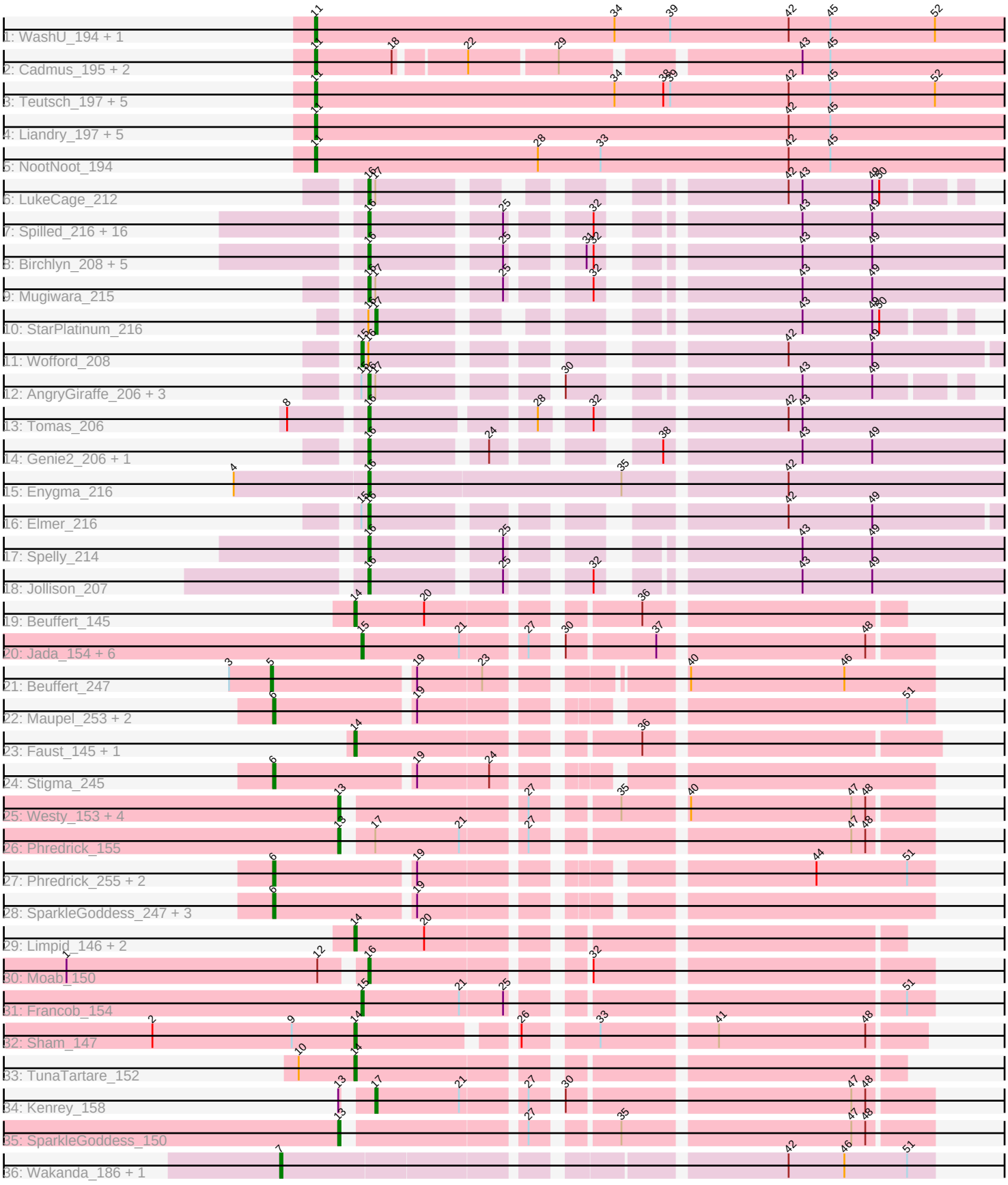
Pham 345594


1: WashU_194 + 1
2: Cadmus_195 + 2
3: Teutsch_197 + 5
4: Liandry_197 + 5
5: NootNoot_194
6: LukeCage_212
7: Spilled_216 + 16
8: Birchlyn_208 + 5
9: Mugiwara_215
10: StarPlatinum_216
11: Wofford_208
12: AngryGiraffe_206 + 3
13: Tomas_206
14: Genie2_206 + 1
15: Enygma_216
16: Elmer_216
17: Spelly_214
18: Jollison_207
19: Beuffert_145
20: Jada_154 + 6
21: Beuffert_247
22: Maupel_253 + 2
23: Faust_145 + 1
24: Stigma_245
25: Westy_153 + 4
26: Phredrick_155
27: Phredrick_255 + 2
28: SparkleGoddess_247 + 3
29: Limpid_146 + 2
30: Moabi_150
31: Francob_154
32: Sham_147
33: TunaTartare_152
34: Kenrey_158
35: SparkleGoddess_150
36: Wakanda_186 + 1

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 345594 Report

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

Pham number 345594 has 95 members, 7 are drafts.

Phages represented in each track:
• Track 1 : WashU_194, Leo04_199
• Track 2 : Cadmus_195, ArianaSWT_201, Cursive_199
• Track 3 : Teutsch_197, Pepperwood_197, Samisti12_201, Sushi23_198, Tribute_195, Peebs_195
• Track 4 : Liandry_197, Bartholomune_198, PinkiePie_197, FreddyDRoo_197, Eliot67_198, Squillium_200
• Track 5 : NootNoot_194
• Track 6 : LukeCage_212
• Track 7 : Spilled_216, Quaran19_209, Rikishi_210, Bordeaux_207, SaltySpitoon_209, Daisy123_211, Wipeout_200, Battuta_207, Starbow_206, KentuckyRacer_215, Tuesday_216, AcciDwight_217, PumpkinSpice_212, CeilingFan_213, Karimac_210, JimJam_216, Brizzy_208
• Track 8 : Birchlyn_208, IchabodCrane_204, Gibbi_217, Amabiko_213, TomSawyer_213, MindFlayer_202
• Track 9 : Mugiwara_215
• Track 10 : StarPlatinum_216
• Track 11 : Wofford_208
• Track 12 : AngryGiraffe_206, Sollertia_208, BoomerJR_206, Yaboi_212
• Track 13 : Tomas_206
• Track 14 : Genie2_206, Stanimal_207
• Track 15 : Enygma_216
• Track 16 : Elmer_216
• Track 17 : Spelly_214
• Track 18 : Jollison_207
• Track 19 : Beuffert_145
• Track 20 : Jada_154, Emma1919_156, MeganTheeKilla_152, Maupel_156, DeluluLabubu_159, Gilson_155, Forrest_157
• Track 21 : Beuffert_247
• Track 22 : Maupel_253, Francob_254, Gilson_250
• Track 23 : Faust_145, SeresaTree_146
• Track 24 : Stigma_245
• Track 25 : Westy_153, Belfort_151, Comrade_148, Karp_145, Stigma_149
• Track 26 : Phredrick_155
• Track 27 : Phredrick_255, Emma1919_250, MeganTheeKilla_251
• Track 28 : SparkleGoddess_247, Westy_249, Karp_247, Belfort_248
• Track 29 : Limpid_146, Annadreamy_139, Blueeyedbeauty_148
• Track 30 : Moab_150

• Track 31 : Francob_154
• Track 32 : Sham_147
• Track 33 : TunaTartare_152
• Track 34 : Kenrey_158
• Track 35 : SparkleGoddess_150
• Track 36 : Wakanda_186, Muntaha_187

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

The start number called the most often in the published annotations is 16, it was called in 34 of the 88 non-draft genes in the pham.

Genes that call this "Most Annotated" start:
• AcciDwight_217, Amabiko_213, AngryGiraffe_206, Battuta_207, Birchlyn_208, BoomerJR_206, Bordeaux_207, Brizzy_208, CeilingFan_213, Daisy123_211, Elmer_216, Enygma_216, Genie2_206, Gibbi_217, IchabodCrane_204, JimJam_216, Jollison_207, Karimac_210, KentuckyRacer_215, LukeCage_212, MindFlayer_202, Moab_150, Mugiwara_215, PumpkinSpice_212, Quaran19_209, Rikishi_210, SaltySpitoon_209, Sollertia_208, Spelly_214, Spilled_216, Stanimal_207, Starbow_206, TomSawyer_213, Tomas_206, Tuesday_216, Wipeout_200, Yaboi_212,

Genes that have the "Most Annotated" start but do not call it:
• StarPlatinum_216, Wofford_208,

Genes that do not have the "Most Annotated" start:
• Annadreamy_139, ArianaSWT_201, Bartholomune_198, Belfort_151, Belfort_248, Beuffert_145, Beuffert_247, Blueeyedbeauty_148, Cadmus_195, Comrade_148, Cursive_199, DeluluLabubu_159, Eliot67_198, Emma1919_156, Emma1919_250, Faust_145, Forrest_157, Francob_154, Francob_254, FreddyDRoo_197, Gilson_155, Gilson_250, Jada_154, Karp_145, Karp_247, Kenrey_158, Leo04_199, Liandry_197, Limpid_146, Maupel_156, Maupel_253, MeganTheeKilla_152, MeganTheeKilla_251, Muntaha_187, NootNoot_194, Peebs_195, Pepperwood_197, Phredrick_155, Phredrick_255, PinkiePie_197, Samisti12_201, SeresaTree_146, Sham_147, SparkleGoddess_150, SparkleGoddess_247, Squillium_200, Stigma_149, Stigma_245, Sushi23_198, Teutsch_197, Tribute_195, TunaTartare_152, Wakanda_186, WashU_194, Westy_153, Westy_249,

Summary by start number:

Start 5:
• Found in 1 of 95 (1.1%) of genes in pham
• Manual Annotations of this start: 1 of 88
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Beuffert_247 (BK1),

Start 6:
• Found in 11 of 95 (11.6%) of genes in pham
• Manual Annotations of this start: 10 of 88
• Called 100.0% of time when present

• Phage (with cluster) where this start called: Belfort_248 (BK1), Emma1919_250 (BK1), Francob_254 (BK1), Gilson_250 (BK1), Karp_247 (BK1), Maupel_253 (BK1), MeganTheeKilla_251 (BK1), Phredrick_255 (BK1), SparkleGoddess_247 (BK1), Stigma_245 (BK1), Westy_249 (BK1),

Start 7:
• Found in 2 of 95 (2.1%) of genes in pham
• Manual Annotations of this start: 2 of 88
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Muntaha_187 (BK2), Wakanda_186 (BK2),

Start 11:
• Found in 18 of 95 (18.9%) of genes in pham
• Manual Annotations of this start: 17 of 88
• Called 100.0% of time when present
• Phage (with cluster) where this start called: ArianaSWT_201 (BE1), Bartholomune_198 (BE1), Cadmus_195 (BE1), Cursive_199 (BE1), Eliot67_198 (BE1), FreddyDRoo_197 (BE1), Leo04_199 (BE1), Liandry_197 (BE1), NootNoot_194 (BE1), Peebs_195 (BE1), Pepperwood_197 (BE1), PinkiePie_197 (BE1), Samisti12_201 (BE1), Squillium_200 (BE1), Sushi23_198 (BE1), Teutsch_197 (BE1), Tribute_195 (BE1), WashU_194 (BE1),

Start 13:
• Found in 8 of 95 (8.4%) of genes in pham
• Manual Annotations of this start: 7 of 88
• Called 87.5% of time when present
• Phage (with cluster) where this start called: Belfort_151 (BK1), Comrade_148 (BK1), Karp_145 (BK1), Phredrick_155 (BK1), SparkleGoddess_150 (BK1), Stigma_149 (BK1), Westy_153 (BK1),

Start 14:
• Found in 8 of 95 (8.4%) of genes in pham
• Manual Annotations of this start: 7 of 88
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Annadreamy_139 (BK1), Beuffert_145 (BK1), Blueeyedbeauty_148 (BK1), Faust_145 (BK1), Limpid_146 (BK1), SeresaTree_146 (BK1), Sham_147 (BK1), TunaTartare_152 (BK1),

Start 15:
• Found in 14 of 95 (14.7%) of genes in pham
• Manual Annotations of this start: 8 of 88
• Called 64.3% of time when present
• Phage (with cluster) where this start called: DeluluLabubu_159 (BK1), Emma1919_156 (BK1), Forrest_157 (BK1), Francob_154 (BK1), Gilson_155 (BK1), Jada_154 (BK1), Maupel_156 (BK1), MeganTheeKilla_152 (BK1), Wofford_208 (BE2),

Start 16:
• Found in 39 of 95 (41.1%) of genes in pham
• Manual Annotations of this start: 34 of 88
• Called 94.9% of time when present

• Phage (with cluster) where this start called: AcciDwight_217 (BE2), Amabiko_213 (BE2), AngryGiraffe_206 (BE2), Battuta_207 (BE2), Birchlyn_208 (BE2), BoomerJR_206 (BE2), Bordeaux_207 (BE2), Brizzy_208 (BE2), CeilingFan_213 (BE2), Daisy123_211 (BE2), Elmer_216 (BE2), Enygma_216 (BE2), Genie2_206 (BE2), Gibbi_217 (BE2), IchabodCrane_204 (BE2), JimJam_216 (BE2), Jollison_207 (BE2), Karimac_210 (BE2), KentuckyRacer_215 (BE2), LukeCage_212 (BE2), MindFlayer_202 (BE2), Moab_150 (BK1), Mugiwara_215 (BE2), PumpkinSpice_212 (BE2), Quaran19_209 (BE2), Rikishi_210 (BE2), SaltySpitoon_209 (BE2), Sollertia_208 (BE2), Spelly_214 (BE2), Spilled_216 (BE2), Stanimal_207 (BE2), Starbow_206 (BE2), TomSawyer_213 (BE2), Tomas_206 (BE2), Tuesday_216 (BE2), Wipeout_200 (BE2), Yaboi_212 (BE2),

Start 17:
• Found in 9 of 95 (9.5%) of genes in pham
• Manual Annotations of this start: 2 of 88
• Called 22.2% of time when present
• Phage (with cluster) where this start called: Kenrey_158 (BK1), StarPlatinum_216 (BE2),

Summary by clusters:

There are 4 clusters represented in this pham: BE2, BE1, BK1, BK2,

Info for manual annotations of cluster BE1:
•Start number 11 was manually annotated 17 times for cluster BE1.

Info for manual annotations of cluster BE2:
•Start number 15 was manually annotated 1 time for cluster BE2.
•Start number 16 was manually annotated 33 times for cluster BE2.
•Start number 17 was manually annotated 1 time for cluster BE2.

Info for manual annotations of cluster BK1:
•Start number 5 was manually annotated 1 time for cluster BK1.
•Start number 6 was manually annotated 10 times for cluster BK1.
•Start number 13 was manually annotated 7 times for cluster BK1.
•Start number 14 was manually annotated 7 times for cluster BK1.
•Start number 15 was manually annotated 7 times for cluster BK1.
•Start number 16 was manually annotated 1 time for cluster BK1.
•Start number 17 was manually annotated 1 time for cluster BK1.

Info for manual annotations of cluster BK2:
•Start number 7 was manually annotated 2 times for cluster BK2.

Gene Information:

Gene: AcciDwight_217 Start: 104281, Stop: 104514, Start Num: 16
Candidate Starts for AcciDwight_217:
(Start: 16 @104281 has 34 MA's), (25, 104332), (32, 104359), (43, 104428), (49, 104458),

Gene: Amabiko_213 Start: 104099, Stop: 104332, Start Num: 16
Candidate Starts for Amabiko_213:

(Start: 16 @104099 has 34 MA's), (25, 104150), (31, 104174), (32, 104177), (43, 104246), (49, 104276),

Gene: AngryGiraffe_206 Start: 103693, Stop: 103905, Start Num: 16
Candidate Starts for AngryGiraffe_206:
(Start: 15 @103690 has 8 MA's), (Start: 16 @103693 has 34 MA's), (Start: 17 @103696 has 2 MA's), (30, 103759), (43, 103840), (49, 103870),

Gene: Annadreamy_139 Start: 79179, Stop: 79391, Start Num: 14
Candidate Starts for Annadreamy_139:
(Start: 14 @79179 has 7 MA's), (20, 79209),

Gene: ArianaSWT_201 Start: 105080, Stop: 105364, Start Num: 11
Candidate Starts for ArianaSWT_201:
(Start: 11 @105080 has 17 MA's), (18, 105113), (22, 105140), (29, 105176), (43, 105269), (45, 105281),

Gene: Bartholomune_198 Start: 103045, Stop: 103350, Start Num: 11
Candidate Starts for Bartholomune_198:
(Start: 11 @103045 has 17 MA's), (42, 103249), (45, 103267),

Gene: Battuta_207 Start: 103415, Stop: 103648, Start Num: 16
Candidate Starts for Battuta_207:
(Start: 16 @103415 has 34 MA's), (25, 103466), (32, 103493), (43, 103562), (49, 103592),

Gene: Belfort_151 Start: 84987, Stop: 85211, Start Num: 13
Candidate Starts for Belfort_151:
(Start: 13 @84987 has 7 MA's), (27, 85056), (35, 85086), (40, 85110), (47, 85179), (48, 85185),

Gene: Belfort_248 Start: 118324, Stop: 118575, Start Num: 6
Candidate Starts for Belfort_248:
(Start: 6 @118324 has 10 MA's), (19, 118381),

Gene: Beuffert_145 Start: 83733, Stop: 83945, Start Num: 14
Candidate Starts for Beuffert_145:
(Start: 14 @83733 has 7 MA's), (20, 83763), (36, 83841),

Gene: Beuffert_247 Start: 118782, Stop: 119036, Start Num: 5
Candidate Starts for Beuffert_247:
(3, 118764), (Start: 5 @118782 has 1 MA's), (19, 118839), (23, 118866), (40, 118932), (46, 118998),

Gene: Birchlyn_208 Start: 101347, Stop: 101580, Start Num: 16
Candidate Starts for Birchlyn_208:
(Start: 16 @101347 has 34 MA's), (25, 101398), (31, 101422), (32, 101425), (43, 101494), (49, 101524),

Gene: Blueeyedbeauty_148 Start: 83607, Stop: 83819, Start Num: 14
Candidate Starts for Blueeyedbeauty_148:
(Start: 14 @83607 has 7 MA's), (20, 83637),

Gene: BoomerJR_206 Start: 104126, Stop: 104338, Start Num: 16
Candidate Starts for BoomerJR_206:

(Start: 15 @104123 has 8 MA's), (Start: 16 @104126 has 34 MA's), (Start: 17 @104129 has 2 MA's), (30, 104192), (43, 104273), (49, 104303),

Gene: Bordeaux_207 Start: 103998, Stop: 104231, Start Num: 16
Candidate Starts for Bordeaux_207:
(Start: 16 @103998 has 34 MA's), (25, 104049), (32, 104076), (43, 104145), (49, 104175),

Gene: Brizzy_208 Start: 104534, Stop: 104767, Start Num: 16
Candidate Starts for Brizzy_208:
(Start: 16 @104534 has 34 MA's), (25, 104585), (32, 104612), (43, 104681), (49, 104711),

Gene: Cadmus_195 Start: 104364, Stop: 104648, Start Num: 11
Candidate Starts for Cadmus_195:
(Start: 11 @104364 has 17 MA's), (18, 104397), (22, 104424), (29, 104460), (43, 104553), (45, 104565),

Gene: CeilingFan_213 Start: 104792, Stop: 105025, Start Num: 16
Candidate Starts for CeilingFan_213:
(Start: 16 @104792 has 34 MA's), (25, 104843), (32, 104870), (43, 104939), (49, 104969),

Gene: Comrade_148 Start: 85186, Stop: 85410, Start Num: 13
Candidate Starts for Comrade_148:
(Start: 13 @85186 has 7 MA's), (27, 85255), (35, 85285), (40, 85309), (47, 85378), (48, 85384),

Gene: Cursive_199 Start: 103712, Stop: 103996, Start Num: 11
Candidate Starts for Cursive_199:
(Start: 11 @103712 has 17 MA's), (18, 103745), (22, 103772), (29, 103808), (43, 103901), (45, 103913),

Gene: Daisy123_211 Start: 104654, Stop: 104887, Start Num: 16
Candidate Starts for Daisy123_211:
(Start: 16 @104654 has 34 MA's), (25, 104705), (32, 104732), (43, 104801), (49, 104831),

Gene: DeluluLabubu_159 Start: 86657, Stop: 86878, Start Num: 15
Candidate Starts for DeluluLabubu_159:
(Start: 15 @86657 has 8 MA's), (21, 86699), (27, 86723), (30, 86732), (37, 86768), (48, 86852),

Gene: Eliot67_198 Start: 102657, Stop: 102962, Start Num: 11
Candidate Starts for Eliot67_198:
(Start: 11 @102657 has 17 MA's), (42, 102861), (45, 102879),

Gene: Elmer_216 Start: 107116, Stop: 107349, Start Num: 16
Candidate Starts for Elmer_216:
(Start: 15 @107113 has 8 MA's), (Start: 16 @107116 has 34 MA's), (42, 107260), (49, 107296),

Gene: Emma1919_156 Start: 84605, Stop: 84826, Start Num: 15
Candidate Starts for Emma1919_156:
(Start: 15 @84605 has 8 MA's), (21, 84647), (27, 84671), (30, 84680), (37, 84716), (48, 84800),

Gene: Emma1919_250 Start: 117485, Stop: 117736, Start Num: 6
Candidate Starts for Emma1919_250:
(Start: 6 @117485 has 10 MA's), (19, 117542), (44, 117686), (51, 117725),

Gene: Enygma_216 Start: 106936, Stop: 107202, Start Num: 16
Candidate Starts for Enygma_216:
(4, 106879), (Start: 16 @106936 has 34 MA's), (35, 107044), (42, 107110),

Gene: Faust_145 Start: 84581, Stop: 84808, Start Num: 14
Candidate Starts for Faust_145:
(Start: 14 @84581 has 7 MA's), (36, 84689),

Gene: Forrest_157 Start: 85699, Stop: 85920, Start Num: 15
Candidate Starts for Forrest_157:
(Start: 15 @85699 has 8 MA's), (21, 85741), (27, 85765), (30, 85774), (37, 85810), (48, 85894),

Gene: Francob_254 Start: 118980, Stop: 119231, Start Num: 6
Candidate Starts for Francob_254:
(Start: 6 @118980 has 10 MA's), (19, 119037), (51, 119220),

Gene: Francob_154 Start: 85123, Stop: 85344, Start Num: 15
Candidate Starts for Francob_154:
(Start: 15 @85123 has 8 MA's), (21, 85165), (25, 85183), (51, 85333),

Gene: FreddyDRoo_197 Start: 102657, Stop: 102962, Start Num: 11
Candidate Starts for FreddyDRoo_197:
(Start: 11 @102657 has 17 MA's), (42, 102861), (45, 102879),

Gene: Genie2_206 Start: 104240, Stop: 104476, Start Num: 16
Candidate Starts for Genie2_206:
(Start: 16 @104240 has 34 MA's), (24, 104285), (38, 104336), (43, 104390), (49, 104420),

Gene: Gibbi_217 Start: 104285, Stop: 104518, Start Num: 16
Candidate Starts for Gibbi_217:
(Start: 16 @104285 has 34 MA's), (25, 104336), (31, 104360), (32, 104363), (43, 104432), (49, 104462),

Gene: Gilson_155 Start: 84567, Stop: 84788, Start Num: 15
Candidate Starts for Gilson_155:
(Start: 15 @84567 has 8 MA's), (21, 84609), (27, 84633), (30, 84642), (37, 84678), (48, 84762),

Gene: Gilson_250 Start: 118245, Stop: 118496, Start Num: 6
Candidate Starts for Gilson_250:
(Start: 6 @118245 has 10 MA's), (19, 118302), (51, 118485),

Gene: IchabodCrane_204 Start: 103800, Stop: 104033, Start Num: 16
Candidate Starts for IchabodCrane_204:
(Start: 16 @103800 has 34 MA's), (25, 103851), (31, 103875), (32, 103878), (43, 103947), (49, 103977),

Gene: Jada_154 Start: 84396, Stop: 84617, Start Num: 15
Candidate Starts for Jada_154:
(Start: 15 @84396 has 8 MA's), (21, 84438), (27, 84462), (30, 84471), (37, 84507), (48, 84591),

Gene: JimJam_216 Start: 105721, Stop: 105954, Start Num: 16
Candidate Starts for JimJam_216:
(Start: 16 @105721 has 34 MA's), (25, 105772), (32, 105799), (43, 105868), (49, 105898),

Gene: Jollison_207 Start: 103931, Stop: 104164, Start Num: 16
Candidate Starts for Jollison_207:
(Start: 16 @103931 has 34 MA's), (25, 103982), (32, 104009), (43, 104078), (49, 104108),

Gene: Karimac_210 Start: 104125, Stop: 104358, Start Num: 16
Candidate Starts for Karimac_210:
(Start: 16 @104125 has 34 MA's), (25, 104176), (32, 104203), (43, 104272), (49, 104302),

Gene: Karp_145 Start: 84414, Stop: 84638, Start Num: 13
Candidate Starts for Karp_145:
(Start: 13 @84414 has 7 MA's), (27, 84483), (35, 84513), (40, 84537), (47, 84606), (48, 84612),

Gene: Karp_247 Start: 119922, Stop: 120173, Start Num: 6
Candidate Starts for Karp_247:
(Start: 6 @119922 has 10 MA's), (19, 119979),

Gene: Kenrey_158 Start: 85728, Stop: 85943, Start Num: 17
Candidate Starts for Kenrey_158:
(Start: 13 @85719 has 7 MA's), (Start: 17 @85728 has 2 MA's), (21, 85764), (27, 85788), (30, 85797), (47, 85911), (48, 85917),

Gene: KentuckyRacer_215 Start: 105636, Stop: 105869, Start Num: 16
Candidate Starts for KentuckyRacer_215:
(Start: 16 @105636 has 34 MA's), (25, 105687), (32, 105714), (43, 105783), (49, 105813),

Gene: Leo04_199 Start: 104671, Stop: 104976, Start Num: 11
Candidate Starts for Leo04_199:
(Start: 11 @104671 has 17 MA's), (34, 104800), (39, 104824), (42, 104875), (45, 104893), (52, 104938),

Gene: Liandry_197 Start: 103364, Stop: 103669, Start Num: 11
Candidate Starts for Liandry_197:
(Start: 11 @103364 has 17 MA's), (42, 103568), (45, 103586),

Gene: Limpid_146 Start: 84480, Stop: 84692, Start Num: 14
Candidate Starts for Limpid_146:
(Start: 14 @84480 has 7 MA's), (20, 84510),

Gene: LukeCage_212 Start: 105748, Stop: 105954, Start Num: 16
Candidate Starts for LukeCage_212:
(Start: 16 @105748 has 34 MA's), (Start: 17 @105751 has 2 MA's), (42, 105883), (43, 105889), (49, 105919), (50, 105922),

Gene: Maupel_253 Start: 117438, Stop: 117689, Start Num: 6
Candidate Starts for Maupel_253:
(Start: 6 @117438 has 10 MA's), (19, 117495), (51, 117678),

Gene: Maupel_156 Start: 84567, Stop: 84788, Start Num: 15
Candidate Starts for Maupel_156:
(Start: 15 @84567 has 8 MA's), (21, 84609), (27, 84633), (30, 84642), (37, 84678), (48, 84762),

Gene: MeganTheeKilla_152 Start: 83918, Stop: 84139, Start Num: 15

Candidate Starts for MeganTheeKilla_152:
(Start: 15 @83918 has 8 MA's), (21, 83960), (27, 83984), (30, 83993), (37, 84029), (48, 84113),

Gene: MeganTheeKilla_251 Start: 117644, Stop: 117895, Start Num: 6
Candidate Starts for MeganTheeKilla_251:
(Start: 6 @117644 has 10 MA's), (19, 117701), (44, 117845), (51, 117884),

Gene: MindFlayer_202 Start: 103316, Stop: 103549, Start Num: 16
Candidate Starts for MindFlayer_202:
(Start: 16 @103316 has 34 MA's), (25, 103367), (31, 103391), (32, 103394), (43, 103463), (49, 103493),

Gene: Moab_150 Start: 86203, Stop: 86421, Start Num: 16
Candidate Starts for Moab_150:
(1, 86080), (12, 86188), (Start: 16 @86203 has 34 MA's), (32, 86284),

Gene: Mugiwara_215 Start: 106245, Stop: 106478, Start Num: 16
Candidate Starts for Mugiwara_215:
(Start: 16 @106245 has 34 MA's), (Start: 17 @106248 has 2 MA's), (25, 106296), (32, 106323), (43, 106392), (49, 106422),

Gene: Muntaha_187 Start: 96355, Stop: 96612, Start Num: 7
Candidate Starts for Muntaha_187:
(Start: 7 @96355 has 2 MA's), (42, 96550), (46, 96574), (51, 96601),

Gene: NootNoot_194 Start: 102153, Stop: 102458, Start Num: 11
Candidate Starts for NootNoot_194:
(Start: 11 @102153 has 17 MA's), (28, 102249), (33, 102276), (42, 102357), (45, 102375),

Gene: Peebs_195 Start: 103953, Stop: 104258, Start Num: 11
Candidate Starts for Peebs_195:
(Start: 11 @103953 has 17 MA's), (34, 104082), (38, 104103), (39, 104106), (42, 104157), (45, 104175), (52, 104220),

Gene: Pepperwood_197 Start: 103911, Stop: 104216, Start Num: 11
Candidate Starts for Pepperwood_197:
(Start: 11 @103911 has 17 MA's), (34, 104040), (38, 104061), (39, 104064), (42, 104115), (45, 104133), (52, 104178),

Gene: Phredrick_155 Start: 84063, Stop: 84287, Start Num: 13
Candidate Starts for Phredrick_155:
(Start: 13 @84063 has 7 MA's), (Start: 17 @84072 has 2 MA's), (21, 84108), (27, 84132), (47, 84255), (48, 84261),

Gene: Phredrick_255 Start: 118327, Stop: 118578, Start Num: 6
Candidate Starts for Phredrick_255:
(Start: 6 @118327 has 10 MA's), (19, 118384), (44, 118528), (51, 118567),

Gene: PinkiePie_197 Start: 103364, Stop: 103669, Start Num: 11
Candidate Starts for PinkiePie_197:
(Start: 11 @103364 has 17 MA's), (42, 103568), (45, 103586),

Gene: PumpkinSpice_212 Start: 104537, Stop: 104770, Start Num: 16

Candidate Starts for PumpkinSpice_212:
(Start: 16 @104537 has 34 MA's), (25, 104588), (32, 104615), (43, 104684), (49, 104714),

Gene: Quaran19_209 Start: 103978, Stop: 104211, Start Num: 16
Candidate Starts for Quaran19_209:
(Start: 16 @103978 has 34 MA's), (25, 104029), (32, 104056), (43, 104125), (49, 104155),

Gene: Rikishi_210 Start: 104259, Stop: 104492, Start Num: 16
Candidate Starts for Rikishi_210:
(Start: 16 @104259 has 34 MA's), (25, 104310), (32, 104337), (43, 104406), (49, 104436),

Gene: SaltySpitoon_209 Start: 103520, Stop: 103753, Start Num: 16
Candidate Starts for SaltySpitoon_209:
(Start: 16 @103520 has 34 MA's), (25, 103571), (32, 103598), (43, 103667), (49, 103697),

Gene: Samisti12_201 Start: 105535, Stop: 105840, Start Num: 11
Candidate Starts for Samisti12_201:
(Start: 11 @105535 has 17 MA's), (34, 105664), (38, 105685), (39, 105688), (42, 105739), (45, 105757), (52, 105802),

Gene: SeresaTree_146 Start: 83963, Stop: 84190, Start Num: 14
Candidate Starts for SeresaTree_146:
(Start: 14 @83963 has 7 MA's), (36, 84071),

Gene: Sham_147 Start: 86459, Stop: 86677, Start Num: 14
Candidate Starts for Sham_147:
(2, 86372), (9, 86432), (Start: 14 @86459 has 7 MA's), (26, 86519), (33, 86546), (41, 86591), (48, 86654),

Gene: Sollertia_208 Start: 104240, Stop: 104452, Start Num: 16
Candidate Starts for Sollertia_208:
(Start: 15 @104237 has 8 MA's), (Start: 16 @104240 has 34 MA's), (Start: 17 @104243 has 2 MA's), (30, 104306), (43, 104387), (49, 104417),

Gene: SparkleGoddess_247 Start: 119197, Stop: 119448, Start Num: 6
Candidate Starts for SparkleGoddess_247:
(Start: 6 @119197 has 10 MA's), (19, 119254),

Gene: SparkleGoddess_150 Start: 85233, Stop: 85457, Start Num: 13
Candidate Starts for SparkleGoddess_150:
(Start: 13 @85233 has 7 MA's), (27, 85302), (35, 85332), (47, 85425), (48, 85431),

Gene: Spelly_214 Start: 103449, Stop: 103682, Start Num: 16
Candidate Starts for Spelly_214:
(Start: 16 @103449 has 34 MA's), (25, 103500), (43, 103596), (49, 103626),

Gene: Spilled_216 Start: 104653, Stop: 104886, Start Num: 16
Candidate Starts for Spilled_216:
(Start: 16 @104653 has 34 MA's), (25, 104704), (32, 104731), (43, 104800), (49, 104830),

Gene: Squillium_200 Start: 103366, Stop: 103671, Start Num: 11
Candidate Starts for Squillium_200:
(Start: 11 @103366 has 17 MA's), (42, 103570), (45, 103588),

Gene: Stanimal_207 Start: 104601, Stop: 104837, Start Num: 16
Candidate Starts for Stanimal_207:
(Start: 16 @104601 has 34 MA's), (24, 104646), (38, 104697), (43, 104751), (49, 104781),

Gene: StarPlatinum_216 Start: 106260, Stop: 106463, Start Num: 17
Candidate Starts for StarPlatinum_216:
(Start: 16 @106257 has 34 MA's), (Start: 17 @106260 has 2 MA's), (43, 106398), (49, 106428), (50, 106431),

Gene: Starbow_206 Start: 103493, Stop: 103726, Start Num: 16
Candidate Starts for Starbow_206:
(Start: 16 @103493 has 34 MA's), (25, 103544), (32, 103571), (43, 103640), (49, 103670),

Gene: Stigma_245 Start: 118909, Stop: 119160, Start Num: 6
Candidate Starts for Stigma_245:
(Start: 6 @118909 has 10 MA's), (19, 118966), (24, 118996),

Gene: Stigma_149 Start: 85631, Stop: 85855, Start Num: 13
Candidate Starts for Stigma_149:
(Start: 13 @85631 has 7 MA's), (27, 85700), (35, 85730), (40, 85754), (47, 85823), (48, 85829),

Gene: Sushi23_198 Start: 105017, Stop: 105322, Start Num: 11
Candidate Starts for Sushi23_198:
(Start: 11 @105017 has 17 MA's), (34, 105146), (38, 105167), (39, 105170), (42, 105221), (45, 105239), (52, 105284),

Gene: Teutsch_197 Start: 104632, Stop: 104937, Start Num: 11
Candidate Starts for Teutsch_197:
(Start: 11 @104632 has 17 MA's), (34, 104761), (38, 104782), (39, 104785), (42, 104836), (45, 104854), (52, 104899),

Gene: TomSawyer_213 Start: 105964, Stop: 106197, Start Num: 16
Candidate Starts for TomSawyer_213:
(Start: 16 @105964 has 34 MA's), (25, 106015), (31, 106039), (32, 106042), (43, 106111), (49, 106141),

Gene: Tomas_206 Start: 104664, Stop: 104903, Start Num: 16
Candidate Starts for Tomas_206:
(8, 104634), (Start: 16 @104664 has 34 MA's), (28, 104727), (32, 104745), (42, 104811), (43, 104817),

Gene: Tribute_195 Start: 104482, Stop: 104787, Start Num: 11
Candidate Starts for Tribute_195:
(Start: 11 @104482 has 17 MA's), (34, 104611), (38, 104632), (39, 104635), (42, 104686), (45, 104704), (52, 104749),

Gene: Tuesday_216 Start: 104504, Stop: 104737, Start Num: 16
Candidate Starts for Tuesday_216:
(Start: 16 @104504 has 34 MA's), (25, 104555), (32, 104582), (43, 104651), (49, 104681),

Gene: TunaTartare_152 Start: 87717, Stop: 87929, Start Num: 14
Candidate Starts for TunaTartare_152:
(10, 87693), (Start: 14 @87717 has 7 MA's),

Gene: Wakanda_186 Start: 96416, Stop: 96673, Start Num: 7
Candidate Starts for Wakanda_186:
(Start: 7 @96416 has 2 MA's), (42, 96611), (46, 96635), (51, 96662),

Gene: WashU_194 Start: 104556, Stop: 104861, Start Num: 11
Candidate Starts for WashU_194:
(Start: 11 @104556 has 17 MA's), (34, 104685), (39, 104709), (42, 104760), (45, 104778), (52, 104823),

Gene: Westy_153 Start: 85946, Stop: 86170, Start Num: 13
Candidate Starts for Westy_153:
(Start: 13 @85946 has 7 MA's), (27, 86015), (35, 86045), (40, 86069), (47, 86138), (48, 86144),

Gene: Westy_249 Start: 119727, Stop: 119978, Start Num: 6
Candidate Starts for Westy_249:
(Start: 6 @119727 has 10 MA's), (19, 119784),

Gene: Wipeout_200 Start: 104916, Stop: 105149, Start Num: 16
Candidate Starts for Wipeout_200:
(Start: 16 @104916 has 34 MA's), (25, 104967), (32, 104994), (43, 105063), (49, 105093),

Gene: Wofford_208 Start: 106981, Stop: 107217, Start Num: 15
Candidate Starts for Wofford_208:
(Start: 15 @106981 has 8 MA's), (Start: 16 @106984 has 34 MA's), (42, 107128), (49, 107164),

Gene: Yaboi_212 Start: 104175, Stop: 104387, Start Num: 16
Candidate Starts for Yaboi_212:
(Start: 15 @104172 has 8 MA's), (Start: 16 @104175 has 34 MA's), (Start: 17 @104178 has 2 MA's), (30, 104241), (43, 104322), (49, 104352),