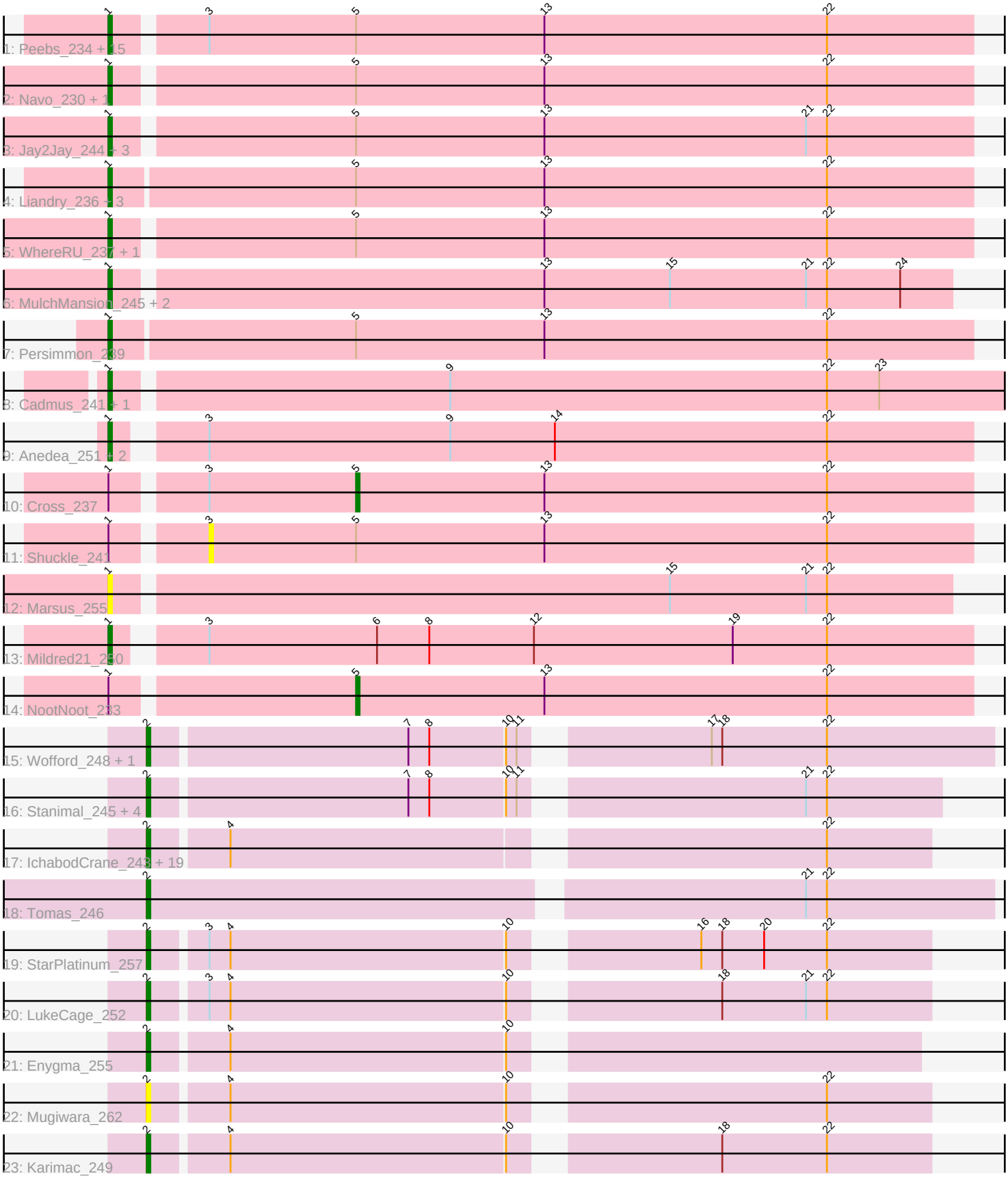
Pham 224536


1: Peebs_234 + 15
2: Navo_230 + 1
3: Jay2Jay_244 + 3
4: Liandry_236 + 3
5: WhereRU_237 + 1
6: MulchMansion_245 + 2
7: Persimmon_239
8: Cadmus_241 + 1
9: Anedea_251 + 2
10: Cross_237
11: Shuckle_241
12: Marsus_255
13: Mildred21_250
14: NootNoot_233
15: Wofford_248 + 1
16: Stanimal_245 + 4
17: IchabodCrane_243 + 19
18: Tomas_246
19: StarPlatinum_257
20: LukeCage_252
21: Enygma_255
22: Mugiwara_262
23: Karimac_249

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 224536 Report

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

Pham number 224536 has 75 members, 8 are drafts.

Phages represented in each track:
• Track 1 : Peebs_234, Leo04_239, BlueOtter_236, Pepperwood_238, Teutsch_237, EGole_244, PacManQ_235, Cursive_241, HangryHippo_236, Lululemon_235, Samisti12_240, Sushi23_239, Watermoore_236, Tribute_234, Larnav_238, Scheme_241
• Track 2 : Navo_230, Braelyn_232
• Track 3 : Jay2Jay_244, Evy_227, Targaryen_237, Warpy_241
• Track 4 : Liandry_236, PinkiePie_237, Squillium_239, Paradiddles_228
• Track 5 : WhereRU_237, Bartholomune_237
• Track 6 : MulchMansion_245, LilMartin_241, Angela_245
• Track 7 : Persimmon_239
• Track 8 : Cadmus_241, Daubenski_230
• Track 9 : Anedea_251, Riptide_245, Bmoc_244
• Track 10 : Cross_237
• Track 11 : Shuckle_241
• Track 12 : Marsus_255
• Track 13 : Mildred21_250
• Track 14 : NootNoot_233
• Track 15 : Wofford_248, Elmer_257
• Track 16 : Stanimal_245, Genie2_245, BoomerJR_245, Sollertia_246, Yaboi_250
• Track 17 : IchabodCrane_243, Spelly_254, Gibbi_257, Quaran19_249, CeilingFan_253, JimJam_256, Jollison_246, Wipeout_239, Spilled_256, TomSawyer_253, Rikishi_257, Battuta_247, Birchlyn_248, SaltySpitoon_249, Amabiko_253, Starbow_246, KentuckyRacer_255, Bordeaux_247, PumpkinSpice_252, MindFlayer_242
• Track 18 : Tomas_246
• Track 19 : StarPlatinum_257
• Track 20 : LukeCage_252
• Track 21 : Enygma_255
• Track 22 : Mugiwara_262
• Track 23 : Karimac_249

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

The start number called the most often in the published annotations is 1, it was called in 35 of the 67 non-draft genes in the pham.

Genes that call this "Most Annotated" start:
• Anedea_251, Angela_245, Bartholomune_237, BlueOtter_236, Bmoc_244, Braelyn_232, Cadmus_241, Cursive_241, Daubenski_230, EGole_244, Evy_227, HangryHippo_236, Jay2Jay_244, Larnav_238, Leo04_239, Liandry_236, LilMartin_241, Lululemon_235, Marsus_255, Mildred21_250, MulchMansion_245, Navo_230, PacManQ_235, Paradiddles_228, Peebs_234, Pepperwood_238, Persimmon_239, PinkiePie_237, Riptide_245, Samisti12_240, Scheme_241, Squillium_239, Sushi23_239, Targaryen_237, Teutsch_237, Tribute_234, Warpy_241, Watermoore_236, WhereRU_237,

Genes that have the "Most Annotated" start but do not call it:
• Cross_237, NootNoot_233, Shuckle_241,

Genes that do not have the "Most Annotated" start:
• Amabiko_253, Battuta_247, Birchlyn_248, BoomerJR_245, Bordeaux_247, CeilingFan_253, Elmer_257, Enygma_255, Genie2_245, Gibbi_257, IchabodCrane_243, JimJam_256, Jollison_246, Karimac_249, KentuckyRacer_255, LukeCage_252, MindFlayer_242, Mugiwara_262, PumpkinSpice_252, Quaran19_249, Rikishi_257, SaltySpitoon_249, Sollertia_246, Spelly_254, Spilled_256, Stanimal_245, StarPlatinum_257, Starbow_246, TomSawyer_253, Tomas_246, Wipeout_239, Wofford_248, Yaboi_250,

Summary by start number:

Start 1:
• Found in 42 of 75 (56.0%) of genes in pham
• Manual Annotations of this start: 35 of 67
• Called 92.9% of time when present
• Phage (with cluster) where this start called: Anedea_251 (BE1), Angela_245 (BE1), Bartholomune_237 (BE1), BlueOtter_236 (BE1), Bmoc_244 (BE1), Braelyn_232 (BE1), Cadmus_241 (BE1), Cursive_241 (BE1), Daubenski_230 (BE1), EGole_244 (BE1), Evy_227 (BE1), HangryHippo_236 (BE1), Jay2Jay_244 (BE1), Larnav_238 (BE1), Leo04_239 (BE1), Liandry_236 (BE1), LilMartin_241 (BE1), Lululemon_235 (BE1), Marsus_255 (BE1), Mildred21_250 (BE1), MulchMansion_245 (BE1), Navo_230 (BE1), PacManQ_235 (BE1), Paradiddles_228 (BE1), Peebs_234 (BE1), Pepperwood_238 (BE1), Persimmon_239 (BE1), PinkiePie_237 (BE1), Riptide_245 (BE1), Samisti12_240 (BE1), Scheme_241 (BE1), Squillium_239 (BE1), Sushi23_239 (BE1), Targaryen_237 (BE1), Teutsch_237 (BE1), Tribute_234 (BE1), Warpy_241 (BE1), Watermoore_236 (BE1), WhereRU_237 (BE1),

Start 2:
• Found in 33 of 75 (44.0%) of genes in pham
• Manual Annotations of this start: 30 of 67
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Amabiko_253 (BE2), Battuta_247 (BE2), Birchlyn_248 (BE2), BoomerJR_245 (BE2), Bordeaux_247 (BE2), CeilingFan_253 (BE2), Elmer_257 (BE2), Enygma_255 (BE2), Genie2_245 (BE2), Gibbi_257 (BE2), IchabodCrane_243 (BE2), JimJam_256 (BE2), Jollison_246 (BE2), Karimac_249 (BE2), KentuckyRacer_255 (BE2), LukeCage_252 (BE2), MindFlayer_242 (BE2), Mugiwara_262 (BE2), PumpkinSpice_252 (BE2), Quaran19_249 (BE2), Rikishi_257

(BE2), SaltySpitoon_249 (BE2), Sollertia_246 (BE2), Spelly_254 (BE2), Spilled_256 (BE2), Stanimal_245 (BE2), StarPlatinum_257 (BE2), Starbow_246 (BE2), TomSawyer_253 (BE2), Tomas_246 (BE2), Wipeout_239 (BE2), Wofford_248 (BE2), Yaboi_250 (BE2),

Start 3:
• Found in 24 of 75 (32.0%) of genes in pham
• No Manual Annotations of this start.
• Called 4.2% of time when present
• Phage (with cluster) where this start called: Shuckle_241 (BE1),

Start 5:
• Found in 32 of 75 (42.7%) of genes in pham
• Manual Annotations of this start: 2 of 67
• Called 6.2% of time when present
• Phage (with cluster) where this start called: Cross_237 (BE1), NootNoot_233 (BE1),

Summary by clusters:

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

Info for manual annotations of cluster BE1:
•Start number 1 was manually annotated 35 times for cluster BE1.
•Start number 5 was manually annotated 2 times for cluster BE1.

Info for manual annotations of cluster BE2:
•Start number 2 was manually annotated 30 times for cluster BE2.

Gene Information:

Gene: Amabiko_253 Start: 114808, Stop: 115017, Start Num: 2
Candidate Starts for Amabiko_253:
(Start: 2 @114808 has 30 MA's), (4, 114829), (22, 114988),

Gene: Anedea_251 Start: 118563, Stop: 118802, Start Num: 1
Candidate Starts for Anedea_251:
(Start: 1 @118563 has 35 MA's), (3, 118584), (9, 118653), (14, 118683), (22, 118761),

Gene: Angela_245 Start: 117915, Stop: 118151, Start Num: 1
Candidate Starts for Angela_245:
(Start: 1 @117915 has 35 MA's), (13, 118035), (15, 118071), (21, 118110), (22, 118116), (24, 118137),

Gene: Bartholomune_237 Start: 116567, Stop: 116809, Start Num: 1
Candidate Starts for Bartholomune_237:
(Start: 1 @116567 has 35 MA's), (Start: 5 @116633 has 2 MA's), (13, 116687), (22, 116768),

Gene: Battuta_247 Start: 114123, Stop: 114332, Start Num: 2
Candidate Starts for Battuta_247:
(Start: 2 @114123 has 30 MA's), (4, 114144), (22, 114303),

Gene: Birchlyn_248 Start: 112056, Stop: 112265, Start Num: 2

Candidate Starts for Birchlyn_248:
(Start: 2 @112056 has 30 MA's), (4, 112077), (22, 112236),

Gene: BlueOtter_236 Start: 116741, Stop: 116983, Start Num: 1
Candidate Starts for BlueOtter_236:
(Start: 1 @116741 has 35 MA's), (3, 116765), (Start: 5 @116807 has 2 MA's), (13, 116861), (22, 116942),

Gene: Bmoc_244 Start: 117335, Stop: 117577, Start Num: 1
Candidate Starts for Bmoc_244:
(Start: 1 @117335 has 35 MA's), (3, 117359), (9, 117428), (14, 117458), (22, 117536),

Gene: BoomerJR_245 Start: 114545, Stop: 114757, Start Num: 2
Candidate Starts for BoomerJR_245:
(Start: 2 @114545 has 30 MA's), (7, 114617), (8, 114623), (10, 114644), (11, 114647), (21, 114719), (22, 114725),

Gene: Bordeaux_247 Start: 114706, Stop: 114915, Start Num: 2
Candidate Starts for Bordeaux_247:
(Start: 2 @114706 has 30 MA's), (4, 114727), (22, 114886),

Gene: Braelyn_232 Start: 115901, Stop: 116143, Start Num: 1
Candidate Starts for Braelyn_232:
(Start: 1 @115901 has 35 MA's), (Start: 5 @115967 has 2 MA's), (13, 116021), (22, 116102),

Gene: Cadmus_241 Start: 117844, Stop: 118098, Start Num: 1
Candidate Starts for Cadmus_241:
(Start: 1 @117844 has 35 MA's), (9, 117937), (22, 118045), (23, 118060),

Gene: CeilingFan_253 Start: 115501, Stop: 115710, Start Num: 2
Candidate Starts for CeilingFan_253:
(Start: 2 @115501 has 30 MA's), (4, 115522), (22, 115681),

Gene: Cross_237 Start: 117452, Stop: 117628, Start Num: 5
Candidate Starts for Cross_237:
(Start: 1 @117386 has 35 MA's), (3, 117410), (Start: 5 @117452 has 2 MA's), (13, 117506), (22, 117587),

Gene: Cursive_241 Start: 117493, Stop: 117735, Start Num: 1
Candidate Starts for Cursive_241:
(Start: 1 @117493 has 35 MA's), (3, 117517), (Start: 5 @117559 has 2 MA's), (13, 117613), (22, 117694),

Gene: Daubenski_230 Start: 117745, Stop: 117999, Start Num: 1
Candidate Starts for Daubenski_230:
(Start: 1 @117745 has 35 MA's), (9, 117838), (22, 117946), (23, 117961),

Gene: EGole_244 Start: 119967, Stop: 120209, Start Num: 1
Candidate Starts for EGole_244:
(Start: 1 @119967 has 35 MA's), (3, 119991), (Start: 5 @120033 has 2 MA's), (13, 120087), (22, 120168),

Gene: Elmer_257 Start: 118266, Stop: 118493, Start Num: 2

Candidate Starts for Elmer_257:
(Start: 2 @118266 has 30 MA's), (7, 118338), (8, 118344), (10, 118365), (11, 118368), (17, 118413), (18, 118416), (22, 118446),

Gene: Enygma_255 Start: 117307, Stop: 117513, Start Num: 2
Candidate Starts for Enygma_255:
(Start: 2 @117307 has 30 MA's), (4, 117328), (10, 117406),

Gene: Evy_227 Start: 117420, Stop: 117662, Start Num: 1
Candidate Starts for Evy_227:
(Start: 1 @117420 has 35 MA's), (Start: 5 @117486 has 2 MA's), (13, 117540), (21, 117615), (22, 117621),

Gene: Genie2_245 Start: 114670, Stop: 114882, Start Num: 2
Candidate Starts for Genie2_245:
(Start: 2 @114670 has 30 MA's), (7, 114742), (8, 114748), (10, 114769), (11, 114772), (21, 114844), (22, 114850),

Gene: Gibbi_257 Start: 114994, Stop: 115203, Start Num: 2
Candidate Starts for Gibbi_257:
(Start: 2 @114994 has 30 MA's), (4, 115015), (22, 115174),

Gene: HangryHippo_236 Start: 116741, Stop: 116983, Start Num: 1
Candidate Starts for HangryHippo_236:
(Start: 1 @116741 has 35 MA's), (3, 116765), (Start: 5 @116807 has 2 MA's), (13, 116861), (22, 116942),

Gene: IchabodCrane_243 Start: 114509, Stop: 114718, Start Num: 2
Candidate Starts for IchabodCrane_243:
(Start: 2 @114509 has 30 MA's), (4, 114530), (22, 114689),

Gene: Jay2Jay_244 Start: 117784, Stop: 118026, Start Num: 1
Candidate Starts for Jay2Jay_244:
(Start: 1 @117784 has 35 MA's), (Start: 5 @117850 has 2 MA's), (13, 117904), (21, 117979), (22, 117985),

Gene: JimJam_256 Start: 116430, Stop: 116639, Start Num: 2
Candidate Starts for JimJam_256:
(Start: 2 @116430 has 30 MA's), (4, 116451), (22, 116610),

Gene: Jollison_246 Start: 114640, Stop: 114849, Start Num: 2
Candidate Starts for Jollison_246:
(Start: 2 @114640 has 30 MA's), (4, 114661), (22, 114820),

Gene: Karimac_249 Start: 114825, Stop: 115034, Start Num: 2
Candidate Starts for Karimac_249:
(Start: 2 @114825 has 30 MA's), (4, 114846), (10, 114924), (18, 114975), (22, 115005),

Gene: KentuckyRacer_255 Start: 116345, Stop: 116554, Start Num: 2
Candidate Starts for KentuckyRacer_255:
(Start: 2 @116345 has 30 MA's), (4, 116366), (22, 116525),

Gene: Larnav_238 Start: 117659, Stop: 117901, Start Num: 1

Candidate Starts for Larnav_238:
(Start: 1 @117659 has 35 MA's), (3, 117683), (Start: 5 @117725 has 2 MA's), (13, 117779), (22, 117860),

Gene: Leo04_239 Start: 117772, Stop: 118014, Start Num: 1
Candidate Starts for Leo04_239:
(Start: 1 @117772 has 35 MA's), (3, 117796), (Start: 5 @117838 has 2 MA's), (13, 117892), (22, 117973),

Gene: Liandry_236 Start: 116955, Stop: 117200, Start Num: 1
Candidate Starts for Liandry_236:
(Start: 1 @116955 has 35 MA's), (Start: 5 @117024 has 2 MA's), (13, 117078), (22, 117159),

Gene: LilMartin_241 Start: 116855, Stop: 117091, Start Num: 1
Candidate Starts for LilMartin_241:
(Start: 1 @116855 has 35 MA's), (13, 116975), (15, 117011), (21, 117050), (22, 117056), (24, 117077),

Gene: LukeCage_252 Start: 116670, Stop: 116879, Start Num: 2
Candidate Starts for LukeCage_252:
(Start: 2 @116670 has 30 MA's), (3, 116685), (4, 116691), (10, 116769), (18, 116820), (21, 116844), (22, 116850),

Gene: Lululemon_235 Start: 116546, Stop: 116788, Start Num: 1
Candidate Starts for Lululemon_235:
(Start: 1 @116546 has 35 MA's), (3, 116570), (Start: 5 @116612 has 2 MA's), (13, 116666), (22, 116747),

Gene: Marsus_255 Start: 119206, Stop: 119442, Start Num: 1
Candidate Starts for Marsus_255:
(Start: 1 @119206 has 35 MA's), (15, 119362), (21, 119401), (22, 119407),

Gene: Mildred21_250 Start: 116453, Stop: 116692, Start Num: 1
Candidate Starts for Mildred21_250:
(Start: 1 @116453 has 35 MA's), (3, 116474), (6, 116522), (8, 116537), (12, 116567), (19, 116624), (22, 116651),

Gene: MindFlayer_242 Start: 114025, Stop: 114234, Start Num: 2
Candidate Starts for MindFlayer_242:
(Start: 2 @114025 has 30 MA's), (4, 114046), (22, 114205),

Gene: Mugiwara_262 Start: 117376, Stop: 117585, Start Num: 2
Candidate Starts for Mugiwara_262:
(Start: 2 @117376 has 30 MA's), (4, 117397), (10, 117475), (22, 117556),

Gene: MulchMansion_245 Start: 118489, Stop: 118725, Start Num: 1
Candidate Starts for MulchMansion_245:
(Start: 1 @118489 has 35 MA's), (13, 118609), (15, 118645), (21, 118684), (22, 118690), (24, 118711),

Gene: Navo_230 Start: 115105, Stop: 115347, Start Num: 1
Candidate Starts for Navo_230:
(Start: 1 @115105 has 35 MA's), (Start: 5 @115171 has 2 MA's), (13, 115225), (22, 115306),

Gene: NootNoot_233 Start: 115866, Stop: 116042, Start Num: 5

Candidate Starts for NootNoot_233:
(Start: 1 @115800 has 35 MA's), (Start: 5 @115866 has 2 MA's), (13, 115920), (22, 116001),

Gene: PacManQ_235 Start: 116546, Stop: 116788, Start Num: 1
Candidate Starts for PacManQ_235:
(Start: 1 @116546 has 35 MA's), (3, 116570), (Start: 5 @116612 has 2 MA's), (13, 116666), (22, 116747),

Gene: Paradiddles_228 Start: 118175, Stop: 118417, Start Num: 1
Candidate Starts for Paradiddles_228:
(Start: 1 @118175 has 35 MA's), (Start: 5 @118241 has 2 MA's), (13, 118295), (22, 118376),

Gene: Peebs_234 Start: 117630, Stop: 117872, Start Num: 1
Candidate Starts for Peebs_234:
(Start: 1 @117630 has 35 MA's), (3, 117654), (Start: 5 @117696 has 2 MA's), (13, 117750), (22, 117831),

Gene: Pepperwood_238 Start: 117438, Stop: 117680, Start Num: 1
Candidate Starts for Pepperwood_238:
(Start: 1 @117438 has 35 MA's), (3, 117462), (Start: 5 @117504 has 2 MA's), (13, 117558), (22, 117639),

Gene: Persimmon_239 Start: 116299, Stop: 116544, Start Num: 1
Candidate Starts for Persimmon_239:
(Start: 1 @116299 has 35 MA's), (Start: 5 @116368 has 2 MA's), (13, 116422), (22, 116503),

Gene: PinkiePie_237 Start: 116955, Stop: 117200, Start Num: 1
Candidate Starts for PinkiePie_237:
(Start: 1 @116955 has 35 MA's), (Start: 5 @117024 has 2 MA's), (13, 117078), (22, 117159),

Gene: PumpkinSpice_252 Start: 115246, Stop: 115455, Start Num: 2
Candidate Starts for PumpkinSpice_252:
(Start: 2 @115246 has 30 MA's), (4, 115267), (22, 115426),

Gene: Quaran19_249 Start: 114687, Stop: 114896, Start Num: 2
Candidate Starts for Quaran19_249:
(Start: 2 @114687 has 30 MA's), (4, 114708), (22, 114867),

Gene: Rikishi_257 Start: 114968, Stop: 115177, Start Num: 2
Candidate Starts for Rikishi_257:
(Start: 2 @114968 has 30 MA's), (4, 114989), (22, 115148),

Gene: Riptide_245 Start: 116310, Stop: 116549, Start Num: 1
Candidate Starts for Riptide_245:
(Start: 1 @116310 has 35 MA's), (3, 116331), (9, 116400), (14, 116430), (22, 116508),

Gene: SaltySpitoon_249 Start: 114229, Stop: 114438, Start Num: 2
Candidate Starts for SaltySpitoon_249:
(Start: 2 @114229 has 30 MA's), (4, 114250), (22, 114409),

Gene: Samisti12_240 Start: 118695, Stop: 118937, Start Num: 1
Candidate Starts for Samisti12_240:

(Start: 1 @118695 has 35 MA's), (3, 118719), (Start: 5 @118761 has 2 MA's), (13, 118815), (22, 118896),

Gene: Scheme_241 Start: 118677, Stop: 118919, Start Num: 1
Candidate Starts for Scheme_241:
(Start: 1 @118677 has 35 MA's), (3, 118701), (Start: 5 @118743 has 2 MA's), (13, 118797), (22, 118878),

Gene: Shuckle_241 Start: 118156, Stop: 118374, Start Num: 3
Candidate Starts for Shuckle_241:
(Start: 1 @118132 has 35 MA's), (3, 118156), (Start: 5 @118198 has 2 MA's), (13, 118252), (22, 118333),

Gene: Sollertia_246 Start: 114659, Stop: 114871, Start Num: 2
Candidate Starts for Sollertia_246:
(Start: 2 @114659 has 30 MA's), (7, 114731), (8, 114737), (10, 114758), (11, 114761), (21, 114833), (22, 114839),

Gene: Spelly_254 Start: 114158, Stop: 114367, Start Num: 2
Candidate Starts for Spelly_254:
(Start: 2 @114158 has 30 MA's), (4, 114179), (22, 114338),

Gene: Spilled_256 Start: 115362, Stop: 115571, Start Num: 2
Candidate Starts for Spilled_256:
(Start: 2 @115362 has 30 MA's), (4, 115383), (22, 115542),

Gene: Squillium_239 Start: 116957, Stop: 117202, Start Num: 1
Candidate Starts for Squillium_239:
(Start: 1 @116957 has 35 MA's), (Start: 5 @117026 has 2 MA's), (13, 117080), (22, 117161),

Gene: Stanimal_245 Start: 115031, Stop: 115243, Start Num: 2
Candidate Starts for Stanimal_245:
(Start: 2 @115031 has 30 MA's), (7, 115103), (8, 115109), (10, 115130), (11, 115133), (21, 115205), (22, 115211),

Gene: StarPlatinum_257 Start: 117446, Stop: 117655, Start Num: 2
Candidate Starts for StarPlatinum_257:
(Start: 2 @117446 has 30 MA's), (3, 117461), (4, 117467), (10, 117545), (16, 117590), (18, 117596), (20, 117608), (22, 117626),

Gene: Starbow_246 Start: 114202, Stop: 114411, Start Num: 2
Candidate Starts for Starbow_246:
(Start: 2 @114202 has 30 MA's), (4, 114223), (22, 114382),

Gene: Sushi23_239 Start: 118496, Stop: 118738, Start Num: 1
Candidate Starts for Sushi23_239:
(Start: 1 @118496 has 35 MA's), (3, 118520), (Start: 5 @118562 has 2 MA's), (13, 118616), (22, 118697),

Gene: Targaryen_237 Start: 118528, Stop: 118770, Start Num: 1
Candidate Starts for Targaryen_237:
(Start: 1 @118528 has 35 MA's), (Start: 5 @118594 has 2 MA's), (13, 118648), (21, 118723), (22, 118729),

Gene: Teutsch_237 Start: 117861, Stop: 118103, Start Num: 1
Candidate Starts for Teutsch_237:
(Start: 1 @117861 has 35 MA's), (3, 117885), (Start: 5 @117927 has 2 MA's), (13, 117981), (22, 118062),

Gene: TomSawyer_253 Start: 116673, Stop: 116882, Start Num: 2
Candidate Starts for TomSawyer_253:
(Start: 2 @116673 has 30 MA's), (4, 116694), (22, 116853),

Gene: Tomas_246 Start: 117740, Stop: 117973, Start Num: 2
Candidate Starts for Tomas_246:
(Start: 2 @117740 has 30 MA's), (21, 117920), (22, 117926),

Gene: Tribute_234 Start: 118026, Stop: 118268, Start Num: 1
Candidate Starts for Tribute_234:
(Start: 1 @118026 has 35 MA's), (3, 118050), (Start: 5 @118092 has 2 MA's), (13, 118146), (22, 118227),

Gene: Warpy_241 Start: 117229, Stop: 117471, Start Num: 1
Candidate Starts for Warpy_241:
(Start: 1 @117229 has 35 MA's), (Start: 5 @117295 has 2 MA's), (13, 117349), (21, 117424), (22, 117430),

Gene: Watermoore_236 Start: 118250, Stop: 118492, Start Num: 1
Candidate Starts for Watermoore_236:
(Start: 1 @118250 has 35 MA's), (3, 118274), (Start: 5 @118316 has 2 MA's), (13, 118370), (22, 118451),

Gene: WhereRU_237 Start: 116636, Stop: 116878, Start Num: 1
Candidate Starts for WhereRU_237:
(Start: 1 @116636 has 35 MA's), (Start: 5 @116702 has 2 MA's), (13, 116756), (22, 116837),

Gene: Wipeout_239 Start: 115625, Stop: 115834, Start Num: 2
Candidate Starts for Wipeout_239:
(Start: 2 @115625 has 30 MA's), (4, 115646), (22, 115805),

Gene: Wofford_248 Start: 117708, Stop: 117935, Start Num: 2
Candidate Starts for Wofford_248:
(Start: 2 @117708 has 30 MA's), (7, 117780), (8, 117786), (10, 117807), (11, 117810), (17, 117855), (18, 117858), (22, 117888),

Gene: Yaboi_250 Start: 114594, Stop: 114806, Start Num: 2
Candidate Starts for Yaboi_250:
(Start: 2 @114594 has 30 MA's), (7, 114666), (8, 114672), (10, 114693), (11, 114696), (21, 114768), (22, 114774),