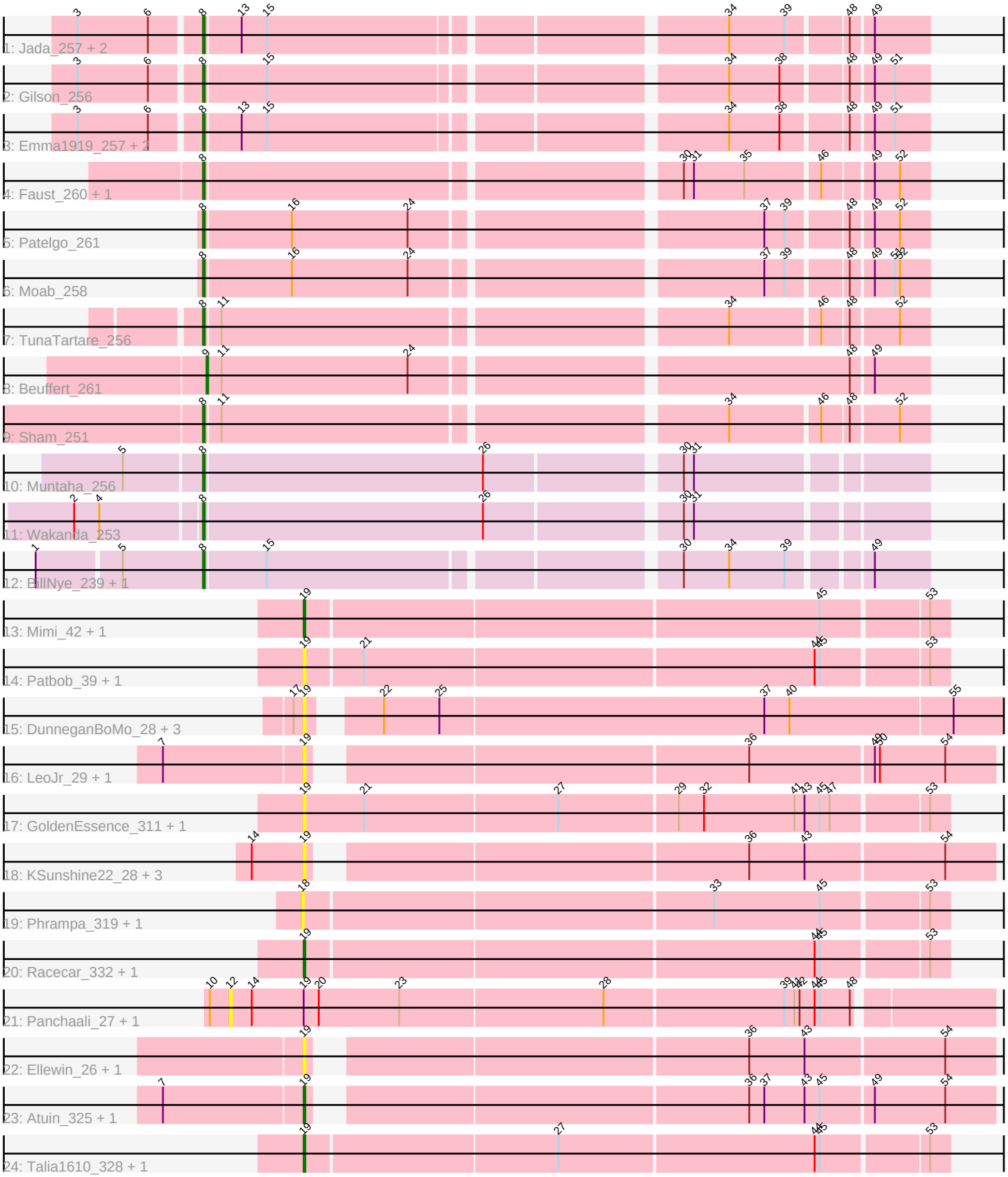
# Pham 205276


1: Jada_257 + 2
2: Gilson_256
3: Emma1919_257 + 2
4: Faust_260 + 1
5: Patelgo_261
6: Moab_258
7: TunaTartare_256
8: Beuffert_261
9: Sham_251
10: Muntaha_256
11: Wakanda_253
12: BillNye_239 + 1
13: Mimi_42 + 1
14: Patbob_39 + 1
15: DunneganBoMo_28 + 3
16: LeoJr_29 + 1
17: GoldenEssence_311 + 1
18: KSunshine22_28 + 3
19: Phrampa_319 + 1
20: Racecar_332 + 1
21: Panchaali_27 + 1
22: Ellewin_26 + 1
23: Atuin_325 + 1
24: Talia1610_328 + 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 205276 Report

This analysis was run 02/22/25 on database version 588.

Pham number 205276 has 46 members, 21 are drafts.

Phages represented in each track:
• Track 1 : Jada_257, Francob_260, Forrest_256
• Track 2 : Gilson_256
• Track 3 : Emma1919_257, MeganTheeKilla_258, Phredrick_262
• Track 4 : Faust_260, SeresaTree_265
• Track 5 : Patelgo_261
• Track 6 : Moab_258
• Track 7 : TunaTartare_256
• Track 8 : Beuffert_261
• Track 9 : Sham_251
• Track 10 : Muntaha_256
• Track 11 : Wakanda_253
• Track 12 : BillNye_239, Circinus_238
• Track 13 : Mimi_42, Mimi_327
• Track 14 : Patbob_39, Patbob_329
• Track 15 : DunneganBoMo_28, WaddleDee_328, DunneganBoMo_331, WaddleDee_26
• Track 16 : LeoJr_29, LeoJr_342
• Track 17 : GoldenEssence_311, GoldenEssence_29
• Track 18 : KSunshine22_28, ReginaGlobina_339, KSunshine22_320, ReginaGlobina_28
• Track 19 : Phrampa_319, Phrampa_34
• Track 20 : Racecar_332, Racecar_43
• Track 21 : Panchaali_27, Panchaali_326
• Track 22 : Ellewin_26, Ellewin_325
• Track 23 : Atuin_325, Atuin_25
• Track 24 : Talia1610_328, Talia1610_42

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

The start number called the most often in the published annotations is 8, it was called in 16 of the 25 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

• BillNye_239, Circinus_238, Emma1919_257, Faust_260, Forrest_256, Francob_260, Gilson_256, Jada_257, MeganTheeKilla_258, Moab_258, Muntaha_256, Patelgo_261, Phredrick_262, SeresaTree_265, Sham_251, TunaTartare_256, Wakanda_253,

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

Genes that do not have the "Most Annotated" start:
• Atuin_25, Atuin_325, Beuffert_261, DunneganBoMo_28, DunneganBoMo_331, Ellewin_26, Ellewin_325, GoldenEssence_29, GoldenEssence_311, KSunshine22_28, KSunshine22_320, LeoJr_29, LeoJr_342, Mimi_327, Mimi_42, Panchaali_27, Panchaali_326, Patbob_329, Patbob_39, Phrampa_319, Phrampa_34, Racecar_332, Racecar_43, ReginaGlobina_28, ReginaGlobina_339, Talia1610_328, Talia1610_42, WaddleDee_26, WaddleDee_328,

**Summary by start number:**

Start 8:
• Found in 17 of 46 ( 37.0% ) of genes in pham
• Manual Annotations of this start: 16 of 25
• Called 100.0% of time when present
• Phage (with cluster) where this start called: BillNye_239 (BK2), Circinus_238 (BK2), Emma1919_257 (BK1), Faust_260 (BK1), Forrest_256 (BK1), Francob_260 (BK1), Gilson_256 (BK1), Jada_257 (BK1), MeganTheeKilla_258 (BK1), Moab_258 (BK1), Muntaha_256 (BK2), Patelgo_261 (BK1), Phredrick_262 (BK1), SeresaTree_265 (BK1), Sham_251 (BK1), TunaTartare_256 (BK1), Wakanda_253 (BK2),

Start 9:
• Found in 1 of 46 ( 2.2% ) of genes in pham
• Manual Annotations of this start: 1 of 25
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Beuffert_261 (BK1),

Start 12:
• Found in 2 of 46 ( 4.3% ) of genes in pham
• No Manual Annotations of this start.
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Panchaali_27 (FC), Panchaali_326 (FC),

Start 18:
• Found in 2 of 46 ( 4.3% ) of genes in pham
• No Manual Annotations of this start.
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Phrampa_319 (FC), Phrampa_34 (FC),

Start 19:
• Found in 26 of 46 ( 56.5% ) of genes in pham
• Manual Annotations of this start: 8 of 25
• Called 92.3% of time when present
• Phage (with cluster) where this start called: Atuin_25 (FC), Atuin_325 (FC), DunneganBoMo_28 (FC), DunneganBoMo_331 (FC), Ellewin_26 (FC), Ellewin_325 (FC), GoldenEssence_29 (FC), GoldenEssence_311 (FC), KSunshine22_28 (FC),

KSunshine22_320 (FC), LeoJr_29 (FC), LeoJr_342 (FC), Mimi_327 (FC), Mimi_42 (FC), Patbob_329 (FC), Patbob_39 (FC), Racecar_332 (FC), Racecar_43 (FC), ReginaGlobina_28 (FC), ReginaGlobina_339 (FC), Talia1610_328 (FC), Talia1610_42 (FC), WaddleDee_26 (FC), WaddleDee_328 (FC),

**Summary by clusters:**

There are 3 clusters represented in this pham: FC, BK1, BK2,

Info for manual annotations of cluster BK1:
•Start number 8 was manually annotated 12 times for cluster BK1.
•Start number 9 was manually annotated 1 time for cluster BK1.

Info for manual annotations of cluster BK2:
•Start number 8 was manually annotated 4 times for cluster BK2.

Info for manual annotations of cluster FC:
•Start number 19 was manually annotated 8 times for cluster FC.

***Gene Information:***

Gene: Atuin_325 Start: 189103, Stop: 189486, Start Num: 19
Candidate Starts for Atuin_325:
(7, 189022), (Start: 19 @189103 has 8 MA's), (36, 189343), (37, 189352), (43, 189376), (45, 189385), (49, 189415), (54, 189457),

Gene: Atuin_25 Start: 12215, Stop: 12598, Start Num: 19
Candidate Starts for Atuin_25:
(7, 12134), (Start: 19 @12215 has 8 MA's), (36, 12455), (37, 12464), (43, 12488), (45, 12497), (49, 12527), (54, 12569),

Gene: Beuffert_261 Start: 124352, Stop: 124762, Start Num: 9
Candidate Starts for Beuffert_261:
(Start: 9 @124352 has 1 MA's), (11, 124361), (24, 124472), (48, 124718), (49, 124730),

Gene: BillNye_239 Start: 121180, Stop: 121578, Start Num: 8
Candidate Starts for BillNye_239:
(1, 121084), (5, 121132), (Start: 8 @121180 has 16 MA's), (15, 121216), (30, 121444), (34, 121471), (39, 121504), (49, 121546),

Gene: Circinus_238 Start: 120687, Stop: 121085, Start Num: 8
Candidate Starts for Circinus_238:
(1, 120591), (5, 120639), (Start: 8 @120687 has 16 MA's), (15, 120723), (30, 120951), (34, 120978), (39, 121011), (49, 121053),

Gene: DunneganBoMo_28 Start: 11393, Stop: 11803, Start Num: 19
Candidate Starts for DunneganBoMo_28:
(17, 11387), (Start: 19 @11393 has 8 MA's), (22, 11423), (25, 11456), (37, 11648), (40, 11663), (55, 11759),

Gene: DunneganBoMo_331 Start: 190805, Stop: 191215, Start Num: 19

Candidate Starts for DunneganBoMo_331:
(17, 190799), (Start: 19 @190805 has 8 MA's), (22, 190835), (25, 190868), (37, 191060), (40, 191075), (55, 191171),

Gene: Ellewin_26 Start: 11395, Stop: 11778, Start Num: 19
Candidate Starts for Ellewin_26:
(Start: 19 @11395 has 8 MA's), (36, 11635), (43, 11668), (54, 11749),

Gene: Ellewin_325 Start: 190509, Stop: 190892, Start Num: 19
Candidate Starts for Ellewin_325:
(Start: 19 @190509 has 8 MA's), (36, 190749), (43, 190782), (54, 190863),

Gene: Emma1919_257 Start: 122129, Stop: 122527, Start Num: 8
Candidate Starts for Emma1919_257:
(3, 122060), (6, 122102), (Start: 8 @122129 has 16 MA's), (13, 122150), (15, 122165), (34, 122417), (38, 122447), (48, 122483), (49, 122495), (51, 122507),

Gene: Faust_260 Start: 125140, Stop: 125544, Start Num: 8
Candidate Starts for Faust_260:
(Start: 8 @125140 has 16 MA's), (30, 125407), (31, 125413), (35, 125443), (46, 125485), (49, 125512), (52, 125527),

Gene: Forrest_256 Start: 122869, Stop: 123267, Start Num: 8
Candidate Starts for Forrest_256:
(3, 122800), (6, 122842), (Start: 8 @122869 has 16 MA's), (13, 122890), (15, 122905), (34, 123157), (39, 123190), (48, 123223), (49, 123235),

Gene: Francob_260 Start: 123232, Stop: 123630, Start Num: 8
Candidate Starts for Francob_260:
(3, 123163), (6, 123205), (Start: 8 @123232 has 16 MA's), (13, 123253), (15, 123268), (34, 123520), (39, 123553), (48, 123586), (49, 123598),

Gene: Gilson_256 Start: 122487, Stop: 122885, Start Num: 8
Candidate Starts for Gilson_256:
(3, 122418), (6, 122460), (Start: 8 @122487 has 16 MA's), (15, 122523), (34, 122775), (38, 122805), (48, 122841), (49, 122853), (51, 122865),

Gene: GoldenEssence_311 Start: 182536, Stop: 182162, Start Num: 19
Candidate Starts for GoldenEssence_311:
(Start: 19 @182536 has 8 MA's), (21, 182500), (27, 182386), (29, 182317), (32, 182302), (41, 182248), (43, 182242), (45, 182233), (47, 182227), (53, 182173),

Gene: GoldenEssence_29 Start: 11983, Stop: 11609, Start Num: 19
Candidate Starts for GoldenEssence_29:
(Start: 19 @11983 has 8 MA's), (21, 11947), (27, 11833), (29, 11764), (32, 11749), (41, 11695), (43, 11689), (45, 11680), (47, 11674), (53, 11620),

Gene: Jada_257 Start: 122109, Stop: 122507, Start Num: 8
Candidate Starts for Jada_257:
(3, 122040), (6, 122082), (Start: 8 @122109 has 16 MA's), (13, 122130), (15, 122145), (34, 122397), (39, 122430), (48, 122463), (49, 122475),

Gene: KSunshine22_28 Start: 11984, Stop: 12367, Start Num: 19

Candidate Starts for KSunshine22_28:
(14, 11954), (Start: 19 @11984 has 8 MA's), (36, 12224), (43, 12257), (54, 12338),

Gene: KSunshine22_320 Start: 188885, Stop: 189268, Start Num: 19
Candidate Starts for KSunshine22_320:
(14, 188855), (Start: 19 @188885 has 8 MA's), (36, 189125), (43, 189158), (54, 189239),

Gene: LeoJr_29 Start: 12519, Stop: 12902, Start Num: 19
Candidate Starts for LeoJr_29:
(7, 12438), (Start: 19 @12519 has 8 MA's), (36, 12759), (49, 12831), (50, 12834), (54, 12873),

Gene: LeoJr_342 Start: 189822, Stop: 190205, Start Num: 19
Candidate Starts for LeoJr_342:
(7, 189741), (Start: 19 @189822 has 8 MA's), (36, 190062), (49, 190134), (50, 190137), (54, 190176),

Gene: MeganTheeKilla_258 Start: 122298, Stop: 122696, Start Num: 8
Candidate Starts for MeganTheeKilla_258:
(3, 122229), (6, 122271), (Start: 8 @122298 has 16 MA's), (13, 122319), (15, 122334), (34, 122586), (38, 122616), (48, 122652), (49, 122664), (51, 122676),

Gene: Mimi_42 Start: 18233, Stop: 17862, Start Num: 19
Candidate Starts for Mimi_42:
(Start: 19 @18233 has 8 MA's), (45, 17933), (53, 17873),

Gene: Mimi_327 Start: 190893, Stop: 190522, Start Num: 19
Candidate Starts for Mimi_327:
(Start: 19 @190893 has 8 MA's), (45, 190593), (53, 190533),

Gene: Moab_258 Start: 124224, Stop: 124628, Start Num: 8
Candidate Starts for Moab_258:
(Start: 8 @124224 has 16 MA's), (16, 124275), (24, 124344), (37, 124539), (39, 124551), (48, 124584), (49, 124596), (51, 124608), (52, 124611),

Gene: Muntaha_256 Start: 121984, Stop: 122391, Start Num: 8
Candidate Starts for Muntaha_256:
(5, 121939), (Start: 8 @121984 has 16 MA's), (26, 122149), (30, 122257), (31, 122263),

Gene: Panchaali_27 Start: 10720, Stop: 11160, Start Num: 12
Candidate Starts for Panchaali_27:
(10, 10708), (12, 10720), (14, 10732), (Start: 19 @10762 has 8 MA's), (20, 10771), (23, 10819), (28, 10939), (39, 11044), (41, 11050), (42, 11053), (44, 11062), (45, 11065), (48, 11083),

Gene: Panchaali_326 Start: 189778, Stop: 190218, Start Num: 12
Candidate Starts for Panchaali_326:
(10, 189766), (12, 189778), (14, 189790), (Start: 19 @189820 has 8 MA's), (20, 189829), (23, 189877), (28, 189997), (39, 190102), (41, 190108), (42, 190111), (44, 190120), (45, 190123), (48, 190141),

Gene: Patbob_39 Start: 17797, Stop: 17426, Start Num: 19
Candidate Starts for Patbob_39:
(Start: 19 @17797 has 8 MA's), (21, 17764), (44, 17500), (45, 17497), (53, 17437),

Gene: Patbob_329 Start: 193256, Stop: 192885, Start Num: 19
Candidate Starts for Patbob_329:

(Start: 19 @193256 has 8 MA's), (21, 193223), (44, 192959), (45, 192956), (53, 192896),

Gene: Patelgo_261 Start: 125171, Stop: 125575, Start Num: 8
Candidate Starts for Patelgo_261:
(Start: 8 @125171 has 16 MA's), (16, 125222), (24, 125291), (37, 125486), (39, 125498), (48, 125531), (49, 125543), (52, 125558),

Gene: Phrampa_319 Start: 191426, Stop: 191055, Start Num: 18
Candidate Starts for Phrampa_319:
(18, 191426), (33, 191189), (45, 191126), (53, 191066),

Gene: Phrampa_34 Start: 15055, Stop: 14684, Start Num: 18
Candidate Starts for Phrampa_34:
(18, 15055), (33, 14818), (45, 14755), (53, 14695),

Gene: Phredrick_262 Start: 122980, Stop: 123378, Start Num: 8
Candidate Starts for Phredrick_262:
(3, 122911), (6, 122953), (Start: 8 @122980 has 16 MA's), (13, 123001), (15, 123016), (34, 123268), (38, 123298), (48, 123334), (49, 123346), (51, 123358),

Gene: Racecar_332 Start: 192542, Stop: 192171, Start Num: 19
Candidate Starts for Racecar_332:
(Start: 19 @192542 has 8 MA's), (44, 192245), (45, 192242), (53, 192182),

Gene: Racecar_43 Start: 18833, Stop: 18462, Start Num: 19
Candidate Starts for Racecar_43:
(Start: 19 @18833 has 8 MA's), (44, 18536), (45, 18533), (53, 18473),

Gene: ReginaGlobina_339 Start: 190160, Stop: 190543, Start Num: 19
Candidate Starts for ReginaGlobina_339:
(14, 190130), (Start: 19 @190160 has 8 MA's), (36, 190400), (43, 190433), (54, 190514),

Gene: ReginaGlobina_28 Start: 12713, Stop: 13096, Start Num: 19
Candidate Starts for ReginaGlobina_28:
(14, 12683), (Start: 19 @12713 has 8 MA's), (36, 12953), (43, 12986), (54, 13067),

Gene: SeresaTree_265 Start: 125361, Stop: 125765, Start Num: 8
Candidate Starts for SeresaTree_265:
(Start: 8 @125361 has 16 MA's), (30, 125628), (31, 125634), (35, 125664), (46, 125706), (49, 125733), (52, 125748),

Gene: Sham_251 Start: 125060, Stop: 125464, Start Num: 8
Candidate Starts for Sham_251:
(Start: 8 @125060 has 16 MA's), (11, 125069), (34, 125354), (46, 125405), (48, 125420), (52, 125447),

Gene: Talia1610_328 Start: 192723, Stop: 192352, Start Num: 19
Candidate Starts for Talia1610_328:
(Start: 19 @192723 has 8 MA's), (27, 192576), (44, 192426), (45, 192423), (53, 192363),

Gene: Talia1610_42 Start: 18251, Stop: 17880, Start Num: 19
Candidate Starts for Talia1610_42:
(Start: 19 @18251 has 8 MA's), (27, 18104), (44, 17954), (45, 17951), (53, 17891),

Gene: TunaTartare_256 Start: 125920, Stop: 126324, Start Num: 8
Candidate Starts for TunaTartare_256:
(Start: 8 @125920 has 16 MA's), (11, 125929), (34, 126214), (46, 126265), (48, 126280), (52, 126307),

Gene: WaddleDee_328 Start: 189334, Stop: 189744, Start Num: 19
Candidate Starts for WaddleDee_328:
(17, 189328), (Start: 19 @189334 has 8 MA's), (22, 189364), (25, 189397), (37, 189589), (40, 189604), (55, 189700),

Gene: WaddleDee_26 Start: 11139, Stop: 11549, Start Num: 19
Candidate Starts for WaddleDee_26:
(17, 11133), (Start: 19 @11139 has 8 MA's), (22, 11169), (25, 11202), (37, 11394), (40, 11409), (55, 11505),

Gene: Wakanda_253 Start: 121195, Stop: 121602, Start Num: 8
Candidate Starts for Wakanda_253:
(2, 121123), (4, 121138), (Start: 8 @121195 has 16 MA's), (26, 121360), (30, 121468), (31, 121474),