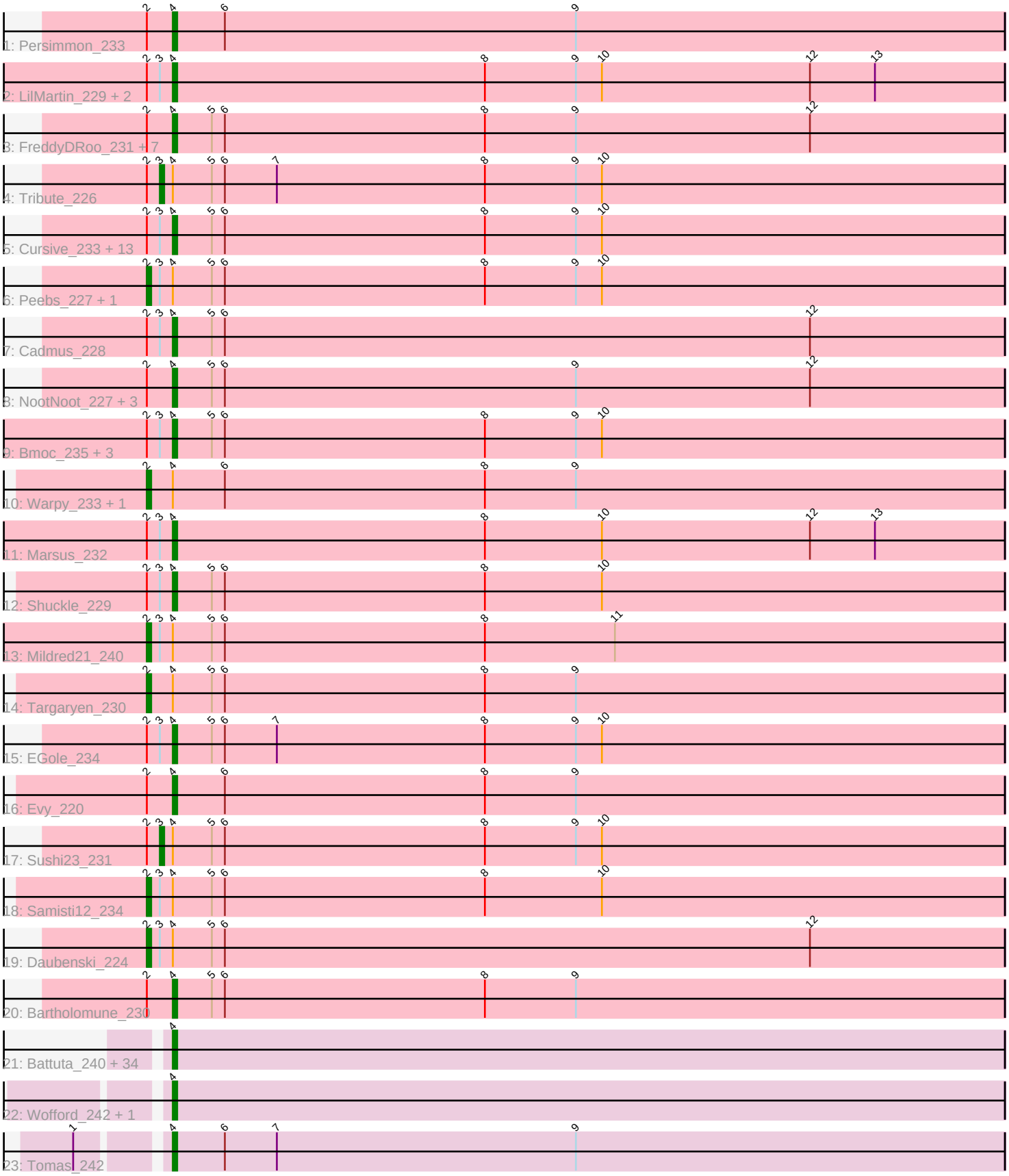
Pham 347493


1: Persimmon_233
2: LilMartin_229 + 2
3: FreddyDRoo_231 + 7
4: Tribute_226
5: Cursive_233 + 13
6: Peebs_227 + 1
7: Cadmus_228
8: NootNoot_227 + 3
9: Bmoc_235 + 3
10: Warpy_233 + 1
11: Marsus_232
12: Shuckle_229
13: Mildred21_240
14: Targaryen_230
15: EGole_234
16: Evy_220
17: Sushi23_231
18: Samisti12_234
19: Daubenski_224
20: Bartholomune_230
21: Battuta_240 + 34
22: Wofford_242 + 1
23: Tomas_242

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 347493 Report

This analysis was run 11/14/26 on database version 672.

Pham number 347493 has 88 members, 4 are drafts.

Phages represented in each track:
• Track 1 : Persimmon_233
• Track 2 : LilMartin_229, MulchMansion_233, Angela_233
• Track 3 : FreddyDRoo_231, Paradiddles_222, Braelyn_226, Liandry_230, Eliot67_232, Navo_224, PinkiePie_230, Squillium_233
• Track 4 : Tribute_226
• Track 5 : Cursive_233, Watermoore_229, Coogler_227, HangryHippo_228, Lululemon_227, Pepperwood_230, PacManQ_227, Leo04_230, Cross_229, WashU_224, ArianaSWT_233, Larnav_230, BlueOtter_228, Scheme_233
• Track 6 : Peebs_227, Teutsch_229
• Track 7 : Cadmus_228
• Track 8 : NootNoot_227, WhereRU_229, PynkPanther_230, Davielle_229
• Track 9 : Bmoc_235, Anedea_243, LilSaint_231, Riptide_231
• Track 10 : Warpy_233, Jay2Jay_236
• Track 11 : Marsus_232
• Track 12 : Shuckle_229
• Track 13 : Mildred21_240
• Track 14 : Targaryen_230
• Track 15 : EGole_234
• Track 16 : Evy_220
• Track 17 : Sushi23_231
• Track 18 : Samisti12_234
• Track 19 : Daubenski_224
• Track 20 : Bartholomune_230
• Track 21 : Battuta_240, TomSawyer_246, BoomerJR_239, KentuckyRacer_248, Sollertia_240, Jollison_239, JimJam_249, Stanimal_239, Tuesday_249, LukeCage_245, Brizzy_241, Starbow_239, Mugiwara_249, MindFlayer_235, Rikishi_243, SaltySpitoon_242, Gibbi_250, AngryGiraffe_239, Amabiko_246, Spilled_249, Wipeout_232, Yaboi_244, CeilingFan_246, Bordeaux_240, Enygma_249, Genie2_239, AcciDwight_250, StarPlatinum_249, Spelly_247, Birchlyn_241, Quaran19_242, Karimac_242, IchabodCrane_236, PumpkinSpice_245, Daisy123_244
• Track 22 : Wofford_242, Elmer_250
• Track 23 : Tomas_242

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

The start number called the most often in the published annotations is 4, it was called in 74 of the 84 non-draft genes in the pham.

Genes that call this "Most Annotated" start:
• AcciDwight_250, Amabiko_246, Anedea_243, Angela_233, AngryGiraffe_239, ArianaSWT_233, Bartholomune_230, Battuta_240, Birchlyn_241, BlueOtter_228, Bmoc_235, BoomerJR_239, Bordeaux_240, Braelyn_226, Brizzy_241, Cadmus_228, CeilingFan_246, Coogler_227, Cross_229, Cursive_233, Daisy123_244, Davielle_229, EGole_234, Eliot67_232, Elmer_250, Enygma_249, Evy_220, FreddyDRoo_231, Genie2_239, Gibbi_250, HangryHippo_228, IchabodCrane_236, JimJam_249, Jollison_239, Karimac_242, KentuckyRacer_248, Larnav_230, Leo04_230, Liandry_230, LilMartin_229, LilSaint_231, LukeCage_245, Lululemon_227, Marsus_232, MindFlayer_235, Mugiwara_249, MulchMansion_233, Navo_224, NootNoot_227, PacManQ_227, Paradiddles_222, Pepperwood_230, Persimmon_233, PinkiePie_230, PumpkinSpice_245, PynkPanther_230, Quaran19_242, Rikishi_243, Riptide_231, SaltySpitoon_242, Scheme_233, Shuckle_229, Sollertia_240, Spelly_247, Spilled_249, Squillium_233, Stanimal_239, StarPlatinum_249, Starbow_239, TomSawyer_246, Tomas_242, Tuesday_249, WashU_224, Watermoore_229, WhereRU_229, Wipeout_232, Wofford_242, Yaboi_244,

Genes that have the "Most Annotated" start but do not call it:
• Daubenski_224, Jay2Jay_236, Mildred21_240, Peebs_227, Samisti12_234, Sushi23_231, Targaryen_230, Teutsch_229, Tribute_226, Warpy_233,

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

Summary by start number:

Start 2:
• Found in 50 of 88 (56.8%) of genes in pham
• Manual Annotations of this start: 8 of 84
• Called 16.0% of time when present
• Phage (with cluster) where this start called: Daubenski_224 (BE1), Jay2Jay_236 (BE1), Mildred21_240 (BE1), Peebs_227 (BE1), Samisti12_234 (BE1), Targaryen_230 (BE1), Teutsch_229 (BE1), Warpy_233 (BE1),

Start 3:
• Found in 32 of 88 (36.4%) of genes in pham
• Manual Annotations of this start: 2 of 84
• Called 6.2% of time when present
• Phage (with cluster) where this start called: Sushi23_231 (BE1), Tribute_226 (BE1),

Start 4:
• Found in 88 of 88 (100.0%) of genes in pham
• Manual Annotations of this start: 74 of 84
• Called 88.6% of time when present
• Phage (with cluster) where this start called: AcciDwight_250 (BE2), Amabiko_246 (BE2), Anedea_243 (BE1), Angela_233 (BE1), AngryGiraffe_239 (BE2), ArianaSWT_233 (BE1), Bartholomune_230 (BE1), Battuta_240 (BE2), Birchlyn_241 (BE2), BlueOtter_228 (BE1), Bmoc_235 (BE1), BoomerJR_239 (BE2), Bordeaux_240

(BE2), Braelyn_226 (BE1), Brizzy_241 (BE2), Cadmus_228 (BE1), CeilingFan_246 (BE2), Coogler_227 (BE1), Cross_229 (BE1), Cursive_233 (BE1), Daisy123_244 (BE2), Davielle_229 (BE1), EGole_234 (BE1), Eliot67_232 (BE1), Elmer_250 (BE2), Enygma_249 (BE2), Evy_220 (BE1), FreddyDRoo_231 (BE1), Genie2_239 (BE2), Gibbi_250 (BE2), HangryHippo_228 (BE1), IchabodCrane_236 (BE2), JimJam_249 (BE2), Jollison_239 (BE2), Karimac_242 (BE2), KentuckyRacer_248 (BE2), Larnav_230 (BE1), Leo04_230 (BE1), Liandry_230 (BE1), LilMartin_229 (BE1), LilSaint_231 (BE1), LukeCage_245 (BE2), Lululemon_227 (BE1), Marsus_232 (BE1), MindFlayer_235 (BE2), Mugiwara_249 (BE2), MulchMansion_233 (BE1), Navo_224 (BE1), NootNoot_227 (BE1), PacManQ_227 (BE1), Paradiddles_222 (BE1), Pepperwood_230 (BE1), Persimmon_233 (BE1), PinkiePie_230 (BE1), PumpkinSpice_245 (BE2), PynkPanther_230 (BE1), Quaran19_242 (BE2), Rikishi_243 (BE2), Riptide_231 (BE1), SaltySpitoon_242 (BE2), Scheme_233 (BE1), Shuckle_229 (BE1), Sollertia_240 (BE2), Spelly_247 (BE2), Spilled_249 (BE2), Squillium_233 (BE1), Stanimal_239 (BE2), StarPlatinum_249 (BE2), Starbow_239 (BE2), TomSawyer_246 (BE2), Tomas_242 (BE2), Tuesday_249 (BE2), WashU_224 (BE1), Watermoore_229 (BE1), WhereRU_229 (BE1), Wipeout_232 (BE2), Wofford_242 (BE2), Yaboi_244 (BE2),

Summary by clusters:

There are 2 clusters represented in this pham: BE2, BE1,

Info for manual annotations of cluster BE1:
•Start number 2 was manually annotated 8 times for cluster BE1.
•Start number 3 was manually annotated 2 times for cluster BE1.
•Start number 4 was manually annotated 39 times for cluster BE1.

Info for manual annotations of cluster BE2:
•Start number 4 was manually annotated 35 times for cluster BE2.

Gene Information:

Gene: AcciDwight_250 Start: 113349, Stop: 113540, Start Num: 4
Candidate Starts for AcciDwight_250:
(Start: 4 @113349 has 74 MA's),

Gene: Amabiko_246 Start: 113167, Stop: 113358, Start Num: 4
Candidate Starts for Amabiko_246:
(Start: 4 @113167 has 74 MA's),

Gene: Anedea_243 Start: 116662, Stop: 116853, Start Num: 4
Candidate Starts for Anedea_243:
(Start: 2 @116656 has 8 MA's), (Start: 3 @116659 has 2 MA's), (Start: 4 @116662 has 74 MA's), (5, 116671), (6, 116674), (8, 116734), (9, 116755), (10, 116761),

Gene: Angela_233 Start: 114882, Stop: 115073, Start Num: 4
Candidate Starts for Angela_233:
(Start: 2 @114876 has 8 MA's), (Start: 3 @114879 has 2 MA's), (Start: 4 @114882 has 74 MA's), (8, 114954), (9, 114975), (10, 114981), (12, 115029), (13, 115044),

Gene: AngryGiraffe_239 Start: 112650, Stop: 112841, Start Num: 4
Candidate Starts for AngryGiraffe_239:
(Start: 4 @112650 has 74 MA's),

Gene: ArianaSWT_233 Start: 116533, Stop: 116724, Start Num: 4
Candidate Starts for ArianaSWT_233:
(Start: 2 @116527 has 8 MA's), (Start: 3 @116530 has 2 MA's), (Start: 4 @116533 has 74 MA's), (5, 116542), (6, 116545), (8, 116605), (9, 116626), (10, 116632),

Gene: Bartholomune_230 Start: 114648, Stop: 114839, Start Num: 4
Candidate Starts for Bartholomune_230:
(Start: 2 @114642 has 8 MA's), (Start: 4 @114648 has 74 MA's), (5, 114657), (6, 114660), (8, 114720), (9, 114741),

Gene: Battuta_240 Start: 112482, Stop: 112673, Start Num: 4
Candidate Starts for Battuta_240:
(Start: 4 @112482 has 74 MA's),

Gene: Birchlyn_241 Start: 110415, Stop: 110606, Start Num: 4
Candidate Starts for Birchlyn_241:
(Start: 4 @110415 has 74 MA's),

Gene: BlueOtter_228 Start: 114786, Stop: 114977, Start Num: 4
Candidate Starts for BlueOtter_228:
(Start: 2 @114780 has 8 MA's), (Start: 3 @114783 has 2 MA's), (Start: 4 @114786 has 74 MA's), (5, 114795), (6, 114798), (8, 114858), (9, 114879), (10, 114885),

Gene: Bmoc_235 Start: 115330, Stop: 115521, Start Num: 4
Candidate Starts for Bmoc_235:
(Start: 2 @115324 has 8 MA's), (Start: 3 @115327 has 2 MA's), (Start: 4 @115330 has 74 MA's), (5, 115339), (6, 115342), (8, 115402), (9, 115423), (10, 115429),

Gene: BoomerJR_239 Start: 113083, Stop: 113274, Start Num: 4
Candidate Starts for BoomerJR_239:
(Start: 4 @113083 has 74 MA's),

Gene: Bordeaux_240 Start: 113065, Stop: 113256, Start Num: 4
Candidate Starts for Bordeaux_240:
(Start: 4 @113065 has 74 MA's),

Gene: Braelyn_226 Start: 114295, Stop: 114486, Start Num: 4
Candidate Starts for Braelyn_226:
(Start: 2 @114289 has 8 MA's), (Start: 4 @114295 has 74 MA's), (5, 114304), (6, 114307), (8, 114367), (9, 114388), (12, 114442),

Gene: Brizzy_241 Start: 113593, Stop: 113784, Start Num: 4
Candidate Starts for Brizzy_241:
(Start: 4 @113593 has 74 MA's),

Gene: Cadmus_228 Start: 116010, Stop: 116201, Start Num: 4
Candidate Starts for Cadmus_228:
(Start: 2 @116004 has 8 MA's), (Start: 3 @116007 has 2 MA's), (Start: 4 @116010 has 74 MA's), (5, 116019), (6, 116022), (12, 116157),

Gene: CeilingFan_246 Start: 113860, Stop: 114051, Start Num: 4
Candidate Starts for CeilingFan_246:
(Start: 4 @113860 has 74 MA's),

Gene: Coogler_227 Start: 115211, Stop: 115402, Start Num: 4
Candidate Starts for Coogler_227:
(Start: 2 @115205 has 8 MA's), (Start: 3 @115208 has 2 MA's), (Start: 4 @115211 has 74 MA's), (5, 115220), (6, 115223), (8, 115283), (9, 115304), (10, 115310),

Gene: Cross_229 Start: 115431, Stop: 115622, Start Num: 4
Candidate Starts for Cross_229:
(Start: 2 @115425 has 8 MA's), (Start: 3 @115428 has 2 MA's), (Start: 4 @115431 has 74 MA's), (5, 115440), (6, 115443), (8, 115503), (9, 115524), (10, 115530),

Gene: Cursive_233 Start: 115538, Stop: 115729, Start Num: 4
Candidate Starts for Cursive_233:
(Start: 2 @115532 has 8 MA's), (Start: 3 @115535 has 2 MA's), (Start: 4 @115538 has 74 MA's), (5, 115547), (6, 115550), (8, 115610), (9, 115631), (10, 115637),

Gene: Daisy123_244 Start: 113722, Stop: 113913, Start Num: 4
Candidate Starts for Daisy123_244:
(Start: 4 @113722 has 74 MA's),

Gene: Daubenski_224 Start: 115905, Stop: 116102, Start Num: 2
Candidate Starts for Daubenski_224:
(Start: 2 @115905 has 8 MA's), (Start: 3 @115908 has 2 MA's), (Start: 4 @115911 has 74 MA's), (5, 115920), (6, 115923), (12, 116058),

Gene: Davielle_229 Start: 114693, Stop: 114884, Start Num: 4
Candidate Starts for Davielle_229:
(Start: 2 @114687 has 8 MA's), (Start: 4 @114693 has 74 MA's), (5, 114702), (6, 114705), (9, 114786), (12, 114840),

Gene: EGole_234 Start: 117622, Stop: 117813, Start Num: 4
Candidate Starts for EGole_234:
(Start: 2 @117616 has 8 MA's), (Start: 3 @117619 has 2 MA's), (Start: 4 @117622 has 74 MA's), (5, 117631), (6, 117634), (7, 117646), (8, 117694), (9, 117715), (10, 117721),

Gene: Eliot67_232 Start: 114477, Stop: 114668, Start Num: 4
Candidate Starts for Eliot67_232:
(Start: 2 @114471 has 8 MA's), (Start: 4 @114477 has 74 MA's), (5, 114486), (6, 114489), (8, 114549), (9, 114570), (12, 114624),

Gene: Elmer_250 Start: 116657, Stop: 116848, Start Num: 4
Candidate Starts for Elmer_250:
(Start: 4 @116657 has 74 MA's),

Gene: Enygma_249 Start: 115868, Stop: 116059, Start Num: 4
Candidate Starts for Enygma_249:
(Start: 4 @115868 has 74 MA's),

Gene: Evy_220 Start: 115608, Stop: 115799, Start Num: 4

Candidate Starts for Evy_220:
(Start: 2 @115602 has 8 MA's), (Start: 4 @115608 has 74 MA's), (6, 115620), (8, 115680), (9, 115701),

Gene: FreddyDRoo_231 Start: 114477, Stop: 114668, Start Num: 4
Candidate Starts for FreddyDRoo_231:
(Start: 2 @114471 has 8 MA's), (Start: 4 @114477 has 74 MA's), (5, 114486), (6, 114489), (8, 114549), (9, 114570), (12, 114624),

Gene: Genie2_239 Start: 113208, Stop: 113399, Start Num: 4
Candidate Starts for Genie2_239:
(Start: 4 @113208 has 74 MA's),

Gene: Gibbi_250 Start: 113353, Stop: 113544, Start Num: 4
Candidate Starts for Gibbi_250:
(Start: 4 @113353 has 74 MA's),

Gene: HangryHippo_228 Start: 114786, Stop: 114977, Start Num: 4
Candidate Starts for HangryHippo_228:
(Start: 2 @114780 has 8 MA's), (Start: 3 @114783 has 2 MA's), (Start: 4 @114786 has 74 MA's), (5, 114795), (6, 114798), (8, 114858), (9, 114879), (10, 114885),

Gene: IchabodCrane_236 Start: 112868, Stop: 113059, Start Num: 4
Candidate Starts for IchabodCrane_236:
(Start: 4 @112868 has 74 MA's),

Gene: Jay2Jay_236 Start: 115757, Stop: 115954, Start Num: 2
Candidate Starts for Jay2Jay_236:
(Start: 2 @115757 has 8 MA's), (Start: 4 @115763 has 74 MA's), (6, 115775), (8, 115835), (9, 115856),

Gene: JimJam_249 Start: 114789, Stop: 114980, Start Num: 4
Candidate Starts for JimJam_249:
(Start: 4 @114789 has 74 MA's),

Gene: Jollison_239 Start: 112999, Stop: 113190, Start Num: 4
Candidate Starts for Jollison_239:
(Start: 4 @112999 has 74 MA's),

Gene: Karimac_242 Start: 113184, Stop: 113375, Start Num: 4
Candidate Starts for Karimac_242:
(Start: 4 @113184 has 74 MA's),

Gene: KentuckyRacer_248 Start: 114704, Stop: 114895, Start Num: 4
Candidate Starts for KentuckyRacer_248:
(Start: 4 @114704 has 74 MA's),

Gene: Larnav_230 Start: 115704, Stop: 115895, Start Num: 4
Candidate Starts for Larnav_230:
(Start: 2 @115698 has 8 MA's), (Start: 3 @115701 has 2 MA's), (Start: 4 @115704 has 74 MA's), (5, 115713), (6, 115716), (8, 115776), (9, 115797), (10, 115803),

Gene: Leo04_230 Start: 115812, Stop: 116003, Start Num: 4
Candidate Starts for Leo04_230:

(Start: 2 @115806 has 8 MA's), (Start: 3 @115809 has 2 MA's), (Start: 4 @115812 has 74 MA's), (5, 115821), (6, 115824), (8, 115884), (9, 115905), (10, 115911),

Gene: Liandry_230 Start: 115184, Stop: 115375, Start Num: 4
Candidate Starts for Liandry_230:
(Start: 2 @115178 has 8 MA's), (Start: 4 @115184 has 74 MA's), (5, 115193), (6, 115196), (8, 115256), (9, 115277), (12, 115331),

Gene: LilMartin_229 Start: 113822, Stop: 114013, Start Num: 4
Candidate Starts for LilMartin_229:
(Start: 2 @113816 has 8 MA's), (Start: 3 @113819 has 2 MA's), (Start: 4 @113822 has 74 MA's), (8, 113894), (9, 113915), (10, 113921), (12, 113969), (13, 113984),

Gene: LilSaint_231 Start: 115033, Stop: 115224, Start Num: 4
Candidate Starts for LilSaint_231:
(Start: 2 @115027 has 8 MA's), (Start: 3 @115030 has 2 MA's), (Start: 4 @115033 has 74 MA's), (5, 115042), (6, 115045), (8, 115105), (9, 115126), (10, 115132),

Gene: LukeCage_245 Start: 115029, Stop: 115220, Start Num: 4
Candidate Starts for LukeCage_245:
(Start: 4 @115029 has 74 MA's),

Gene: Lululemon_227 Start: 114591, Stop: 114782, Start Num: 4
Candidate Starts for Lululemon_227:
(Start: 2 @114585 has 8 MA's), (Start: 3 @114588 has 2 MA's), (Start: 4 @114591 has 74 MA's), (5, 114600), (6, 114603), (8, 114663), (9, 114684), (10, 114690),

Gene: Marsus_232 Start: 115487, Stop: 115678, Start Num: 4
Candidate Starts for Marsus_232:
(Start: 2 @115481 has 8 MA's), (Start: 3 @115484 has 2 MA's), (Start: 4 @115487 has 74 MA's), (8, 115559), (10, 115586), (12, 115634), (13, 115649),

Gene: Mildred21_240 Start: 113965, Stop: 114162, Start Num: 2
Candidate Starts for Mildred21_240:
(Start: 2 @113965 has 8 MA's), (Start: 3 @113968 has 2 MA's), (Start: 4 @113971 has 74 MA's), (5, 113980), (6, 113983), (8, 114043), (11, 114073),

Gene: MindFlayer_235 Start: 112384, Stop: 112575, Start Num: 4
Candidate Starts for MindFlayer_235:
(Start: 4 @112384 has 74 MA's),

Gene: Mugiwara_249 Start: 115568, Stop: 115759, Start Num: 4
Candidate Starts for Mugiwara_249:
(Start: 4 @115568 has 74 MA's),

Gene: MulchMansion_233 Start: 115456, Stop: 115647, Start Num: 4
Candidate Starts for MulchMansion_233:
(Start: 2 @115450 has 8 MA's), (Start: 3 @115453 has 2 MA's), (Start: 4 @115456 has 74 MA's), (8, 115528), (9, 115549), (10, 115555), (12, 115603), (13, 115618),

Gene: Navo_224 Start: 113499, Stop: 113690, Start Num: 4
Candidate Starts for Navo_224:

(Start: 2 @113493 has 8 MA's), (Start: 4 @113499 has 74 MA's), (5, 113508), (6, 113511), (8, 113571), (9, 113592), (12, 113646),

Gene: NootNoot_227 Start: 114029, Stop: 114220, Start Num: 4
Candidate Starts for NootNoot_227:
(Start: 2 @114023 has 8 MA's), (Start: 4 @114029 has 74 MA's), (5, 114038), (6, 114041), (9, 114122), (12, 114176),

Gene: PacManQ_227 Start: 114591, Stop: 114782, Start Num: 4
Candidate Starts for PacManQ_227:
(Start: 2 @114585 has 8 MA's), (Start: 3 @114588 has 2 MA's), (Start: 4 @114591 has 74 MA's), (5, 114600), (6, 114603), (8, 114663), (9, 114684), (10, 114690),

Gene: Paradiddles_222 Start: 116404, Stop: 116595, Start Num: 4
Candidate Starts for Paradiddles_222:
(Start: 2 @116398 has 8 MA's), (Start: 4 @116404 has 74 MA's), (5, 116413), (6, 116416), (8, 116476), (9, 116497), (12, 116551),

Gene: Peebs_227 Start: 115669, Stop: 115866, Start Num: 2
Candidate Starts for Peebs_227:
(Start: 2 @115669 has 8 MA's), (Start: 3 @115672 has 2 MA's), (Start: 4 @115675 has 74 MA's), (5, 115684), (6, 115687), (8, 115747), (9, 115768), (10, 115774),

Gene: Pepperwood_230 Start: 115483, Stop: 115674, Start Num: 4
Candidate Starts for Pepperwood_230:
(Start: 2 @115477 has 8 MA's), (Start: 3 @115480 has 2 MA's), (Start: 4 @115483 has 74 MA's), (5, 115492), (6, 115495), (8, 115555), (9, 115576), (10, 115582),

Gene: Persimmon_233 Start: 114517, Stop: 114708, Start Num: 4
Candidate Starts for Persimmon_233:
(Start: 2 @114511 has 8 MA's), (Start: 4 @114517 has 74 MA's), (6, 114529), (9, 114610),

Gene: PinkiePie_230 Start: 115184, Stop: 115375, Start Num: 4
Candidate Starts for PinkiePie_230:
(Start: 2 @115178 has 8 MA's), (Start: 4 @115184 has 74 MA's), (5, 115193), (6, 115196), (8, 115256), (9, 115277), (12, 115331),

Gene: PumpkinSpice_245 Start: 113605, Stop: 113796, Start Num: 4
Candidate Starts for PumpkinSpice_245:
(Start: 4 @113605 has 74 MA's),

Gene: PynkPanther_230 Start: 115382, Stop: 115573, Start Num: 4
Candidate Starts for PynkPanther_230:
(Start: 2 @115376 has 8 MA's), (Start: 4 @115382 has 74 MA's), (5, 115391), (6, 115394), (9, 115475), (12, 115529),

Gene: Quaran19_242 Start: 113046, Stop: 113237, Start Num: 4
Candidate Starts for Quaran19_242:
(Start: 4 @113046 has 74 MA's),

Gene: Rikishi_243 Start: 113327, Stop: 113518, Start Num: 4
Candidate Starts for Rikishi_243:
(Start: 4 @113327 has 74 MA's),

Gene: Riptide_231 Start: 114192, Stop: 114383, Start Num: 4
Candidate Starts for Riptide_231:
(Start: 2 @114186 has 8 MA's), (Start: 3 @114189 has 2 MA's), (Start: 4 @114192 has 74 MA's), (5, 114201), (6, 114204), (8, 114264), (9, 114285), (10, 114291),

Gene: SaltySpitoon_242 Start: 112588, Stop: 112779, Start Num: 4
Candidate Starts for SaltySpitoon_242:
(Start: 4 @112588 has 74 MA's),

Gene: Samisti12_234 Start: 117070, Stop: 117267, Start Num: 2
Candidate Starts for Samisti12_234:
(Start: 2 @117070 has 8 MA's), (Start: 3 @117073 has 2 MA's), (Start: 4 @117076 has 74 MA's), (5, 117085), (6, 117088), (8, 117148), (10, 117175),

Gene: Scheme_233 Start: 116722, Stop: 116913, Start Num: 4
Candidate Starts for Scheme_233:
(Start: 2 @116716 has 8 MA's), (Start: 3 @116719 has 2 MA's), (Start: 4 @116722 has 74 MA's), (5, 116731), (6, 116734), (8, 116794), (9, 116815), (10, 116821),

Gene: Shuckle_229 Start: 116035, Stop: 116226, Start Num: 4
Candidate Starts for Shuckle_229:
(Start: 2 @116029 has 8 MA's), (Start: 3 @116032 has 2 MA's), (Start: 4 @116035 has 74 MA's), (5, 116044), (6, 116047), (8, 116107), (10, 116134),

Gene: Sollertia_240 Start: 113197, Stop: 113388, Start Num: 4
Candidate Starts for Sollertia_240:
(Start: 4 @113197 has 74 MA's),

Gene: Spelly_247 Start: 112517, Stop: 112708, Start Num: 4
Candidate Starts for Spelly_247:
(Start: 4 @112517 has 74 MA's),

Gene: Spilled_249 Start: 113721, Stop: 113912, Start Num: 4
Candidate Starts for Spilled_249:
(Start: 4 @113721 has 74 MA's),

Gene: Squillium_233 Start: 115186, Stop: 115377, Start Num: 4
Candidate Starts for Squillium_233:
(Start: 2 @115180 has 8 MA's), (Start: 4 @115186 has 74 MA's), (5, 115195), (6, 115198), (8, 115258), (9, 115279), (12, 115333),

Gene: Stanimal_239 Start: 113569, Stop: 113760, Start Num: 4
Candidate Starts for Stanimal_239:
(Start: 4 @113569 has 74 MA's),

Gene: StarPlatinum_249 Start: 115530, Stop: 115721, Start Num: 4
Candidate Starts for StarPlatinum_249:
(Start: 4 @115530 has 74 MA's),

Gene: Starbow_239 Start: 112561, Stop: 112752, Start Num: 4
Candidate Starts for Starbow_239:
(Start: 4 @112561 has 74 MA's),

Gene: Sushi23_231 Start: 116538, Stop: 116732, Start Num: 3
Candidate Starts for Sushi23_231:
(Start: 2 @116535 has 8 MA's), (Start: 3 @116538 has 2 MA's), (Start: 4 @116541 has 74 MA's), (5, 116550), (6, 116553), (8, 116613), (9, 116634), (10, 116640),

Gene: Targaryen_230 Start: 116710, Stop: 116907, Start Num: 2
Candidate Starts for Targaryen_230:
(Start: 2 @116710 has 8 MA's), (Start: 4 @116716 has 74 MA's), (5, 116725), (6, 116728), (8, 116788), (9, 116809),

Gene: Teutsch_229 Start: 115900, Stop: 116097, Start Num: 2
Candidate Starts for Teutsch_229:
(Start: 2 @115900 has 8 MA's), (Start: 3 @115903 has 2 MA's), (Start: 4 @115906 has 74 MA's), (5, 115915), (6, 115918), (8, 115978), (9, 115999), (10, 116005),

Gene: TomSawyer_246 Start: 115032, Stop: 115223, Start Num: 4
Candidate Starts for TomSawyer_246:
(Start: 4 @115032 has 74 MA's),

Gene: Tomas_242 Start: 116935, Stop: 117126, Start Num: 4
Candidate Starts for Tomas_242:
(1, 116917), (Start: 4 @116935 has 74 MA's), (6, 116947), (7, 116959), (9, 117028),

Gene: Tribute_226 Start: 116068, Stop: 116262, Start Num: 3
Candidate Starts for Tribute_226:
(Start: 2 @116065 has 8 MA's), (Start: 3 @116068 has 2 MA's), (Start: 4 @116071 has 74 MA's), (5, 116080), (6, 116083), (7, 116095), (8, 116143), (9, 116164), (10, 116170),

Gene: Tuesday_249 Start: 113572, Stop: 113763, Start Num: 4
Candidate Starts for Tuesday_249:
(Start: 4 @113572 has 74 MA's),

Gene: Warpy_233 Start: 115195, Stop: 115392, Start Num: 2
Candidate Starts for Warpy_233:
(Start: 2 @115195 has 8 MA's), (Start: 4 @115201 has 74 MA's), (6, 115213), (8, 115273), (9, 115294),

Gene: WashU_224 Start: 115693, Stop: 115884, Start Num: 4
Candidate Starts for WashU_224:
(Start: 2 @115687 has 8 MA's), (Start: 3 @115690 has 2 MA's), (Start: 4 @115693 has 74 MA's), (5, 115702), (6, 115705), (8, 115765), (9, 115786), (10, 115792),

Gene: Watermoore_229 Start: 116429, Stop: 116620, Start Num: 4
Candidate Starts for Watermoore_229:
(Start: 2 @116423 has 8 MA's), (Start: 3 @116426 has 2 MA's), (Start: 4 @116429 has 74 MA's), (5, 116438), (6, 116441), (8, 116501), (9, 116522), (10, 116528),

Gene: WhereRU_229 Start: 114678, Stop: 114869, Start Num: 4
Candidate Starts for WhereRU_229:
(Start: 2 @114672 has 8 MA's), (Start: 4 @114678 has 74 MA's), (5, 114687), (6, 114690), (9, 114771), (12, 114825),

Gene: Wipeout_232 Start: 113984, Stop: 114175, Start Num: 4

Candidate Starts for Wipeout_232:
(Start: 4 @113984 has 74 MA's),

Gene: Wofford_242 Start: 116271, Stop: 116462, Start Num: 4
Candidate Starts for Wofford_242:
(Start: 4 @116271 has 74 MA's),

Gene: Yaboi_244 Start: 113132, Stop: 113323, Start Num: 4
Candidate Starts for Yaboi_244:
(Start: 4 @113132 has 74 MA's),