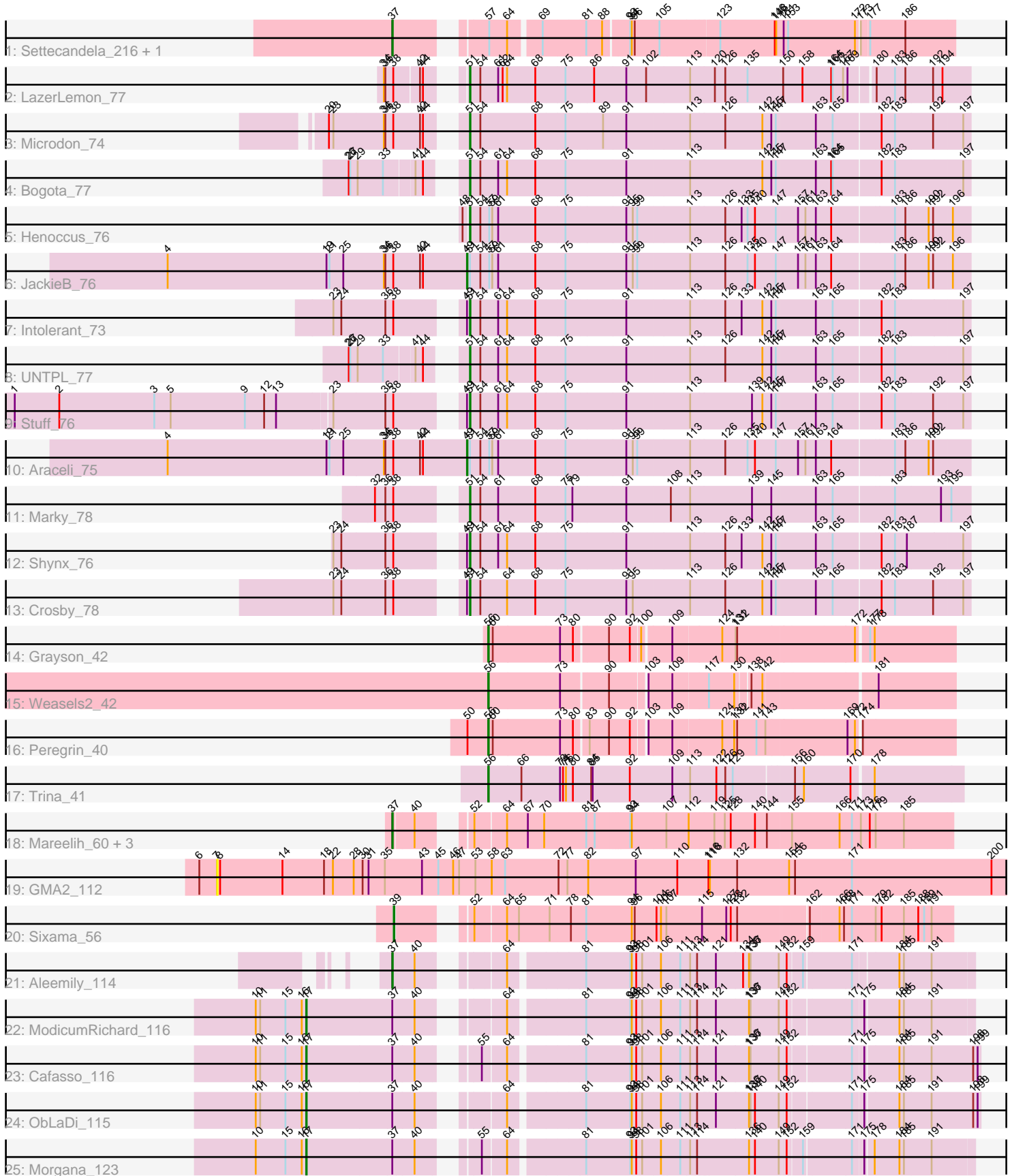


# Pham 309056



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 309056 Report

This analysis was run 06/27/26 on database version 652.

Pham number 309056 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: Henococcus\_76 Start: 51811, Stop: 52782, Start Num: 51

Candidate Starts for Henococcus\_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),