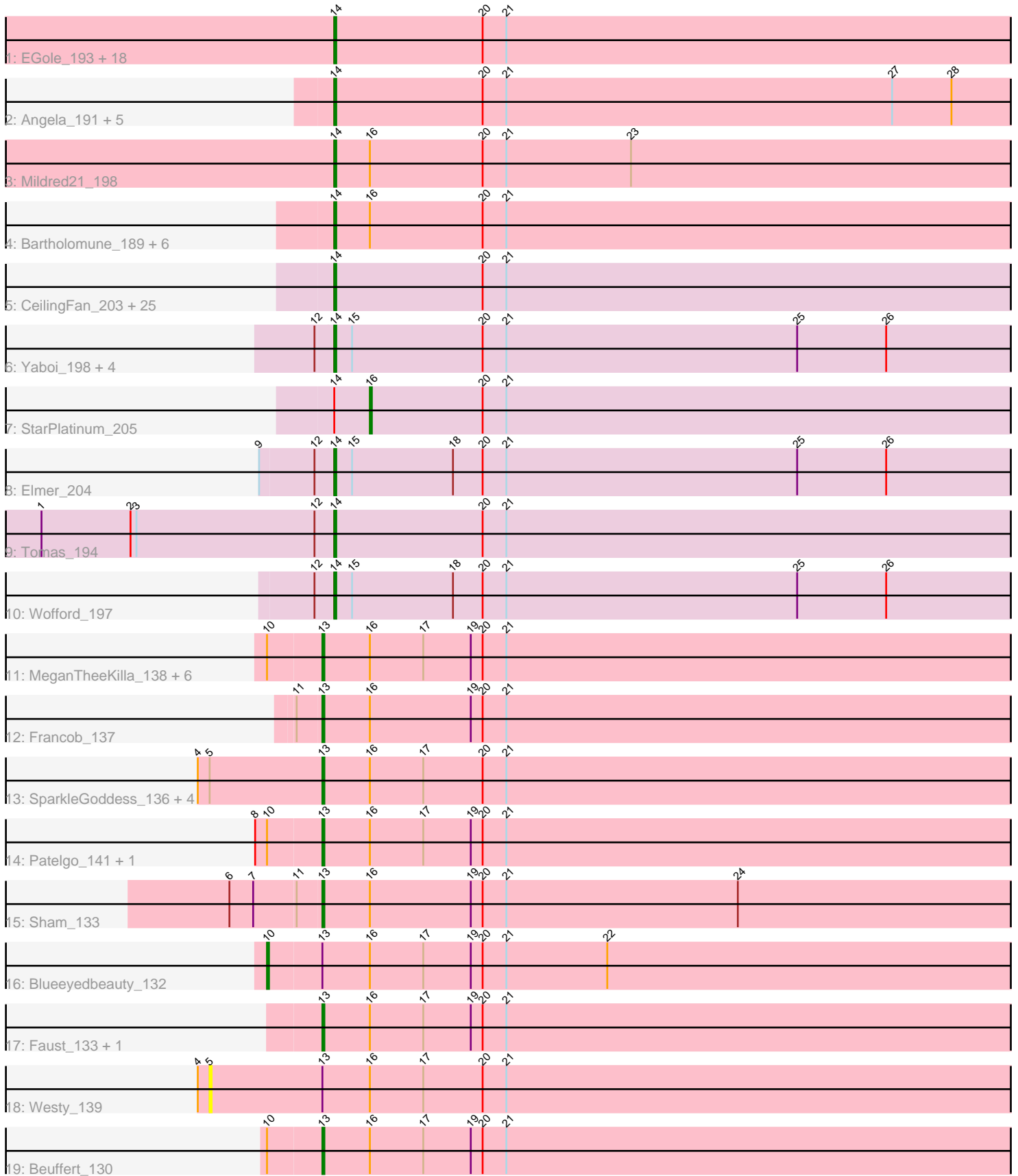


Pham 223056



Note: Tracks are now grouped by subcluster and scaled. Switching in subcluster is indicated by changes in track color. Track scale is now set by default to display the region 30 bp upstream of start 1 to 30 bp downstream of the last possible start. If this default region is judged to be packed too tightly with annotated starts, the track will be further scaled to only show that region of the ORF with annotated starts. This action will be indicated by adding "Zoomed" to the title. For starts, yellow indicates the location of called starts comprised solely of Glimmer/GeneMark auto-annotations, green indicates the location of called starts with at least 1 manual gene annotation.

Pham 223056 Report

This analysis was run 03/28/25 on database version 593.

Pham number 223056 has 89 members, 9 are drafts.

Phages represented in each track:

- Track 1 : EGole_193, Leo04_191, Cursive_190, HangryHippo_189, Shuckle_191, Larnav_190, Pepperwood_189, Scheme_194, Riptide_189, BlueOtter_189, Teutsch_188, Samisti12_192, Sushi23_190, Tribute_187, Lululemon_188, PacManQ_188, Cross_189, Bmoc_193, Anedea_193
- Track 2 : Angela_191, MulchMansion_192, Daubenski_182, LilMartin_189, Marsus_200, Cadmus_191
- Track 3 : Mildred21_198
- Track 4 : Bartholomune_189, PinkiePie_188, Squillium_191, Watermoore_189, NootNoot_185, Paradiddles_182, Liandry_188
- Track 5 : CeilingFan_203, JimJam_206, Gibbi_206, Evy_182, SaltySpittoon_198, Bordeaux_197, Karimac_199, Rikishi_205, Jay2Jay_195, Targaryen_189, KentuckyRacer_205, IchabodCrane_194, Jollison_196, Birchlyn_197, TomSawyer_203, Battuta_196, Amabiko_203, Spelly_202, MindFlayer_192, LukeCage_200, Starbow_196, Quarant19_199, PumpkinSpice_201, Wipeout_190, Spilled_205, Warpy_193
- Track 6 : Yaboi_198, Sollertia_194, BoomerJR_193, Stanimal_193, Genie2_193
- Track 7 : StarPlatinum_205
- Track 8 : Elmer_204
- Track 9 : Tomas_194
- Track 10 : Wofford_197
- Track 11 : MeganTheeKilla_138, Limpid_132, Emma1919_140, Phredrick_140, Kenrey_143, Gilson_140, Annadreamy_125
- Track 12 : Francob_137
- Track 13 : SparkleGoddess_136, Stigma_135, Belfort_138, Comrade_134, Karp_134
- Track 14 : Patelgo_141, Moab_138
- Track 15 : Sham_133
- Track 16 : Blueeyedbeauty_132
- Track 17 : Faust_133, SeresaTree_134
- Track 18 : Westy_139
- Track 19 : Beuffert_130

Summary of Final Annotations (See graph section above for start numbers):

The start number called the most often in the published annotations is 14, it was called in 60 of the 80 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Amabiko_203, Anedea_193, Angela_191, Bartholomune_189, Battuta_196, Birchlyn_197, BlueOtter_189, Bmoc_193, BoomerJR_193, Bordeaux_197, Cadmus_191, CeilingFan_203, Cross_189, Cursive_190, Daubenski_182, EGole_193, Elmer_204, Evy_182, Genie2_193, Gibbi_206, HangryHippo_189, IchabodCrane_194, Jay2Jay_195, JimJam_206, Jollison_196, Karimac_199, KentuckyRacer_205, Larnav_190, Leo04_191, Liandry_188, LilMartin_189, LukeCage_200, Lululemon_188, Marsus_200, Mildred21_198, MindFlayer_192, MulchMansion_192, NootNoot_185, PacManQ_188, Paradiddles_182, Pepperwood_189, PinkiePie_188, PumpkinSpice_201, Quarant19_199, Rikishi_205, Riptide_189, SaltySpittoon_198, Samisti12_192, Scheme_194, Shuckle_191, Sollertia_194, Spelly_202, Spilled_205, Squillium_191, Stanimal_193, Starbow_196, Sushi23_190, Targaryen_189, Teutsch_188, TomSawyer_203, Tomas_194, Tribute_187, Warpy_193, Watermoore_189, Wipeout_190, Wofford_197, Yaboi_198,

Genes that have the "Most Annotated" start but do not call it:

- StarPlatinum_205,

Genes that do not have the "Most Annotated" start:

- Annadreamy_125, Belfort_138, Beuffert_130, Blueeyedbeauty_132, Comrade_134, Emma1919_140, Faust_133, Francob_137, Gilson_140, Karp_134, Kenrey_143, Limpid_132, MeganTheeKilla_138, Moab_138, Patelgo_141, Phredrick_140, SeresaTree_134, Sham_133, SparkleGoddess_136, Stigma_135, Westy_139,

Summary by start number:

Start 5:

- Found in 6 of 89 (6.7%) of genes in pham
- No Manual Annotations of this start.
- Called 16.7% of time when present
- Phage (with cluster) where this start called: Westy_139 (BK1),

Start 10:

- Found in 11 of 89 (12.4%) of genes in pham
- Manual Annotations of this start: 1 of 80
- Called 9.1% of time when present
- Phage (with cluster) where this start called: Blueeyedbeauty_132 (BK1),

Start 13:

- Found in 21 of 89 (23.6%) of genes in pham
- Manual Annotations of this start: 18 of 80
- Called 90.5% of time when present
- Phage (with cluster) where this start called: Annadreamy_125 (BK1), Belfort_138 (BK1), Beuffert_130 (BK1), Comrade_134 (BK1), Emma1919_140 (BK1), Faust_133 (BK1), Francob_137 (BK1), Gilson_140 (BK1), Karp_134 (BK1), Kenrey_143 (BK1), Limpid_132 (BK1), MeganTheeKilla_138 (BK1), Moab_138 (BK1), Patelgo_141 (BK1), Phredrick_140 (BK1), SeresaTree_134 (BK1), Sham_133 (BK1), SparkleGoddess_136 (BK1), Stigma_135 (BK1),

Start 14:

- Found in 68 of 89 (76.4%) of genes in pham
- Manual Annotations of this start: 60 of 80
- Called 98.5% of time when present
- Phage (with cluster) where this start called: Amabiko_203 (BE2), Anedea_193 (BE1), Angela_191 (BE1), Bartholomune_189 (BE1), Battuta_196 (BE2), Birchlyn_197 (BE2), BlueOtter_189 (BE1), Bmoc_193 (BE1), BoomerJR_193 (BE2), Bordeaux_197 (BE2), Cadmus_191 (BE1), CeilingFan_203 (BE2), Cross_189 (BE1), Cursive_190 (BE1), Daubenski_182 (BE1), EGole_193 (BE1), Elmer_204 (BE2), Evy_182 (BE1), Genie2_193 (BE2), Gibbi_206 (BE2), HangryHippo_189 (BE1), IchabodCrane_194 (BE2), Jay2Jay_195 (BE1), JimJam_206 (BE2), Jollison_196 (BE2), Karimac_199 (BE2), KentuckyRacer_205 (BE2), Larnav_190 (BE1), Leo04_191 (BE1), Liandry_188 (BE1), LilMartin_189 (BE1), LukeCage_200 (BE2), Lululemon_188 (BE1), Marsus_200 (BE1), Mildred21_198 (BE1), MindFlayer_192 (BE2), MulchMansion_192 (BE1), NootNoot_185 (BE1), PacManQ_188 (BE1), Paradiddles_182 (BE1), Pepperwood_189 (BE1), PinkiePie_188 (BE1), PumpkinSpice_201 (BE2), Quarant19_199 (BE2), Rikishi_205 (BE2), Riptide_189 (BE1), SaltySpittoon_198 (BE2), Samisti12_192 (BE1), Scheme_194 (BE1), Shuckle_191 (BE1), Sollertia_194 (BE2), Spelly_202 (BE2), Spilled_205 (BE2), Squillium_191 (BE1), Stanimal_193 (BE2), Starbow_196 (BE2), Sushi23_190 (BE1), Targaryen_189 (BE1), Teutsch_188 (BE1), TomSawyer_203 (BE2), Tomas_194 (BE2), Tribute_187 (BE1), Warpy_193 (BE1), Watermoore_189 (BE1), Wipeout_190 (BE2), Wofford_197 (BE2), Yaboi_198 (BE2),

Start 16:

- Found in 30 of 89 (33.7%) of genes in pham
- Manual Annotations of this start: 1 of 80
- Called 3.3% of time when present
- Phage (with cluster) where this start called: StarPlatinum_205 (BE2),

Summary by clusters:

There are 3 clusters represented in this pham: BE2, BE1, BK1,

Info for manual annotations of cluster BE1:

- Start number 14 was manually annotated 32 times for cluster BE1.

Info for manual annotations of cluster BE2:

- Start number 14 was manually annotated 28 times for cluster BE2.
- Start number 16 was manually annotated 1 time for cluster BE2.

Info for manual annotations of cluster BK1:

- Start number 10 was manually annotated 1 time for cluster BK1.
- Start number 13 was manually annotated 18 times for cluster BK1.

Gene Information:

Gene: Amabiko_203 Start: 99662, Stop: 100102, Start Num: 14

Candidate Starts for Amabiko_203:

(Start: 14 @99662 has 60 MA's), (20, 99737), (21, 99749),

Gene: Anedea_193 Start: 98951, Stop: 99385, Start Num: 14

Candidate Starts for Anedea_193:

(Start: 14 @98951 has 60 MA's), (20, 99026), (21, 99038),

Gene: Angela_191 Start: 98939, Stop: 99364, Start Num: 14

Candidate Starts for Angela_191:

(Start: 14 @98939 has 60 MA's), (20, 99014), (21, 99026), (27, 99221), (28, 99251),

Gene: Annadreamy_125 Start: 74035, Stop: 74451, Start Num: 13

Candidate Starts for Annadreamy_125:

(Start: 10 @74008 has 1 MA's), (Start: 13 @74035 has 18 MA's), (Start: 16 @74059 has 1 MA's), (17, 74086), (19, 74110), (20, 74116), (21, 74128),

Gene: Bartholomune_189 Start: 98638, Stop: 99096, Start Num: 14

Candidate Starts for Bartholomune_189:

(Start: 14 @98638 has 60 MA's), (Start: 16 @98656 has 1 MA's), (20, 98713), (21, 98725),

Gene: Battuta_196 Start: 98978, Stop: 99418, Start Num: 14

Candidate Starts for Battuta_196:

(Start: 14 @98978 has 60 MA's), (20, 99053), (21, 99065),

Gene: Belfort_138 Start: 80503, Stop: 80919, Start Num: 13

Candidate Starts for Belfort_138:

(4, 80440), (5, 80446), (Start: 13 @80503 has 18 MA's), (Start: 16 @80527 has 1 MA's), (17, 80554), (20, 80584), (21, 80596),

Gene: Beuffert_130 Start: 78356, Stop: 78772, Start Num: 13

Candidate Starts for Beuffert_130:

(Start: 10 @78329 has 1 MA's), (Start: 13 @78356 has 18 MA's), (Start: 16 @78380 has 1 MA's), (17, 78407), (19, 78431), (20, 78437), (21, 78449),

Gene: Birchlyn_197 Start: 96910, Stop: 97350, Start Num: 14

Candidate Starts for Birchlyn_197:

(Start: 14 @96910 has 60 MA's), (20, 96985), (21, 96997),

Gene: BlueOtter_189 Start: 99455, Stop: 99886, Start Num: 14

Candidate Starts for BlueOtter_189:

(Start: 14 @99455 has 60 MA's), (20, 99530), (21, 99542),

Gene: Blueeyedbeauty_132 Start: 77762, Stop: 78205, Start Num: 10

Candidate Starts for Blueeyedbeauty_132:

(Start: 10 @77762 has 1 MA's), (Start: 13 @77789 has 18 MA's), (Start: 16 @77813 has 1 MA's), (17, 77840), (19, 77864), (20, 77870), (21, 77882), (22, 77933),

Gene: Bmoc_193 Start: 99451, Stop: 99876, Start Num: 14

Candidate Starts for Bmoc_193:

(Start: 14 @99451 has 60 MA's), (20, 99526), (21, 99538),

Gene: BoomerJR_193 Start: 98954, Stop: 99412, Start Num: 14

Candidate Starts for BoomerJR_193:

(12, 98948), (Start: 14 @98954 has 60 MA's), (15, 98963), (20, 99029), (21, 99041), (25, 99188), (26, 99233),

Gene: Bordeaux_197 Start: 99561, Stop: 100001, Start Num: 14

Candidate Starts for Bordeaux_197:
(Start: 14 @99561 has 60 MA's), (20, 99636), (21, 99648),

Gene: Cadmus_191 Start: 99340, Stop: 99765, Start Num: 14
Candidate Starts for Cadmus_191:
(Start: 14 @99340 has 60 MA's), (20, 99415), (21, 99427), (27, 99622), (28, 99652),

Gene: CeilingFan_203 Start: 100355, Stop: 100795, Start Num: 14
Candidate Starts for CeilingFan_203:
(Start: 14 @100355 has 60 MA's), (20, 100430), (21, 100442),

Gene: Comrade_134 Start: 79822, Stop: 80238, Start Num: 13
Candidate Starts for Comrade_134:
(4, 79759), (5, 79765), (Start: 13 @79822 has 18 MA's), (Start: 16 @79846 has 1 MA's), (17, 79873),
(20, 79903), (21, 79915),

Gene: Cross_189 Start: 100100, Stop: 100531, Start Num: 14
Candidate Starts for Cross_189:
(Start: 14 @100100 has 60 MA's), (20, 100175), (21, 100187),

Gene: Cursive_190 Start: 99002, Stop: 99433, Start Num: 14
Candidate Starts for Cursive_190:
(Start: 14 @99002 has 60 MA's), (20, 99077), (21, 99089),

Gene: Daubenski_182 Start: 99870, Stop: 100295, Start Num: 14
Candidate Starts for Daubenski_182:
(Start: 14 @99870 has 60 MA's), (20, 99945), (21, 99957), (27, 100152), (28, 100182),

Gene: EGole_193 Start: 101755, Stop: 102186, Start Num: 14
Candidate Starts for EGole_193:
(Start: 14 @101755 has 60 MA's), (20, 101830), (21, 101842),

Gene: Elmer_204 Start: 102392, Stop: 102850, Start Num: 14
Candidate Starts for Elmer_204:
(9, 102359), (12, 102386), (Start: 14 @102392 has 60 MA's), (15, 102401), (18, 102452), (20, 102467),
(21, 102479), (25, 102626), (26, 102671),

Gene: Emma1919_140 Start: 79688, Stop: 80113, Start Num: 13
Candidate Starts for Emma1919_140:
(Start: 10 @79661 has 1 MA's), (Start: 13 @79688 has 18 MA's), (Start: 16 @79712 has 1 MA's), (17,
79739), (19, 79763), (20, 79769), (21, 79781),

Gene: Evy_182 Start: 99932, Stop: 100363, Start Num: 14
Candidate Starts for Evy_182:
(Start: 14 @99932 has 60 MA's), (20, 100007), (21, 100019),

Gene: Faust_133 Start: 80653, Stop: 81063, Start Num: 13
Candidate Starts for Faust_133:
(Start: 13 @80653 has 18 MA's), (Start: 16 @80677 has 1 MA's), (17, 80704), (19, 80728), (20, 80734),
(21, 80746),

Gene: Francob_137 Start: 79881, Stop: 80297, Start Num: 13
Candidate Starts for Francob_137:

(11, 79869), (Start: 13 @79881 has 18 MA's), (Start: 16 @79905 has 1 MA's), (19, 79956), (20, 79962), (21, 79974),

Gene: Genie2_193 Start: 99068, Stop: 99526, Start Num: 14

Candidate Starts for Genie2_193:

(12, 99062), (Start: 14 @99068 has 60 MA's), (15, 99077), (20, 99143), (21, 99155), (25, 99302), (26, 99347),

Gene: Gibbi_206 Start: 99848, Stop: 100288, Start Num: 14

Candidate Starts for Gibbi_206:

(Start: 14 @99848 has 60 MA's), (20, 99923), (21, 99935),

Gene: Gilson_140 Start: 79650, Stop: 80075, Start Num: 13

Candidate Starts for Gilson_140:

(Start: 10 @79623 has 1 MA's), (Start: 13 @79650 has 18 MA's), (Start: 16 @79674 has 1 MA's), (17, 79701), (19, 79725), (20, 79731), (21, 79743),

Gene: HangryHippo_189 Start: 99455, Stop: 99886, Start Num: 14

Candidate Starts for HangryHippo_189:

(Start: 14 @99455 has 60 MA's), (20, 99530), (21, 99542),

Gene: IchabodCrane_194 Start: 99363, Stop: 99803, Start Num: 14

Candidate Starts for IchabodCrane_194:

(Start: 14 @99363 has 60 MA's), (20, 99438), (21, 99450),

Gene: Jay2Jay_195 Start: 100434, Stop: 100865, Start Num: 14

Candidate Starts for Jay2Jay_195:

(Start: 14 @100434 has 60 MA's), (20, 100509), (21, 100521),

Gene: JimJam_206 Start: 101284, Stop: 101724, Start Num: 14

Candidate Starts for JimJam_206:

(Start: 14 @101284 has 60 MA's), (20, 101359), (21, 101371),

Gene: Jollison_196 Start: 99494, Stop: 99934, Start Num: 14

Candidate Starts for Jollison_196:

(Start: 14 @99494 has 60 MA's), (20, 99569), (21, 99581),

Gene: Karimac_199 Start: 99688, Stop: 100128, Start Num: 14

Candidate Starts for Karimac_199:

(Start: 14 @99688 has 60 MA's), (20, 99763), (21, 99775),

Gene: Karp_134 Start: 79930, Stop: 80346, Start Num: 13

Candidate Starts for Karp_134:

(4, 79867), (5, 79873), (Start: 13 @79930 has 18 MA's), (Start: 16 @79954 has 1 MA's), (17, 79981), (20, 80011), (21, 80023),

Gene: Kenrey_143 Start: 81179, Stop: 81604, Start Num: 13

Candidate Starts for Kenrey_143:

(Start: 10 @81152 has 1 MA's), (Start: 13 @81179 has 18 MA's), (Start: 16 @81203 has 1 MA's), (17, 81230), (19, 81254), (20, 81260), (21, 81272),

Gene: KentuckyRacer_205 Start: 101199, Stop: 101639, Start Num: 14

Candidate Starts for KentuckyRacer_205:

(Start: 14 @101199 has 60 MA's), (20, 101274), (21, 101286),

Gene: Larnav_190 Start: 100075, Stop: 100506, Start Num: 14

Candidate Starts for Larnav_190:

(Start: 14 @100075 has 60 MA's), (20, 100150), (21, 100162),

Gene: Leo04_191 Start: 100466, Stop: 100897, Start Num: 14

Candidate Starts for Leo04_191:

(Start: 14 @100466 has 60 MA's), (20, 100541), (21, 100553),

Gene: Liandry_188 Start: 98957, Stop: 99415, Start Num: 14

Candidate Starts for Liandry_188:

(Start: 14 @98957 has 60 MA's), (Start: 16 @98975 has 1 MA's), (20, 99032), (21, 99044),

Gene: LilMartin_189 Start: 98558, Stop: 98983, Start Num: 14

Candidate Starts for LilMartin_189:

(Start: 14 @98558 has 60 MA's), (20, 98633), (21, 98645), (27, 98840), (28, 98870),

Gene: Limpid_132 Start: 79343, Stop: 79759, Start Num: 13

Candidate Starts for Limpid_132:

(Start: 10 @79316 has 1 MA's), (Start: 13 @79343 has 18 MA's), (Start: 16 @79367 has 1 MA's), (17, 79394), (19, 79418), (20, 79424), (21, 79436),

Gene: LukeCage_200 Start: 100792, Stop: 101232, Start Num: 14

Candidate Starts for LukeCage_200:

(Start: 14 @100792 has 60 MA's), (20, 100867), (21, 100879),

Gene: Lululemon_188 Start: 98836, Stop: 99267, Start Num: 14

Candidate Starts for Lululemon_188:

(Start: 14 @98836 has 60 MA's), (20, 98911), (21, 98923),

Gene: Marsus_200 Start: 99690, Stop: 100115, Start Num: 14

Candidate Starts for Marsus_200:

(Start: 14 @99690 has 60 MA's), (20, 99765), (21, 99777), (27, 99972), (28, 100002),

Gene: MeganTheeKilla_138 Start: 79730, Stop: 80155, Start Num: 13

Candidate Starts for MeganTheeKilla_138:

(Start: 10 @79703 has 1 MA's), (Start: 13 @79730 has 18 MA's), (Start: 16 @79754 has 1 MA's), (17, 79781), (19, 79805), (20, 79811), (21, 79823),

Gene: Mildred21_198 Start: 98073, Stop: 98498, Start Num: 14

Candidate Starts for Mildred21_198:

(Start: 14 @98073 has 60 MA's), (Start: 16 @98091 has 1 MA's), (20, 98148), (21, 98160), (23, 98223),

Gene: MindFlayer_192 Start: 98879, Stop: 99319, Start Num: 14

Candidate Starts for MindFlayer_192:

(Start: 14 @98879 has 60 MA's), (20, 98954), (21, 98966),

Gene: Moab_138 Start: 82022, Stop: 82438, Start Num: 13

Candidate Starts for Moab_138:

(8, 81989), (Start: 10 @81995 has 1 MA's), (Start: 13 @82022 has 18 MA's), (Start: 16 @82046 has 1 MA's), (17, 82073), (19, 82097), (20, 82103), (21, 82115),

Gene: MulchMansion_192 Start: 99938, Stop: 100363, Start Num: 14

Candidate Starts for MulchMansion_192:

(Start: 14 @99938 has 60 MA's), (20, 100013), (21, 100025), (27, 100220), (28, 100250),

Gene: NootNoot_185 Start: 97746, Stop: 98204, Start Num: 14

Candidate Starts for NootNoot_185:

(Start: 14 @97746 has 60 MA's), (Start: 16 @97764 has 1 MA's), (20, 97821), (21, 97833),

Gene: PacManQ_188 Start: 98836, Stop: 99267, Start Num: 14

Candidate Starts for PacManQ_188:

(Start: 14 @98836 has 60 MA's), (20, 98911), (21, 98923),

Gene: Paradiddles_182 Start: 100559, Stop: 101017, Start Num: 14

Candidate Starts for Paradiddles_182:

(Start: 14 @100559 has 60 MA's), (Start: 16 @100577 has 1 MA's), (20, 100634), (21, 100646),

Gene: Patelgo_141 Start: 82714, Stop: 83130, Start Num: 13

Candidate Starts for Patelgo_141:

(8, 82681), (Start: 10 @82687 has 1 MA's), (Start: 13 @82714 has 18 MA's), (Start: 16 @82738 has 1 MA's), (17, 82765), (19, 82789), (20, 82795), (21, 82807),

Gene: Pepperwood_189 Start: 99706, Stop: 100137, Start Num: 14

Candidate Starts for Pepperwood_189:

(Start: 14 @99706 has 60 MA's), (20, 99781), (21, 99793),

Gene: Phredrick_140 Start: 79491, Stop: 79916, Start Num: 13

Candidate Starts for Phredrick_140:

(Start: 10 @79464 has 1 MA's), (Start: 13 @79491 has 18 MA's), (Start: 16 @79515 has 1 MA's), (17, 79542), (19, 79566), (20, 79572), (21, 79584),

Gene: PinkiePie_188 Start: 98957, Stop: 99415, Start Num: 14

Candidate Starts for PinkiePie_188:

(Start: 14 @98957 has 60 MA's), (Start: 16 @98975 has 1 MA's), (20, 99032), (21, 99044),

Gene: PumpkinSpice_201 Start: 100100, Stop: 100540, Start Num: 14

Candidate Starts for PumpkinSpice_201:

(Start: 14 @100100 has 60 MA's), (20, 100175), (21, 100187),

Gene: Quaran19_199 Start: 99541, Stop: 99981, Start Num: 14

Candidate Starts for Quaran19_199:

(Start: 14 @99541 has 60 MA's), (20, 99616), (21, 99628),

Gene: Rikishi_205 Start: 99822, Stop: 100262, Start Num: 14

Candidate Starts for Rikishi_205:

(Start: 14 @99822 has 60 MA's), (20, 99897), (21, 99909),

Gene: Riptide_189 Start: 97590, Stop: 98024, Start Num: 14

Candidate Starts for Riptide_189:

(Start: 14 @97590 has 60 MA's), (20, 97665), (21, 97677),

Gene: SaltySpittoon_198 Start: 99083, Stop: 99523, Start Num: 14

Candidate Starts for SaltySpittoon_198:

(Start: 14 @99083 has 60 MA's), (20, 99158), (21, 99170),

Gene: Samisti12_192 Start: 101162, Stop: 101593, Start Num: 14
Candidate Starts for Samisti12_192:
(Start: 14 @101162 has 60 MA's), (20, 101237), (21, 101249),

Gene: Scheme_194 Start: 101343, Stop: 101774, Start Num: 14
Candidate Starts for Scheme_194:
(Start: 14 @101343 has 60 MA's), (20, 101418), (21, 101430),

Gene: SeresaTree_134 Start: 80035, Stop: 80445, Start Num: 13
Candidate Starts for SeresaTree_134:
(Start: 13 @80035 has 18 MA's), (Start: 16 @80059 has 1 MA's), (17, 80086), (19, 80110), (20, 80116),
(21, 80128),

Gene: Sham_133 Start: 80587, Stop: 81006, Start Num: 13
Candidate Starts for Sham_133:
(6, 80542), (7, 80554), (11, 80575), (Start: 13 @80587 has 18 MA's), (Start: 16 @80611 has 1 MA's),
(19, 80662), (20, 80668), (21, 80680), (24, 80797),

Gene: Shuckle_191 Start: 99806, Stop: 100246, Start Num: 14
Candidate Starts for Shuckle_191:
(Start: 14 @99806 has 60 MA's), (20, 99881), (21, 99893),

Gene: Sollertia_194 Start: 99068, Stop: 99526, Start Num: 14
Candidate Starts for Sollertia_194:
(12, 99062), (Start: 14 @99068 has 60 MA's), (15, 99077), (20, 99143), (21, 99155), (25, 99302), (26,
99347),

Gene: SparkleGoddess_136 Start: 80122, Stop: 80538, Start Num: 13
Candidate Starts for SparkleGoddess_136:
(4, 80059), (5, 80065), (Start: 13 @80122 has 18 MA's), (Start: 16 @80146 has 1 MA's), (17, 80173),
(20, 80203), (21, 80215),

Gene: Spelly_202 Start: 99012, Stop: 99452, Start Num: 14
Candidate Starts for Spelly_202:
(Start: 14 @99012 has 60 MA's), (20, 99087), (21, 99099),

Gene: Spilled_205 Start: 100216, Stop: 100656, Start Num: 14
Candidate Starts for Spilled_205:
(Start: 14 @100216 has 60 MA's), (20, 100291), (21, 100303),

Gene: Squillium_191 Start: 98959, Stop: 99417, Start Num: 14
Candidate Starts for Squillium_191:
(Start: 14 @98959 has 60 MA's), (Start: 16 @98977 has 1 MA's), (20, 99034), (21, 99046),

Gene: Stanimal_193 Start: 99429, Stop: 99887, Start Num: 14
Candidate Starts for Stanimal_193:
(12, 99423), (Start: 14 @99429 has 60 MA's), (15, 99438), (20, 99504), (21, 99516), (25, 99663), (26,
99708),

Gene: StarPlatinum_205 Start: 101499, Stop: 101921, Start Num: 16
Candidate Starts for StarPlatinum_205:
(Start: 14 @101481 has 60 MA's), (Start: 16 @101499 has 1 MA's), (20, 101556), (21, 101568),

Gene: Starbow_196 Start: 99056, Stop: 99496, Start Num: 14

Candidate Starts for Starbow_196:

(Start: 14 @99056 has 60 MA's), (20, 99131), (21, 99143),

Gene: Stigma_135 Start: 80267, Stop: 80683, Start Num: 13

Candidate Starts for Stigma_135:

(4, 80204), (5, 80210), (Start: 13 @80267 has 18 MA's), (Start: 16 @80291 has 1 MA's), (17, 80318), (20, 80348), (21, 80360),

Gene: Sushi23_190 Start: 100812, Stop: 101243, Start Num: 14

Candidate Starts for Sushi23_190:

(Start: 14 @100812 has 60 MA's), (20, 100887), (21, 100899),

Gene: Targaryen_189 Start: 100963, Stop: 101394, Start Num: 14

Candidate Starts for Targaryen_189:

(Start: 14 @100963 has 60 MA's), (20, 101038), (21, 101050),

Gene: Teutsch_188 Start: 100260, Stop: 100691, Start Num: 14

Candidate Starts for Teutsch_188:

(Start: 14 @100260 has 60 MA's), (20, 100335), (21, 100347),

Gene: TomSawyer_203 Start: 101527, Stop: 101967, Start Num: 14

Candidate Starts for TomSawyer_203:

(Start: 14 @101527 has 60 MA's), (20, 101602), (21, 101614),

Gene: Tomas_194 Start: 99352, Stop: 99777, Start Num: 14

Candidate Starts for Tomas_194:

(1, 99205), (2, 99250), (3, 99253), (12, 99343), (Start: 14 @99352 has 60 MA's), (20, 99427), (21, 99439),

Gene: Tribute_187 Start: 100277, Stop: 100708, Start Num: 14

Candidate Starts for Tribute_187:

(Start: 14 @100277 has 60 MA's), (20, 100352), (21, 100364),

Gene: Warpy_193 Start: 99875, Stop: 100306, Start Num: 14

Candidate Starts for Warpy_193:

(Start: 14 @99875 has 60 MA's), (20, 99950), (21, 99962),

Gene: Watermoore_189 Start: 101098, Stop: 101529, Start Num: 14

Candidate Starts for Watermoore_189:

(Start: 14 @101098 has 60 MA's), (Start: 16 @101116 has 1 MA's), (20, 101173), (21, 101185),

Gene: Westy_139 Start: 81099, Stop: 81572, Start Num: 5

Candidate Starts for Westy_139:

(4, 81093), (5, 81099), (Start: 13 @81156 has 18 MA's), (Start: 16 @81180 has 1 MA's), (17, 81207), (20, 81237), (21, 81249),

Gene: Wipeout_190 Start: 100479, Stop: 100919, Start Num: 14

Candidate Starts for Wipeout_190:

(Start: 14 @100479 has 60 MA's), (20, 100554), (21, 100566),

Gene: Wofford_197 Start: 102352, Stop: 102801, Start Num: 14

Candidate Starts for Wofford_197:

(12, 102346), (Start: 14 @102352 has 60 MA's), (15, 102361), (18, 102412), (20, 102427), (21, 102439), (25, 102586), (26, 102631),

Gene: Yaboi_198 Start: 99003, Stop: 99461, Start Num: 14

Candidate Starts for Yaboi_198:

(12, 98997), (Start: 14 @99003 has 60 MA's), (15, 99012), (20, 99078), (21, 99090), (25, 99237), (26, 99282),