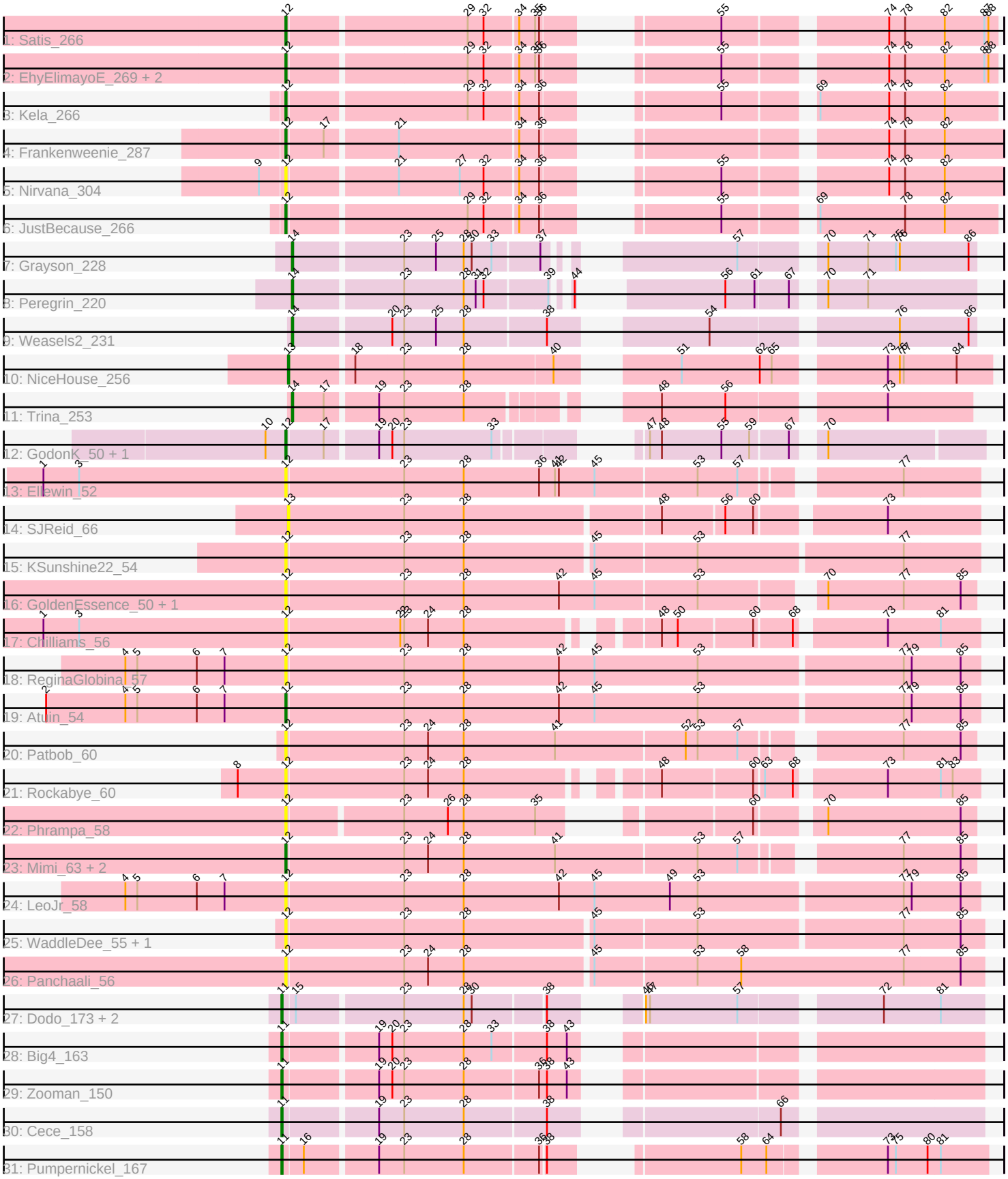
Pham 223254


1: Satis_266
2: EhyElimayoE_269 + 2
3: Kela_266
4: Frankenweenie_287
5: Nirvana_304
6: JustBecause_266
7: Grayson_228
8: Peregrin_220
9: Weasels2_231
10: NiceHouse_256
11: Trina_253
12: GodonK_50 + 1
13: Ellewin_52
14: SJReid_66
15: KSunshine22_54
16: GoldenEssence_50 + 1
17: Chilliams_56
18: ReginaGlobina_57
19: Atuin_54
20: Patbob_60
21: Rockabye_60
22: Phrampa_58
23: Mimi_63 + 2
24: LeoJr_58
25: WaddleDee_55 + 1
26: Panchaali_56
27: Dodo_173 + 2
28: Big4_163
29: Zooman_150
30: Cece_158
31: Pumpernickel_167

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 223254 Report

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

Pham number 223254 has 40 members, 16 are drafts.

Phages represented in each track:
- Track 1 : Satis_266
- Track 2 : EhyElimayoE_269, Kradal_266, Quantum_264
- Track 3 : Kela_266
- Track 4 : Frankenweenie_287
- Track 5 : Nirvana_304
- Track 6 : JustBecause_266
- Track 7 : Grayson_228
- Track 8 : Peregrin_220
- Track 9 : Weasels2_231
- Track 10 : NiceHouse_256
- Track 11 : Trina_253
- Track 12 : GodonK_50, Phendrix_50
- Track 13 : Ellewin_52
- Track 14 : SJReid_66
- Track 15 : KSunshine22_54
- Track 16 : GoldenEssence_50, Bloom_67
- Track 17 : Chilliams_56
- Track 18 : ReginaGlobina_57
- Track 19 : Atuin_54
- Track 20 : Patbob_60
- Track 21 : Rockabye_60
- Track 22 : Phrampa_58
- Track 23 : Mimi_63, Talia1610_63, Racecar_64
- Track 24 : LeoJr_58
- Track 25 : WaddleDee_55, DunneganBoMo_54
- Track 26 : Panchaali_56
- Track 27 : Dodo_173, A3Wally_171, PauloDiaboli_171
- Track 28 : Big4_163
- Track 29 : Zooman_150
- Track 30 : Cece_158
- Track 31 : Pumpernickel_167

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

The start number called the most often in the published annotations is 12, it was called in 13 of the 24 non-draft genes in the pham.

Genes that call this "Most Annotated" start:
• Atuin_54, Bloom_67, Chilliams_56, DunneganBoMo_54, EhyElimayoE_269, Ellewin_52, Frankenweenie_287, GodonK_50, GoldenEssence_50, JustBecause_266, KSunshine22_54, Kela_266, Kradal_266, LeoJr_58, Mimi_63, Nirvana_304, Panchaali_56, Patbob_60, Phendrix_50, Phrampa_58, Quantum_264, Racecar_64, ReginaGlobina_57, Rockabye_60, Satis_266, Talia1610_63, WaddleDee_55,

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

Genes that do not have the "Most Annotated" start:
• A3Wally_171, Big4_163, Cece_158, Dodo_173, Grayson_228, NiceHouse_256, PauloDiaboli_171, Peregrin_220, Pumpernickel_167, SJReid_66, Trina_253, Weasels2_231, Zooman_150,

Summary by start number:

Start 11:
• Found in 7 of 40 (17.5%) of genes in pham
• Manual Annotations of this start: 6 of 24
• Called 100.0% of time when present
• Phage (with cluster) where this start called: A3Wally_171 (GD1), Big4_163 (GD2), Cece_158 (GD3), Dodo_173 (GD1), PauloDiaboli_171 (GD1), Pumpernickel_167 (GD4), Zooman_150 (GD2),

Start 12:
• Found in 27 of 40 (67.5%) of genes in pham
• Manual Annotations of this start: 13 of 24
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Atuin_54 (FC), Bloom_67 (FC), Chilliams_56 (FC), DunneganBoMo_54 (FC), EhyElimayoE_269 (BM), Ellewin_52 (FC), Frankenweenie_287 (BM), GodonK_50 (DK), GoldenEssence_50 (FC), JustBecause_266 (BM), KSunshine22_54 (FC), Kela_266 (BM), Kradal_266 (BM), LeoJr_58 (FC), Mimi_63 (FC), Nirvana_304 (BM), Panchaali_56 (FC), Patbob_60 (FC), Phendrix_50 (DK), Phrampa_58 (FC), Quantum_264 (BM), Racecar_64 (FC), ReginaGlobina_57 (FC), Rockabye_60 (FC), Satis_266 (BM), Talia1610_63 (FC), WaddleDee_55 (FC),

Start 13:
• Found in 2 of 40 (5.0%) of genes in pham
• Manual Annotations of this start: 1 of 24
• Called 100.0% of time when present
• Phage (with cluster) where this start called: NiceHouse_256 (CE), SJReid_66 (FC),

Start 14:
• Found in 4 of 40 (10.0%) of genes in pham
• Manual Annotations of this start: 4 of 24
• Called 100.0% of time when present

• Phage (with cluster) where this start called: Grayson_228 (CB), Peregrin_220 (CB), Trina_253 (CE), Weasels2_231 (CB),

Summary by clusters:

There are 9 clusters represented in this pham: GD1, GD2, GD3, GD4, DK, BM, CE, FC, CB,

Info for manual annotations of cluster BM:
•Start number 12 was manually annotated 7 times for cluster BM.

Info for manual annotations of cluster CB:
•Start number 14 was manually annotated 3 times for cluster CB.

Info for manual annotations of cluster CE:
•Start number 13 was manually annotated 1 time for cluster CE.
•Start number 14 was manually annotated 1 time for cluster CE.

Info for manual annotations of cluster DK:
•Start number 12 was manually annotated 2 times for cluster DK.

Info for manual annotations of cluster FC:
•Start number 12 was manually annotated 4 times for cluster FC.

Info for manual annotations of cluster GD1:
•Start number 11 was manually annotated 2 times for cluster GD1.

Info for manual annotations of cluster GD2:
•Start number 11 was manually annotated 2 times for cluster GD2.

Info for manual annotations of cluster GD3:
•Start number 11 was manually annotated 1 time for cluster GD3.

Info for manual annotations of cluster GD4:
•Start number 11 was manually annotated 1 time for cluster GD4.

Gene Information:

Gene: A3Wally_171 Start: 96202, Stop: 96663, Start Num: 11
Candidate Starts for A3Wally_171:
(Start: 11 @96202 has 6 MA's), (15, 96211), (23, 96286), (28, 96331), (30, 96337), (38, 96388), (46, 96427), (47, 96430), (57, 96496), (72, 96589), (81, 96631),

Gene: Atuin_54 Start: 22728, Stop: 23243, Start Num: 12
Candidate Starts for Atuin_54:
(2, 22548), (4, 22608), (5, 22617), (6, 22662), (7, 22683), (Start: 12 @22728 has 13 MA's), (23, 22815), (28, 22860), (42, 22932), (45, 22959), (53, 23037), (77, 23187), (79, 23193), (85, 23229),

Gene: Big4_163 Start: 93329, Stop: 93793, Start Num: 11
Candidate Starts for Big4_163:

(Start: 11 @93329 has 6 MA's), (19, 93395), (20, 93404), (23, 93413), (28, 93458), (33, 93479), (38, 93518), (43, 93533),

Gene: Bloom_67 Start: 26741, Stop: 27235, Start Num: 12
Candidate Starts for Bloom_67:
(Start: 12 @26741 has 13 MA's), (23, 26828), (28, 26873), (42, 26945), (45, 26972), (53, 27047), (70, 27125), (77, 27182), (85, 27224),

Gene: Cece_158 Start: 98749, Stop: 99213, Start Num: 11
Candidate Starts for Cece_158:
(Start: 11 @98749 has 6 MA's), (19, 98815), (23, 98833), (28, 98878), (38, 98938), (66, 99076),

Gene: Chilliams_56 Start: 24656, Stop: 25129, Start Num: 12
Candidate Starts for Chilliams_56:
(1, 24473), (3, 24500), (Start: 12 @24656 has 13 MA's), (22, 24740), (23, 24743), (24, 24761), (28, 24788), (48, 24908), (50, 24920), (60, 24974), (68, 25001), (73, 25061), (81, 25100),

Gene: Dodo_173 Start: 95808, Stop: 96269, Start Num: 11
Candidate Starts for Dodo_173:
(Start: 11 @95808 has 6 MA's), (15, 95817), (23, 95892), (28, 95937), (30, 95943), (38, 95994), (46, 96033), (47, 96036), (57, 96102), (72, 96195), (81, 96237),

Gene: DunneganBoMo_54 Start: 20816, Stop: 21325, Start Num: 12
Candidate Starts for DunneganBoMo_54:
(Start: 12 @20816 has 13 MA's), (23, 20903), (28, 20948), (45, 21041), (53, 21116), (77, 21266), (85, 21308),

Gene: EhyElimayoE_269 Start: 153102, Stop: 152647, Start Num: 12
Candidate Starts for EhyElimayoE_269:
(Start: 12 @153102 has 13 MA's), (29, 152973), (32, 152961), (34, 152937), (35, 152925), (36, 152922), (55, 152835), (74, 152727), (78, 152715), (82, 152685), (87, 152655), (88, 152652),

Gene: Ellewin_52 Start: 20408, Stop: 20902, Start Num: 12
Candidate Starts for Ellewin_52:
(1, 20225), (3, 20252), (Start: 12 @20408 has 13 MA's), (23, 20495), (28, 20540), (36, 20597), (41, 20609), (42, 20612), (45, 20639), (53, 20714), (57, 20744), (77, 20846),

Gene: Frankenweenie_287 Start: 164243, Stop: 163782, Start Num: 12
Candidate Starts for Frankenweenie_287:
(Start: 12 @164243 has 13 MA's), (17, 164216), (21, 164165), (34, 164078), (36, 164063), (74, 163868), (78, 163856), (82, 163826),

Gene: GodonK_50 Start: 16803, Stop: 17243, Start Num: 12
Candidate Starts for GodonK_50:
(10, 16788), (Start: 12 @16803 has 13 MA's), (17, 16830), (19, 16866), (20, 16875), (23, 16884), (33, 16950), (47, 17013), (48, 17022), (55, 17067), (59, 17088), (67, 17115), (70, 17130),

Gene: GoldenEssence_50 Start: 19822, Stop: 20316, Start Num: 12
Candidate Starts for GoldenEssence_50:
(Start: 12 @19822 has 13 MA's), (23, 19909), (28, 19954), (42, 20026), (45, 20053), (53, 20128), (70, 20206), (77, 20263), (85, 20305),

Gene: Grayson_228 Start: 111586, Stop: 112026, Start Num: 14

Candidate Starts for Grayson_228:
(Start: 14 @111586 has 4 MA's), (23, 111664), (25, 111688), (28, 111709), (30, 111715), (33, 111730), (37, 111763), (57, 111865), (70, 111916), (71, 111946), (75, 111967), (76, 111970), (86, 112021),

Gene: JustBecause_266 Start: 149782, Stop: 149327, Start Num: 12
Candidate Starts for JustBecause_266:
(Start: 12 @149782 has 13 MA's), (29, 149653), (32, 149641), (34, 149617), (36, 149602), (55, 149515), (69, 149458), (78, 149395), (82, 149365),

Gene: KSunshine22_54 Start: 21439, Stop: 21945, Start Num: 12
Candidate Starts for KSunshine22_54:
(Start: 12 @21439 has 13 MA's), (23, 21526), (28, 21571), (45, 21664), (53, 21739), (77, 21889),

Gene: Kela_266 Start: 151386, Stop: 150931, Start Num: 12
Candidate Starts for Kela_266:
(Start: 12 @151386 has 13 MA's), (29, 151257), (32, 151245), (34, 151221), (36, 151206), (55, 151119), (69, 151062), (74, 151011), (78, 150999), (82, 150969),

Gene: Kradal_266 Start: 153099, Stop: 152644, Start Num: 12
Candidate Starts for Kradal_266:
(Start: 12 @153099 has 13 MA's), (29, 152970), (32, 152958), (34, 152934), (35, 152922), (36, 152919), (55, 152832), (74, 152724), (78, 152712), (82, 152682), (87, 152652), (88, 152649),

Gene: LeoJr_58 Start: 22928, Stop: 23443, Start Num: 12
Candidate Starts for LeoJr_58:
(4, 22808), (5, 22817), (6, 22862), (7, 22883), (Start: 12 @22928 has 13 MA's), (23, 23015), (28, 23060), (42, 23132), (45, 23159), (49, 23216), (53, 23237), (77, 23387), (79, 23393), (85, 23429),

Gene: Mimi_63 Start: 26091, Stop: 26582, Start Num: 12
Candidate Starts for Mimi_63:
(Start: 12 @26091 has 13 MA's), (23, 26178), (24, 26196), (28, 26223), (41, 26292), (53, 26397), (57, 26427), (77, 26529), (85, 26571),

Gene: NiceHouse_256 Start: 128727, Stop: 129197, Start Num: 13
Candidate Starts for NiceHouse_256:
(Start: 13 @128727 has 1 MA's), (18, 128772), (23, 128808), (28, 128853), (40, 128919), (51, 128982), (62, 129039), (65, 129048), (73, 129120), (76, 129129), (77, 129132), (84, 129171),

Gene: Nirvana_304 Start: 164957, Stop: 164496, Start Num: 12
Candidate Starts for Nirvana_304:
(9, 164975), (Start: 12 @164957 has 13 MA's), (21, 164879), (27, 164834), (32, 164816), (34, 164792), (36, 164777), (55, 164690), (74, 164582), (78, 164570), (82, 164540),

Gene: Panchaali_56 Start: 20358, Stop: 20873, Start Num: 12
Candidate Starts for Panchaali_56:
(Start: 12 @20358 has 13 MA's), (23, 20445), (24, 20463), (28, 20490), (45, 20583), (53, 20658), (58, 20691), (77, 20814), (85, 20856),

Gene: Patbob_60 Start: 25547, Stop: 26038, Start Num: 12
Candidate Starts for Patbob_60:
(Start: 12 @25547 has 13 MA's), (23, 25634), (24, 25652), (28, 25679), (41, 25748), (52, 25844), (53, 25853), (57, 25883), (77, 25985), (85, 26027),

Gene: PauloDiaboli_171 Start: 94249, Stop: 94710, Start Num: 11
Candidate Starts for PauloDiaboli_171:
(Start: 11 @94249 has 6 MA's), (15, 94258), (23, 94333), (28, 94378), (30, 94384), (38, 94435), (46, 94474), (47, 94477), (57, 94543), (72, 94636), (81, 94678),

Gene: Peregrin_220 Start: 110987, Stop: 111421, Start Num: 14
Candidate Starts for Peregrin_220:
(Start: 14 @110987 has 4 MA's), (23, 111065), (28, 111110), (31, 111119), (32, 111125), (39, 111170), (44, 111176), (56, 111251), (61, 111272), (67, 111296), (70, 111311), (71, 111341),

Gene: Phendrix_50 Start: 16816, Stop: 17256, Start Num: 12
Candidate Starts for Phendrix_50:
(10, 16801), (Start: 12 @16816 has 13 MA's), (17, 16843), (19, 16879), (20, 16888), (23, 16897), (33, 16963), (47, 17026), (48, 17035), (55, 17080), (59, 17101), (67, 17128), (70, 17143),

Gene: Phrampa_58 Start: 23330, Stop: 23773, Start Num: 12
Candidate Starts for Phrampa_58:
(Start: 12 @23330 has 13 MA's), (23, 23411), (26, 23444), (28, 23456), (35, 23510), (60, 23621), (70, 23663), (85, 23762),

Gene: Pumpernickel_167 Start: 96347, Stop: 96799, Start Num: 11
Candidate Starts for Pumpernickel_167:
(Start: 11 @96347 has 6 MA's), (16, 96362), (19, 96413), (23, 96431), (28, 96476), (36, 96530), (38, 96533), (58, 96632), (64, 96650), (73, 96725), (75, 96731), (80, 96755), (81, 96764),

Gene: Quantum_264 Start: 153093, Stop: 152638, Start Num: 12
Candidate Starts for Quantum_264:
(Start: 12 @153093 has 13 MA's), (29, 152964), (32, 152952), (34, 152928), (35, 152916), (36, 152913), (55, 152826), (74, 152718), (78, 152706), (82, 152676), (87, 152646), (88, 152643),

Gene: Racecar_64 Start: 26744, Stop: 27235, Start Num: 12
Candidate Starts for Racecar_64:
(Start: 12 @26744 has 13 MA's), (23, 26831), (24, 26849), (28, 26876), (41, 26945), (53, 27050), (57, 27080), (77, 27182), (85, 27224),

Gene: ReginaGlobina_57 Start: 23125, Stop: 23640, Start Num: 12
Candidate Starts for ReginaGlobina_57:
(4, 23005), (5, 23014), (6, 23059), (7, 23080), (Start: 12 @23125 has 13 MA's), (23, 23212), (28, 23257), (42, 23329), (45, 23356), (53, 23434), (77, 23584), (79, 23590), (85, 23626),

Gene: Rockabye_60 Start: 25473, Stop: 25946, Start Num: 12
Candidate Starts for Rockabye_60:
(8, 25437), (Start: 12 @25473 has 13 MA's), (23, 25560), (24, 25578), (28, 25605), (48, 25725), (60, 25791), (63, 25797), (68, 25818), (73, 25878), (81, 25917), (83, 25926),

Gene: SJReid_66 Start: 26527, Stop: 27021, Start Num: 13
Candidate Starts for SJReid_66:
(Start: 13 @26527 has 1 MA's), (23, 26614), (28, 26659), (48, 26800), (56, 26845), (60, 26866), (73, 26953),

Gene: Satis_266 Start: 153436, Stop: 152981, Start Num: 12
Candidate Starts for Satis_266:

(Start: 12 @153436 has 13 MA's), (29, 153307), (32, 153295), (34, 153271), (35, 153259), (36, 153256), (55, 153169), (74, 153061), (78, 153049), (82, 153019), (87, 152989), (88, 152986),

Gene: Talia1610_63 Start: 26109, Stop: 26600, Start Num: 12
Candidate Starts for Talia1610_63:
(Start: 12 @26109 has 13 MA's), (23, 26196), (24, 26214), (28, 26241), (41, 26310), (53, 26415), (57, 26445), (77, 26547), (85, 26589),

Gene: Trina_253 Start: 127069, Stop: 127509, Start Num: 14
Candidate Starts for Trina_253:
(Start: 14 @127069 has 4 MA's), (17, 127093), (19, 127129), (23, 127147), (28, 127192), (48, 127294), (56, 127342), (73, 127447),

Gene: WaddleDee_55 Start: 20852, Stop: 21361, Start Num: 12
Candidate Starts for WaddleDee_55:
(Start: 12 @20852 has 13 MA's), (23, 20939), (28, 20984), (45, 21077), (53, 21152), (77, 21302), (85, 21344),

Gene: Weasels2_231 Start: 113792, Stop: 114247, Start Num: 14
Candidate Starts for Weasels2_231:
(Start: 14 @113792 has 4 MA's), (20, 113861), (23, 113870), (25, 113894), (28, 113915), (38, 113975), (54, 114065), (76, 114191), (86, 114242),

Gene: Zooman_150 Start: 90927, Stop: 91391, Start Num: 11
Candidate Starts for Zooman_150:
(Start: 11 @90927 has 6 MA's), (19, 90993), (20, 91002), (23, 91011), (28, 91056), (36, 91110), (38, 91116), (43, 91131),