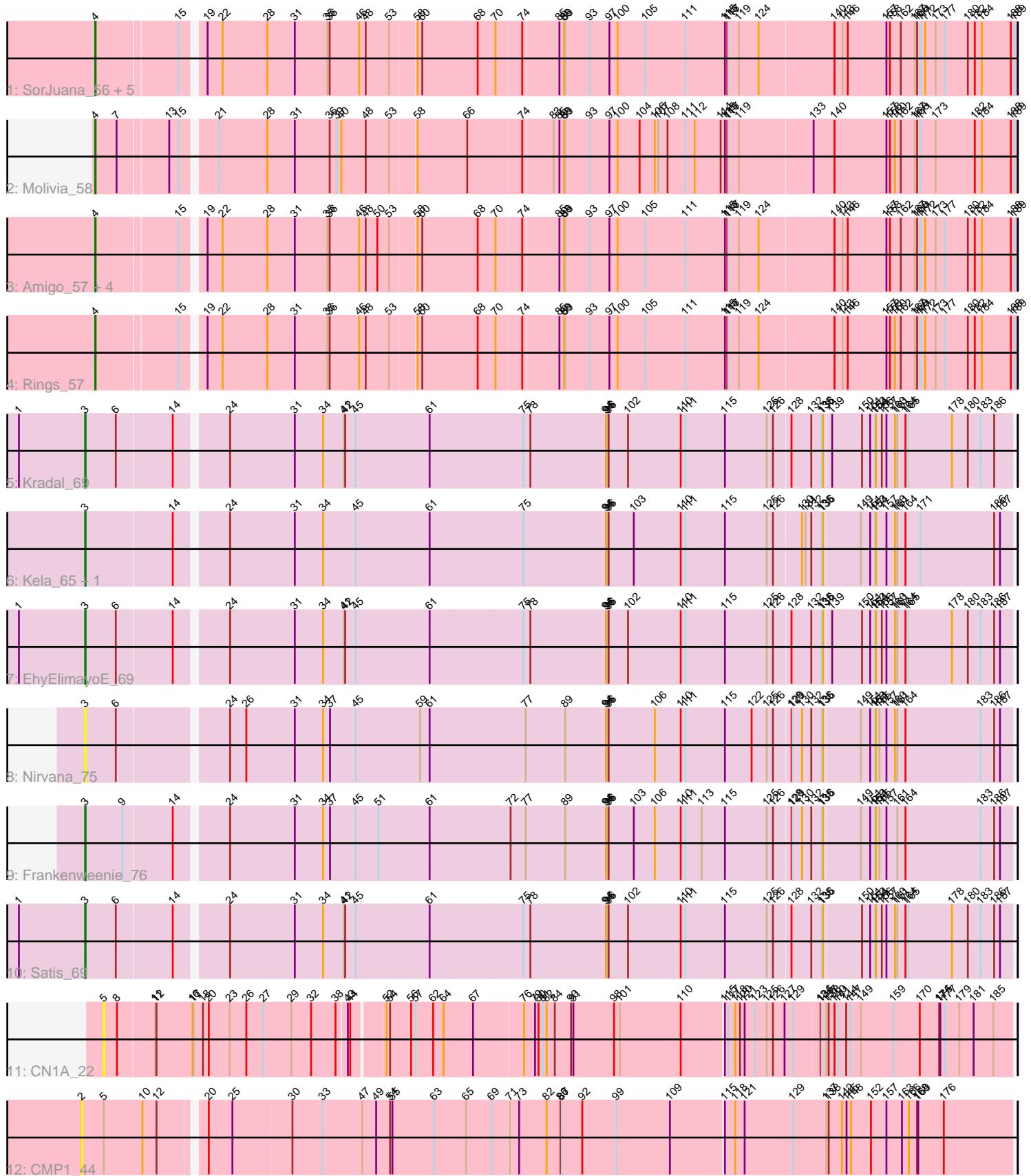


Pham 86563



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 86563 Report

This analysis was run 04/05/24 on database version 557.

Pham number 86563 has 22 members, 5 are drafts.

Phages represented in each track:

- Track 1 : SorJuana_56, Gorgeous_56, Amavida_55, Heylee_55, Thunderclap_56, Anansi_56
- Track 2 : Molivia_58
- Track 3 : Amigo_57, Boersma_59, Yeezus_57, Ichor_57, Jaek_57
- Track 4 : Rings_57
- Track 5 : Kradal_69
- Track 6 : Kela_65, JustBecause_64
- Track 7 : EhyElimayoE_69
- Track 8 : Nirvana_75
- Track 9 : Frankenweenie_76
- Track 10 : Satis_69
- Track 11 : CN1A_22
- Track 12 : CMP1_44

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

The start number called the most often in the published annotations is 4, it was called in 11 of the 17 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Amavida_55, Amigo_57, Anansi_56, Boersma_59, Gorgeous_56, Heylee_55, Ichor_57, Jaek_57, Molivia_58, Rings_57, SorJuana_56, Thunderclap_56, Yeezus_57,

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

-

Genes that do not have the "Most Annotated" start:

- CMP1_44, CN1A_22, EhyElimayoE_69, Frankenweenie_76, JustBecause_64, Kela_65, Kradal_69, Nirvana_75, Satis_69,

Summary by start number:

Start 2:

- Found in 1 of 22 (4.5%) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: CMP1_44 (singleton),

Start 3:

- Found in 7 of 22 (31.8%) of genes in pham
- Manual Annotations of this start: 6 of 17
- Called 100.0% of time when present
- Phage (with cluster) where this start called: EhyElimayoE_69 (BM), Frankenweenie_76 (BM), JustBecause_64 (BM), Kela_65 (BM), Kradal_69 (BM), Nirvana_75 (BM), Satis_69 (BM),

Start 4:

- Found in 13 of 22 (59.1%) of genes in pham
- Manual Annotations of this start: 11 of 17
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Amavida_55 (AQ), Amigo_57 (AQ), Anansi_56 (AQ), Boersma_59 (AQ), Gorgeous_56 (AQ), HeyLee_55 (AQ), Ichor_57 (AQ), Jaek_57 (AQ), Molivia_58 (AQ), Rings_57 (AQ), SorJuana_56 (AQ), Thunderclap_56 (AQ), Yeezus_57 (AQ),

Start 5:

- Found in 2 of 22 (9.1%) of genes in pham
- No Manual Annotations of this start.
- Called 50.0% of time when present
- Phage (with cluster) where this start called: CN1A_22 (singleton),

Summary by clusters:

There are 3 clusters represented in this pham: AQ, BM, singleton,

Info for manual annotations of cluster AQ:

- Start number 4 was manually annotated 11 times for cluster AQ.

Info for manual annotations of cluster BM:

- Start number 3 was manually annotated 6 times for cluster BM.

Gene Information:

Gene: Amavida_55 Start: 39285, Stop: 37045, Start Num: 4

Candidate Starts for Amavida_55:

(Start: 4 @39285 has 11 MA's), (15, 39093), (19, 39051), (22, 39012), (28, 38901), (31, 38832), (35, 38757), (36, 38751), (46, 38679), (48, 38664), (53, 38604), (58, 38541), (60, 38529), (68, 38388), (70, 38343), (74, 38283), (85, 38196), (88, 38184), (89, 38181), (93, 38118), (97, 38067), (100, 38046), (105, 37974), (111, 37872), (115, 37782), (116, 37776), (117, 37773), (119, 37746), (124, 37695), (140, 37506), (143, 37485), (146, 37473), (157, 37377), (158, 37368), (162, 37341), (167, 37305), (168, 37299), (171, 37290), (172, 37278), (173, 37251), (177, 37227), (180, 37170), (182, 37152), (184, 37134), (188, 37059), (189, 37050),

Gene: Amigo_57 Start: 39500, Stop: 37260, Start Num: 4

Candidate Starts for Amigo_57:

(Start: 4 @39500 has 11 MA's), (15, 39308), (19, 39266), (22, 39227), (28, 39116), (31, 39047), (35, 38972), (36, 38966), (46, 38894), (48, 38879), (50, 38849), (53, 38819), (58, 38756), (60, 38744), (68, 38603), (70, 38558), (74, 38498), (85, 38411), (88, 38399), (89, 38396), (93, 38333), (97, 38282), (100, 38261), (105, 38189), (111, 38087), (115, 37997), (116, 37991), (117, 37988), (119, 37961), (124, 37910), (140, 37721), (143, 37700), (146, 37688), (157, 37592), (158, 37583), (162, 37556), (167, 37520), (168, 37514), (171, 37505), (172, 37493), (173, 37466), (177, 37442), (180, 37385), (182, 37367), (184, 37349), (188, 37274), (189, 37265),

Gene: Anansi_56 Start: 39107, Stop: 36867, Start Num: 4

Candidate Starts for Anansi_56:

(Start: 4 @39107 has 11 MA's), (15, 38915), (19, 38873), (22, 38834), (28, 38723), (31, 38654), (35, 38579), (36, 38573), (46, 38501), (48, 38486), (53, 38426), (58, 38363), (60, 38351), (68, 38210), (70, 38165), (74, 38105), (85, 38018), (88, 38006), (89, 38003), (93, 37940), (97, 37889), (100, 37868), (105, 37796), (111, 37694), (115, 37604), (116, 37598), (117, 37595), (119, 37568), (124, 37517), (140, 37328), (143, 37307), (146, 37295), (157, 37199), (158, 37190), (162, 37163), (167, 37127), (168, 37121), (171, 37112), (172, 37100), (173, 37073), (177, 37049), (180, 36992), (182, 36974), (184, 36956), (188, 36881), (189, 36872),

Gene: Boersma_59 Start: 39500, Stop: 37260, Start Num: 4

Candidate Starts for Boersma_59:

(Start: 4 @39500 has 11 MA's), (15, 39308), (19, 39266), (22, 39227), (28, 39116), (31, 39047), (35, 38972), (36, 38966), (46, 38894), (48, 38879), (50, 38849), (53, 38819), (58, 38756), (60, 38744), (68, 38603), (70, 38558), (74, 38498), (85, 38411), (88, 38399), (89, 38396), (93, 38333), (97, 38282), (100, 38261), (105, 38189), (111, 38087), (115, 37997), (116, 37991), (117, 37988), (119, 37961), (124, 37910), (140, 37721), (143, 37700), (146, 37688), (157, 37592), (158, 37583), (162, 37556), (167, 37520), (168, 37514), (171, 37505), (172, 37493), (173, 37466), (177, 37442), (180, 37385), (182, 37367), (184, 37349), (188, 37274), (189, 37265),

Gene: CMP1_44 Start: 42625, Stop: 40325, Start Num: 2

Candidate Starts for CMP1_44:

(2, 42625), (5, 42568), (10, 42469), (12, 42433), (20, 42331), (25, 42271), (30, 42124), (33, 42046), (47, 41944), (49, 41908), (54, 41872), (55, 41866), (63, 41761), (65, 41680), (69, 41614), (71, 41575), (73, 41551), (82, 41488), (86, 41452), (87, 41449), (92, 41398), (99, 41311), (109, 41179), (115, 41053), (118, 41026), (121, 41002), (129, 40879), (137, 40795), (138, 40789), (142, 40756), (145, 40744), (148, 40732), (152, 40684), (157, 40645), (163, 40606), (166, 40588), (168, 40567), (169, 40564), (176, 40498),

Gene: CN1A_22 Start: 12630, Stop: 14858, Start Num: 5

Candidate Starts for CN1A_22:

(5, 12630), (8, 12663), (11, 12756), (12, 12759), (16, 12852), (17, 12855), (18, 12879), (20, 12894), (23, 12948), (26, 12990), (27, 13029), (29, 13098), (32, 13149), (38, 13212), (43, 13236), (44, 13242), (52, 13317), (54, 13326), (56, 13374), (57, 13386), (62, 13431), (64, 13458), (67, 13533), (76, 13647), (79, 13671), (80, 13680), (81, 13692), (82, 13701), (84, 13722), (90, 13764), (91, 13770), (98, 13872), (101, 13887), (110, 14040), (115, 14142), (117, 14151), (118, 14169), (120, 14181), (121, 14193), (123, 14220), (125, 14250), (126, 14265), (127, 14295), (129, 14316), (134, 14382), (135, 14385), (137, 14394), (138, 14400), (140, 14415), (141, 14424), (144, 14445), (147, 14454), (149, 14481), (159, 14565), (170, 14631), (174, 14679), (175, 14682), (177, 14694), (179, 14727), (181, 14763), (185, 14814),

Gene: EhyElimayoE_69 Start: 50008, Stop: 47723, Start Num: 3

Candidate Starts for EhyElimayoE_69:

(1, 50179), (Start: 3 @50008 has 6 MA's), (6, 49930), (14, 49798), (24, 49681), (31, 49525), (34, 49456), (41, 49402), (42, 49399), (45, 49372), (61, 49186), (75, 48949), (78, 48931), (94, 48742), (95, 48739), (96, 48736), (102, 48688), (110, 48553), (111, 48541), (115, 48439), (125, 48331), (126, 48316), (128, 48274), (132, 48223), (135, 48196), (136, 48193), (139, 48175), (150, 48100), (151, 48079), (153, 48067), (154, 48064), (156, 48052), (157, 48040), (160, 48019), (161, 48013), (164, 47992), (165, 47986), (178, 47872), (180, 47833), (183, 47800), (186, 47767), (187, 47752),

Gene: Frankenweenie_76 Start: 52745, Stop: 50460, Start Num: 3

Candidate Starts for Frankenweenie_76:

(Start: 3 @52745 has 6 MA's), (9, 52652), (14, 52535), (24, 52418), (31, 52262), (34, 52193), (37, 52175), (45, 52109), (51, 52052), (61, 51923), (72, 51719), (77, 51680), (89, 51581), (94, 51479), (95, 51476), (96, 51473), (103, 51410), (106, 51356), (110, 51290), (111, 51278), (113, 51236), (115, 51176), (125, 51068), (126, 51053), (128, 51011), (129, 51008), (130, 50984), (132, 50960), (135, 50933), (136, 50930), (149, 50840), (151, 50816), (153, 50804), (154, 50801), (155, 50795), (157, 50777), (161, 50750), (164, 50729), (183, 50537), (186, 50504), (187, 50489),

Gene: Gorgeous_56 Start: 39107, Stop: 36867, Start Num: 4

Candidate Starts for Gorgeous_56:

(Start: 4 @39107 has 11 MA's), (15, 38915), (19, 38873), (22, 38834), (28, 38723), (31, 38654), (35, 38579), (36, 38573), (46, 38501), (48, 38486), (53, 38426), (58, 38363), (60, 38351), (68, 38210), (70, 38165), (74, 38105), (85, 38018), (88, 38006), (89, 38003), (93, 37940), (97, 37889), (100, 37868), (105, 37796), (111, 37694), (115, 37604), (116, 37598), (117, 37595), (119, 37568), (124, 37517), (140, 37328), (143, 37307), (146, 37295), (157, 37199), (158, 37190), (162, 37163), (167, 37127), (168, 37121), (171, 37112), (172, 37100), (173, 37073), (177, 37049), (180, 36992), (182, 36974), (184, 36956), (188, 36881), (189, 36872),

Gene: Heylee_55 Start: 39285, Stop: 37045, Start Num: 4

Candidate Starts for Heylee_55:

(Start: 4 @39285 has 11 MA's), (15, 39093), (19, 39051), (22, 39012), (28, 38901), (31, 38832), (35, 38757), (36, 38751), (46, 38679), (48, 38664), (53, 38604), (58, 38541), (60, 38529), (68, 38388), (70, 38343), (74, 38283), (85, 38196), (88, 38184), (89, 38181), (93, 38118), (97, 38067), (100, 38046), (105, 37974), (111, 37872), (115, 37782), (116, 37776), (117, 37773), (119, 37746), (124, 37695), (140, 37506), (143, 37485), (146, 37473), (157, 37377), (158, 37368), (162, 37341), (167, 37305), (168, 37299), (171, 37290), (172, 37278), (173, 37251), (177, 37227), (180, 37170), (182, 37152), (184, 37134), (188, 37059), (189, 37050),

Gene: Ichor_57 Start: 39500, Stop: 37260, Start Num: 4

Candidate Starts for Ichor_57:

(Start: 4 @39500 has 11 MA's), (15, 39308), (19, 39266), (22, 39227), (28, 39116), (31, 39047), (35, 38972), (36, 38966), (46, 38894), (48, 38879), (50, 38849), (53, 38819), (58, 38756), (60, 38744), (68, 38603), (70, 38558), (74, 38498), (85, 38411), (88, 38399), (89, 38396), (93, 38333), (97, 38282), (100, 38261), (105, 38189), (111, 38087), (115, 37997), (116, 37991), (117, 37988), (119, 37961), (124, 37910), (140, 37721), (143, 37700), (146, 37688), (157, 37592), (158, 37583), (162, 37556), (167, 37520), (168, 37514), (171, 37505), (172, 37493), (173, 37466), (177, 37442), (180, 37385), (182, 37367), (184, 37349), (188, 37274), (189, 37265),

Gene: Jaek_57 Start: 39500, Stop: 37260, Start Num: 4

Candidate Starts for Jaek_57:

(Start: 4 @39500 has 11 MA's), (15, 39308), (19, 39266), (22, 39227), (28, 39116), (31, 39047), (35, 38972), (36, 38966), (46, 38894), (48, 38879), (50, 38849), (53, 38819), (58, 38756), (60, 38744), (68, 38603), (70, 38558), (74, 38498), (85, 38411), (88, 38399), (89, 38396), (93, 38333), (97, 38282), (100, 38261), (105, 38189), (111, 38087), (115, 37997), (116, 37991), (117, 37988), (119, 37961), (124, 37910), (140, 37721), (143, 37700), (146, 37688), (157, 37592), (158, 37583), (162, 37556),

(167, 37520), (168, 37514), (171, 37505), (172, 37493), (173, 37466), (177, 37442), (180, 37385),
(182, 37367), (184, 37349), (188, 37274), (189, 37265),

Gene: JustBecause_64 Start: 47361, Stop: 45076, Start Num: 3

Candidate Starts for JustBecause_64:

(Start: 3 @47361 has 6 MA's), (14, 47151), (24, 47034), (31, 46878), (34, 46809), (45, 46725), (61, 46539), (75, 46302), (94, 46095), (95, 46092), (96, 46089), (103, 46026), (110, 45906), (111, 45894), (115, 45792), (125, 45684), (126, 45669), (130, 45600), (131, 45591), (132, 45576), (135, 45549), (136, 45546), (149, 45456), (151, 45432), (153, 45420), (154, 45417), (157, 45393), (160, 45372), (161, 45366), (164, 45345), (171, 45306), (186, 45120), (187, 45105),

Gene: Kela_65 Start: 47226, Stop: 44941, Start Num: 3

Candidate Starts for Kela_65:

(Start: 3 @47226 has 6 MA's), (14, 47016), (24, 46899), (31, 46743), (34, 46674), (45, 46590), (61, 46404), (75, 46167), (94, 45960), (95, 45957), (96, 45954), (103, 45891), (110, 45771), (111, 45759), (115, 45657), (125, 45549), (126, 45534), (130, 45465), (131, 45456), (132, 45441), (135, 45414), (136, 45411), (149, 45321), (151, 45297), (153, 45285), (154, 45282), (157, 45258), (160, 45237), (161, 45231), (164, 45210), (171, 45171), (186, 44985), (187, 44970),

Gene: Kradal_69 Start: 50008, Stop: 47723, Start Num: 3

Candidate Starts for Kradal_69:

(1, 50179), (Start: 3 @50008 has 6 MA's), (6, 49930), (14, 49798), (24, 49681), (31, 49525), (34, 49456), (41, 49402), (42, 49399), (45, 49372), (61, 49186), (75, 48949), (78, 48931), (94, 48742), (95, 48739), (96, 48736), (102, 48688), (110, 48553), (111, 48541), (115, 48439), (125, 48331), (126, 48316), (128, 48274), (132, 48223), (135, 48196), (136, 48193), (139, 48175), (150, 48100), (151, 48079), (153, 48067), (154, 48064), (156, 48052), (157, 48040), (160, 48019), (161, 48013), (164, 47992), (165, 47986), (178, 47872), (180, 47833), (183, 47800), (186, 47767),

Gene: Molivia_58 Start: 37925, Stop: 35682, Start Num: 4

Candidate Starts for Molivia_58:

(Start: 4 @37925 has 11 MA's), (7, 37874), (13, 37757), (15, 37733), (21, 37661), (28, 37541), (31, 37472), (36, 37391), (39, 37376), (40, 37364), (48, 37304), (53, 37244), (58, 37181), (66, 37055), (74, 36923), (83, 36851), (85, 36836), (88, 36824), (89, 36821), (93, 36758), (97, 36707), (100, 36686), (104, 36629), (106, 36590), (107, 36581), (108, 36557), (111, 36512), (112, 36488), (114, 36428), (115, 36422), (116, 36416), (117, 36413), (119, 36386), (133, 36200), (140, 36146), (157, 36017), (158, 36008), (160, 35996), (162, 35981), (167, 35945), (168, 35939), (171, 35930), (173, 35891), (182, 35792), (184, 35774), (188, 35699), (189, 35690),

Gene: Nirvana_75 Start: 52115, Stop: 49830, Start Num: 3

Candidate Starts for Nirvana_75:

(Start: 3 @52115 has 6 MA's), (6, 52037), (24, 51788), (26, 51746), (31, 51632), (34, 51563), (37, 51545), (45, 51479), (59, 51317), (61, 51293), (77, 51050), (89, 50951), (94, 50849), (95, 50846), (96, 50843), (106, 50726), (110, 50660), (111, 50648), (115, 50546), (122, 50477), (125, 50438), (126, 50423), (128, 50381), (129, 50378), (130, 50354), (132, 50330), (135, 50303), (136, 50300), (149, 50210), (151, 50186), (153, 50174), (154, 50171), (155, 50165), (157, 50147), (160, 50126), (161, 50120), (164, 50099), (183, 49907), (186, 49874), (187, 49859),

Gene: Rings_57 Start: 39548, Stop: 37308, Start Num: 4

Candidate Starts for Rings_57:

(Start: 4 @39548 has 11 MA's), (15, 39356), (19, 39314), (22, 39275), (28, 39164), (31, 39095), (35, 39020), (36, 39014), (46, 38942), (48, 38927), (53, 38867), (58, 38804), (60, 38792), (68, 38651), (70, 38606), (74, 38546), (85, 38459), (88, 38447), (89, 38444), (93, 38381), (97, 38330), (100, 38309), (105, 38237), (111, 38135), (115, 38045), (116, 38039), (117, 38036), (119, 38009), (124, 37958),

(140, 37769), (143, 37748), (146, 37736), (157, 37640), (158, 37631), (160, 37619), (162, 37604),
(167, 37568), (168, 37562), (171, 37553), (172, 37541), (173, 37514), (177, 37490), (180, 37433),
(182, 37415), (184, 37397), (188, 37322), (189, 37313),

Gene: Satis_69 Start: 50004, Stop: 47719, Start Num: 3

Candidate Starts for Satis_69:

(1, 50175), (Start: 3 @50004 has 6 MA's), (6, 49926), (14, 49794), (24, 49677), (31, 49521), (34, 49452), (41, 49398), (42, 49395), (45, 49368), (61, 49182), (75, 48945), (78, 48927), (94, 48738), (95, 48735), (96, 48732), (102, 48684), (110, 48549), (111, 48537), (115, 48435), (125, 48327), (126, 48312), (128, 48270), (132, 48219), (135, 48192), (136, 48189), (150, 48096), (151, 48075), (153, 48063), (154, 48060), (156, 48048), (157, 48036), (160, 48015), (161, 48009), (164, 47988), (165, 47982), (178, 47868), (180, 47829), (183, 47796), (186, 47763), (187, 47748),

Gene: SorJuana_56 Start: 39107, Stop: 36867, Start Num: 4

Candidate Starts for SorJuana_56:

(Start: 4 @39107 has 11 MA's), (15, 38915), (19, 38873), (22, 38834), (28, 38723), (31, 38654), (35, 38579), (36, 38573), (46, 38501), (48, 38486), (53, 38426), (58, 38363), (60, 38351), (68, 38210), (70, 38165), (74, 38105), (85, 38018), (88, 38006), (89, 38003), (93, 37940), (97, 37889), (100, 37868), (105, 37796), (111, 37694), (115, 37604), (116, 37598), (117, 37595), (119, 37568), (124, 37517), (140, 37328), (143, 37307), (146, 37295), (157, 37199), (158, 37190), (162, 37163), (167, 37127), (168, 37121), (171, 37112), (172, 37100), (173, 37073), (177, 37049), (180, 36992), (182, 36974), (184, 36956), (188, 36881), (189, 36872),

Gene: Thunderclap_56 Start: 39529, Stop: 37289, Start Num: 4

Candidate Starts for Thunderclap_56:

(Start: 4 @39529 has 11 MA's), (15, 39337), (19, 39295), (22, 39256), (28, 39145), (31, 39076), (35, 39001), (36, 38995), (46, 38923), (48, 38908), (53, 38848), (58, 38785), (60, 38773), (68, 38632), (70, 38587), (74, 38527), (85, 38440), (88, 38428), (89, 38425), (93, 38362), (97, 38311), (100, 38290), (105, 38218), (111, 38116), (115, 38026), (116, 38020), (117, 38017), (119, 37990), (124, 37939), (140, 37750), (143, 37729), (146, 37717), (157, 37621), (158, 37612), (162, 37585), (167, 37549), (168, 37543), (171, 37534), (172, 37522), (173, 37495), (177, 37471), (180, 37414), (182, 37396), (184, 37378), (188, 37303), (189, 37294),

Gene: Yeezus_57 Start: 39499, Stop: 37259, Start Num: 4

Candidate Starts for Yeezus_57:

(Start: 4 @39499 has 11 MA's), (15, 39307), (19, 39265), (22, 39226), (28, 39115), (31, 39046), (35, 38971), (36, 38965), (46, 38893), (48, 38878), (50, 38848), (53, 38818), (58, 38755), (60, 38743), (68, 38602), (70, 38557), (74, 38497), (85, 38410), (88, 38398), (89, 38395), (93, 38332), (97, 38281), (100, 38260), (105, 38188), (111, 38086), (115, 37996), (116, 37990), (117, 37987), (119, 37960), (124, 37909), (140, 37720), (143, 37699), (146, 37687), (157, 37591), (158, 37582), (162, 37555), (167, 37519), (168, 37513), (171, 37504), (172, 37492), (173, 37465), (177, 37441), (180, 37384), (182, 37366), (184, 37348), (188, 37273), (189, 37264),