 100.0

#input_seq NODE_95_length_32400_cov_41.186821_41 # 28175 # 28900 # -1 # ID=78_41;partial=00;start_type=ATG;rbs_motif=AGGAG;rbs_spacer=5-10bp;gc_cont=0.455
#matched_ 241 AE006471 Salmonella Gammaprc Salmonella AAL23529 Yes 100.0

#input_seq NODE_60_length_646563_cov_65.400093_294 # 325824 # 326405 # -1 # ID=55_294;partial=00;start_type=ATG;rbs_motif=AGGA;rbs_spacer=5-10bp;gc_cont=0.519
#matched_ 30687 AM933172 Salmonella Gammaprc probable fi CAR34451 Yes 100.0

#input_seq NODE_16_length_126950_cov_59.128658_49 # 58604 # 58891 # 1 # ID=16_49;partial=00;start_type=ATG;rbs_motif=GGAGG;rbs_spacer=5-10bp;gc_cont=0.576
#matched_ 236 XXX Salmonella Gammaprc XXX Yes 100.0

#input_seq NODE_61_length_79735_cov_58.559189_66 # 65381 # 66067 # 1 # ID=56_66;partial=00;start_type=ATG;rbs_motif=GGA/GAG/AGG;rbs_spacer=5-10bp;gc_cont=0.345
#matched_ 18747 CP001113 Salmonella Gammaprc gifsy-2 proj ACF61586 Yes 100.0

#input_seq NODE_46_length_32154_cov_60.481960_13 # 10771 # 10932 # 1 # ID=43_13;partial=00;start_type=ATG;rbs_motif=GGAG/GAGG;rbs_spacer=5-10bp;gc_cont=0.543
#matched_ 19459 CP001127 Salmonella Gammaprc putative de ACF90369 Yes 100.0

#input_seq NODE_47_length_146561_cov_60.306297_99 # 104480 # 105046 # 1 # ID=44_99;partial=00;start_type=ATG;rbs_motif=GGAG/GAGG;rbs_spacer=5-10bp;gc_cont=0.534
#matched_ 18747 CP001113 Salmonella Gammaprc putative in ACF62772 Yes 100.0

#input_seq NODE_108_length_30650_cov_64.060486_15 # 13059 # 13730 # -1 # ID=83_15;partial=00;start_type=ATG;rbs_motif=GGA/GAG/AGG;rbs_spacer=5-10bp;gc_cont=0.549
#matched_ 18747 CP001113 Salmonella Gammaprc transporter ACF63700 Yes 100.0

#input_seq NODE_25_length_296459_cov_58.314911_22 # 25455 # 26126 # -1 # ID=25_22;partial=00;start_type=ATG;rbs_motif=GGAGG;rbs_spacer=3-4bp;gc_cont=0.466
#matched_ 19459 CP001127 Salmonella Gammaprc putative re ACF91607 Yes 100.0

#input_seq NODE_8_length_79935_cov_65.400261_51 # 53404 # 53994 # 1 # ID=8_51;partial=00;start_type=ATG;rbs_motif=AGGA;rbs_spacer=5-10bp;gc_cont=0.591
#matched_ 20993 CP000857 Salmonella Gammaprc two-comp ACN47943 Yes 100.0

#input_seq NODE_9_length_77180_cov_66.750366_40 # 43313 # 43879 # -1 # ID=9_40;partial=00;start_type=ATG;rbs_motif=GGAG/GAGG;rbs_spacer=5-10bp;gc_cont=0.538
#matched_ 241 AE006468 Salmonella Gammaprc formate-de AAL23102 Yes 100.0

#input_seq NODE_61_length_79735_cov_58.559189_68 # 66427 # 67053 # 1 # ID=56_68;partial=00;start_type=ATG;rbs_motif=GGAGG;rbs_spacer=5-10bp;gc_cont=0.526
#matched_ 18747 CP001113 Salmonella Gammaprc conserved ACF64625 Yes 100.0

#input_seq NODE_61_length_79735_cov_58.559189_73 # 71434 # 72060 # -1 # ID=56_73;partial=00;start_type=ATG;rbs_motif=GGA/GAG/AGG;rbs_spacer=5-10bp;gc_cont=0.445
#matched_ 19467 CP001144 Salmonella Gammaprc 2021853, c ACH76904 Yes 100.0

#input_seq NODE_32_length_80799_cov_55.918278_6 # 2104 # 2721 # 1 # ID=30_6;partial=00;start_type=ATG;rbs_motif=GGA/GAG/AGG;rbs_spacer=5-10bp;gc_cont=0.508
#matched_ 30687 AM933172 Salmonella Gammaprc putative pt CAR32958 Yes 100.0

#input_seq NODE_43_length_158678_cov_61.287140_13 # 10726 # 11346 # 1 # ID=40_13;partial=00;start_type=GTG;rbs_motif=AGGA;rbs_spacer=5-10bp;gc_cont=0.435
#matched_ 30687 AM933172 Salmonella Gammaprc putative m CAR33803 Yes 100.0

#input_seq NODE_67_length_57630_cov_67.711472_44 # 25028 # 25495 # 1 # ID=60_44;partial=00;start_type=ATG;rbs_motif=GGAG/GAGG;rbs_spacer=5-10bp;gc_cont=0.526
#matched_ 9618 AE017220 Salmonella Gammaprc leader pep AAX67282 Yes 100.0

#input_seq NODE_60_length_646563_cov_65.400093_296 # 327803 # 328339 # -1 # ID=55_296;partial=00;start_type=ATG;rbs_motif=GGAG/GAGG;rbs_spacer=5-10bp;gc_cont=0.488
#matched_ 27803 CP000886 Salmonella Gammaprc hypothetical ABX69108 Yes 100.0

#input_seq NODE_45_length_20957_cov_61.294270_14 # 12403 # 12972 # -1 # ID=42_14;partial=00;start_type=ATG;rbs_motif=AGxAGG/AGGxGG;rbs_spacer=5-10bp;gc_cont=0.449

#matched_ 19467 CP001144 Salmonella Gammaprc 2021853, c ACH74860 Yes 100.0

#input_seq NODE_108_length_30650_cov_64.060486_10 # 8964 # 9410 # 1 # ID=83_10;partial=00;start_type=ATG;rbs_motif=GGAGG;rbs_spacer=3-4bp;gc_cont=0.494

#matched_ 27803 CP000886 Salmonella Gammaprc hypothetical ABX70941 Yes 100.0

#input_seq NODE_46_length_32154_cov_60.481960_34 # 28897 # 29298 # 1 # ID=43_34;partial=00;start_type=ATG;rbs_motif=GGA/GAG/AGG;rbs_spacer=5-10bp;gc_cont=0.507

#matched_ 18747 CP001113 Salmonella Gammaprc putative m ACF64245 Yes 100.0

#input_seq NODE_16_length_126950_cov_59.128658_63 # 72426 # 72851 # 1 # ID=16_63;partial=00;start_type=ATG;rbs_motif=GGA/GAG/AGG;rbs_spacer=11-12bp;gc_cont=0.531

#matched_ 27803 CP000886 Salmonella Gammaprc hypothetical ABX65938 Yes 100.0

#input_seq NODE_32_length_80799_cov_55.918278_21 # 15418 # 15936 # -1 # ID=30_21;partial=00;start_type=ATG;rbs_motif=AGGAG;rbs_spacer=5-10bp;gc_cont=0.455

#matched_ 30687 AM933172 Salmonella Gammaprc putative th CAR32943 Yes 100.0

#input_seq NODE_2_length_29717_cov_52.887440_3 # 1369 # 1923 # -1 # ID=2_3;partial=00;start_type=ATG;rbs_motif=GGA/GAG/AGG;rbs_spacer=5-10bp;gc_cont=0.324

#matched_ 30687 AM933172 Salmonella Gammaprc putative pl CAR32964 Yes 100.0

#input_seq NODE_55_length_227664_cov_64.735596_7 # 5987 # 6538 # 1 # ID=50_7;partial=00;start_type=ATG;rbs_motif=GGA/GAG/AGG;rbs_spacer=5-10bp;gc_cont=0.560

#matched_ 371 AE014613 Salmonella Gammaprc citx proteir AAO67797 Yes 100.0

#input_seq NODE_47_length_146511_cov_60.306297_59 # 59737 # 60231 # 1 # ID=44_59;partial=00;start_type=ATG;rbs_motif=AGGAG;rbs_spacer=5-10bp;gc_cont=0.529

#matched_ 18747 CP001113 Salmonella Gammaprc YfbU doma ACF63247 Yes 100.0

#input_seq NODE_43_length_158678_cov_61.287140_81 # 84874 # 85404 # -1 # ID=40_81;partial=00;start_type=ATG;rbs_motif=AGGA;rbs_spacer=5-10bp;gc_cont=0.409

#matched_ 20045 CP001120 Salmonella Gammaprc conserved ACF65987 Yes 100.0

#input_seq NODE_60_length_646563_cov_65.400093_549 # 589525 # 589857 # -1 # ID=55_549;partial=00;start_type=ATG;rbs_motif=GGA/GAG/AGG;rbs_spacer=5-10bp;gc_cont=0.511

#matched_ 27803 CP000886 Salmonella Gammaprc hypothetical ABX69431 Yes 100.0

#input_seq NODE_95_length_32400_cov_41.186821_31 # 21905 # 22426 # 1 # ID=78_31;partial=00;start_type=ATG;rbs_motif=AGGA/GGAG/GAGG;rbs_spacer=11-12bp;gc_cont=0.600

#matched_ 19467 CP001143 Salmonella Gammaprc 2021853 pl ACH73553 Yes 100.0

#input_seq NODE_57_length_17196_cov_66.243019_3 # 4493 # 5011 # -1 # ID=52_3;partial=00;start_type=ATG;rbs_motif=GGAG/GAGG;rbs_spacer=5-10bp;gc_cont=0.480

#matched_ 241 AE006468 Salmonella Gammaprc putative cy AAL19245 Yes 100.0

#input_seq NODE_6_length_44653_cov_65.363983_38 # 25522 # 26037 # 1 # ID=6_38;partial=00;start_type=ATG;rbs_motif=AGGAG;rbs_spacer=5-10bp;gc_cont=0.506

#matched_ 30687 AM933172 Salmonella Gammaprc phage prot CAR33544 Yes 100.0

#input_seq NODE_60_length_646563_cov_65.400093_418 # 451045 # 451548 # -1 # ID=55_418;partial=00;start_type=ATG;rbs_motif=GGAG/GAGG;rbs_spacer=5-10bp;gc_cont=0.431

#matched_ 241 AE006468 Salmonella Gammaprc putative ATAAL22028 Yes 100.0

#input_seq NODE_9_length_77180_cov_66.750366_46 # 50744 # 51154 # -1 # ID=9_46;partial=00;start_type=ATG;rbs_motif=AGGA;rbs_spacer=5-10bp;gc_cont=0.550

#matched_ 19467 CP001144 Salmonella Gammaprc 2021853, c ACH77658 Yes 100.0

#input_seq NODE_60_length_646563_cov_65.400093_290 # 320708 # 321220 # -1 # ID=55_290;partial=00;start_type=ATG;rbs_motif=GGAG/GAGG;rbs_spacer=5-10bp;gc_cont=0.522

#matched_ 30687 AM933172 Salmonella Gammaprc hypothetical CAR34447 Yes 100.0

#input_seq NODE_95_length_32400_cov_41.186821_34 # 23990 # 24478 # 1 # ID=78_34;partial=00;start_type=ATG;rbs_motif=AGGAG;rbs_spacer=5-10bp;gc_cont=0.656

#matched_ 9618 AY509003 Salmonella Gammaprc hypothetical AAS58885 Yes 100.0

#input_seq NODE_95_length_32400_cov_41.186821_35 # 24472 # 24957 # 1 # ID=78_35;partial=00;start_type=ATG;rbs_motif=GGAGG;rbs_spacer=3-4bp;gc_cont=0.687

#matched_ 20993 CP000858 Salmonella Gammaprc putative in ACN48783 Yes 100.0

#input_seq NODE_19_length_134466_cov_56.610832_123 # 116394 # 116867 # -1 # ID=19_123;partial=00;start_type=ATG;rbs_motif=GGA/GAG/AGG;rbs_spacer=5-10bp;gc_cont=0.437

#matched_ 19467 CP001144 Salmonella Gammaprc 2021853, c ACH75557 Yes 100.0

#input_seq NODE_76_length_41287_cov_66.355003_28 # 29681 # 29974 # -1 # ID=69_28;partial=00;start_type=ATG;rbs_motif=AGGAG;rbs_spacer=5-10bp;gc_cont=0.469

#matched_ 20993 CP000857 Salmonella Gammaprc co-chapero ACN48531 Yes 100.0

#input_seq NODE_36_length_124741_cov_60.690357_26 # 19449 # 19916 # -1 # ID=34_26;partial=00;start_type=ATG;rbs_motif=AGGAG;rbs_spacer=5-10bp;gc_cont=0.453

#matched_ 27803 CP000886 Salmonella Gammaprc hypothetical ABX67495 Yes 100.0

#input_seq NODE_68_length_9630_cov_64.098755_3 # 2026 # 2457 # 1 # ID=61_3;partial=00;start_type=ATG;rbs_motif=None;rbs_spacer=None;gc_cont=0.306

#matched_ 30687 AM933172 Salmonella Gammaprc exported p CAR31864 Yes 100.0

#input_seq NODE_108_length_30650_cov_64.060486_6 # 4882 # 5343 # 1 # ID=83_6;partial=00;start_type=ATG;rbs_motif=GGAG/GAGG;rbs_spacer=5-10bp;gc_cont=0.489

#matched_ 30687 AM933172 Salmonella Gammaprc putative ex CAR35818 Yes 100.0

#input_seq NODE_22_length_96475_cov_67.302765_20 # 19768 # 20205 # 1 # ID=22_20;partial=00;start_type=ATG;rbs_motif=GGAG/GAGG;rbs_spacer=5-10bp;gc_cont=0.548

#matched_ 20993 CP000857 Salmonella Gammaprc nickel respi ACN47734 Yes 100.0

#input_seq NODE_55_length_227664_cov_64.735596_106 # 125001 # 125363 # 1 # ID=50_106;partial=00;start_type=ATG;rbs_motif=GGAG/GAGG;rbs_spacer=5-10bp;gc_cont=0.518

#matched_ 20993 CP000857 Salmonella Gammaprc hypothetical ACN44363 Yes 100.0

#input_seq NODE_39_length_153021_cov_61.666740_38 # 38415 # 38861 # -1 # ID=37_38;partial=00;start_type=ATG;rbs_motif=None;rbs_spacer=None;gc_cont=0.474

#matched_ 236 XXX Salmonella Gammaprc XXX Yes 100.0

#input_seq NODE_24_length_87782_cov_66.560822_12 # 9998 # 10444 # 1 # ID=24_12;partial=00;start_type=ATG;rbs_motif=GGAG/GAGG;rbs_spacer=5-10bp;gc_cont=0.445

#matched_ 30687 AM933172 Salmonella Gammaprc putative m CAR35766 Yes 100.0

#input_seq NODE_54_length_31752_cov_61.291225_16 # 13774 # 14214 # 1 # ID=49_16;partial=00;start_type=ATG;rbs_motif=AGGA;rbs_spacer=5-10bp;gc_cont=0.347

#matched_ 30687 AM933172 Salmonella Gammaprc putative ex CAR32583 Yes 100.0

#input_seq NODE_1_length_82865_cov_55.686321_32 # 31760 # 32053 # -1 # ID=1_32;partial=00;start_type=ATG;rbs_motif=GGA/GAG/AGG;rbs_spacer=5-10bp;gc_cont=0.452

#matched_ 19467 CP001144 Salmonella Gammaprc 2021853, c ACH74145 Yes 100.0

#input_seq NODE_60_length_646563_cov_65.400093_5 # 6004 # 6342 # 1 # ID=55_5;partial=00;start_type=ATG;rbs_motif=GGAG/GAGG;rbs_spacer=5-10bp;gc_cont=0.469

#matched_ 13030 CP000880 Salmonella Gammaprc hypothetical ABX20207 Yes 100.0

#input_seq NODE_4_length_129862_cov_68.147278_9 # 7808 # 8140 # 1 # ID=4_9;partial=00;start_type=ATG;rbs_motif=GGAG/GAGG;rbs_spacer=5-10bp;gc_cont=0.456

#matched_ 236 XXX Salmonella Gammaprc XXX Yes 100.0

#input_seq NODE_44_length_20513_cov_41.343147_9 # 8119 # 8454 # 1 # ID=41_9;partial=00;start_type=ATG;rbs_motif=AGGAG;rbs_spacer=5-10bp;gc_cont=0.527

#matched_ 19467 CP001143 Salmonella Gammaprc 2021853 pl ACH73540 Yes 100.0

#input_seq NODE_36_length_124741_cov_60.690357_69 # 64699 # 65076 # -1 # ID=34_69;partial=00;start_type=ATG;rbs_motif=GGA/GAG/AGG;rbs_spacer=5-10bp;gc_cont=0.497

#matched_ 18747 CP001113 Salmonella Gammaprc histidine tr ACF64355 Yes 100.0

#input_seq NODE_32_length_80799_cov_55.918278_20 # 14973 # 15311 # 1 # ID=30_20;partial=00;start_type=ATG;rbs_motif=AGGAG;rbs_spacer=5-10bp;gc_cont=0.428

#matched_ 30687 AM933172 Salmonella Gammaprc hypothetical CAR32944 Yes 100.0

#input_seq NODE_6_length_44653_cov_65.363983_39 # 26034 # 26393 # 1 # ID=6_39;partial=00;start_type=ATG;rbs_motif=GGAGG;rbs_spacer=5-10bp;gc_cont=0.444

#matched_ 30687 AM933172 Salmonella Gammaprc phage prot CAR33545 Yes 100.0

#input_seq NODE_95_length_32400_cov_41.186821_38 # 26304 # 26654 # -1 # ID=78_38;partial=00;start_type=ATG;rbs_motif=GGA/GAG/AGG;rbs_spacer=5-10bp;gc_cont=0.462

#matched_ 20993 CP000858 Salmonella Gammaprc hypothetical ACN48780 Yes 100.0

#input_seq NODE_22_length_96475_cov_67.302765_14 # 14970 # 15305 # -1 # ID=22_14;partial=00;start_type=ATG;rbs_motif=None;rbs_spacer=None;gc_cont=0.515

#matched_ 18747 CP001113 Salmonella Gammaprc conserved ACF63492 Yes 100.0

#input_seq NODE_39_length_153021_cov_61.666740_90 # 87262 # 87555 # 1 # ID=37_90;partial=00;start_type=ATG;rbs_motif=GGA/GAG/AGG;rbs_spacer=5-10bp;gc_cont=0.439

#matched_ 20993 CP000857 Salmonella Gammaprc hypothetical ACN48248 Yes 100.0

#input_seq NODE_2_length_29717_cov_52.887440_2 # 878 # 1207 # 1 # ID=2_2;partial=00;start_type=ATG;rbs_motif=GGAG/GAGG;rbs_spacer=5-10bp;gc_cont=0.533

#matched_ 30687 AM933172 Salmonella Gammaprc putative pl CAR32963 Yes 100.0

#input_seq NODE_19_length_134466_cov_56.610832_48 # 43898 # 44224 # 1 # ID=19_48;partial=00;start_type=GTG;rbs_motif=GGAGG;rbs_spacer=3-4bp;gc_cont=0.416

#matched_ 13086 CP000026 Salmonella Gammaprc putative gl AAV76906 Yes 100.0

#input_seq NODE_42_length_1073_cov_558.917969_1 # 111 # 365 # -1 # ID=39_1;partial=00;start_type=ATG;rbs_motif=GGAGG;rbs_spacer=5-10bp;gc_cont=0.537

#matched_ 16259 CP000243 Escherichia Gammaprc hypothetical ABE05727 Yes 100.0

#input_seq NODE_48_length_79207_cov_61.277298_26 # 26030 # 26326 # -1 # ID=45_26;partial=00;start_type=ATG;rbs_motif=GGA/GAG/AGG;rbs_spacer=5-10bp;gc_cont=0.357

#matched_ 20993 CP000857 Salmonella Gammaprc hypothetical ACN48127 Yes 100.0

#input_seq NODE_60_length_646563_cov_65.400093_249 # 270442 # 270669 # -1 # ID=55_249;partial=00;start_type=ATG;rbs_motif=AGGAG;rbs_spacer=5-10bp;gc_cont=0.456

#matched_ 27803 CP000886 Salmonella Gammaprc hypothetical ABX69050 Yes 100.0

#input_seq NODE_36_length_124741_cov_60.690357_112 # 107009 # 107254 # 1 # ID=34_112;partial=00;start_type=ATG;rbs_motif=AGxAGG/AGGxGG;rbs_spacer=5-10bp;gc_cont=0.512

#matched_ 9618 AE017220 Salmonella Gammaprc DNA damA AAX65016 Yes 100.0

#input_seq NODE_95_length_32400_cov_41.186821_23 # 15722 # 16024 # -1 # ID=78_23;partial=00;start_type=ATG;rbs_motif=GGAG/GAGG;rbs_spacer=5-10bp;gc_cont=0.442

#matched_ 20993 CP000858 Salmonella Gammaprc PefB ACN48798 Yes 100.0

#input_seq NODE_6_length_44653_cov_65.363983_41 # 26665 # 26958 # 1 # ID=6_41;partial=00;start_type=ATG;rbs_motif=GGA/GAG/AGG;rbs_spacer=5-10bp;gc_cont=0.476

#matched_ 30687 AM933172 Salmonella Gammaprc phage prot CAR33546 Yes 100.0

#input_seq NODE_95_length_32400_cov_41.186821_30 # 21618 # 21908 # 1 # ID=78_30;partial=00;start_type=ATG;rbs_motif=GGA/GAG/AGG;rbs_spacer=5-10bp;gc_cont=0.625

#matched_ 19467 CP001143 Salmonella Gammaprc 2021853 pl ACH73549 Yes 100.0

#input_seq NODE_8_length_79935_cov_65.400261_30 # 33499 # 33789 # -1 # ID=8_30;partial=00;start_type=ATG;rbs_motif=GGA/GAG/AGG;rbs_spacer=5-10bp;gc_cont=0.553

#matched_ 19459 CP001127 Salmonella Gammaprc conserved ACF88742 Yes 100.0

#input_seq NODE_19_length_134466_cov_56.610832_141 # 129430 # 129660 # 1 # ID=19_141;partial=00;start_type=ATG;rbs_motif=GGA/GAG/AGG;rbs_spacer=11-12bp;gc_cont=0.528

#matched_ 19467 CP001144 Salmonella Gammaprc 2021853, c ACH75954 Yes 100.0

#input_seq NODE_2_length_29717_cov_52.887440_11 # 8046 # 8327 # 1 # ID=2_11;partial=00;start_type=ATG;rbs_motif=AGGAG;rbs_spacer=5-10bp;gc_cont=0.578

#matched_ 30687 AM933172 Salmonella Gammaprc putative pr CAR32973 Yes 100.0

#input_seq NODE_52_length_32378_cov_70.096298_27 # 31300 # 31587 # -1 # ID=47_27;partial=00;start_type=ATG;rbs_motif=AGGAG;rbs_spacer=5-10bp;gc_cont=0.410

#matched_ 13086 CP000026 Salmonella Gammaprc putative m AAV76065 Yes 100.0

#input_seq NODE_55_length_227664_cov_64.735596_53 # 62137 # 62418 # 1 # ID=50_53;partial=00;start_type=ATG;rbs_motif=AGGA;rbs_spacer=5-10bp;gc_cont=0.443

#matched_ 20993 CP000857 Salmonella Gammaprc hypothetical ACN44309 Yes 100.0

#input_seq NODE_25_length_296459_cov_58.314911_13 # 15315 # 15596 # 1 # ID=25_13;partial=00;start_type=ATG;rbs_motif=AGGAG;rbs_spacer=5-10bp;gc_cont=0.504

#matched_ 19467 CP001144 Salmonella Gammaprc 2021853, c ACH78035 Yes 100.0

#input_seq NODE_25_length_296459_cov_58.314911_54 # 54924 # 55127 # 1 # ID=25_54;partial=00;start_type=ATG;rbs_motif=AGGAG;rbs_spacer=5-10bp;gc_cont=0.500

#matched_ 13030 CP000880 Salmonella Gammaprc hypothetical ABX21343 Yes 100.0

#input_seq NODE_6_length_44653_cov_65.363983_57 # 43802 # 44065 # -1 # ID=6_57;partial=00;start_type=ATG;rbs_motif=AGGA;rbs_spacer=5-10bp;gc_cont=0.436

#matched_ 30687 AM933172 Salmonella Gammapro membrane CAR33563 Yes 100.0

#input_seq NODE_55_length_227664_cov_64.735596_24 # 26907 # 27137 # 1 # ID=50_24;partial=00;start_type=ATG;rbs_motif=GGAG/GAGG;rbs_spacer=5-10bp;gc_cont=0.485
#matched_ 20993 CP000857 Salmonella Gammapro putative ol ACN44278 Yes 100.0

#input_seq NODE_60_length_646563_cov_65.400093_141 # 155073 # 155333 # -1 # ID=55_141;partial=00;start_type=ATG;rbs_motif=None;rbs_spacer=None;gc_cont=0.398
#matched_ 241 AE006468 Salmonella Gammapro putative cy AAL21760 Yes 100.0

#input_seq NODE_68_length_9630_cov_64.098755_1 # 293 # 550 # -1 # ID=61_1;partial=00;start_type=ATG;rbs_motif=None;rbs_spacer=None;gc_cont=0.539
#matched_ 19467 CP001144 Salmonella Gammapro 2021853, c ACH74281 Yes 100.0

#input_seq NODE_25_length_296459_cov_58.314911_44 # 45654 # 45863 # 1 # ID=25_44;partial=00;start_type=ATG;rbs_motif=GGA/GAG/AGG;rbs_spacer=5-10bp;gc_cont=0.514
#matched_ 9618 AE017220 Salmonella Gammapro multiple ar AAX65442 Yes 100.0

#input_seq NODE_59_length_105090_cov_61.532059_75 # 78473 # 78685 # -1 # ID=54_75;partial=00;start_type=ATG;rbs_motif=AGGA;rbs_spacer=5-10bp;gc_cont=0.563
#matched_ 9618 AE017220 Salmonella Gammapro putative cy AAX64486 Yes 100.0

#input_seq NODE_68_length_9630_cov_64.098755_5 # 3119 # 3361 # -1 # ID=61_5;partial=00;start_type=ATG;rbs_motif=None;rbs_spacer=None;gc_cont=0.494
#matched_ 19467 CP001144 Salmonella Gammapro 2021853, c ACH77375 Yes 100.0

#input_seq NODE_6_length_44653_cov_65.363983_44 # 28424 # 28651 # 1 # ID=6_44;partial=00;start_type=ATG;rbs_motif=GGAG/GAGG;rbs_spacer=5-10bp;gc_cont=0.461
#matched_ 30687 AM933172 Salmonella Gammapro phage prot CAR33549 Yes 100.0

#input_seq NODE_11_length_84132_cov_55.736568_32 # 39009 # 39182 # -1 # ID=11_32;partial=00;start_type=ATG;rbs_motif=GGA/GAG/AGG;rbs_spacer=5-10bp;gc_cont=0.431
#matched_ 27803 CP000886 Salmonella Gammapro hypothetical ABX67085 Yes 100.0

#input_seq NODE_37_length_91363_cov_58.722435_13 # 16752 # 16934 # -1 # ID=35_13;partial=00;start_type=ATG;rbs_motif=GGAGG;rbs_spacer=3-4bp;gc_cont=0.459
#matched_ 9618 AE017220 Salmonella Gammapro putative in AAX64850 Yes 100.0

#input_seq NODE_6_length_44653_cov_65.363983_28 # 19410 # 19634 # -1 # ID=6_28;partial=00;start_type=ATG;rbs_motif=AGxAGG/AGGxGG;rbs_spacer=5-10bp;gc_cont=0.498
#matched_ 19467 CP001144 Salmonella Gammapro 2021853, c ACH75781 Yes 100.0

#input_seq NODE_21_length_82995_cov_59.782902_70 # 74070 # 74294 # 1 # ID=21_70;partial=00;start_type=GTG;rbs_motif=AGGAG;rbs_spacer=5-10bp;gc_cont=0.427
#matched_ 19467 CP001144 Salmonella Gammapro 2021853, c ACH74130 Yes 100.0

#input_seq NODE_39_length_153021_cov_61.666740_9 # 8918 # 9115 # 1 # ID=37_9;partial=00;start_type=ATG;rbs_motif=GGA/GAG/AGG;rbs_spacer=5-10bp;gc_cont=0.505
#matched_ 13086 CP000026 Salmonella Gammapro hypothetical AAV79611 Yes 100.0

#input_seq NODE_36_length_124741_cov_60.690357_86 # 81041 # 81265 # -1 # ID=34_86;partial=00;start_type=ATG;rbs_motif=None;rbs_spacer=None;gc_cont=0.493
#matched_ 18747 CP001113 Salmonella Gammapro conserved ACF62897 Yes 100.0

#input_seq NODE_48_length_79207_cov_61.277298_51 # 51424 # 51648 # -1 # ID=45_51;partial=00;start_type=ATG;rbs_motif=GGAGG;rbs_spacer=5-10bp;gc_cont=0.564
#matched_ 18747 CP001113 Salmonella Gammapro glucose-1-; ACF62613 Yes 100.0

#input_seq NODE_67_length_57630_cov_67.711472_62 # 40020 # 40241 # 1 # ID=60_62;partial=00;start_type=ATG;rbs_motif=None;rbs_spacer=None;gc_cont=0.532
#matched_ 19467 CP001144 Salmonella Gammapro 2021853, c ACH78049 Yes 100.0

#input_seq NODE_32_length_80799_cov_55.918278_57 # 54366 # 54545 # 1 # ID=30_57;partial=00;start_type=ATG;rbs_motif=AGGA;rbs_spacer=5-10bp;gc_cont=0.500
#matched_ 9618 AE017220 Salmonella Gammapro conserved AAX65604 Yes 100.0

#input_seq NODE_71_length_10665_cov_58.589874_4 # 4521 # 4730 # 1 # ID=64_4;partial=00;start_type=ATG;rbs_motif=GGA/GAG/AGG;rbs_spacer=11-12bp;gc_cont=0.519
#matched_ 19467 CP001144 Salmonella Gammapro 2021853, c ACH77761 Yes 100.0

#input_seq NODE_39_length_153021_cov_61.666740_69 # 66275 # 66478 # 1 # ID=37_69;partial=00;start_type=ATG;rbs_motif=None;rbs_spacer=None;gc_cont=0.422
#matched_ 20045 CP001120 Salmonella Gammapro hypothetical ACF66974 Yes 100.0

#input_seq NODE_60_length_646563_cov_65.400093_432 # 462539 # 462733 # -1 # ID=55_432;partial=00;start_type=ATG;rbs_motif=AGGAG;rbs_spacer=5-10bp;gc_cont=0.349
#matched_ 18747 CP001113 Salmonella Gammapro hypothetical ACF62403 Yes 100.0

#input_seq NODE_14_length_46548_cov_64.909531_38 # 37292 # 37456 # 1 # ID=14_38;partial=00;start_type=ATG;rbs_motif=AGGA;rbs_spacer=5-10bp;gc_cont=0.418
#matched_ 13086 CP000026 Salmonella Gammapro putative pe AAV79076 Yes 100.0

#input_seq NODE_4_length_129862_cov_68.147278_118 # 124140 # 124313 # -1 # ID=4_118;partial=00;start_type=ATG;rbs_motif=GGAG/GAGG;rbs_spacer=5-10bp;gc_cont=0.448
#matched_ 19467 CP001144 Salmonella Gammapro 2021853, c ACH75720 Yes 100.0

#input_seq NODE_36_length_124741_cov_60.690357_27 # 20236 # 20409 # 1 # ID=34_27;partial=00;start_type=ATG;rbs_motif=GGAGG;rbs_spacer=3-4bp;gc_cont=0.443
#matched_ 19467 CP001144 Salmonella Gammapro 2021853, c ACH76099 Yes 100.0

#input_seq NODE_13_length_108117_cov_59.245605_21 # 19930 # 20103 # 1 # ID=13_21;partial=00;start_type=ATG;rbs_motif=None;rbs_spacer=None;gc_cont=0.615
#matched_ 19467 CP001144 Salmonella Gammapro 2021853, c ACH74751 Yes 100.0

#input_seq NODE_6_length_44653_cov_65.363983_4 # 2545 # 2709 # -1 # ID=6_4;partial=00;start_type=ATG;rbs_motif=AGGA;rbs_spacer=5-10bp;gc_cont=0.545
#matched_ 19467 CP001144 Salmonella Gammapro 2021853, c ACH75289 Yes 100.0

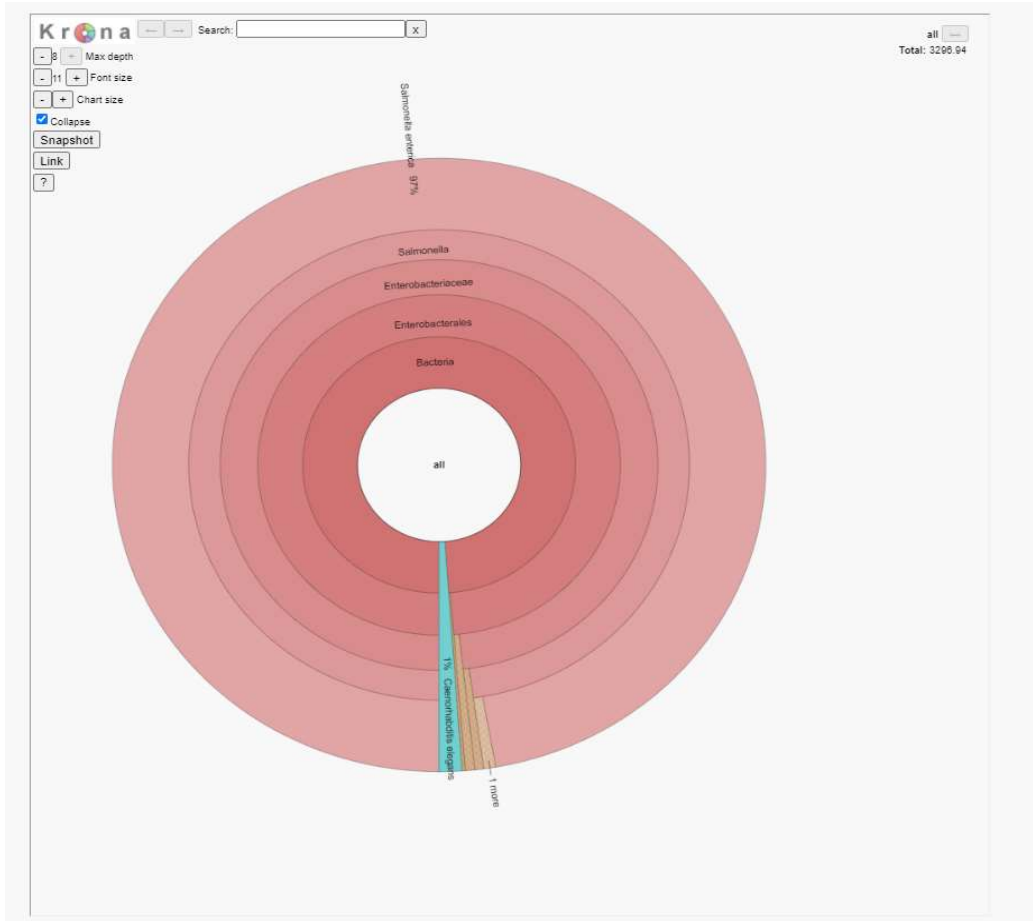
#input_seq NODE_39_length_153021_cov_61.666740_110 # 106713 # 106874 # 1 # ID=37_110;partial=00;start_type=ATG;rbs_motif=GGA/GAG/AGG;rbs_spacer=5-10bp;gc_cont=0.389
#matched_ 19467 CP001144 Salmonella Gammapro 2021853, c ACH76102 Yes 100.0

#input_seq NODE_59_length_105090_cov_61.532059_88 # 90549 # 90707 # 1 # ID=54_88;partial=00;start_type=ATG;rbs_motif=GGAG/GAGG;rbs_spacer=5-10bp;gc_cont=0.478
#matched_ 20045 CP001120 Salmonella Gammapro hypothetical ACF68014 Yes 100.0

#input_seq NODE_45_length_20957_cov_61.294270_13 # 12119 # 12268 # -1 # ID=42_13;partial=00;start_type=ATG;rbs_motif=GGAG/GAGG;rbs_spacer=5-10bp;gc_cont=0.447

#matched_ 19467 CP001144 Salmonella Gammaprc 2021853, c ACH74326 Yes 100.0
 #input_seq NODE_55_length_227664_cov_64.735596_52 # 61695 # 61817 # 1 # ID=50_52;partial=00;start_type=ATG;rbs_motif=GGAG/GAGG;rbs_spacer=5-10bp;gc_cont=0.569
 #matched_ 9618 AE017220 Salmonella Gammaprc hypothetical AAX64010 Yes 100.0
 #input_seq NODE_60_length_646563_cov_65.400093_424 # 454733 # 454870 # -1 # ID=55_424;partial=00;start_type=ATG;rbs_motif=AGxAGG/AGGxGG;rbs_spacer=5-10bp;gc_cont=0.370
 #matched_ 18747 CP001113 Salmonella Gammaprc conserved ACF63650 Yes 100.0
 #input_seq NODE_87_length_6368_cov_60.919285_1 # 68 # 199 # -1 # ID=73_1;partial=00;start_type=ATG;rbs_motif=AGGA;rbs_spacer=5-10bp;gc_cont=0.379
 #matched_ 27803 CP000886 Salmonella Gammaprc hypothetical ABX66155 Yes 100.0
 #input_seq NODE_60_length_646563_cov_65.400093_556 # 596133 # 596234 # -1 # ID=55_556;partial=00;start_type=ATG;rbs_motif=GGA/GAG/AGG;rbs_spacer=5-10bp;gc_cont=0.520
 #matched_ 18747 CP001113 Salmonella Gammaprc hypothetical ACF64068 Yes 100.0
 #input_seq NODE_34_length_33445_cov_62.461475_21 # 22726 # 22854 # -1 # ID=32_21;partial=00;start_type=ATG;rbs_motif=GGA/GAG/AGG;rbs_spacer=5-10bp;gc_cont=0.403
 #matched_ 18747 CP001113 Salmonella Gammaprc putative cy ACF62175 Yes 100.0
 #input_seq NODE_59_length_105090_cov_61.532059_26 # 28321 # 28446 # 1 # ID=54_26;partial=00;start_type=ATG;rbs_motif=AGGA/GGAG/GAGG;rbs_spacer=11-12bp;gc_cont=0.397
 #matched_ 13030 CP000880 Salmonella Gammaprc hypothetical ABX22302 Yes 100.0
 #input_seq NODE_18_length_50589_cov_58.241692_23 # 28584 # 28709 # 1 # ID=18_23;partial=00;start_type=ATG;rbs_motif=GGA/GAG/AGG;rbs_spacer=5-10bp;gc_cont=0.405
 #matched_ 18747 CP001113 Salmonella Gammaprc hypothetical ACF61150 Yes 100.0
 #input_seq NODE_11_length_84132_cov_55.736568_68 # 77341 # 77466 # -1 # ID=11_68;partial=00;start_type=ATG;rbs_motif=GGA/GAG/AGG;rbs_spacer=5-10bp;gc_cont=0.468
 #matched_ 18747 CP001113 Salmonella Gammaprc hypothetical ACF62270 Yes 100.0
 #input_seq NODE_16_length_126950_cov_59.128658_107 # 118530 # 118643 # 1 # ID=16_107;partial=00;start_type=ATG;rbs_motif=GGA/GAG/AGG;rbs_spacer=5-10bp;gc_cont=0.325
 #matched_ 18747 CP001113 Salmonella Gammaprc hypothetical ACF62423 Yes 100.0
 #input_seq NODE_60_length_646563_cov_65.400093_45 # 62100 # 62213 # 1 # ID=55_45;partial=00;start_type=ATG;rbs_motif=GGA/GAG/AGG;rbs_spacer=5-10bp;gc_cont=0.316
 #matched_ 18747 CP001113 Salmonella Gammaprc putative in ACF64919 Yes 100.0
 #input_seq NODE_7_length_144593_cov_65.290688_57 # 61266 # 61367 # 1 # ID=7_57;partial=00;start_type=ATG;rbs_motif=GGAG/GAGG;rbs_spacer=5-10bp;gc_cont=0.500
 #matched_ 13086 CP000026 Salmonella Gammaprc hypothetical AAV78247 Yes 100.0

Sauce_CCMetagen_Krona



The classification of 1% of the reads as *C. elegans* is probably due to a misclassification (low percentage and not detected with other tools) and was not investigated further.

Meal_PathogenFinder

INPUT SEQUENCE INFO:

Input Name: 1_06_07_2020_171540_551378_input.fsa.translated

Sequences: 4441
Total bpp: 1363665
Longest seq: 4892
Shortest seq: 30
Avg seq len: 307.0

RESULTS:

Min Identit: 99.784
Z-THRESHC: 3.0
Prediction: 686.65
Probability: 0.916
Matches: 166
Genome Cc: 3.74
Pathogenic: 166
Non-Patho: 0
The organ: Yes

MATCHED SEQUENCES:

#input_seq NODE_39_length_275835_cov_54.324623_27 # 25857 # 37331 # 1 # ID=38_27;partial=00;start_type=ATG;rbs_motif=AGGAG;rbs_spacer=5-10bp;gc_cont=0.586
#matched_ 30687 AM933172 Salmonella Gammaprc large repet CAR34191 Yes 100.0

#input_seq NODE_46_length_126827_cov_49.231663_114 # 123688 # 126795 # -1 # ID=44_114;partial=00;start_type=GTG;rbs_motif=None;rbs_spacer=None;gc_cont=0.584
#matched_ 30687 AM933172 Salmonella Gammaprc host coloni CAR34076 Yes 99.9

#input_seq NODE_25_length_101093_cov_55.005283_1 # 69 # 5360 # 1 # ID=25_1;partial=00;start_type=GTG;rbs_motif=None;rbs_spacer=None;gc_cont=0.576
#matched_ 30687 AM933172 Salmonella Gammaprc putative su CAR34880 Yes 99.94

#input_seq NODE_15_length_182731_cov_52.903992_39 # 42041 # 45073 # 1 # ID=15_39;partial=00;start_type=ATG;rbs_motif=GGAGG;rbs_spacer=3-4bp;gc_cont=0.541
#matched_ 30687 AM933172 Salmonella Gammaprc putative vii CAR31804 Yes 100.0

#input_seq NODE_19_length_103164_cov_55.195076_8 # 8144 # 11140 # -1 # ID=19_8;partial=00;start_type=ATG;rbs_motif=AGGA;rbs_spacer=5-10bp;gc_cont=0.549
#matched_ 30687 AM933172 Salmonella Gammaprc putative ch CAR31609 Yes 100.0

#input_seq NODE_48_length_233793_cov_56.646225_12 # 13498 # 16026 # -1 # ID=46_12;partial=00;start_type=ATG;rbs_motif=AGGA;rbs_spacer=5-10bp;gc_cont=0.554
#matched_ 30687 AM933172 Salmonella Gammaprc outer mem CAR35038 Yes 100.0

#input_seq NODE_42_length_58525_cov_58.442066_27 # 23567 # 26011 # 1 # ID=41_27;partial=00;start_type=ATG;rbs_motif=GGA/GAG/AGG;rbs_spacer=5-10bp;gc_cont=0.353
#matched_ 19467 CP001144 Salmonella Gammaprc 2021853 complete i ACH75604 Yes 100.0

#input_seq NODE_38_length_108109_cov_51.818665_76 # 70884 # 73232 # 1 # ID=37_76;partial=00;start_type=ATG;rbs_motif=AGGA;rbs_spacer=5-10bp;gc_cont=0.476
#matched_ 30687 AM933172 Salmonella Gammaprc secreted pr CAR33644 Yes 100.0

#input_seq NODE_55_length_230803_cov_51.260338_155 # 174611 # 175447 # 1 # ID=52_155;partial=00;start_type=ATG;rbs_motif=GGA/GAG/AGG;rbs_spacer=5-10bp;gc_cont=0.421
#matched_ 18747 CP001113 Salmonella complete i Gammaprc leucine-ricf ACF64457 Yes 100.0

#input_seq NODE_56_length_158542_cov_49.254280_39 # 49193 # 51304 # 1 # ID=53_39;partial=00;start_type=ATG;rbs_motif=AGGA;rbs_spacer=5-10bp;gc_cont=0.536
#matched_ 30687 AM933172 Salmonella Gammaprc hypothetic CAR33713 Yes 100.0

#input_seq NODE_39_length_275835_cov_54.324623_181 # 194839 # 196266 # 1 # ID=38_181;partial=00;start_type=ATG;rbs_motif=AGGAG;rbs_spacer=5-10bp;gc_cont=0.556
#matched_ 13086 CP000026 Salmonella complete i Gammaprc hypothetic AAV78633 Yes 99.79

#input_seq NODE_6_length_71419_cov_51.152241_52 # 52661 # 54643 # 1 # ID=6_52;partial=00;start_type=GTG;rbs_motif=AGGAG;rbs_spacer=5-10bp;gc_cont=0.513
#matched_ 30687 AM933172 Salmonella Gammaprc invasin-like CAR32941 Yes 100.0

#input_seq NODE_55_length_230803_cov_51.260338_4 # 2536 # 4464 # 1 # ID=52_4;partial=00;start_type=ATG;rbs_motif=AGGA;rbs_spacer=5-10bp;gc_cont=0.501
#matched_ 20063 CP001138 Salmonella complete i Gammaprc putative sig ACH50577 Yes 100.0

#input_seq NODE_17_length_190546_cov_53.517708_86 # 68762 # 70246 # 1 # ID=17_86;partial=00;start_type=ATG;rbs_motif=None;rbs_spacer=None;gc_cont=0.536
#matched_ 27803 CP000886 Salmonella complete i Gammaprc hypothetic ABX67766 Yes 100.0

#input_seq NODE_10_length_79473_cov_51.734085_9 # 8460 # 10169 # 1 # ID=10_9;partial=00;start_type=ATG;rbs_motif=GGxGG;rbs_spacer=5-10bp;gc_cont=0.494
#matched_ 30687 AM933172 Salmonella Gammaprc Chimeric pr CAR32496 Yes 100.0

#input_seq NODE_14_length_332578_cov_51.139618_165 # 177380 # 179080 # 1 # ID=14_165;partial=00;start_type=ATG;rbs_motif=AGGA;rbs_spacer=5-10bp;gc_cont=0.573
#matched_ 30687 AM933172 Salmonella Gammaprc conserved CAR33157 Yes 100.0

#input_seq NODE_17_length_190546_cov_53.517708_66 # 51462 # 53024 # 1 # ID=17_66;partial=00;start_type=ATG;rbs_motif=AGGA;rbs_spacer=5-10bp;gc_cont=0.484
#matched_ 30687 AM933172 Salmonella Gammaprc putative pl CAR33503 Yes 100.0

#input_seq NODE_7_length_36764_cov_50.921364_5 # 6955 # 8484 # 1 # ID=7_5;partial=00;start_type=ATG;rbs_motif=AGGA;rbs_spacer=5-10bp;gc_cont=0.492
#matched_ 19467 CP001144 Salmonella Gammaprc 2021853 complete i ACH76829 Yes 100.0

#input_seq NODE_26_length_103162_cov_50.245098_9 # 8396 # 9823 # -1 # ID=26_9;partial=00;start_type=ATG;rbs_motif=GGAG/GAGG;rbs_spacer=5-10bp;gc_cont=0.523
#matched_ 19467 CP001144 Salmonella Gammaprc 2021853 complete i ACH73670 Yes 100.0

#input_seq NODE_6_length_71419_cov_51.152241_23 # 24317 # 25690 # 1 # ID=6_23;partial=00;start_type=ATG;rbs_motif=GGAG/GAGG;rbs_spacer=5-10bp;gc_cont=0.400
#matched_ 30687 AM933172 Salmonella Gammaprc hypothetic CAR32912 Yes 100.0

#input_seq NODE_48_length_233793_cov_56.646225_211 # 224637 # 225899 # 1 # ID=46_211;partial=00;start_type=ATG;rbs_motif=AGGAG;rbs_spacer=5-10bp;gc_cont=0.474
#matched_ 19467 CP001144 Salmonella Gammaprc 2021853 complete { ACH74256 Yes 100.0

#input_seq NODE_39_length_275835_cov_54.324623_38 # 52434 # 53678 # 1 # ID=38_38;partial=00;start_type=ATG;rbs_motif=GGA/GAG/AGG;rbs_spacer=5-10bp;gc_cont=0.623
#matched_ 30687 AM933172 Salmonella Gammaprc ferric enter CAR34201 Yes 100.0

#input_seq NODE_10_length_79473_cov_51.734085_7 # 7224 # 7853 # 1 # ID=10_7;partial=00;start_type=ATG;rbs_motif=None;rbs_spacer=None;gc_cont=0.440
#matched_ 19467 CP001144 Salmonella Gammaprc 2021853 complete { ACH75346 Yes 100.0

#input_seq NODE_2_length_249230_cov_51.894127_256 # 237390 # 238532 # -1 # ID=2_256;partial=00;start_type=ATG;rbs_motif=GGA/GAG/AGG;rbs_spacer=5-10bp;gc_cont=0.401
#matched_ 30687 AM933172 Salmonella Gammaprc exported p CAR32575 Yes 100.0

#input_seq NODE_38_length_108109_cov_51.818665_47 # 44842 # 45636 # -1 # ID=37_47;partial=00;start_type=ATG;rbs_motif=AGxAGG/AGGxGG;rbs_spacer=5-10bp;gc_cont=0.507
#matched_ 9618 AE017220 Salmonella complete { Gammaprc Propanedic AAX65951 Yes 100.0

#input_seq NODE_39_length_275835_cov_54.324623_42 # 57894 # 58946 # -1 # ID=38_42;partial=00;start_type=ATG;rbs_motif=GGAG/GAGG;rbs_spacer=5-10bp;gc_cont=0.443
#matched_ 19467 CP001144 Salmonella Gammaprc 2021853 complete { ACH75240 Yes 100.0

#input_seq NODE_19_length_103164_cov_55.195076_35 # 39736 # 40821 # 1 # ID=19_35;partial=00;start_type=ATG;rbs_motif=AGGA;rbs_spacer=5-10bp;gc_cont=0.521
#matched_ 30687 AM933172 Salmonella Gammaprc putative fir CAR35900 Yes 100.0

#input_seq NODE_39_length_275835_cov_54.324623_204 # 217185 # 218138 # 1 # ID=38_204;partial=00;start_type=ATG;rbs_motif=AGGA;rbs_spacer=5-10bp;gc_cont=0.414
#matched_ 19467 CP001144 Salmonella Gammaprc 2021853 complete { ACH75270 Yes 100.0

#input_seq NODE_1_length_258014_cov_56.166260_4 # 2085 # 3161 # -1 # ID=1_4;partial=00;start_type=ATG;rbs_motif=GGA/GAG/AGG;rbs_spacer=5-10bp;gc_cont=0.398
#matched_ 30687 AM933172 Salmonella Gammaprc hypothetical CAR34448 Yes 100.0

#input_seq NODE_14_length_332578_cov_51.139618_90 # 100919 # 101992 # -1 # ID=14_90;partial=00;start_type=ATG;rbs_motif=GGA/GAG/AGG;rbs_spacer=5-10bp;gc_cont=0.391
#matched_ 20045 CP001120 Salmonella complete { Gammaprc putative S- ACF69408 Yes 100.0

#input_seq NODE_1_length_258014_cov_56.166260_115 # 115340 # 116395 # -1 # ID=1_115;partial=00;start_type=ATG;rbs_motif=AGGAG;rbs_spacer=5-10bp;gc_cont=0.427
#matched_ 19467 CP001144 Salmonella Gammaprc 2021853 complete { ACH75868 Yes 100.0

#input_seq NODE_18_length_152993_cov_57.070435_49 # 47873 # 48316 # -1 # ID=18_49;partial=00;start_type=ATG;rbs_motif=GGA/GAG/AGG;rbs_spacer=5-10bp;gc_cont=0.448
#matched_ 18747 CP001113 Salmonella complete { Gammaprc putative im ACF63523 Yes 100.0

#input_seq NODE_14_length_332578_cov_51.139618_251 # 256339 # 257361 # 1 # ID=14_251;partial=00;start_type=ATG;rbs_motif=AGGAG;rbs_spacer=5-10bp;gc_cont=0.554
#matched_ 19467 CP001144 Salmonella Gammaprc 2021853 complete { ACH76599 Yes 100.0

#input_seq NODE_58_length_38131_cov_54.726810_15 # 19108 # 20118 # 1 # ID=55_15;partial=00;start_type=ATG;rbs_motif=AGGA/GGAG/GAGG;rbs_spacer=11-12bp;gc_cont=0.338
#matched_ 241 AE006468 Salmonella complete { Gammaprc putative cy AAL22985 Yes 100.0

#input_seq NODE_17_length_190546_cov_53.517708_69 # 53878 # 54885 # -1 # ID=17_69;partial=00;start_type=ATG;rbs_motif=GGA/GAG/AGG;rbs_spacer=5-10bp;gc_cont=0.376
#matched_ 19467 CP001144 Salmonella Gammaprc 2021853 complete { ACH76035 Yes 100.0

#input_seq NODE_1_length_258014_cov_56.166260_227 # 234651 # 235505 # 1 # ID=1_227;partial=00;start_type=ATG;rbs_motif=GGAGG;rbs_spacer=3-4bp;gc_cont=0.532
#matched_ 19467 CP001144 Salmonella Gammaprc 2021853 complete { ACH76566 Yes 100.0

#input_seq NODE_17_length_190546_cov_53.517708_32 # 25387 # 26361 # 1 # ID=17_32;partial=00;start_type=ATG;rbs_motif=GGAGG;rbs_spacer=5-10bp;gc_cont=0.539
#matched_ 30687 AM933172 Salmonella Gammaprc phage prot CAR33536 Yes 100.0

#input_seq NODE_10_length_79473_cov_51.734085_11 # 11228 # 12196 # 1 # ID=10_11;partial=00;start_type=ATG;rbs_motif=GGA/GAG/AGG;rbs_spacer=5-10bp;gc_cont=0.412
#matched_ 30687 AM933172 Salmonella Gammaprc putative ty CAR32499 Yes 100.0

#input_seq NODE_14_length_332578_cov_51.139618_39 # 38398 # 39309 # -1 # ID=14_39;partial=00;start_type=ATG;rbs_motif=4Base/6BMM;rbs_spacer=13-15bp;gc_cont=0.380
#matched_ 30687 AM933172 Salmonella Gammaprc hypothetical CAR33033 Yes 100.0

#input_seq NODE_48_length_233793_cov_56.646225_37 # 39103 # 39927 # -1 # ID=46_37;partial=00;start_type=ATG;rbs_motif=AGGAG;rbs_spacer=5-10bp;gc_cont=0.521
#matched_ 18747 CP001113 Salmonella complete { Gammaprc protein ba ACF62390 Yes 100.0

#input_seq NODE_17_length_190546_cov_53.517708_3 # 1229 # 2074 # 1 # ID=17_3;partial=00;start_type=ATG;rbs_motif=AGGA/GGAG/GAGG;rbs_spacer=11-12bp;gc_cont=0.312
#matched_ 30687 AM933172 Salmonella Gammaprc hypothetical CAR33562 Yes 100.0

#input_seq NODE_42_length_58525_cov_58.442066_47 # 37793 # 38704 # 1 # ID=41_47;partial=00;start_type=ATG;rbs_motif=AGxAGG/AGGxGG;rbs_spacer=3-4bp;gc_cont=0.368
#matched_ 30687 AM933172 Salmonella Gammaprc hypothetical CAR35817 Yes 100.0

#input_seq NODE_56_length_158542_cov_49.254280_83 # 97399 # 98307 # 1 # ID=53_83;partial=00;start_type=ATG;rbs_motif=GGAGG;rbs_spacer=5-10bp;gc_cont=0.548
#matched_ 20993 CP000857 Salmonella complete { Gammaprc putative tr ACF45676 Yes 100.0

#input_seq NODE_55_length_230803_cov_51.260338_196 # 214493 # 215389 # 1 # ID=52_196;partial=00;start_type=ATG;rbs_motif=AGGA;rbs_spacer=5-10bp;gc_cont=0.421
#matched_ 30687 AM933172 Salmonella Gammaprc conserved CAR32369 Yes 100.0

#input_seq NODE_17_length_190546_cov_53.517708_34 # 26828 # 27709 # 1 # ID=17_34;partial=00;start_type=ATG;rbs_motif=GGA/GAG/AGG;rbs_spacer=5-10bp;gc_cont=0.529
#matched_ 30687 AM933172 Salmonella Gammaprc putative DI CAR33534 Yes 100.0

#input_seq NODE_37_length_275754_cov_57.743740_15 # 17483 # 18346 # -1 # ID=36_15;partial=00;start_type=ATG;rbs_motif=GGA/GAG/AGG;rbs_spacer=5-10bp;gc_cont=0.479
#matched_ 19467 CP001144 Salmonella Gammaprc 2021853 complete { ACH77983 Yes 100.0

#input_seq NODE_17_length_190546_cov_53.517708_36 # 28124 # 28984 # 1 # ID=17_36;partial=00;start_type=ATG;rbs_motif=GGAG/GAGG;rbs_spacer=5-10bp;gc_cont=0.511
#matched_ 30687 AM933172 Salmonella Gammaprc phage prot CAR33532 Yes 100.0

#input_seq NODE_48_length_233793_cov_56.646225_135 # 146849 # 147286 # -1 # ID=46_135;partial=00;start_type=ATG;rbs_motif=3Base/5BMM;rbs_spacer=13-15bp;gc_cont=0.470
#matched_ 30687 AM933172 Salmonella Gammaprc putative tr; CAR35159 Yes 100.0

#input_seq NODE_37_length_275754_cov_57.743740_130 # 160698 # 161555 # -1 # ID=36_130;partial=00;start_type=ATG;rbs_motif=GGAG/GAGG;rbs_spacer=5-10bp;gc_cont=0.444
#matched_ 30687 AM933172 Salmonella Gammaprc hypothetical CAR35662 Yes 100.0

#input_seq NODE_6_length_71419_cov_51.152241_51 # 51828 # 52586 # 1 # ID=6_51;partial=00;start_type=ATG;rbs_motif=GGA/GAG/AGG;rbs_spacer=5-10bp;gc_cont=0.489
#matched_ 19467 CP001144 Salmonella Gammaprc 2021853 complete {ACH75973 Yes 100.0

#input_seq NODE_55_length_230803_cov_51.260338_7 # 6189 # 6896 # 1 # ID=52_7;partial=00;start_type=ATG;rbs_motif=None;rbs_spacer=None;gc_cont=0.527
#matched_ 27803 CP000886 Salmonella complete { Gammapro hypothetical; ABX68259 Yes 100.0

#input_seq NODE_48_length_233793_cov_56.646225_90 # 100281 # 101090 # -1 # ID=46_90;partial=00;start_type=ATG;rbs_motif=GGA/GAG/AGG;rbs_spacer=5-10bp;gc_cont=0.380
#matched_ 18747 CP001113 Salmonella complete { Gammapro lipopolysac ACF61845 Yes 100.0

#input_seq NODE_56_length_158542_cov_49.254280_135 # 155330 # 155794 # -1 # ID=53_135;partial=00;start_type=GTG;rbs_motif=AGGA;rbs_spacer=5-10bp;gc_cont=0.557
#matched_ 241 AE006468 Salmonella complete { Gammapro putative ta AAL21145 Yes 100.0

#input_seq NODE_17_length_190546_cov_53.517708_179 # 163570 # 164250 # -1 # ID=17_179;partial=00;start_type=ATG;rbs_motif=GGA/GAG/AGG;rbs_spacer=5-10bp;gc_cont=0.398
#matched_ 18747 CP001113 Salmonella complete { Gammapro EnvF ACF63287 Yes 100.0

#input_seq NODE_39_length_275835_cov_54.324623_160 # 174247 # 174996 # -1 # ID=38_160;partial=00;start_type=ATG;rbs_motif=None;rbs_spacer=None;gc_cont=0.463
#matched_ 18747 CP001113 Salmonella complete { Gammapro invasion pr ACF62882 Yes 100.0

#input_seq NODE_15_length_182731_cov_52.903992_157 # 178360 # 178980 # 1 # ID=15_157;partial=00;start_type=ATG;rbs_motif=GGA/GAG/AGG;rbs_spacer=11-12bp;gc_cont=0.496
#matched_ 20045 CP001120 Salmonella complete { Gammapro putative se ACF67367 Yes 100.0

#input_seq NODE_103_length_33975_cov_43.248653_40 # 28228 # 28953 # -1 # ID=75_40;partial=00;start_type=ATG;rbs_motif=AGGAG;rbs_spacer=5-10bp;gc_cont=0.455
#matched_ 241 AE006471 Salmonella complete : Gammapro Salmonella AAL23529 Yes 100.0

#input_seq NODE_1_length_258014_cov_56.166260_7 # 6545 # 7126 # -1 # ID=1_7;partial=00;start_type=ATG;rbs_motif=AGGA;rbs_spacer=5-10bp;gc_cont=0.519
#matched_ 30687 AM933172 Salmonella Gammaprc probable fi CAR34451 Yes 100.0

#input_seq NODE_46_length_126827_cov_49.231663_65 # 68199 # 68486 # -1 # ID=44_65;partial=00;start_type=ATG;rbs_motif=GGAGG;rbs_spacer=5-10bp;gc_cont=0.576
#matched_ 236 XXX Salmonella Gammaprc XXX Yes 100.0

#input_seq NODE_10_length_79473_cov_51.734085_15 # 13830 # 14516 # -1 # ID=10_15;partial=00;start_type=ATG;rbs_motif=GGA/GAG/AGG;rbs_spacer=5-10bp;gc_cont=0.345
#matched_ 18747 CP001113 Salmonella complete { Gammaprc gifsy-2 proj ACF61586 Yes 100.0

#input_seq NODE_30_length_19208_cov_58.626560_13 # 10442 # 10603 # 1 # ID=30_13;partial=00;start_type=ATG;rbs_motif=GGAG/GAGG;rbs_spacer=5-10bp;gc_cont=0.543
#matched_ 19459 CP001127 Salmonella complete { Gammapro putative de ACF90369 Yes 100.0

#input_seq NODE_26_length_103162_cov_50.245098_75 # 80378 # 80944 # 1 # ID=26_75;partial=00;start_type=ATG;rbs_motif=GGAG/GAGG;rbs_spacer=5-10bp;gc_cont=0.534
#matched_ 18747 CP001113 Salmonella complete { Gammapro putative inl ACF62772 Yes 100.0

#input_seq NODE_42_length_58525_cov_58.442066_57 # 47086 # 47757 # -1 # ID=41_57;partial=00;start_type=ATG;rbs_motif=GGA/GAG/AGG;rbs_spacer=5-10bp;gc_cont=0.549
#matched_ 18747 CP001113 Salmonella complete { Gammapro transporter ACF63700 Yes 100.0

#input_seq NODE_14_length_332578_cov_51.139618_97 # 109605 # 110276 # -1 # ID=14_97;partial=00;start_type=ATG;rbs_motif=GGAGG;rbs_spacer=3-4bp;gc_cont=0.466
#matched_ 19459 CP001127 Salmonella complete { Gammapro putative re ACF91607 Yes 100.0

#input_seq NODE_48_length_233793_cov_56.646225_159 # 173372 # 173962 # -1 # ID=46_159;partial=00;start_type=ATG;rbs_motif=AGGA;rbs_spacer=5-10bp;gc_cont=0.591
#matched_ 20993 CP000857 Salmonella complete { Gammapro two-compc ACN47943 Yes 100.0

#input_seq NODE_37_length_275754_cov_57.743740_78 # 102876 # 103442 # 1 # ID=36_78;partial=00;start_type=ATG;rbs_motif=GGAG/GAGG;rbs_spacer=5-10bp;gc_cont=0.540
#matched_ 241 AE006468 Salmonella complete { Gammapro format-de AAL23102 Yes 100.0

#input_seq NODE_10_length_79473_cov_51.734085_13 # 12844 # 13470 # -1 # ID=10_13;partial=00;start_type=ATG;rbs_motif=GGAGG;rbs_spacer=5-10bp;gc_cont=0.526
#matched_ 18747 CP001113 Salmonella complete { Gammapro conserved ACF64625 Yes 100.0

#input_seq NODE_10_length_79473_cov_51.734085_8 # 7837 # 8463 # 1 # ID=10_8;partial=00;start_type=ATG;rbs_motif=GGA/GAG/AGG;rbs_spacer=5-10bp;gc_cont=0.445
#matched_ 19467 CP001144 Salmonella Gammaprc 2021853 complete {ACH76904 Yes 100.0

#input_seq NODE_6_length_71419_cov_51.152241_69 # 68847 # 69464 # -1 # ID=6_69;partial=00;start_type=ATG;rbs_motif=GGA/GAG/AGG;rbs_spacer=5-10bp;gc_cont=0.506
#matched_ 30687 AM933172 Salmonella Gammaprc putative pf CAR32958 Yes 100.0

#input_seq NODE_56_length_158542_cov_49.254280_128 # 147343 # 147963 # -1 # ID=53_128;partial=00;start_type=GTG;rbs_motif=AGGA;rbs_spacer=5-10bp;gc_cont=0.433
#matched_ 30687 AM933172 Salmonella Gammaprc putative m CAR33803 Yes 100.0

#input_seq NODE_59_length_57249_cov_59.169697_44 # 24746 # 25213 # 1 # ID=56_44;partial=00;start_type=ATG;rbs_motif=GGAG/GAGG;rbs_spacer=5-10bp;gc_cont=0.526
#matched_ 9618 AE017220 Salmonella complete { Gammapro leader pepI AAX67282 Yes 100.0

#input_seq NODE_1_length_258014_cov_56.166260_9 # 8524 # 9060 # -1 # ID=1_9;partial=00;start_type=ATG;rbs_motif=GGAG/GAGG;rbs_spacer=5-10bp;gc_cont=0.488
#matched_ 27803 CP000886 Salmonella complete { Gammapro hypothetical; ABX69108 Yes 100.0

#input_seq NODE_17_length_190546_cov_53.517708_67 # 53024 # 53593 # 1 # ID=17_67;partial=00;start_type=ATG;rbs_motif=AGxAGG/AGGxGG;rbs_spacer=5-10bp;gc_cont=0.453
#matched_ 19467 CP001144 Salmonella Gammaprc 2021853 complete {ACH74860 Yes 100.0

#input_seq NODE_42_length_58525_cov_58.442066_52 # 42991 # 43437 # 1 # ID=41_52;partial=00;start_type=ATG;rbs_motif=GGAGG;rbs_spacer=3-4bp;gc_cont=0.494
#matched_ 27803 CP000886 Salmonella complete { Gammapro hypothetical; ABX70941 Yes 100.0

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#input_seq NODE_16_length_12530_cov_49.675339_12 # 9271 # 9672 # 1 # ID=16_12;partial=00;start_type=ATG;rbs_motif=GGA/GAG/AGG;rbs_spacer=5-10bp;gc_cont=0.507
#matched_ 18747 CP001113 Salmonella complete | Gammapro putative m ACF64245 Yes 100.0

#input_seq NODE_46_length_126827_cov_49.231663_51 # 54239 # 54664 # -1 # ID=44_51;partial=00;start_type=ATG;rbs_motif=GGA/GAG/AGG;rbs_spacer=11-12bp;gc_cont=0.533
#matched_ 27803 CP000886 Salmonella complete | Gammapro hypothetical ABX65938 Yes 100.0

#input_seq NODE_6_length_71419_cov_51.152241_54 # 55632 # 56150 # 1 # ID=6_54;partial=00;start_type=ATG;rbs_motif=AGGAG;rbs_spacer=5-10bp;gc_cont=0.457
#matched_ 30687 AM933172 Salmonella Gammapro putative th CAR32943 Yes 100.0

#input_seq NODE_23_length_28953_cov_48.932236_2 # 605 # 1159 # -1 # ID=23_2;partial=00;start_type=ATG;rbs_motif=GGA/GAG/AGG;rbs_spacer=5-10bp;gc_cont=0.324
#matched_ 30687 AM933172 Salmonella Gammapro putative pl CAR32964 Yes 100.0

#input_seq NODE_32_length_21097_cov_53.428875_12 # 14706 # 15257 # -1 # ID=32_12;partial=00;start_type=ATG;rbs_motif=GGA/GAG/AGG;rbs_spacer=5-10bp;gc_cont=0.560
#matched_ 371 AE014613 Salmonella complete | Gammapro citx protein AAO67797 Yes 100.0

#input_seq NODE_26_length_103162_cov_50.245098_35 # 35635 # 36129 # 1 # ID=26_35;partial=00;start_type=ATG;rbs_motif=AGGAG;rbs_spacer=5-10bp;gc_cont=0.529
#matched_ 18747 CP001113 Salmonella complete | Gammapro YfBU doma ACF63247 Yes 100.0

#input_seq NODE_56_length_158542_cov_49.254280_60 # 73300 # 73830 # 1 # ID=53_60;partial=00;start_type=ATG;rbs_motif=AGGA;rbs_spacer=5-10bp;gc_cont=0.409
#matched_ 20045 CP001120 Salmonella complete | Gammapro conserved ACF65987 Yes 100.0

#input_seq NODE_3_length_37118_cov_57.427475_10 # 12200 # 12532 # -1 # ID=3_10;partial=00;start_type=ATG;rbs_motif=GGA/GAG/AGG;rbs_spacer=5-10bp;gc_cont=0.511
#matched_ 27803 CP000886 Salmonella complete | Gammapro hypothetical ABX69431 Yes 100.0

#input_seq NODE_103_length_33975_cov_43.248653_30 # 21958 # 22479 # 1 # ID=75_30;partial=00;start_type=ATG;rbs_motif=AGGA/GGAG/GAGG;rbs_spacer=11-12bp;gc_cont=0.600
#matched_ 19467 CP001143 Salmonella Gammapro 2021853 pl ACH73553 Yes 100.0

#input_seq NODE_50_length_26973_cov_59.727543_14 # 14270 # 14788 # -1 # ID=48_14;partial=00;start_type=ATG;rbs_motif=GGAG/GAGG;rbs_spacer=5-10bp;gc_cont=0.480
#matched_ 241 AE006468 Salmonella complete | Gammapro putative cy AAL19245 Yes 100.0

#input_seq NODE_17_length_190546_cov_53.517708_21 # 18763 # 19278 # -1 # ID=17_21;partial=00;start_type=ATG;rbs_motif=AGGAG;rbs_spacer=5-10bp;gc_cont=0.508
#matched_ 30687 AM933172 Salmonella Gammapro phage prot CAR33544 Yes 100.0

#input_seq NODE_1_length_258014_cov_56.166260_131 # 131766 # 132269 # -1 # ID=1_131;partial=00;start_type=ATG;rbs_motif=GGAG/GAGG;rbs_spacer=5-10bp;gc_cont=0.431
#matched_ 241 AE006468 Salmonella complete | Gammapro putative ATAAL22028 Yes 100.0

#input_seq NODE_37_length_275754_cov_57.743740_72 # 95601 # 96011 # 1 # ID=36_72;partial=00;start_type=ATG;rbs_motif=AGGA;rbs_spacer=5-10bp;gc_cont=0.547
#matched_ 19467 CP001144 Salmonella Gammapro 2021853 complete | ACH77658 Yes 100.0

#input_seq NODE_1_length_258014_cov_56.166260_3 # 1429 # 1941 # -1 # ID=1_3;partial=00;start_type=ATG;rbs_motif=GGAG/GAGG;rbs_spacer=5-10bp;gc_cont=0.522
#matched_ 30687 AM933172 Salmonella Gammapro hypothetical CAR34447 Yes 100.0

#input_seq NODE_103_length_33975_cov_43.248653_33 # 24043 # 24531 # 1 # ID=75_33;partial=00;start_type=ATG;rbs_motif=AGGAG;rbs_spacer=5-10bp;gc_cont=0.656
#matched_ 9618 AY509003 Salmonella complete : Gammapro hypothetical AAS58885 Yes 100.0

#input_seq NODE_103_length_33975_cov_43.248653_34 # 24525 # 25010 # 1 # ID=75_34;partial=00;start_type=ATG;rbs_motif=GGAGG;rbs_spacer=3-4bp;gc_cont=0.687
#matched_ 20993 CP000858 Salmonella complete : Gammapro putative inl ACN48783 Yes 100.0

#input_seq NODE_2_length_249230_cov_51.894127_108 # 100757 # 101230 # 1 # ID=2_108;partial=00;start_type=ATG;rbs_motif=GGA/GAG/AGG;rbs_spacer=5-10bp;gc_cont=0.435
#matched_ 19467 CP001144 Salmonella Gammapro 2021853 complete | ACH75557 Yes 100.0

#input_seq NODE_37_length_275754_cov_57.743740_127 # 158070 # 158363 # 1 # ID=36_127;partial=00;start_type=ATG;rbs_motif=AGGAG;rbs_spacer=5-10bp;gc_cont=0.473
#matched_ 20993 CP000857 Salmonella complete | Gammapro co-chapero ACN48531 Yes 100.0

#input_seq NODE_17_length_190546_cov_53.517708_186 # 170777 # 171244 # 1 # ID=17_186;partial=00;start_type=ATG;rbs_motif=AGGAG;rbs_spacer=5-10bp;gc_cont=0.453
#matched_ 27803 CP000886 Salmonella complete | Gammapro hypothetical ABX67495 Yes 100.0

#input_seq NODE_50_length_26973_cov_59.727543_8 # 7320 # 7751 # -1 # ID=48_8;partial=00;start_type=ATG;rbs_motif=None;rbs_spacer=None;gc_cont=0.306
#matched_ 30687 AM933172 Salmonella Gammapro exported p CAR31864 Yes 100.0

#input_seq NODE_42_length_58525_cov_58.442066_48 # 38909 # 39370 # 1 # ID=41_48;partial=00;start_type=ATG;rbs_motif=GGAG/GAGG;rbs_spacer=5-10bp;gc_cont=0.489
#matched_ 30687 AM933172 Salmonella Gammapro putative ex CAR35818 Yes 100.0

#input_seq NODE_20_length_79097_cov_54.030937_44 # 59028 # 59465 # -1 # ID=20_44;partial=00;start_type=ATG;rbs_motif=GGAG/GAGG;rbs_spacer=5-10bp;gc_cont=0.550
#matched_ 20993 CP000857 Salmonella complete | Gammapro nickel respi ACN47734 Yes 100.0

#input_seq NODE_15_length_182731_cov_52.903992_91 # 102448 # 102810 # -1 # ID=15_91;partial=00;start_type=ATG;rbs_motif=GGAG/GAGG;rbs_spacer=5-10bp;gc_cont=0.512
#matched_ 20993 CP000857 Salmonella complete | Gammapro hypothetical ACN44363 Yes 100.0

#input_seq NODE_18_length_152993_cov_57.070435_38 # 38415 # 38861 # -1 # ID=18_38;partial=00;start_type=ATG;rbs_motif=None;rbs_spacer=None;gc_cont=0.474
#matched_ 236 XXX Salmonella Gammapro XXX Yes 100.0

#input_seq NODE_37_length_275754_cov_57.743740_232 # 265453 # 265899 # -1 # ID=36_232;partial=00;start_type=ATG;rbs_motif=GGAG/GAGG;rbs_spacer=5-10bp;gc_cont=0.447
#matched_ 30687 AM933172 Salmonella Gammapro putative m CAR35766 Yes 100.0

#input_seq NODE_50_length_26973_cov_59.727543_11 # 9550 # 9996 # -1 # ID=48_11;partial=00;start_type=ATG;rbs_motif=GGA/GAG/AGG;rbs_spacer=5-10bp;gc_cont=0.284
#matched_ 19467 CP001144 Salmonella Gammapro 2021853 complete | ACH76767 Yes 100.0

#input_seq NODE_2_length_249230_cov_51.894127_246 # 231259 # 231699 # 1 # ID=2_246;partial=00;start_type=ATG;rbs_motif=AGGA;rbs_spacer=5-10bp;gc_cont=0.347
#matched_ 30687 AM933172 Salmonella Gammapro putative ex CAR32583 Yes 100.0

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#input_seq NODE_2_length_249230_cov_51.894127_32 # 31759 # 32052 # -1 # ID=2_32;partial=00;start_type=ATG;rbs_motif=GGA/GAG/AGG;rbs_spacer=5-10bp;gc_cont=0.452
#matched_ 19467 CP001144 Salmonella Gammaprc 2021853 complete { ACH74145 Yes 100.0

#input_seq NODE_39_length_275835_cov_54.324623_5 # 6004 # 6342 # 1 # ID=38_5;partial=00;start_type=ATG;rbs_motif=GGAG/GAGG;rbs_spacer=5-10bp;gc_cont=0.469
#matched_ 13030 CP000880 Salmonella z23:-- complete { Gammaprc hypothetical ABX20207 Yes 100.0

#input_seq NODE_48_length_233793_cov_56.646225_23 # 25201 # 25533 # 1 # ID=46_23;partial=00;start_type=ATG;rbs_motif=GGAG/GAGG;rbs_spacer=5-10bp;gc_cont=0.456
#matched_ 236 XXX Salmonella Gammaprc XXX Yes 100.0

#input_seq NODE_28_length_24720_cov_41.216061_9 # 8120 # 8455 # 1 # ID=28_9;partial=00;start_type=ATG;rbs_motif=AGGAG;rbs_spacer=5-10bp;gc_cont=0.527
#matched_ 19467 CP001143 Salmonella Gammaprc 2021853 pl ACH73540 Yes 100.0

#input_seq NODE_17_length_190546_cov_53.517708_143 # 125645 # 126022 # 1 # ID=17_143;partial=00;start_type=ATG;rbs_motif=GGA/GAG/AGG;rbs_spacer=5-10bp;gc_cont=0.500
#matched_ 18747 CP001113 Salmonella complete { Gammaprc histidine tr ACF64355 Yes 100.0

#input_seq NODE_6_length_71419_cov_51.152241_55 # 56257 # 56595 # -1 # ID=6_55;partial=00;start_type=ATG;rbs_motif=AGGAG;rbs_spacer=5-10bp;gc_cont=0.428
#matched_ 30687 AM933172 Salmonella Gammaprc hypothetical CAR32944 Yes 100.0

#input_seq NODE_17_length_190546_cov_53.517708_20 # 18407 # 18766 # -1 # ID=17_20;partial=00;start_type=ATG;rbs_motif=GGAGG;rbs_spacer=5-10bp;gc_cont=0.447
#matched_ 30687 AM933172 Salmonella Gammaprc phage prot CAR33545 Yes 100.0

#input_seq NODE_103_length_33975_cov_43.248653_37 # 26357 # 26707 # -1 # ID=75_37;partial=00;start_type=ATG;rbs_motif=GGA/GAG/AGG;rbs_spacer=5-10bp;gc_cont=0.462
#matched_ 20993 CP000858 Salmonella complete : Gammaprc hypothetical ACN48780 Yes 100.0

#input_seq NODE_20_length_79097_cov_54.030937_50 # 63928 # 64263 # 1 # ID=20_50;partial=00;start_type=ATG;rbs_motif=None;rbs_spacer=None;gc_cont=0.512
#matched_ 18747 CP001113 Salmonella complete { Gammaprc conserved ACF63492 Yes 100.0

#input_seq NODE_18_length_152993_cov_57.070435_90 # 87262 # 87555 # 1 # ID=18_90;partial=00;start_type=ATG;rbs_motif=GGA/GAG/AGG;rbs_spacer=5-10bp;gc_cont=0.439
#matched_ 20993 CP000857 Salmonella complete { Gammaprc hypothetical ACN48248 Yes 100.0

#input_seq NODE_23_length_28953_cov_48.932236_1 # 114 # 443 # 1 # ID=23_1;partial=00;start_type=ATG;rbs_motif=GGAG/GAGG;rbs_spacer=5-10bp;gc_cont=0.533
#matched_ 30687 AM933172 Salmonella Gammaprc putative pt CAR32963 Yes 100.0

#input_seq NODE_2_length_249230_cov_51.894127_183 # 173400 # 173726 # -1 # ID=2_183;partial=00;start_type=GTG;rbs_motif=GGAGG;rbs_spacer=3-4bp;gc_cont=0.422
#matched_ 13086 CP000026 Salmonella complete { Gammaprc putative glh AAV76906 Yes 100.0

#input_seq NODE_22_length_1073_cov_514.985107_1 # 111 # 365 # -1 # ID=22_1;partial=00;start_type=ATG;rbs_motif=GGAGG;rbs_spacer=5-10bp;gc_cont=0.537
#matched_ 16259 CP000243 Escherichia complete { Gammaprc hypothetical ABE05727 Yes 100.0

#input_seq NODE_45_length_88988_cov_55.322178_49 # 52941 # 53237 # 1 # ID=43_49;partial=00;start_type=ATG;rbs_motif=GGA/GAG/AGG;rbs_spacer=5-10bp;gc_cont=0.357
#matched_ 20993 CP000857 Salmonella complete { Gammaprc hypothetical ACN48127 Yes 100.0

#input_seq NODE_39_length_275835_cov_54.324623_248 # 270379 # 270606 # -1 # ID=38_248;partial=00;start_type=ATG;rbs_motif=AGGAG;rbs_spacer=5-10bp;gc_cont=0.456
#matched_ 27803 CP000886 Salmonella complete { Gammaprc hypothetical ABX69050 Yes 100.0

#input_seq NODE_17_length_190546_cov_53.517708_100 # 83467 # 83712 # -1 # ID=17_100;partial=00;start_type=ATG;rbs_motif=AGxAGG/AGGxGG;rbs_spacer=5-10bp;gc_cont=0.512
#matched_ 9618 AE017220 Salmonella complete { Gammaprc DNA damaj inhibits Ur AAX65016 Yes 100.0

#input_seq NODE_103_length_33975_cov_43.248653_23 # 15896 # 16198 # -1 # ID=75_23;partial=00;start_type=ATG;rbs_motif=GGAG/GAGG;rbs_spacer=5-10bp;gc_cont=0.442
#matched_ 20993 CP000858 Salmonella complete : Gammaprc PefB ACN48798 Yes 100.0

#input_seq NODE_17_length_190546_cov_53.517708_18 # 17842 # 18135 # -1 # ID=17_18;partial=00;start_type=ATG;rbs_motif=GGA/GAG/AGG;rbs_spacer=5-10bp;gc_cont=0.476
#matched_ 30687 AM933172 Salmonella Gammaprc phage prot CAR33546 Yes 100.0

#input_seq NODE_103_length_33975_cov_43.248653_29 # 21671 # 21961 # 1 # ID=75_29;partial=00;start_type=ATG;rbs_motif=GGA/GAG/AGG;rbs_spacer=5-10bp;gc_cont=0.625
#matched_ 19467 CP001143 Salmonella Gammaprc 2021853 pl ACH73549 Yes 100.0

#input_seq NODE_48_length_233793_cov_56.646225_180 # 193577 # 193867 # 1 # ID=46_180;partial=00;start_type=ATG;rbs_motif=GGA/GAG/AGG;rbs_spacer=5-10bp;gc_cont=0.553
#matched_ 19459 CP001127 Salmonella complete { Gammaprc conserved ACF88742 Yes 100.0

#input_seq NODE_2_length_249230_cov_51.894127_90 # 87964 # 88194 # -1 # ID=2_90;partial=00;start_type=ATG;rbs_motif=GGA/GAG/AGG;rbs_spacer=11-12bp;gc_cont=0.528
#matched_ 19467 CP001144 Salmonella Gammaprc 2021853 complete { ACH75954 Yes 100.0

#input_seq NODE_23_length_28953_cov_48.932236_10 # 7282 # 7563 # 1 # ID=23_10;partial=00;start_type=ATG;rbs_motif=AGGAG;rbs_spacer=5-10bp;gc_cont=0.578
#matched_ 30687 AM933172 Salmonella Gammaprc putative pr CAR32973 Yes 100.0

#input_seq NODE_55_length_230803_cov_51.260338_123 # 139595 # 139882 # -1 # ID=52_123;partial=00;start_type=ATG;rbs_motif=AGGAG;rbs_spacer=5-10bp;gc_cont=0.410
#matched_ 13086 CP000026 Salmonella complete { Gammaprc putative m AAV76065 Yes 100.0

#input_seq NODE_15_length_182731_cov_52.903992_145 # 165337 # 165618 # -1 # ID=15_145;partial=00;start_type=ATG;rbs_motif=AGGA;rbs_spacer=5-10bp;gc_cont=0.443
#matched_ 20993 CP000857 Salmonella complete { Gammaprc hypothetical ACN44309 Yes 100.0

#input_seq NODE_14_length_332578_cov_51.139618_88 # 99465 # 99746 # 1 # ID=14_88;partial=00;start_type=ATG;rbs_motif=AGGAG;rbs_spacer=5-10bp;gc_cont=0.504
#matched_ 19467 CP001144 Salmonella Gammaprc 2021853 complete { ACH78035 Yes 100.0

#input_seq NODE_14_length_332578_cov_51.139618_129 # 139074 # 139277 # 1 # ID=14_129;partial=00;start_type=ATG;rbs_motif=AGGAG;rbs_spacer=5-10bp;gc_cont=0.500
#matched_ 13030 CP000880 Salmonella z23:-- complete { Gammaprc hypothetical ABX21343 Yes 100.0

#input_seq NODE_17_length_190546_cov_53.517708_2 # 735 # 998 # 1 # ID=17_2;partial=00;start_type=ATG;rbs_motif=AGGA;rbs_spacer=5-10bp;gc_cont=0.439
#matched_ 30687 AM933172 Salmonella Gammaprc membrane CAR33563 Yes 100.0

#input_seq NODE_13_length_23593_cov_54.021362_6 # 5770 # 6000 # 1 # ID=13_6;partial=00;start_type=ATG;rbm_motif=GGAG/GAGG;rbm_spacer=5-10bp;gc_cont=0.485
#matched_ 20993 CP000857 Salmonella complete | Gammapro putative ol ACN44278 Yes 100.0

#input_seq NODE_39_length_275835_cov_54.324623_141 # 155073 # 155333 # -1 # ID=38_141;partial=00;start_type=ATG;rbm_motif=None;rbm_spacer=None;gc_cont=0.398
#matched_ 241 AE006468 Salmonella complete | Gammapro putative cy AAL21760 Yes 100.0

#input_seq NODE_50_length_26973_cov_59.727543_10 # 9227 # 9484 # 1 # ID=48_10;partial=00;start_type=ATG;rbm_motif=None;rbm_spacer=None;gc_cont=0.539
#matched_ 19467 CP001144 Salmonella Gammapro 2021853 complete | ACH74281 Yes 100.0

#input_seq NODE_14_length_332578_cov_51.139618_119 # 129804 # 130013 # 1 # ID=14_119;partial=00;start_type=ATG;rbm_motif=GGA/GAG/AGG;rbm_spacer=5-10bp;gc_cont=0.514
#matched_ 9618 AE017220 Salmonella complete | Gammapro multiple n AAX65442 Yes 100.0

#input_seq NODE_47_length_105039_cov_50.951962_27 # 26553 # 26765 # 1 # ID=45_27;partial=00;start_type=ATG;rbm_motif=AGGA;rbm_spacer=5-10bp;gc_cont=0.568
#matched_ 9618 AE017220 Salmonella complete | Gammapro putative cy AAX64486 Yes 100.0

#input_seq NODE_50_length_26973_cov_59.727543_6 # 6416 # 6658 # 1 # ID=48_6;partial=00;start_type=ATG;rbm_motif=None;rbm_spacer=None;gc_cont=0.486
#matched_ 19467 CP001144 Salmonella Gammapro 2021853 complete | ACH77375 Yes 100.0

#input_seq NODE_17_length_190546_cov_53.517708_15 # 16149 # 16376 # -1 # ID=17_15;partial=00;start_type=ATG;rbm_motif=GGAG/GAGG;rbm_spacer=5-10bp;gc_cont=0.461
#matched_ 30687 AM933172 Salmonella Gammapro phage prot CAR33549 Yes 100.0

#input_seq NODE_14_length_332578_cov_51.139618_44 # 45094 # 45267 # 1 # ID=14_44;partial=00;start_type=ATG;rbm_motif=GGA/GAG/AGG;rbm_spacer=5-10bp;gc_cont=0.437
#matched_ 27803 CP000886 Salmonella complete | Gammapro hypothetical ABX67085 Yes 100.0

#input_seq NODE_27_length_91289_cov_49.677750_60 # 74510 # 74692 # 1 # ID=27_60;partial=00;start_type=ATG;rbm_motif=GGAGG;rbm_spacer=3-4bp;gc_cont=0.459
#matched_ 9618 AE017220 Salmonella complete | Gammapro putative inl AAX64850 Yes 100.0

#input_seq NODE_17_length_190546_cov_53.517708_31 # 25166 # 25390 # 1 # ID=17_31;partial=00;start_type=ATG;rbm_motif=AGxAGG/AGGxGG;rbm_spacer=5-10bp;gc_cont=0.502
#matched_ 19467 CP001144 Salmonella Gammapro 2021853 complete | ACH75781 Yes 100.0

#input_seq NODE_4_length_82705_cov_51.087189_70 # 74070 # 74294 # 1 # ID=4_70;partial=00;start_type=GTG;rbm_motif=AGGAG;rbm_spacer=5-10bp;gc_cont=0.427
#matched_ 19467 CP001144 Salmonella Gammapro 2021853 complete | ACH74130 Yes 100.0

#input_seq NODE_18_length_152993_cov_57.070435_9 # 8918 # 9115 # 1 # ID=18_9;partial=00;start_type=ATG;rbm_motif=GGA/GAG/AGG;rbm_spacer=5-10bp;gc_cont=0.505
#matched_ 13086 CP000026 Salmonella complete | Gammapro hypothetical AAV79611 Yes 100.0

#input_seq NODE_17_length_190546_cov_53.517708_126 # 109456 # 109680 # 1 # ID=17_126;partial=00;start_type=ATG;rbm_motif=None;rbm_spacer=None;gc_cont=0.489
#matched_ 18747 CP001113 Salmonella complete | Gammapro conserved ACF62897 Yes 100.0

#input_seq NODE_45_length_88988_cov_55.322178_24 # 27706 # 27930 # 1 # ID=43_24;partial=00;start_type=ATG;rbm_motif=GGAGG;rbm_spacer=5-10bp;gc_cont=0.560
#matched_ 18747 CP001113 Salmonella complete | Gammapro glucose-1-| ACF62613 Yes 100.0

#input_seq NODE_59_length_57249_cov_59.169697_62 # 39738 # 39959 # 1 # ID=56_62;partial=00;start_type=ATG;rbm_motif=None;rbm_spacer=None;gc_cont=0.532
#matched_ 19467 CP001144 Salmonella Gammapro 2021853 complete | ACH78049 Yes 100.0

#input_seq NODE_6_length_71419_cov_51.152241_18 # 17023 # 17202 # -1 # ID=6_18;partial=00;start_type=ATG;rbm_motif=AGGA;rbm_spacer=5-10bp;gc_cont=0.500
#matched_ 9618 AE017220 Salmonella complete | Gammapro conserved AAX65604 Yes 100.0

#input_seq NODE_42_length_58525_cov_58.442066_30 # 27880 # 28089 # 1 # ID=41_30;partial=00;start_type=ATG;rbm_motif=GGA/GAG/AGG;rbm_spacer=11-12bp;gc_cont=0.519
#matched_ 19467 CP001144 Salmonella Gammapro 2021853 complete | ACH77761 Yes 100.0

#input_seq NODE_18_length_152993_cov_57.070435_69 # 66275 # 66478 # 1 # ID=18_69;partial=00;start_type=ATG;rbm_motif=None;rbm_spacer=None;gc_cont=0.422
#matched_ 20045 CP001120 Salmonella complete | Gammapro hypothetical ACF66974 Yes 100.0

#input_seq NODE_1_length_258014_cov_56.166260_145 # 143260 # 143454 # -1 # ID=1_145;partial=00;start_type=ATG;rbm_motif=AGGAG;rbm_spacer=5-10bp;gc_cont=0.349
#matched_ 18747 CP001113 Salmonella complete | Gammapro hypothetical ACF62403 Yes 100.0

#input_seq NODE_31_length_46286_cov_57.648640_38 # 37030 # 37194 # 1 # ID=31_38;partial=00;start_type=ATG;rbm_motif=AGGA;rbm_spacer=5-10bp;gc_cont=0.418
#matched_ 13086 CP000026 Salmonella complete | Gammapro putative pe AAV79076 Yes 100.0

#input_seq NODE_48_length_233793_cov_56.646225_131 # 141533 # 141706 # -1 # ID=46_131;partial=00;start_type=ATG;rbm_motif=GGAG/GAGG;rbm_spacer=5-10bp;gc_cont=0.448
#matched_ 19467 CP001144 Salmonella Gammapro 2021853 complete | ACH75720 Yes 100.0

#input_seq NODE_17_length_190546_cov_53.517708_185 # 170284 # 170457 # -1 # ID=17_185;partial=00;start_type=ATG;rbm_motif=GGAGG;rbm_spacer=3-4bp;gc_cont=0.437
#matched_ 19467 CP001144 Salmonella Gammapro 2021853 complete | ACH76099 Yes 100.0

#input_seq NODE_38_length_108109_cov_51.818665_21 # 19930 # 20103 # 1 # ID=37_21;partial=00;start_type=ATG;rbm_motif=None;rbm_spacer=None;gc_cont=0.615
#matched_ 19467 CP001144 Salmonella Gammapro 2021853 complete | ACH74751 Yes 100.0

#input_seq NODE_17_length_190546_cov_53.517708_55 # 42091 # 42255 # 1 # ID=17_55;partial=00;start_type=ATG;rbm_motif=AGGA;rbm_spacer=5-10bp;gc_cont=0.533
#matched_ 19467 CP001144 Salmonella Gammapro 2021853 complete | ACH75289 Yes 100.0

#input_seq NODE_18_length_152993_cov_57.070435_110 # 106713 # 106874 # 1 # ID=18_110;partial=00;start_type=ATG;rbm_motif=GGA/GAG/AGG;rbm_spacer=5-10bp;gc_cont=0.389
#matched_ 19467 CP001144 Salmonella Gammapro 2021853 complete | ACH76102 Yes 100.0

#input_seq NODE_47_length_105039_cov_50.951962_14 # 14531 # 14689 # -1 # ID=45_14;partial=00;start_type=ATG;rbm_motif=GGAG/GAGG;rbm_spacer=5-10bp;gc_cont=0.484
#matched_ 20045 CP001120 Salmonella complete | Gammapro hypothetical ACF68014 Yes 100.0

#input_seq NODE_17_length_190546_cov_53.517708_68 # 53728 # 53877 # 1 # ID=17_68;partial=00;start_type=ATG;rbm_motif=GGAG/GAGG;rbm_spacer=5-10bp;gc_cont=0.433
#matched_ 19467 CP001144 Salmonella Gammapro 2021853 complete | ACH74326 Yes 100.0

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_seq NODE_15_length_182731_cov_52.903992_146 # 165938 # 166060 # -1 # ID=15_146;partial=00;start_type=ATG; rbs_motif=GGAG/GAGG; rbs_spacer=5-10bp;gc_cont=0.577
#matched_ 9618 AE017220 Salmonella complete | Gammapro hypothetical: AAX64010 Yes 100.0

_seq NODE_1_length_258014_cov_56.166260_137 # 135454 # 135591 # -1 # ID=1_137;partial=00;start_type=ATG; rbs_motif=AGxAGG/AGGxGG; rbs_spacer=5-10bp;gc_cont=0.370
#matched_ 18747 CP001113 Salmonella complete | Gammapro conserved: ACF63650 Yes 100.0

_seq NODE_48_length_233793_cov_56.646225_197 # 207581 # 207712 # 1 # ID=46_197;partial=00;start_type=ATG; rbs_motif=AGGA; rbs_spacer=5-10bp;gc_cont=0.379
#matched_ 27803 CP000886 Salmonella complete | Gammapro hypothetical: ABX66155 Yes 100.0

_seq NODE_3_length_37118_cov_57.427475_17 # 18808 # 18909 # -1 # ID=3_17;partial=00;start_type=ATG; rbs_motif=GGA/GAG/AGG; rbs_spacer=5-10bp;gc_cont=0.520
#matched_ 18747 CP001113 Salmonella complete | Gammapro hypothetical: ACF64068 Yes 100.0

_seq NODE_37_length_275754_cov_57.743740_40 # 46693 # 46821 # 1 # ID=36_40;partial=00;start_type=ATG; rbs_motif=GGA/GAG/AGG; rbs_spacer=5-10bp;gc_cont=0.411
#matched_ 18747 CP001113 Salmonella complete | Gammapro putative cy: ACF62175 Yes 100.0

_seq NODE_47_length_105039_cov_50.951962_77 # 76740 # 76865 # -1 # ID=45_77;partial=00;start_type=ATG; rbs_motif=AGGA/GGAG/GAGG; rbs_spacer=11-12bp;gc_cont=0.397
#matched_ 13030 CP000880 Salmonella z23:-- complete | Gammapro hypothetical: ABX22302 Yes 100.0

_seq NODE_55_length_230803_cov_51.260338_73 # 83491 # 83616 # 1 # ID=52_73;partial=00;start_type=ATG; rbs_motif=GGA/GAG/AGG; rbs_spacer=5-10bp;gc_cont=0.405
#matched_ 18747 CP001113 Salmonella complete | Gammapro hypothetical: ACF61150 Yes 100.0

_seq NODE_14_length_332578_cov_51.139618_8 # 6810 # 6935 # 1 # ID=14_8;partial=00;start_type=ATG; rbs_motif=GGA/GAG/AGG; rbs_spacer=5-10bp;gc_cont=0.468
#matched_ 18747 CP001113 Salmonella complete | Gammapro hypothetical: ACF62270 Yes 100.0

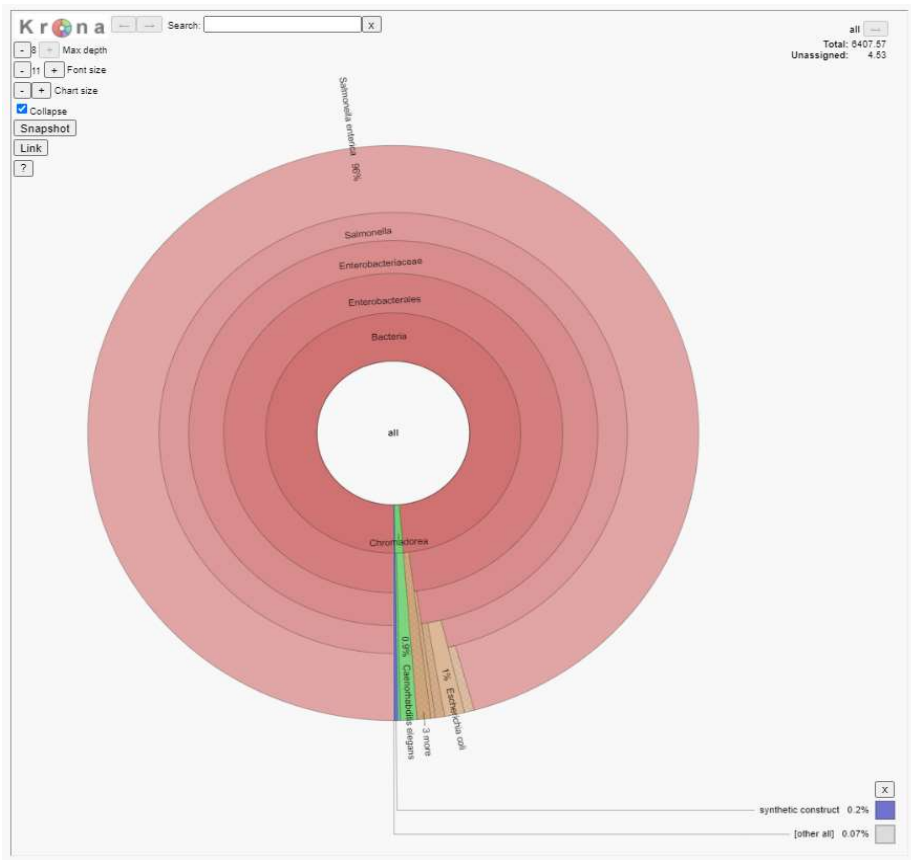
_seq NODE_46_length_126827_cov_49.231663_7 # 8447 # 8560 # -1 # ID=44_7;partial=00;start_type=ATG; rbs_motif=GGA/GAG/AGG; rbs_spacer=5-10bp;gc_cont=0.316
#matched_ 18747 CP001113 Salmonella complete | Gammapro hypothetical: ACF62423 Yes 100.0

_seq NODE_39_length_275835_cov_54.324623_45 # 62100 # 62213 # 1 # ID=38_45;partial=00;start_type=ATG; rbs_motif=GGA/GAG/AGG; rbs_spacer=5-10bp;gc_cont=0.316
#matched_ 18747 CP001113 Salmonella complete | Gammapro putative in: ACF64919 Yes 100.0

_seq NODE_33_length_176319_cov_55.537788_57 # 61267 # 61368 # 1 # ID=33_57;partial=00;start_type=ATG; rbs_motif=GGAG/GAGG; rbs_spacer=5-10bp;gc_cont=0.500
#matched_ 13086 CP000026 Salmonella complete | Gammapro hypothetical: AAV78247 Yes 100.0

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Meal_Ccmetagen_Krona



The classification of 0,9% of the reads as *C. elegans* is probably due to a misclassification (low percentage and not detected with other tools) and was not investigated further.

Meal_Cometagen	Closest_match	Score	Expected	Template_1	Template_2	Template_3	Query_Idx	Query_Cov	Depth	q_value	p_value	Class	Family	Genus	Kingdom	LCA_Taxid	Order	Phylum	Species	Superkingdom	
	Salmonella enterica subsp. enterica serovar Gallinarum phase-1 flagellin (H1c1) gene	59750	1	1518	100.0	100.0	100.0	100.0	150.45	59744.97	1E-26	Gammapr	Enterobact	Salmonella	unk_k	28901	Enterobacterales	Proteobacter	Salmonella e	Bacteria	
	90371 M77750.1 Salmonella typhimurium RNA polymerase alpha subunit (rpoA) gene complete cds	42918	1	1065	98.31	98.5	99.81	101.53	159.33	42914.47	1E-26	Gammapr	Enterobact	Salmonella	unk_k	28901	Enterobacterales	Proteobacter	Salmonella e	Bacteria	
	32630 M10213.1 E.coli alpha operon promoter region and S13 gene 5' end and E.coli DNA of unknown origin	1922	0	759	81.03	81.03	100.0	123.41	9.72	1919.48	1E-26	unk_c	unk_f	unk_g	unk_k	32630	unk_o	unk_p	synthetic construct	unk_sk	
	149539 L11010.1 Salmonella enteritidis fimbrial protein (sefC) gene complete cds	135576	2	2445	99.96	99.96	100.0	100.04	235.85	135567.9	1E-26	Gammapr	Enterobact	Salmonella	unk_k	28901	Enterobacterales	Proteobacter	Salmonella e	Bacteria	
	316407 J134010.1 Escherichia coli (clone pRPG1 pSIP1) arcA gene 5' end	602	0	762	39.63	39.63	100.0	252.32	2.42	599.48	1E-26	Gammapr	Enterobact	Escherichia	unk_k	562	Enterobacterales	Proteobacter	Escherichia coli	Bacteria	
	149539 Z83734.1 Senteritidis insertion element IS1351 and IS200 DNA	111328	2	2601	100.0	100.0	100.0	100.0	184.54	111319.38	1,00E-26	Gammapr	Enterobact	Salmonella	unk_k	28901	Enterobacterales	Proteobacter	Salmonella e	Bacteria	
	28901 U77919.1 Salmonella enterica 23S ribosomal RNA (rrl) gene complete sequence	30264	3	2908	48.59	48.62	99.93	205.66	51.51	30254.36	1E-26	Gammapr	Enterobact	Salmonella	unk_k	28901	Enterobacterales	Proteobacter	Salmonella e	Bacteria	
	562 AF053968.1 Escherichia coli strain A 8190 rrfC operon complete sequence	3208	3	2905	43.99	43.99	100.0	227.31	5.92	3198.38	1E-26	Gammapr	Enterobact	Escherichia	unk_k	562	Enterobacterales	Proteobacter	Escherichia c	Bacteria	
	562 X02613.1 Escherichia coli ribosomal protein operon S10	3902	5	5422	40.52	40.54	99.95	246.68	2.73	3884.06	1,00E-26	Gammapr	Enterobact	Escherichia	unk_k	562	Enterobacterales	Proteobacter	Escherichia c	Bacteria	
	562 V00355.1 Part of the E. coli STR operon including the gene (str or rpsL) for ribosomal protein S12 and the beginning of the gene (rpsG) for S7	856	0	843	66.31	66.31	100.0	150.81	4.42	853.21	1,00E-26	Gammapr	Enterobact	Escherichia	unk_k	562	Enterobacterales	Proteobacter	Escherichia c	Bacteria	
	149539 U91789.1 Salmonella enteritidis insertion sequence IS1230 unknown gene	47662	1	1230	100.0	100.0	100.0	100.0	144.73	47657.92	1E-26	Gammapr	Enterobact	Salmonella	unk_k	28901	Enterobacterales	Proteobacter	Salmonella e	Bacteria	
	98360 AY167660.1 Salmonella enterica subsp. enterica serovar Dublin 23S ribosomal RNA gene partial sequence	3806+513f	0	419	96.42	97.37	99.02	102.7	42.76	3804.61	1E-26	Gammapr	Enterobact	Salmonella	unk_k	28901	Enterobacterales	Proteobacter	Salmonella e	Bacteria	
	149539 AF376036.1 Salmonella enteritidis pathogenicity island 6 partial sequence	234504	6	5780	99.57	99.62	99.95	100.38	169.55	234484.86	1E-26	Gammapr	Enterobact	Salmonella	unk_k	28901	Enterobacterales	Proteobacter	Salmonella e	Bacteria	
	149539 AF458099.1 Salmc	94042	2	2058	99.71	99.71	100.0	100.29	180.34	94035.18	1E-26	Gammapr	Enterobact	Salmonella	unk_k	28901	Enterobacterales	Proteobacter	Salmonella e	Bacteria	
	90371 AY684794.1 Salmor	21712	0	516	97.09	97.09	100.0	102.99	172.53	21710.29	1E-26	Gammapr	Enterobact	Salmonella	unk_k	28901	Enterobacterales	Proteobacter	Salmonella e	Bacteria	
	138733 AF290203.1 Unide	306	0	301	91.69	92.36	99.28	108.27	4.56	305.0	1E-26	unk_c	unk_f	unk_g	unk_k	138733	unk_o	unk_p	unidentified	Bacteria	
	59201 EF643614.1 Salmon	440054	1	1546	100.0	100.0	100.0	100.0	1148.17	440048.89	1E-26	Gammapr	Enterobact	Salmonella	unk_k	28901	Enterobacterales	Proteobacter	Salmonella e	Bacteria	
	59201 EF643616.1 Salmon	7028	1	1546	52.39	52.39	100.0	190.86	17.58	7022.88	1E-26	Gammapr	Enterobact	Salmonella	unk_k	28901	Enterobacterales	Proteobacter	Salmonella e	Bacteria	
	149539 EU146951.1 Salmc	52126	3	2931	88.81	88.91	99.88	112.47	79.24	52116.28	1E-26	Gammapr	Enterobact	Salmonella	unk_k	28901	Enterobacterales	Proteobacter	Salmonella e	Bacteria	
	6211 EU855230.1 Shigella b	2424	3	2904	22.69	22.73	99.85	440.0	3.7	2414.39	1E-26	Gammapr	Enterobact	Shigella	unk_k	621	Enterobacterales	Proteobacter	Shigella boyd	Bacteria	
	550537 AM933172.1 Salm	18E+08	157	4685848	99.28	99.28	100.0	100.73	163.68	17973052f	1E-26	Gammapr	Enterobact	Salmonella	unk_k	28901	Enterobacterales	Proteobacter	Salmonella e	Bacteria	
	336306 EU010100.1 Enter	316	0	501	45.91	45.91	100.0	217.83	2.31	314.34	1E-26	Gammapr	Enterobact	Enterobacter	unk_k	550	Enterobacterales	Proteobacter	Enterobacter	Bacteria	
	149539 FJ573223.1 Salmc	4558	0	266	100.0	100.0	100.0	100.0	61.36	4557.12	1E-26	Gammapr	Enterobact	Salmonella	unk_k	28901	Enterobacterales	Proteobacter	Salmonella e	Bacteria	
	149539 FJ797617.1 Salmc	167876	4	4029	100.0	100.0	100.0	100.0	184.83	167862.65	1,00E-26	Gammapr	Enterobact	Salmonella	unk_k	28901	Enterobacterales	Proteobacter	Salmonella e	Bacteria	
	562 EU892660.1 Escherich	332	0	240	86.67	86.67	100.0	115.38	5.19	331.21	1E-26	Gammapr	Enterobact	Escherichia	unk_k	562	Enterobacterales	Proteobacter	Escherichia c	Bacteria	
	1045010 AB903043.1 Esch	328	0	279	97.49	97.49	100.0	102.57	5.15	327.08	1,00E-26	Gammapr	Enterobact	Escherichia	unk_k	562	Enterobacterales	Proteobacter	Escherichia c	Bacteria	
	1045010 AB903044.1 Esch	272	0	333	74.77	74.77	100.0	133.73	3.16	270.9	1,00E-26	Gammapr	Enterobact	Escherichia	unk_k	562	Enterobacterales	Proteobacter	Escherichia c	Bacteria	
	1045010 AB90305.1 Esch	912	0	540	83.89	83.89	100.0	119.21	3.11	426.21	1,00E-26	Gammapr	Enterobact	Escherichia	unk_k	562	Enterobacterales	Proteobacter	Escherichia c	Bacteria	
	1045010 AB903055.1 Esch	280	0	354	79.1	79.1	100.0	126.43	3.33	278.83	1,00E-26	Gammapr	Enterobact	Escherichia	unk_k	562	Enterobacterales	Proteobacter	Escherichia c	Bacteria	
	562 EU894945.1 Escherich	448	0	885	40.45	40.45	100.0	247.21	2.02	445.07	1E-26	Gammapr	Enterobact	Escherichia	unk_k	562	Enterobacterales	Proteobacter	Escherichia c	Bacteria	
	562 EU900190.1 Escherich	260	0	357	52.1	52.1	100.0	191.94	2.98	258.82	1E-26	Gammapr	Enterobact	Escherichia	unk_k	562	Enterobacterales	Proteobacter	Escherichia c	Bacteria	
	562 EU900370.1 Escherich	124	0	237	78.48	78.48	100.0	127.42	1.91	123.22	1E-26	Gammapr	Enterobact	Escherichia	unk_k	562	Enterobacterales	Proteobacter	Escherichia c	Bacteria	
	194846 HM074383.1 Uncc	1570	0	507	95.27	95.27	100.0	104.97	14.75	1588.32	1E-26	Gammapr	Enterobact	unk_f	unk_g	unk_k	194846	Enterobacterales	Proteobacter	uncultured f	Bacteria
	149539 HM007608.1 Salm	29702	2	2490	41.69	41.69	100.0	239.88	56.97	29693.75	1E-26	Gammapr	Enterobact	Salmonella	unk_k	28901	Enterobacterales	Proteobacter	Salmonella e	Bacteria	
	83334 HM007621.1 Esche	3848	2	2105	57.67	57.72	99.92	173.25	8.85	3841.03	1E-26	Gammapr	Enterobact	Escherichia	unk_k	562	Enterobacterales	Proteobacter	Escherichia c	Bacteria	
	77133 AB582423.1 Uncult	912	0	584	94.35	94.35	100.0	105.99	6.9	910.07	1E-26	unk_c	unk_f	unk_g	unk_k	77133	unk_o	unk_p	uncultured b	Bacteria	
	6214 HQ591458.1 Shigella i	1454	0	712	81.74	81.74	100.0	117.88	8.98	1451.64	1E-26	Gammapr	Enterobact	Shigella	unk_k	620	Enterobacterales	Proteobacter	Shigella	Bacteria	
	605 JF965566.1 Salmonell	43910	1	1125	93.24	93.33	99.9	107.14	156.29	43906.27	1E-26	Gammapr	Enterobact	Salmonella	unk_k	28901	Enterobacterales	Proteobacter	Salmonella e	Bacteria	
	605 JF965567.1 Salmonell	55650	1	1314	97.49	97.49	100.0	102.58	162.58	55645.64	1E-26	Gammapr	Enterobact	Salmonella	unk_k	28901	Enterobacterales	Proteobacter	Salmonella e	Bacteria	
	149539 NR_076250.1 Salm	743276	3	3056	100.0	100.0	100.0	100.0	1054.04	743265.91	1E-26	Gammapr	Enterobact	Salmonella	unk_k	28901	Enterobacterales	Proteobacter	Salmonella e	Bacteria	
	90371 KC768817.1 Salmor	21170	0	712	94.52	95.08	99.41	105.17	125.29	21167.64	1E-26	Gammapr	Enterobact	Salmonella	unk_k	28901	Enterobacterales	Proteobacter	Salmonella e	Bacteria	
	90371 KC768841.1 Salmor	1398	0	602	99.5	100.0	99.5	100.0	105.56	1396.01	1E-26	Gammapr	Enterobact	Salmonella	unk_k	28901	Enterobacterales	Proteobacter	Salmonella e	Bacteria	
	149539 KF381290.1 Salmc	38688	0	876	99.66	99.66	100.0	100.34	172.01	38685.1	1E-26	Gammapr	Enterobact	Salmonella	unk_k	28901	Enterobacterales	Proteobacter	Salmonella e	Bacteria	
	unk_taxid J155_A Chain A	302	0	359	73.54	73.54	100.0	135.98	4.53	300.81	1E-26	unk_c	unk_f	unk_g	unk_k	1393634	unk_o	unk_p	uncultured b	Bacteria	
	1393634 KC246979.1 Uncc	2404	3	3463	47.44	47.47	99.94	210.64	2.76	2392.54	1E-26	unk_c	unk_f	unk_g	unk_k	1393634	unk_o	unk_p	uncultured b	Bacteria	
	149539 HG425370.1 Salmc	122956	3	2787	99.96	99.96	100.0	100.04	185.66	122946.77	1E-26	Gammapr	Enterobact	Salmonella	unk_k	28901	Enterobacterales	Proteobacter	Salmonella e	Bacteria	
	224727 KF536606.1 Salmc	89714	2	2230	99.6	99.64	99.95	100.36	151.79	89706.61	1E-26	Gammapr	Enterobact	Salmonella	unk_k	28901	Enterobacterales	Proteobacter	Salmonella e	Bacteria	
	562 LM996089.1 Escherich	1614	2	1900	23.11	23.21	99.55	430.84	3.37	1607.71	1E-26	Gammapr	Enterobact	Escherichia	unk_k	562	Enterobacterales	Proteobacter	Escherichia c	Bacteria	
	562 LM996503.1 Escherich	2316	1	1558	27.09	27.15	99.76	368.32	6.64	2310.84	1E-26	Gammapr	Enterobact	Escherichia	unk_k	562	Enterobacterales	Proteobacter	Escherichia c	Bacteria	
	6239 LK931296.1 Caenorh	7240	0	548	87.77	87.77	100.0	113.93	56.01	7238.18	1E-26	Chromad	Rhabditida	Caenorhabditis	unk_k	6239	Rhabditida	Nematoda	Caenorhabditis	Eukaryota	
	40348 LM364861.1 Strong	1528	0	569	85.24	85.24	100.0	117.32	10.25	1526.11	1E-26	Chromad	Strongylidi	Strongylus	unk_k	40348	Strongylidi	Nematoda	Strongylus b	Eukaryota	
	90371 K096897.1 Salmor	52070	1	1077	100.0	100.0	100.0	100.0	192.65	52066.43	1E-26	Gammapr	Enterobact	Salmonella	unk_k	28901	Enterobacterales	Proteobacter	Salmonella e	Bacteria	
	90371 K099783.1 Salmor	47260	1	1074	100.0	100.0	100.0	100.0	177.55	47255.44	1E-26	Gammapr	Enterobact	Salmonella	unk_k	28901	Enterobacterales</				

Supplementary Table S4: Number of reads classified by database of complete genomes of Salmonella using Sigma on two metagenomics samples (meal and sauce)

Sample	Reference genome	Output reads (r1 or r2)	number of reads assigned to the reference genome by Sigma
metagenomics_sauce	GCF_000006945.2_ASM	GCF_000006945.2_ASM6	0
metagenomics_sauce	GCF_000006945.2_ASM	GCF_000006945.2_ASM6	0
metagenomics_sauce	GCF_000007545.1_ASM	GCF_000007545.1_ASM7	0
metagenomics_sauce	GCF_000007545.1_ASM	GCF_000007545.1_ASM7	0
metagenomics_sauce	GCF_000008105.1_ASM	GCF_000008105.1_ASM8	0
metagenomics_sauce	GCF_000008105.1_ASM	GCF_000008105.1_ASM8	0
metagenomics_sauce	GCF_000009505.1_ASM	GCF_000009505.1_ASM9	0
metagenomics_sauce	GCF_000009505.1_ASM	GCF_000009505.1_ASM9	0
metagenomics_sauce	GCF_000009525.1_ASM	GCF_000009525.1_ASM9	0
metagenomics_sauce	GCF_000009525.1_ASM	GCF_000009525.1_ASM9	0
metagenomics_sauce	GCF_000011885.1_ASM	GCF_000011885.1_ASM1	0
metagenomics_sauce	GCF_000011885.1_ASM	GCF_000011885.1_ASM1	0
metagenomics_sauce	GCF_000016045.1_ASM	GCF_000016045.1_ASM1	0
metagenomics_sauce	GCF_000016045.1_ASM	GCF_000016045.1_ASM1	0
metagenomics_sauce	GCF_000018385.1_ASM	GCF_000018385.1_ASM1	0
metagenomics_sauce	GCF_000018385.1_ASM	GCF_000018385.1_ASM1	0
metagenomics_sauce	GCF_000018625.1_ASM	GCF_000018625.1_ASM1	0
metagenomics_sauce	GCF_000018625.1_ASM	GCF_000018625.1_ASM1	0
metagenomics_sauce	GCF_000018705.1_ASM	GCF_000018705.1_ASM1	0
metagenomics_sauce	GCF_000018705.1_ASM	GCF_000018705.1_ASM1	0
metagenomics_sauce	GCF_000020705.1_ASM	GCF_000020705.1_ASM2	0
metagenomics_sauce	GCF_000020705.1_ASM	GCF_000020705.1_ASM2	0
metagenomics_sauce	GCF_000020745.1_ASM	GCF_000020745.1_ASM2	0
metagenomics_sauce	GCF_000020745.1_ASM	GCF_000020745.1_ASM2	0
metagenomics_sauce	GCF_000020885.1_ASM	GCF_000020885.1_ASM2	0
metagenomics_sauce	GCF_000020885.1_ASM	GCF_000020885.1_ASM2	0
metagenomics_sauce	GCF_000020925.1_ASM	GCF_000020925.1_ASM2	0
metagenomics_sauce	GCF_000020925.1_ASM	GCF_000020925.1_ASM2	0
metagenomics_sauce	GCF_000022165.1_ASM	GCF_000022165.1_ASM2	0
metagenomics_sauce	GCF_000022165.1_ASM	GCF_000022165.1_ASM2	0
metagenomics_sauce	GCF_000026565.1_ASM	GCF_000026565.1_ASM2	0
metagenomics_sauce	GCF_000026565.1_ASM	GCF_000026565.1_ASM2	0
metagenomics_sauce	GCF_000027025.1_ASM	GCF_000027025.1_ASM2	0
metagenomics_sauce	GCF_000027025.1_ASM	GCF_000027025.1_ASM2	0
metagenomics_sauce	GCF_000188735.1_ASM	GCF_000188735.1_ASM1	0
metagenomics_sauce	GCF_000188735.1_ASM	GCF_000188735.1_ASM1	0
metagenomics_sauce	GCF_000188955.2_ASM	GCF_000188955.2_ASM1	0
metagenomics_sauce	GCF_000188955.2_ASM	GCF_000188955.2_ASM1	0
metagenomics_sauce	GCF_000195995.1_ASM	GCF_000195995.1_ASM1	0
metagenomics_sauce	GCF_000195995.1_ASM	GCF_000195995.1_ASM1	0
metagenomics_sauce	GCF_000210855.2_ASM	GCF_000210855.2_ASM2	0
metagenomics_sauce	GCF_000210855.2_ASM	GCF_000210855.2_ASM2	0
metagenomics_sauce	GCF_000213635.1_ASM	GCF_000213635.1_ASM2	0
metagenomics_sauce	GCF_000213635.1_ASM	GCF_000213635.1_ASM2	0
metagenomics_sauce	GCF_000235545.1_ASM	GCF_000235545.1_ASM2	0
metagenomics_sauce	GCF_000235545.1_ASM	GCF_000235545.1_ASM2	0
metagenomics_sauce	GCF_000240905.2_ASM	GCF_000240905.2_ASM2	0
metagenomics_sauce	GCF_000240905.2_ASM	GCF_000240905.2_ASM2	0
metagenomics_sauce	GCF_000245535.1_ASM	GCF_000245535.1_ASM2	0
metagenomics_sauce	GCF_000245535.1_ASM	GCF_000245535.1_ASM2	0
metagenomics_sauce	GCF_000252875.1_ASM	GCF_000252875.1_ASM2	0
metagenomics_sauce	GCF_000252875.1_ASM	GCF_000252875.1_ASM2	0
metagenomics_sauce	GCF_000252995.1_ASM	GCF_000252995.1_ASM2	0
metagenomics_sauce	GCF_000252995.1_ASM	GCF_000252995.1_ASM2	0
metagenomics_sauce	GCF_000258365.1_ASM	GCF_000258365.1_ASM2	0
metagenomics_sauce	GCF_000258365.1_ASM	GCF_000258365.1_ASM2	0
metagenomics_sauce	GCF_000271885.2_ASM	GCF_000271885.2_ASM2	0
metagenomics_sauce	GCF_000271885.2_ASM	GCF_000271885.2_ASM2	0
metagenomics_sauce	GCF_000271905.2_ASM	GCF_000271905.2_ASM2	0
metagenomics_sauce	GCF_000271905.2_ASM	GCF_000271905.2_ASM2	0
metagenomics_sauce	GCF_000272715.4_ASM	GCF_000272715.4_ASM2	0
metagenomics_sauce	GCF_000272715.4_ASM	GCF_000272715.4_ASM2	0
metagenomics_sauce	GCF_000272735.4_ASM	GCF_000272735.4_ASM2	0
metagenomics_sauce	GCF_000272735.4_ASM	GCF_000272735.4_ASM2	0
metagenomics_sauce	GCF_000272755.4_ASM	GCF_000272755.4_ASM2	0
metagenomics_sauce	GCF_000272755.4_ASM	GCF_000272755.4_ASM2	0
metagenomics_sauce	GCF_000272775.4_ASM	GCF_000272775.4_ASM2	0
metagenomics_sauce	GCF_000272775.4_ASM	GCF_000272775.4_ASM2	0
metagenomics_sauce	GCF_000272815.2_ASM	GCF_000272815.2_ASM2	0

metagenomics_meal	GCF_900635575.1_3118	GCF_900635575.1_3118C	0
metagenomics_meal	GCF_900635575.1_3118	GCF_900635575.1_3118C	0
metagenomics_meal	GCF_900635595.1_3134	GCF_900635595.1_3134C	0
metagenomics_meal	GCF_900635595.1_3134	GCF_900635595.1_3134C	0
metagenomics_meal	GCF_900635615.1_3134	GCF_900635615.1_3134C	0
metagenomics_meal	GCF_900635615.1_3134	GCF_900635615.1_3134C	0
metagenomics_meal	GCF_900635645.1_3162	GCF_900635645.1_3162E	0
metagenomics_meal	GCF_900635645.1_3162	GCF_900635645.1_3162E	0
metagenomics_meal	GCF_900635655.1_3162	GCF_900635655.1_3162E	0
metagenomics_meal	GCF_900635655.1_3162	GCF_900635655.1_3162E	0
metagenomics_meal	GCF_900635675.1_3188	GCF_900635675.1_3188E	0
metagenomics_meal	GCF_900635675.1_3188	GCF_900635675.1_3188E	0
metagenomics_meal	GCF_900635695.1_3247	GCF_900635695.1_3247E	0
metagenomics_meal	GCF_900635695.1_3247	GCF_900635695.1_3247E	0
metagenomics_meal	GCF_900635725.1_3275	GCF_900635725.1_3275E	0
metagenomics_meal	GCF_900635725.1_3275	GCF_900635725.1_3275E	0
metagenomics_meal	GCF_900635855.1_3560	GCF_900635855.1_3560E	0
metagenomics_meal	GCF_900635855.1_3560	GCF_900635855.1_3560E	0
metagenomics_meal	GCF_900636155.1_3911	GCF_900636155.1_3911I	0
metagenomics_meal	GCF_900636155.1_3911	GCF_900636155.1_3911I	0
metagenomics_meal	GCF_900636165.1_3913	GCF_900636165.1_3913C	0
metagenomics_meal	GCF_900636165.1_3913	GCF_900636165.1_3913C	0
metagenomics_meal	GCF_901457615.1_ERS3	GCF_901457615.1_ERS3E	0
metagenomics_meal	GCF_901457615.1_ERS3	GCF_901457615.1_ERS3E	0
metagenomics_meal	GCF_901457625.1_ERS3	GCF_901457625.1_ERS3E	0
metagenomics_meal	GCF_901457625.1_ERS3	GCF_901457625.1_ERS3E	0

metagenomics_sauce_salmonella	Enteritidis	Blegdam Dublin Enteritidis Gueul etapee Hillingdon Kiel Moscov N aestved Nitra Rostock	01	g,m	-	Enteritidis	Enteritidis (2929/2958), Mbandaka (14/2958), Gallinarum (14/2958), Dublin (1/2958)	11	Enteritidis	Enteritidis (5470/5551), Typhi (36/5551), Gallinarum (18/5551), Gallinarum var. Pullorum (15/5551), Typhimurium (12/5551)	21818	135	Enteritidis		0.590909090909	enterica	329	0	1	
metagenomics_meal_salmonella	Enteritidis	Blegdam Dublin Enteritidis Gueul etapee Hillingdon Kiel Moscov N aestved Nitra Rostock	01	g,m	-	Enteritidis	Enteritidis (2929/2958), Mbandaka (14/2958), Gallinarum (14/2958), Dublin (1/2958)	11	Enteritidis	Enteritidis (5470/5551), Typhi (36/5551), Gallinarum (18/5551), Gallinarum var. Pullorum (15/5551), Typhimurium (12/5551)	21818	135	Enteritidis		0.590909090909	enterica	329	0	1	

Supplementary Table S6: Blast results on ResFinder database for all isolates and 2 inferred metagenomics strains

Sample	Locus	% Identity	HSP/Locus length
metagenomics_sauce_salmonella	aac(6')-laa_1	96.35	438/438
metagenomics_meal_salmonella	aac(6')-laa_1	96.35	438/438
S19BD06604	aac(6')-laa_1	96.35	438/438
S19BD06627	aac(6')-laa_1	96.35	438/438
S19BD06633	aac(6')-laa_1	96.35	438/438
S19BD06641	aac(6')-laa_1	96.35	438/438
S19BD06642	aac(6')-laa_1	96.35	438/438
S19FP07382	aac(6')-laa_1	96.35	438/438
S19FP07417	aac(6')-laa_1	96.35	438/438
S19FP07457	aac(6')-laa_1	96.35	438/438
S19FP07575	aac(6')-laa_1	96.35	438/438
S19FP07576	aac(6')-laa_1	96.35	438/438
ERR2173854	aac(6')-laa_1	96.35	438/438
SRR3285443	aac(6')-laa_1	96.35	438/438
SRR4063700	aac(6')-laa_1	96.35	438/438
SRR4063739	aac(6')-laa_1	96.35	438/438
S17BD05926	aac(6')-laa_1	96.35	438/438
S17BD07382	aac(6')-laa_1	96.35	438/438
S18BD04909	aac(6')-laa_1	96.35	438/438
S19BD01263	aac(6')-laa_1	96.35	438/438
S19BD01323	aac(6')-laa_1	96.35	438/438
S19BD03708	aac(6')-laa_1	96.35	438/438
S19BD03764	aac(6')-laa_1	96.35	438/438
S19BD04434	aac(6')-laa_1	96.35	438/438
S19BD04853	aac(6')-laa_1	96.35	438/438
S19BD04888	aac(6')-laa_1	96.35	438/438
S19BD04889	aac(6')-laa_1	96.35	438/438
S19BD04892	aac(6')-laa_1	96.35	438/438
S19BD04976	aac(6')-laa_1	96.35	438/438
S19BD04986	aac(6')-laa_1	96.35	438/438
S19BD05008	aac(6')-laa_1	96.35	438/438
TIAC3651	aac(6')-laa_1	96.35	438/438
TIAC3659	aac(6')-laa_1	96.35	438/438
TIAC3660	aac(6')-laa_1	96.35	438/438
TIAC3662	aac(6')-laa_1	96.35	438/438

