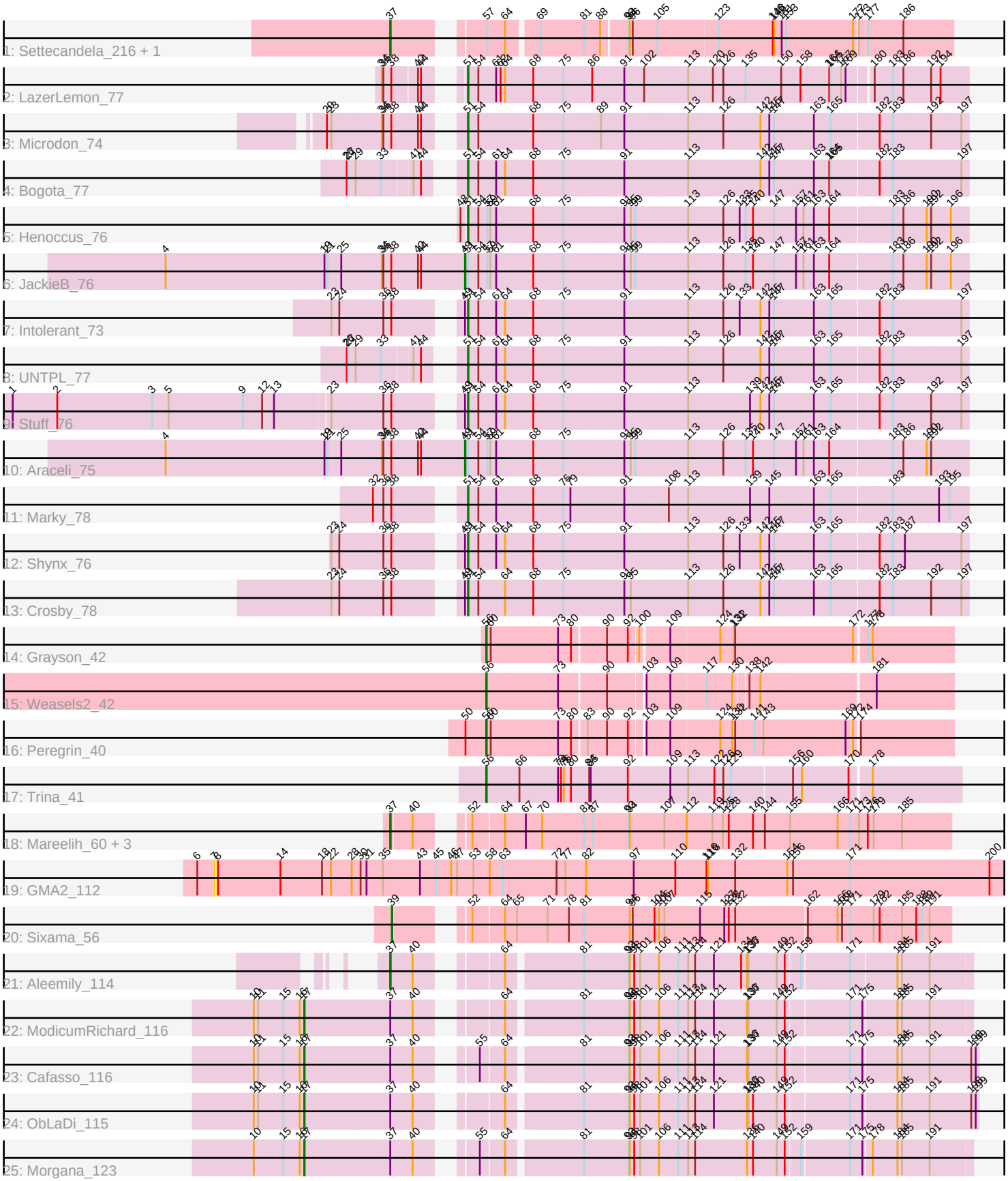
# Pham 289644


1: Settecandela_216 + 1
2: LazerLemon_77
3: Microdon_74
4: Bogota_77
5: Henoccus_76
6: JackieB_76
7: Intolerant_73
8: UNTPL_77
9: Stuff_76
10: Araceli_75
11: Marky_78
12: Shynx_76
13: Crosby_78
14: Grayson_42
15: Weasels2_42
16: Peregrin_40
17: Trina_41
18: Mareelih_60 + 3
19: GMA2_112
20: Sixama_56
21: Aleemily_114
22: ModicumRichard_116
23: Cafasso_116
24: ObLaDi_115
25: Morgana_123

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 289644 Report

This analysis was run 03/28/26 on database version 641.

Pham number 289644 has 29 members, 1 are drafts.

Phages represented in each track:
- Track 1 : Settecandela_216, Phrappuccino_191
- Track 2 : LazerLemon_77
- Track 3 : Microdon_74
- Track 4 : Bogota_77
- Track 5 : Henoccus_76
- Track 6 : JackieB_76
- Track 7 : Intolerant_73
- Track 8 : UNTPL_77
- Track 9 : Stuff_76
- Track 10 : Araceli_75
- Track 11 : Marky_78
- Track 12 : Shynx_76
- Track 13 : Crosby_78
- Track 14 : Grayson_42
- Track 15 : Weasels2_42
- Track 16 : Peregrin_40
- Track 17 : Trina_41
- Track 18 : Mareelih_60, BlueNGold_60, Boopy_62, Forza_61
- Track 19 : GMA2_112
- Track 20 : Sixama_56
- Track 21 : Aleemily_114
- Track 22 : ModicumRichard_116
- Track 23 : Cafasso_116
- Track 24 : ObLaDi_115
- Track 25 : Morgana_123

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

The start number called the most often in the published annotations is 51, it was called in 10 of the 28 non-draft genes in the pham.

Genes that call this "Most Annotated" start:
- Bogota_77, Crosby_78, Henoccus_76, Intolerant_73, LazerLemon_77, Marky_78, Microdon_74, Shynx_76, Stuff_76, UNTPL_77,

Genes that have the "Most Annotated" start but do not call it:
• Araceli_75, JackieB_76,

Genes that do not have the "Most Annotated" start:
• Aleemily_114, BlueNGold_60, Boopy_62, Cafasso_116, Forza_61, GMA2_112, Grayson_42, Mareelih_60, ModicumRichard_116, Morgana_123, ObLaDi_115, Peregrin_40, Phrappuccino_191, Settecandela_216, Sixama_56, Trina_41, Weasels2_42,

**Summary by start number:**

Start 7:
• Found in 1 of 29 ( 3.4% ) of genes in pham
• No Manual Annotations of this start.
• Called 100.0% of time when present
• Phage (with cluster) where this start called: GMA2_112 (DS),

Start 17:
• Found in 4 of 29 ( 13.8% ) of genes in pham
• Manual Annotations of this start: 4 of 28
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Cafasso_116 (DZ), ModicumRichard_116 (DZ), Morgana_123 (DZ), ObLaDi_115 (DZ),

Start 37:
• Found in 11 of 29 ( 37.9% ) of genes in pham
• Manual Annotations of this start: 7 of 28
• Called 63.6% of time when present
• Phage (with cluster) where this start called: Aleemily_114 (DZ), BlueNGold_60 (DS), Boopy_62 (DS), Forza_61 (DS), Mareelih_60 (DS), Phrappuccino_191 (AA), Settecandela_216 (AA),

Start 39:
• Found in 1 of 29 ( 3.4% ) of genes in pham
• Manual Annotations of this start: 1 of 28
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Sixama_56 (DS),

Start 49:
• Found in 6 of 29 ( 20.7% ) of genes in pham
• Manual Annotations of this start: 2 of 28
• Called 33.3% of time when present
• Phage (with cluster) where this start called: Araceli_75 (BH), JackieB_76 (BH),

Start 51:
• Found in 12 of 29 ( 41.4% ) of genes in pham
• Manual Annotations of this start: 10 of 28
• Called 83.3% of time when present
• Phage (with cluster) where this start called: Bogota_77 (BH), Crosby_78 (BH), Henoccus_76 (BH), Intolerant_73 (BH), LazerLemon_77 (BH), Marky_78 (BH), Microdon_74 (BH), Shynx_76 (BH), Stuff_76 (BH), UNTPL_77 (BH),

Start 56:
• Found in 4 of 29 ( 13.8% ) of genes in pham
• Manual Annotations of this start: 4 of 28
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Grayson_42 (CB), Peregrin_40 (CB), Trina_41 (CE), Weasels2_42 (CB),

**Summary by clusters:**

There are 6 clusters represented in this pham: AA, CB, BH, CE, DZ, DS,

Info for manual annotations of cluster AA:
•Start number 37 was manually annotated 2 times for cluster AA.

Info for manual annotations of cluster BH:
•Start number 49 was manually annotated 2 times for cluster BH.
•Start number 51 was manually annotated 10 times for cluster BH.

Info for manual annotations of cluster CB:
•Start number 56 was manually annotated 3 times for cluster CB.

Info for manual annotations of cluster CE:
•Start number 56 was manually annotated 1 time for cluster CE.

Info for manual annotations of cluster DS:
•Start number 37 was manually annotated 4 times for cluster DS.
•Start number 39 was manually annotated 1 time for cluster DS.

Info for manual annotations of cluster DZ:
•Start number 17 was manually annotated 4 times for cluster DZ.
•Start number 37 was manually annotated 1 time for cluster DZ.

***Gene Information:***

Gene: Aleemily_114 Start: 63942, Stop: 62920, Start Num: 37
Candidate Starts for Aleemily_114:
(Start: 37 @63942 has 7 MA's), (40, 63903), (64, 63783), (81, 63648), (93, 63561), (94, 63558), (98, 63549), (101, 63537), (106, 63501), (111, 63465), (113, 63447), (114, 63435), (121, 63402), (134, 63348), (136, 63336), (137, 63333), (149, 63276), (152, 63267), (159, 63240), (171, 63150), (184, 63066), (185, 63057), (191, 63003),

Gene: Araceli_75 Start: 51714, Stop: 52691, Start Num: 49
Candidate Starts for Araceli_75:
(4, 51114), (19, 51435), (21, 51441), (25, 51468), (34, 51549), (36, 51552), (38, 51567), (42, 51621), (44, 51627), (Start: 49 @51714 has 2 MA's), (Start: 51 @51720 has 10 MA's), (54, 51741), (57, 51759), (59, 51765), (61, 51777), (68, 51852), (75, 51909), (91, 52023), (95, 52035), (99, 52044), (113, 52146), (126, 52215), (135, 52260), (140, 52275), (147, 52317), (157, 52359), (161, 52374), (163, 52395), (164, 52425), (183, 52545), (186, 52566), (190, 52611), (192, 52620),

Gene: BlueNGold_60 Start: 23425, Stop: 22415, Start Num: 37
Candidate Starts for BlueNGold_60:

(Start: 37 @23425 has 7 MA's), (40, 23389), (52, 23326), (64, 23269), (67, 23227), (70, 23194), (81, 23116), (87, 23101), (93, 23038), (94, 23035), (107, 22969), (112, 22927), (119, 22879), (125, 22861), (128, 22849), (140, 22804), (144, 22780), (155, 22735), (166, 22639), (171, 22615), (173, 22597), (176, 22579), (179, 22567), (185, 22510),

Gene: Bogota_77 Start: 51446, Stop: 52414, Start Num: 51
Candidate Starts for Bogota_77:
(26, 51263), (27, 51266), (29, 51281), (33, 51332), (41, 51389), (44, 51404), (Start: 51 @51446 has 10 MA's), (54, 51467), (61, 51503), (64, 51521), (68, 51578), (75, 51635), (91, 51749), (113, 51872), (142, 52016), (145, 52034), (147, 52043), (163, 52121), (164, 52151), (165, 52154), (182, 52244), (183, 52271), (197, 52403),

Gene: Boopy_62 Start: 23437, Stop: 22427, Start Num: 37
Candidate Starts for Boopy_62:
(Start: 37 @23437 has 7 MA's), (40, 23401), (52, 23338), (64, 23281), (67, 23239), (70, 23206), (81, 23128), (87, 23113), (93, 23050), (94, 23047), (107, 22981), (112, 22939), (119, 22891), (125, 22873), (128, 22861), (140, 22816), (144, 22792), (155, 22747), (166, 22651), (171, 22627), (173, 22609), (176, 22591), (179, 22579), (185, 22522),

Gene: Cafasso_116 Start: 64579, Stop: 63371, Start Num: 17
Candidate Starts for Cafasso_116:
(10, 64681), (11, 64672), (15, 64621), (16, 64588), (Start: 17 @64579 has 4 MA's), (Start: 37 @64408 has 7 MA's), (40, 64369), (55, 64291), (64, 64249), (81, 64114), (93, 64027), (94, 64024), (98, 64015), (101, 64003), (106, 63967), (111, 63931), (113, 63913), (114, 63901), (121, 63868), (136, 63802), (137, 63799), (149, 63742), (152, 63733), (171, 63616), (175, 63595), (184, 63532), (185, 63523), (191, 63469), (198, 63385), (199, 63376),

Gene: Crosby_78 Start: 51305, Stop: 52273, Start Num: 51
Candidate Starts for Crosby_78:
(23, 51086), (24, 51101), (36, 51188), (38, 51203), (Start: 49 @51299 has 2 MA's), (Start: 51 @51305 has 10 MA's), (54, 51326), (64, 51380), (68, 51437), (75, 51494), (91, 51608), (95, 51620), (113, 51731), (126, 51800), (142, 51875), (145, 51893), (147, 51902), (163, 51980), (165, 52013), (182, 52103), (183, 52130), (192, 52205), (197, 52262),

Gene: Forza_61 Start: 23353, Stop: 22343, Start Num: 37
Candidate Starts for Forza_61:
(Start: 37 @23353 has 7 MA's), (40, 23317), (52, 23254), (64, 23197), (67, 23155), (70, 23122), (81, 23044), (87, 23029), (93, 22966), (94, 22963), (107, 22897), (112, 22855), (119, 22807), (125, 22789), (128, 22777), (140, 22732), (144, 22708), (155, 22663), (166, 22567), (171, 22543), (173, 22525), (176, 22507), (179, 22495), (185, 22438),

Gene: GMA2_112 Start: 97174, Stop: 95579, Start Num: 7
Candidate Starts for GMA2_112:
(6, 97210), (7, 97174), (8, 97168), (14, 97042), (18, 96958), (22, 96940), (28, 96898), (30, 96880), (31, 96868), (35, 96835), (43, 96760), (45, 96727), (46, 96697), (47, 96685), (53, 96652), (58, 96619), (63, 96592), (72, 96484), (77, 96466), (82, 96424), (97, 96328), (110, 96244), (116, 96181), (118, 96178), (132, 96124), (154, 96019), (156, 96007), (171, 95893), (200, 95611),

Gene: Grayson_42 Start: 14061, Stop: 13180, Start Num: 56
Candidate Starts for Grayson_42:
(Start: 56 @14061 has 4 MA's), (60, 14052), (73, 13920), (80, 13896), (90, 13833), (92, 13791), (100, 13773), (109, 13722), (124, 13626), (131, 13599), (132, 13596), (172, 13371), (177, 13350), (178, 13341),

Gene: Henoccus_76 Start: 51811, Stop: 52782, Start Num: 51
Candidate Starts for Henoccus_76:
(48, 51802), (Start: 51 @51811 has 10 MA's), (54, 51832), (57, 51850), (59, 51856), (61, 51868), (68, 51943), (75, 52000), (91, 52114), (95, 52126), (99, 52135), (113, 52237), (126, 52306), (133, 52339), (135, 52351), (140, 52366), (147, 52408), (157, 52450), (161, 52465), (163, 52486), (164, 52516), (183, 52636), (186, 52657), (190, 52702), (192, 52711), (196, 52747),

Gene: Intolerant_73 Start: 50923, Stop: 51891, Start Num: 51
Candidate Starts for Intolerant_73:
(23, 50704), (24, 50719), (36, 50806), (38, 50821), (Start: 49 @50917 has 2 MA's), (Start: 51 @50923 has 10 MA's), (54, 50944), (61, 50980), (64, 50998), (68, 51055), (75, 51112), (91, 51226), (113, 51349), (126, 51418), (133, 51451), (142, 51493), (145, 51511), (147, 51520), (163, 51598), (165, 51631), (182, 51721), (183, 51748), (197, 51880),

Gene: JackieB_76 Start: 51580, Stop: 52557, Start Num: 49
Candidate Starts for JackieB_76:
(4, 50980), (19, 51301), (21, 51307), (25, 51334), (34, 51415), (36, 51418), (38, 51433), (42, 51487), (44, 51493), (Start: 49 @51580 has 2 MA's), (Start: 51 @51586 has 10 MA's), (54, 51607), (57, 51625), (59, 51631), (61, 51643), (68, 51718), (75, 51775), (91, 51889), (95, 51901), (99, 51910), (113, 52012), (126, 52081), (135, 52126), (140, 52141), (147, 52183), (157, 52225), (161, 52240), (163, 52261), (164, 52291), (183, 52411), (186, 52432), (190, 52477), (192, 52486), (196, 52522),

Gene: LazerLemon_77 Start: 52080, Stop: 53042, Start Num: 51
Candidate Starts for LazerLemon_77:
(34, 51969), (36, 51972), (38, 51987), (42, 52035), (44, 52041), (Start: 51 @52080 has 10 MA's), (54, 52101), (61, 52137), (62, 52146), (64, 52155), (68, 52209), (75, 52266), (86, 52317), (91, 52380), (102, 52419), (113, 52506), (120, 52554), (126, 52575), (135, 52620), (150, 52689), (158, 52728), (164, 52785), (165, 52788), (167, 52809), (169, 52818), (180, 52860), (183, 52896), (186, 52917), (192, 52971), (194, 52989),

Gene: Mareelih_60 Start: 22855, Stop: 21845, Start Num: 37
Candidate Starts for Mareelih_60:
(Start: 37 @22855 has 7 MA's), (40, 22819), (52, 22756), (64, 22699), (67, 22657), (70, 22624), (81, 22546), (87, 22531), (93, 22468), (94, 22465), (107, 22399), (112, 22357), (119, 22309), (125, 22291), (128, 22279), (140, 22234), (144, 22210), (155, 22165), (166, 22069), (171, 22045), (173, 22027), (176, 22009), (179, 21997), (185, 21940),

Gene: Marky_78 Start: 51336, Stop: 52307, Start Num: 51
Candidate Starts for Marky_78:
(32, 51198), (36, 51219), (38, 51234), (Start: 51 @51336 has 10 MA's), (54, 51357), (61, 51393), (68, 51468), (75, 51525), (79, 51537), (91, 51639), (108, 51723), (113, 51762), (139, 51885), (145, 51924), (163, 52011), (165, 52044), (183, 52161), (193, 52251), (195, 52269),

Gene: Microdon_74 Start: 50395, Stop: 51366, Start Num: 51
Candidate Starts for Microdon_74:
(20, 50167), (23, 50176), (34, 50275), (36, 50278), (38, 50293), (42, 50344), (44, 50350), (Start: 51 @50395 has 10 MA's), (54, 50416), (68, 50527), (75, 50584), (89, 50653), (91, 50698), (113, 50821), (126, 50890), (142, 50965), (145, 50983), (147, 50992), (163, 51070), (165, 51103), (182, 51193), (183, 51220), (192, 51295), (197, 51352),

Gene: ModicumRichard_116 Start: 64867, Stop: 63674, Start Num: 17
Candidate Starts for ModicumRichard_116:

(10, 64969), (11, 64960), (15, 64909), (16, 64876), (Start: 17 @64867 has 4 MA's), (Start: 37 @64696 has 7 MA's), (40, 64657), (64, 64537), (81, 64402), (93, 64315), (94, 64312), (98, 64303), (101, 64291), (106, 64255), (111, 64219), (113, 64201), (114, 64189), (121, 64156), (136, 64090), (137, 64087), (149, 64030), (152, 64021), (171, 63904), (175, 63883), (184, 63820), (185, 63811), (191, 63757),

Gene: Morgana_123 Start: 67037, Stop: 65844, Start Num: 17
Candidate Starts for Morgana_123:
(10, 67139), (15, 67079), (16, 67046), (Start: 17 @67037 has 4 MA's), (Start: 37 @66866 has 7 MA's), (40, 66827), (55, 66749), (64, 66707), (81, 66572), (93, 66485), (94, 66482), (98, 66473), (101, 66461), (106, 66425), (111, 66389), (113, 66371), (114, 66359), (136, 66260), (140, 66248), (149, 66200), (152, 66191), (159, 66164), (171, 66074), (175, 66053), (178, 66038), (184, 65990), (185, 65981), (191, 65927),

Gene: ObLaDi_115 Start: 64269, Stop: 63061, Start Num: 17
Candidate Starts for ObLaDi_115:
(10, 64371), (11, 64362), (15, 64311), (16, 64278), (Start: 17 @64269 has 4 MA's), (Start: 37 @64098 has 7 MA's), (40, 64059), (64, 63939), (81, 63804), (93, 63717), (94, 63714), (98, 63705), (101, 63693), (106, 63657), (111, 63621), (113, 63603), (114, 63591), (121, 63558), (136, 63492), (137, 63489), (140, 63480), (149, 63432), (152, 63423), (171, 63306), (175, 63285), (184, 63222), (185, 63213), (191, 63159), (198, 63075), (199, 63066),

Gene: Peregrin_40 Start: 13375, Stop: 12494, Start Num: 56
Candidate Starts for Peregrin_40:
(50, 13417), (Start: 56 @13375 has 4 MA's), (60, 13366), (73, 13234), (80, 13210), (83, 13186), (90, 13147), (92, 13105), (103, 13081), (109, 13036), (124, 12940), (130, 12916), (132, 12910), (141, 12871), (143, 12853), (169, 12700), (172, 12685), (174, 12679),

Gene: Phrappuccino_191 Start: 121514, Stop: 122515, Start Num: 37
Candidate Starts for Phrappuccino_191:
(Start: 37 @121514 has 7 MA's), (57, 121649), (64, 121685), (69, 121742), (81, 121823), (88, 121853), (93, 121901), (94, 121904), (96, 121910), (105, 121958), (123, 122066), (146, 122174), (148, 122177), (151, 122189), (153, 122198), (172, 122327), (173, 122333), (177, 122348), (186, 122417),

Gene: Settecandela_216 Start: 130361, Stop: 131362, Start Num: 37
Candidate Starts for Settecandela_216:
(Start: 37 @130361 has 7 MA's), (57, 130496), (64, 130532), (69, 130589), (81, 130670), (88, 130700), (93, 130748), (94, 130751), (96, 130757), (105, 130805), (123, 130913), (146, 131021), (148, 131024), (151, 131036), (153, 131045), (172, 131174), (173, 131180), (177, 131195), (186, 131264),

Gene: Shynx_76 Start: 51248, Stop: 52216, Start Num: 51
Candidate Starts for Shynx_76:
(23, 51029), (24, 51044), (36, 51131), (38, 51146), (Start: 49 @51242 has 2 MA's), (Start: 51 @51248 has 10 MA's), (54, 51269), (61, 51305), (64, 51323), (68, 51380), (75, 51437), (91, 51551), (113, 51674), (126, 51743), (133, 51776), (142, 51818), (145, 51836), (147, 51845), (163, 51923), (165, 51956), (182, 52046), (183, 52073), (187, 52097), (197, 52205),

Gene: Sixama_56 Start: 21776, Stop: 20772, Start Num: 39
Candidate Starts for Sixama_56:
(Start: 39 @21776 has 1 MA's), (52, 21680), (64, 21623), (65, 21599), (71, 21539), (78, 21500), (81, 21470), (94, 21383), (96, 21377), (104, 21335), (106, 21326), (107, 21317), (115, 21251), (127, 21203), (128, 21194), (132, 21185), (162, 21053), (166, 20996), (168, 20987), (171, 20972), (179, 20924), (182, 20912), (185, 20867), (188, 20840), (189, 20828), (191, 20813),

Gene: Stuff_76 Start: 51284, Stop: 52252, Start Num: 51
Candidate Starts for Stuff_76:
(1, 50432), (2, 50522), (3, 50714), (5, 50747), (9, 50897), (12, 50936), (13, 50960), (23, 51065), (36, 51167), (38, 51182), (Start: 49 @51278 has 2 MA's), (Start: 51 @51284 has 10 MA's), (54, 51305), (61, 51341), (64, 51359), (68, 51416), (75, 51473), (91, 51587), (113, 51710), (139, 51833), (142, 51854), (145, 51872), (147, 51881), (163, 51959), (165, 51992), (182, 52082), (183, 52109), (192, 52184), (197, 52241),

Gene: Trina_41 Start: 15743, Stop: 14823, Start Num: 56
Candidate Starts for Trina_41:
(Start: 56 @15743 has 4 MA's), (66, 15677), (73, 15599), (74, 15593), (76, 15587), (80, 15575), (84, 15542), (85, 15539), (92, 15464), (109, 15380), (113, 15344), (122, 15293), (126, 15275), (129, 15260), (156, 15149), (160, 15131), (170, 15038), (178, 14999),

Gene: UNTPL_77 Start: 51758, Stop: 52726, Start Num: 51
Candidate Starts for UNTPL_77:
(26, 51575), (27, 51578), (29, 51593), (33, 51644), (41, 51701), (44, 51716), (Start: 51 @51758 has 10 MA's), (54, 51779), (61, 51815), (64, 51833), (68, 51890), (75, 51947), (91, 52061), (113, 52184), (126, 52253), (142, 52328), (145, 52346), (147, 52355), (163, 52433), (165, 52466), (182, 52556), (183, 52583), (197, 52715),

Gene: Weasels2_42 Start: 14381, Stop: 13518, Start Num: 56
Candidate Starts for Weasels2_42:
(Start: 56 @14381 has 4 MA's), (73, 14240), (90, 14153), (103, 14087), (109, 14042), (117, 13973), (130, 13922), (138, 13898), (142, 13877), (181, 13673),