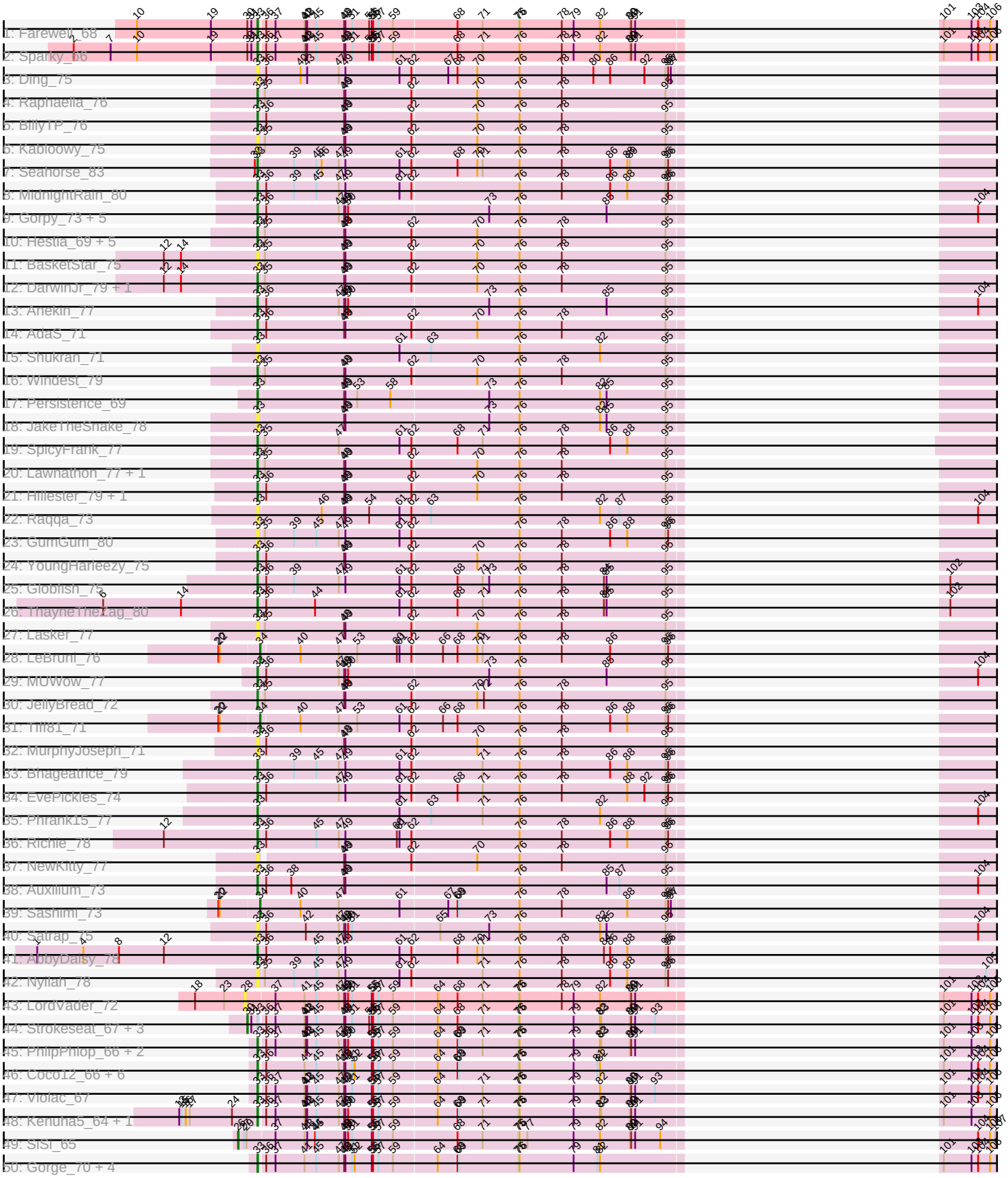
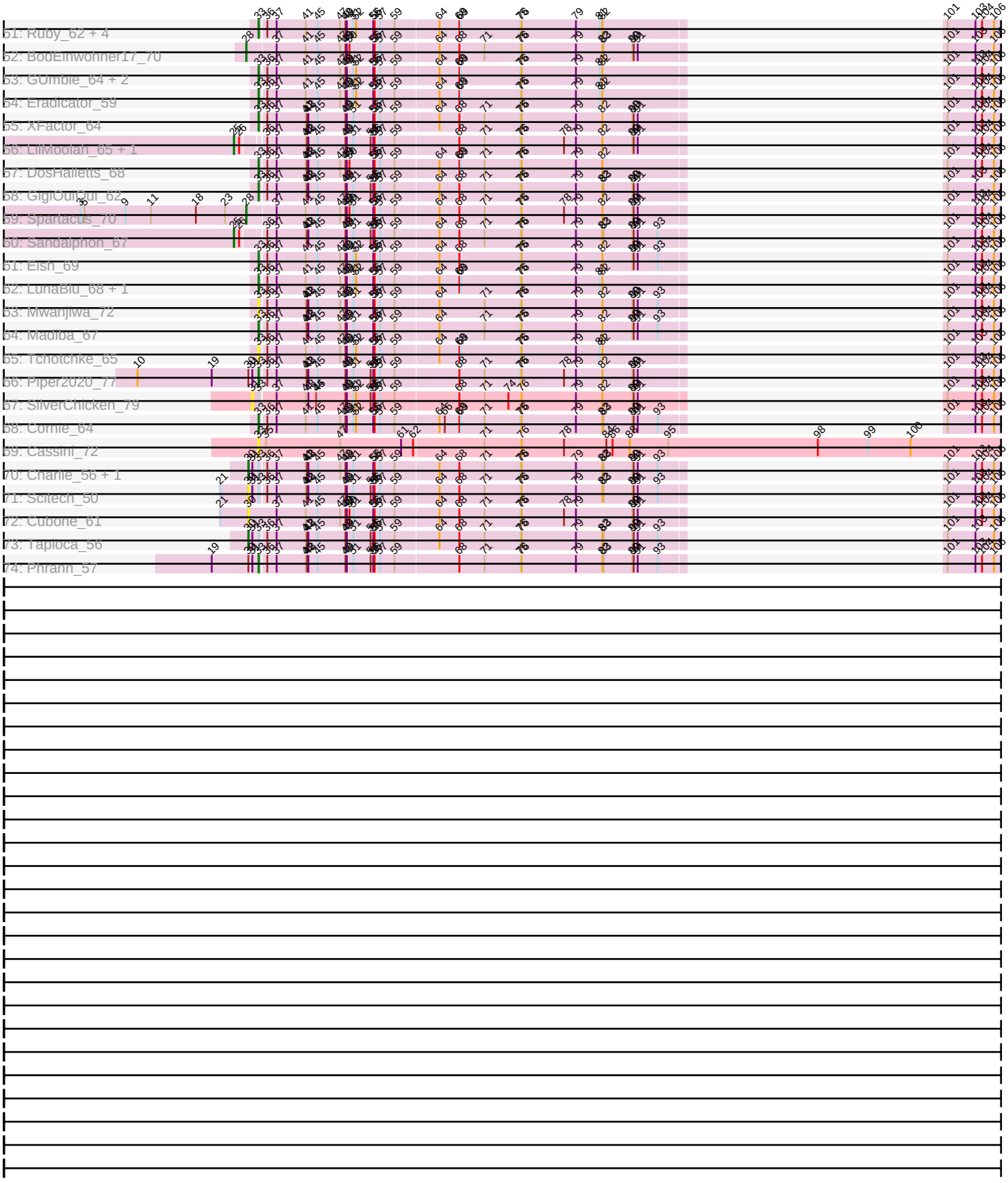
Zoomed Pham 301174



Zoomed Pham 301174



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 301174 Report

This analysis was run 06/08/26 on database version 649.

Pham number 301174 has 112 members, 23 are drafts.

Phages represented in each track:
- Track 1 : Farewell_68
- Track 2 : Sparky_66
- Track 3 : Ding_75
- Track 4 : Raphaella_76
- Track 5 : BillyTP_76
- Track 6 : Kabloowy_75
- Track 7 : Seahorse_83
- Track 8 : MidnightRain_80
- Track 9 : Gorpy_73, BlueShadow_73, SonDevVon_82, MaterMagnus_75, Sakai_72, Aikyam_74
- Track 10 : Hestia_69, Isolde_73, Faja_78, BenchScraper_75, CookieBear_74, Sporco_77
- Track 11 : BasketStar_75
- Track 12 : DarwinJr_79, Crescenzo_78
- Track 13 : Anekin_77
- Track 14 : AdaS_71
- Track 15 : Shukran_71
- Track 16 : Windest_79
- Track 17 : Persistence_69
- Track 18 : JakeTheSnake_78
- Track 19 : SpicyFrank_77
- Track 20 : Lawnathon_77, Mapleville_70
- Track 21 : Hillester_79, RadFad_80
- Track 22 : Raqqa_73
- Track 23 : GumGum_80
- Track 24 : YoungHarleezy_75
- Track 25 : Globfish_75
- Track 26 : ThayneTheZag_80
- Track 27 : Lasker_77
- Track 28 : LeBruni_76
- Track 29 : MUWow_77
- Track 30 : JellyBread_72
- Track 31 : Tiff81_71
- Track 32 : MurphyJoseph_71
- Track 33 : Bhageatrice_79
- Track 34 : EvePickles_74
- Track 35 : Phrank15_77

• Track 36 : Richie_78
• Track 37 : NewKitty_77
• Track 38 : Auxilium_73
• Track 39 : Sashimi_73
• Track 40 : Satrap_75
• Track 41 : AbbyDaisy_78
• Track 42 : Nyilah_78
• Track 43 : LordVader_72
• Track 44 : Strokeseat_67, Andies_52, Hlubikazi_67, Mandlovu_67
• Track 45 : PhlipPhlop_66, EmiMonkey_64, Vivum_67
• Track 46 : Coco12_66, Cerasum_63, Brookers_64, Sarma624_65, BigPhil_63, Velveteen_62, Kingsley_64
• Track 47 : Violac_67
• Track 48 : Kenuha5_64, SuperGrey_70
• Track 49 : SiSi_65
• Track 50 : Gorge_70, James_70, Saal_68, OlympiaSaint_68, Mattes_70
• Track 51 : Ruby_62, MisterCuddles_64, Girr_64, Zerg_66, Alexphander_70
• Track 52 : BodEinwohner17_70
• Track 53 : GUmbie_64, RockyHorror_67, Lizziana_72
• Track 54 : Eradicator_59
• Track 55 : XFactor_64
• Track 56 : LilMoolah_65, Nivrat_63
• Track 57 : DosHalletts_68
• Track 58 : GigiOuiOui_62
• Track 59 : Spartacus_70
• Track 60 : Sandalphon_67
• Track 61 : Eish_69
• Track 62 : LunaBlu_68, Galactic_65
• Track 63 : Mwanjiwa_72
• Track 64 : Madiba_67
• Track 65 : Tchotchke_65
• Track 66 : Piper2020_77
• Track 67 : SilverChicken_79
• Track 68 : Cornie_64
• Track 69 : Cassini_72
• Track 70 : Charlie_56, Bosection6_54
• Track 71 : Scitech_50
• Track 72 : Cubone_61
• Track 73 : Tapioca_56
• Track 74 : Phrann_57

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

The start number called the most often in the published annotations is 33, it was called in 73 of the 89 non-draft genes in the pham.

Genes that call this "Most Annotated" start:
• AbbyDaisy_78, AdaS_71, Aikyam_74, Alexphander_70, Anekin_77, Auxilium_73, BasketStar_75, BenchScraper_75, Bhageatrice_79, BigPhil_63, BillyTP_76, BlueShadow_73, Brookers_64, Cassini_72, Cerasum_63, Coco12_66,

CookieBear_74, Cornie_64, Crescenzo_78, DarwinJr_79, Ding_75, DosHalletts_68, Eish_69, EmiMonkey_64, Eradicator_59, EvePickles_74, Faja_78, Farewell_68, GUmbie_64, Galactic_65, GigiOuiOui_62, Girr_64, Globfish_75, Gorge_70, Gorpy_73, GumGum_80, Hestia_69, Hillester_79, Isolde_73, JakeTheSnake_78, James_70, JellyBread_72, Kabloowy_75, Kenuha5_64, Kingsley_64, Lasker_77, Lawnathon_77, Lizziana_72, LunaBlu_68, MUWow_77, Madiba_67, Mapleville_70, MaterMagnus_75, Mattes_70, MidnightRain_80, MisterCuddles_64, MurphyJoseph_71, Mwanjiwa_72, NewKitty_77, Nyilah_78, OlympiaSaint_68, Persistence_69, PhlipPhlop_66, Phrank15_77, Phrann_57, Piper2020_77, RadFad_80, Raphaella_76, Raqqa_73, Richie_78, RockyHorror_67, Ruby_62, Saal_68, Sakai_72, Sarma624_65, Satrap_75, Seahorse_83, Shukran_71, SonDevVon_82, Sparky_66, SpicyFrank_77, Sporco_77, SuperGrey_70, Tchotchke_65, ThayneTheZag_80, Velveteen_62, Violac_67, Vivum_67, Windest_79, XFactor_64, YoungHarleezy_75, Zerg_66,

Genes that have the "Most Annotated" start but do not call it:
• Andies_52, Bosection6_54, Charlie_56, Hlubikazi_67, Mandlovu_67, Scitech_50, SilverChicken_79, Strokeseat_67, Tapioca_56,

Genes that do not have the "Most Annotated" start:
• BodEinwohner17_70, Cubone_61, LeBruni_76, LilMoolah_65, LordVader_72, Nivrat_63, Sandalphon_67, Sashimi_73, SiSi_65, Spartacus_70, Tiff81_71,

Summary by start number:

Start 25:
• Found in 3 of 112 (2.7%) of genes in pham
• Manual Annotations of this start: 3 of 89
• Called 100.0% of time when present
• Phage (with cluster) where this start called: LilMoolah_65 (F1), Nivrat_63 (F1), Sandalphon_67 (F1),

Start 26:
• Found in 4 of 112 (3.6%) of genes in pham
• Manual Annotations of this start: 1 of 89
• Called 25.0% of time when present
• Phage (with cluster) where this start called: SiSi_65 (F1),

Start 28:
• Found in 3 of 112 (2.7%) of genes in pham
• Manual Annotations of this start: 2 of 89
• Called 100.0% of time when present
• Phage (with cluster) where this start called: BodEinwohner17_70 (F1), LordVader_72 (F), Spartacus_70 (F1),

Start 30:
• Found in 13 of 112 (11.6%) of genes in pham
• Manual Annotations of this start: 7 of 89
• Called 69.2% of time when present
• Phage (with cluster) where this start called: Andies_52 (N), Bosection6_54 (N), Charlie_56 (N), Cubone_61 (N), Hlubikazi_67 (F1), Mandlovu_67 (F1), Scitech_50 (N), Strokeseat_67 (F1), Tapioca_56 (N),

Start 31:
• Found in 13 of 112 (11.6%) of genes in pham
• No Manual Annotations of this start.
• Called 7.7% of time when present
• Phage (with cluster) where this start called: SilverChicken_79 (F2),

Start 33:
• Found in 101 of 112 (90.2%) of genes in pham
• Manual Annotations of this start: 73 of 89
• Called 91.1% of time when present
• Phage (with cluster) where this start called: AbbyDaisy_78 (AY), AdaS_71 (AY), Aikyam_74 (AY), Alexphander_70 (F1), Anekin_77 (AY), Auxilium_73 (AY), BasketStar_75 (AY), BenchScraper_75 (AY), Bhageatrice_79 (AY), BigPhil_63 (F1), BillyTP_76 (AY), BlueShadow_73 (AY), Brookers_64 (F1), Cassini_72 (FN), Cerasum_63 (F1), Coco12_66 (F1), CookieBear_74 (AY), Cornie_64 (F5), Crescenzo_78 (AY), DarwinJr_79 (AY), Ding_75 (AY), DosHalletts_68 (F1), Eish_69 (F1), EmiMonkey_64 (F1), Eradicator_59 (F1), EvePickles_74 (AY), Faja_78 (AY), Farewell_68 (AF), GUmbie_64 (F1), Galactic_65 (F1), GigiOuiOui_62 (F1), Girr_64 (F1), Globfish_75 (AY), Gorge_70 (F1), Gorpy_73 (AY), GumGum_80 (AY), Hestia_69 (AY), Hillester_79 (AY), Isolde_73 (AY), JakeTheSnake_78 (AY), James_70 (F1), JellyBread_72 (AY), Kabloowy_75 (AY), Kenuha5_64 (F1), Kingsley_64 (F1), Lasker_77 (AY), Lawnathon_77 (AY), Lizziana_72 (F1), LunaBlu_68 (F1), MUWow_77 (AY), Madiba_67 (F1), Mapleville_70 (AY), MaterMagnus_75 (AY), Mattes_70 (F1), MidnightRain_80 (AY), MisterCuddles_64 (F1), MurphyJoseph_71 (AY), Mwanjiwa_72 (F1), NewKitty_77 (AY), Nyilah_78 (AY), OlympiaSaint_68 (F1), Persistence_69 (AY), PhlipPhlop_66 (F1), Phrank15_77 (AY), Phrann_57 (N), Piper2020_77 (F1), RadFad_80 (AY), Raphaella_76 (AY), Raqqa_73 (AY), Richie_78 (AY), RockyHorror_67 (F1), Ruby_62 (F1), Saal_68 (F1), Sakai_72 (AY), Sarma624_65 (F1), Satrap_75 (AY), Seahorse_83 (AY), Shukran_71 (AY), SonDevVon_82 (AY), Sparky_66 (AF), SpicyFrank_77 (AY), Sporco_77 (AY), SuperGrey_70 (F1), Tchotchke_65 (F1), ThayneTheZag_80 (AY), Velveteen_62 (F1), Violac_67 (F1), Vivum_67 (F1), Windest_79 (AY), XFactor_64 (F1), YoungHarleezy_75 (AY), Zerg_66 (F1),

Start 34:
• Found in 3 of 112 (2.7%) of genes in pham
• Manual Annotations of this start: 3 of 89
• Called 100.0% of time when present
• Phage (with cluster) where this start called: LeBruni_76 (AY), Sashimi_73 (AY), Tiff81_71 (AY),

Summary by clusters:

There are 8 clusters represented in this pham: F1, F2, F5, F, AF, N, AY, FN,

Info for manual annotations of cluster AF:
•Start number 33 was manually annotated 2 times for cluster AF.

Info for manual annotations of cluster AY:
•Start number 33 was manually annotated 35 times for cluster AY.
•Start number 34 was manually annotated 3 times for cluster AY.

Info for manual annotations of cluster F1:
•Start number 25 was manually annotated 3 times for cluster F1.
•Start number 26 was manually annotated 1 time for cluster F1.
•Start number 28 was manually annotated 2 times for cluster F1.
•Start number 30 was manually annotated 3 times for cluster F1.
•Start number 33 was manually annotated 34 times for cluster F1.

Info for manual annotations of cluster F5:
•Start number 33 was manually annotated 1 time for cluster F5.

Info for manual annotations of cluster N:
•Start number 30 was manually annotated 4 times for cluster N.
•Start number 33 was manually annotated 1 time for cluster N.

Gene Information:

Gene: AbbyDaisy_78 Start: 41569, Stop: 44097, Start Num: 33
Candidate Starts for AbbyDaisy_78:
(1, 41074), (4, 41179), (8, 41260), (12, 41362), (Start: 33 @41569 has 73 MA's), (36, 41584), (45, 41695), (47, 41746), (49, 41761), (61, 41878), (62, 41905), (68, 42004), (70, 42049), (71, 42061), (76, 42145), (78, 42241), (84, 42337), (86, 42349), (88, 42388), (95, 42475), (96, 42481), (108, 42643), (110, 42688), (116, 42817), (118, 42850), (119, 42853), (123, 42904), (124, 42970), (129, 43048), (130, 43063), (132, 43168), (135, 43198), (137, 43231), (141, 43282), (143, 43318), (145, 43345), (152, 43432), (162, 43636), (165, 43663), (166, 43672), (168, 43744), (172, 43798), (174, 43834), (175, 43840), (180, 43912), (181, 43933), (191, 44053),

Gene: AdaS_71 Start: 37276, Stop: 39807, Start Num: 33
Candidate Starts for AdaS_71:
(Start: 33 @37276 has 73 MA's), (36, 37291), (48, 37465), (49, 37468), (62, 37612), (70, 37756), (76, 37852), (78, 37948), (95, 38182), (112, 38437), (117, 38530), (123, 38611), (124, 38677), (129, 38758), (132, 38878), (144, 39049), (145, 39055), (151, 39121), (152, 39142), (168, 39454), (169, 39463), (172, 39508), (175, 39550), (178, 39580), (185, 39667), (189, 39718),

Gene: Aikyam_74 Start: 37985, Stop: 40513, Start Num: 33
Candidate Starts for Aikyam_74:
(Start: 33 @37985 has 73 MA's), (36, 38000), (47, 38162), (48, 38174), (49, 38177), (50, 38183), (73, 38492), (76, 38561), (85, 38759), (95, 38891), (104, 39014), (112, 39146), (123, 39320), (124, 39386), (129, 39464), (130, 39479), (132, 39584), (141, 39698), (142, 39713), (145, 39761), (152, 39848), (162, 40052), (168, 40160), (171, 40205), (172, 40214), (175, 40256), (178, 40286), (191, 40469),

Gene: Alexphander_70 Start: 42641, Stop: 45160, Start Num: 33
Candidate Starts for Alexphander_70:
(Start: 33 @42641 has 73 MA's), (36, 42653), (37, 42671), (41, 42737), (45, 42764), (47, 42815), (48, 42827), (49, 42830), (51, 42845), (52, 42851), (55, 42890), (56, 42893), (57, 42905), (59, 42935), (64, 43031), (68, 43076), (69, 43079), (75, 43214), (76, 43217), (79, 43340), (81, 43394), (82, 43400), (101, 43592), (103, 43655), (104, 43670), (106, 43697), (109, 43757), (110, 43760), (111, 43775), (112, 43802), (113, 43808), (115, 43847), (117, 43895), (118, 43922), (119, 43925), (122, 43964), (123, 43976), (127, 44081), (129, 44120), (130, 44135), (132, 44240), (138, 44318), (140, 44345), (141, 44354), (145, 44417), (146, 44426), (148, 44438), (149, 44441), (152, 44504), (159, 44627), (168,

44816), (170, 44849), (171, 44861), (172, 44870), (173, 44879), (175, 44912), (176, 44918), (179, 44981), (180, 44984), (182, 45014), (183, 45020), (191, 45125),

Gene: Andies_52 Start: 35603, Stop: 38227, Start Num: 30
Candidate Starts for Andies_52:
(Start: 30 @35603 has 7 MA's), (31, 35609), (Start: 33 @35618 has 73 MA's), (36, 35630), (37, 35648), (41, 35714), (42, 35717), (43, 35720), (45, 35741), (48, 35804), (49, 35807), (51, 35822), (54, 35861), (55, 35867), (56, 35870), (57, 35882), (59, 35912), (64, 36008), (68, 36053), (71, 36110), (75, 36191), (76, 36194), (79, 36317), (82, 36377), (83, 36380), (89, 36443), (90, 36446), (91, 36455), (93, 36500), (101, 36569), (103, 36632), (104, 36647), (106, 36674), (109, 36734), (110, 36737), (111, 36752), (112, 36779), (115, 36824), (117, 36872), (118, 36899), (119, 36902), (122, 36941), (123, 36953), (127, 37058), (129, 37097), (130, 37112), (132, 37217), (138, 37295), (140, 37322), (141, 37331), (145, 37394), (148, 37415), (149, 37418), (152, 37481), (157, 37607), (158, 37625), (159, 37694), (164, 37784), (168, 37883), (170, 37916), (171, 37928), (172, 37937), (173, 37946), (175, 37979), (176, 37985), (179, 38048), (180, 38051), (182, 38081), (183, 38087), (190, 38165), (191, 38192),

Gene: Anekin_77 Start: 40557, Stop: 43085, Start Num: 33
Candidate Starts for Anekin_77:
(Start: 33 @40557 has 73 MA's), (36, 40572), (47, 40734), (48, 40746), (49, 40749), (50, 40755), (73, 41064), (76, 41133), (85, 41331), (95, 41463), (104, 41586), (112, 41718), (123, 41892), (124, 41958), (129, 42036), (130, 42051), (132, 42156), (141, 42270), (143, 42306), (144, 42327), (145, 42333), (147, 42345), (152, 42420), (155, 42495), (162, 42624), (165, 42651), (166, 42660), (168, 42732), (172, 42786), (174, 42822), (175, 42828), (178, 42858), (180, 42900), (181, 42921), (191, 43041),

Gene: Auxilium_73 Start: 37528, Stop: 40056, Start Num: 33
Candidate Starts for Auxilium_73:
(Start: 33 @37528 has 73 MA's), (36, 37543), (38, 37597), (48, 37717), (49, 37720), (76, 38104), (85, 38302), (87, 38329), (95, 38434), (104, 38557), (112, 38689), (123, 38863), (124, 38929), (129, 39007), (132, 39127), (141, 39241), (142, 39256), (145, 39304), (152, 39391), (162, 39595), (168, 39703), (171, 39748), (172, 39757), (175, 39799), (191, 40012),

Gene: BasketStar_75 Start: 40323, Stop: 42851, Start Num: 33
Candidate Starts for BasketStar_75:
(12, 40116), (14, 40155), (Start: 33 @40323 has 73 MA's), (35, 40335), (48, 40509), (49, 40512), (62, 40656), (70, 40800), (76, 40896), (78, 40992), (95, 41226), (112, 41481), (117, 41574), (123, 41655), (124, 41721), (129, 41802), (132, 41922), (144, 42093), (145, 42099), (151, 42165), (152, 42186), (168, 42498), (169, 42507), (172, 42552), (175, 42594), (178, 42624), (185, 42711), (189, 42762),

Gene: BenchScraper_75 Start: 38690, Stop: 41218, Start Num: 33
Candidate Starts for BenchScraper_75:
(Start: 33 @38690 has 73 MA's), (35, 38702), (48, 38876), (49, 38879), (62, 39023), (70, 39167), (76, 39263), (78, 39359), (95, 39593), (109, 39803), (112, 39848), (117, 39941), (123, 40022), (124, 40088), (129, 40169), (132, 40289), (137, 40352), (144, 40460), (145, 40466), (151, 40532), (152, 40553), (168, 40865), (169, 40874), (172, 40919), (174, 40955), (175, 40961), (178, 40991), (185, 41078), (189, 41129),

Gene: Bhageatrice_79 Start: 42369, Stop: 44897, Start Num: 33
Candidate Starts for Bhageatrice_79:
(Start: 33 @42369 has 73 MA's), (39, 42444), (45, 42495), (47, 42546), (49, 42561), (61, 42678), (62, 42705), (71, 42861), (76, 42945), (78, 43041), (86, 43149), (88, 43188), (95, 43275), (96, 43281), (108, 43443), (110, 43488), (116, 43617), (118, 43650), (119, 43653), (123, 43704), (124, 43770), (129, 43848), (130, 43863), (132, 43968), (135, 43998), (137, 44031), (143, 44118), (144, 44139), (145, 44145), (152, 44232), (162, 44436), (165, 44463), (166, 44472), (168, 44544), (172, 44598), (174,

44634), (175, 44640), (178, 44670), (180, 44712), (181, 44733), (191, 44853), (194, 44871),

Gene: BigPhil_63 Start: 39507, Stop: 42026, Start Num: 33
Candidate Starts for BigPhil_63:
(Start: 33 @39507 has 73 MA's), (36, 39519), (41, 39603), (45, 39630), (47, 39681), (48, 39693), (49, 39696), (51, 39711), (52, 39717), (55, 39756), (56, 39759), (57, 39771), (59, 39801), (64, 39897), (68, 39942), (69, 39945), (75, 40080), (76, 40083), (79, 40206), (81, 40260), (82, 40266), (101, 40458), (103, 40521), (104, 40536), (106, 40563), (109, 40623), (110, 40626), (111, 40641), (112, 40668), (113, 40674), (115, 40713), (117, 40761), (118, 40788), (119, 40791), (122, 40830), (123, 40842), (127, 40947), (129, 40986), (130, 41001), (132, 41106), (138, 41184), (140, 41211), (141, 41220), (145, 41283), (146, 41292), (148, 41304), (149, 41307), (152, 41370), (159, 41493), (162, 41574), (168, 41682), (170, 41715), (171, 41727), (172, 41736), (173, 41745), (175, 41778), (176, 41784), (179, 41847), (180, 41850), (182, 41880), (183, 41886), (191, 41991),

Gene: BillyTP_76 Start: 40518, Stop: 43049, Start Num: 33
Candidate Starts for BillyTP_76:
(Start: 33 @40518 has 73 MA's), (36, 40533), (48, 40707), (49, 40710), (62, 40854), (70, 40998), (76, 41094), (78, 41190), (95, 41424), (112, 41679), (117, 41772), (123, 41853), (124, 41919), (129, 42000), (132, 42120), (144, 42291), (145, 42297), (151, 42363), (152, 42384), (168, 42696), (169, 42705), (172, 42750), (174, 42786), (175, 42792), (178, 42822), (185, 42909), (189, 42960),

Gene: BlueShadow_73 Start: 39833, Stop: 42361, Start Num: 33
Candidate Starts for BlueShadow_73:
(Start: 33 @39833 has 73 MA's), (36, 39848), (47, 40010), (48, 40022), (49, 40025), (50, 40031), (73, 40340), (76, 40409), (85, 40607), (95, 40739), (104, 40862), (112, 40994), (123, 41168), (124, 41234), (129, 41312), (130, 41327), (132, 41432), (141, 41546), (142, 41561), (145, 41609), (152, 41696), (162, 41900), (168, 42008), (171, 42053), (172, 42062), (175, 42104), (178, 42134), (191, 42317),

Gene: BodEinwohner17_70 Start: 43451, Stop: 46000, Start Num: 28
Candidate Starts for BodEinwohner17_70:
(Start: 28 @43451 has 2 MA's), (37, 43511), (41, 43577), (45, 43604), (47, 43655), (48, 43667), (49, 43670), (50, 43676), (55, 43730), (56, 43733), (57, 43745), (59, 43775), (64, 43871), (68, 43916), (71, 43973), (75, 44054), (76, 44057), (79, 44180), (82, 44240), (83, 44243), (89, 44306), (90, 44309), (91, 44318), (101, 44432), (103, 44495), (106, 44537), (109, 44597), (110, 44600), (111, 44615), (115, 44687), (117, 44735), (118, 44762), (119, 44765), (120, 44771), (122, 44804), (123, 44816), (127, 44921), (129, 44960), (130, 44975), (132, 45080), (138, 45158), (140, 45185), (141, 45194), (145, 45257), (146, 45266), (148, 45278), (149, 45281), (152, 45344), (159, 45467), (168, 45656), (170, 45689), (171, 45701), (172, 45710), (173, 45719), (175, 45752), (176, 45758), (177, 45767), (179, 45821), (180, 45824), (182, 45854), (183, 45860), (188, 45902), (191, 45965),

Gene: Bosection6_54 Start: 35309, Stop: 37933, Start Num: 30
Candidate Starts for Bosection6_54:
(Start: 30 @35309 has 7 MA's), (31, 35315), (Start: 33 @35324 has 73 MA's), (36, 35336), (37, 35354), (41, 35420), (42, 35423), (43, 35426), (45, 35447), (47, 35498), (48, 35510), (49, 35513), (51, 35528), (55, 35573), (56, 35576), (57, 35588), (59, 35618), (64, 35714), (68, 35759), (71, 35816), (75, 35897), (76, 35900), (79, 36023), (82, 36083), (83, 36086), (89, 36149), (90, 36152), (91, 36161), (93, 36206), (101, 36275), (103, 36338), (104, 36353), (106, 36380), (109, 36440), (110, 36443), (111, 36458), (112, 36485), (115, 36530), (117, 36578), (118, 36605), (119, 36608), (122, 36647), (123, 36659), (127, 36764), (129, 36803), (130, 36818), (132, 36923), (138, 37001), (140, 37028), (141, 37037), (145, 37100), (148, 37121), (149, 37124), (152, 37187), (157, 37313), (158, 37331), (159, 37400), (164, 37490), (168, 37589), (170, 37622), (171, 37634), (172, 37643), (173, 37652), (175, 37685), (176, 37691), (179, 37754), (180, 37757), (182, 37787), (183, 37793), (190, 37871), (191, 37898), (196, 37925),

Gene: Brookers_64 Start: 42458, Stop: 44977, Start Num: 33
Candidate Starts for Brookers_64:
(Start: 33 @42458 has 73 MA's), (36, 42470), (41, 42554), (45, 42581), (47, 42632), (48, 42644), (49, 42647), (51, 42662), (52, 42668), (55, 42707), (56, 42710), (57, 42722), (59, 42752), (64, 42848), (68, 42893), (69, 42896), (75, 43031), (76, 43034), (79, 43157), (81, 43211), (82, 43217), (101, 43409), (103, 43472), (104, 43487), (106, 43514), (109, 43574), (110, 43577), (111, 43592), (112, 43619), (113, 43625), (115, 43664), (117, 43712), (118, 43739), (119, 43742), (122, 43781), (123, 43793), (127, 43898), (129, 43937), (130, 43952), (132, 44057), (138, 44135), (140, 44162), (141, 44171), (145, 44234), (146, 44243), (148, 44255), (149, 44258), (152, 44321), (159, 44444), (162, 44525), (168, 44633), (170, 44666), (171, 44678), (172, 44687), (173, 44696), (175, 44729), (176, 44735), (179, 44798), (180, 44801), (182, 44831), (183, 44837), (191, 44942),

Gene: Cassini_72 Start: 38929, Stop: 42042, Start Num: 33
Candidate Starts for Cassini_72:
(Start: 33 @38929 has 73 MA's), (35, 38941), (47, 39103), (61, 39235), (62, 39262), (71, 39418), (76, 39502), (78, 39598), (84, 39694), (86, 39706), (88, 39745), (95, 39832), (98, 40171), (99, 40285), (100, 40381), (114, 40687), (116, 40762), (118, 40795), (119, 40798), (122, 40837), (123, 40849), (124, 40915), (129, 40993), (130, 41008), (132, 41113), (135, 41143), (137, 41176), (143, 41263), (144, 41284), (145, 41290), (152, 41377), (159, 41500), (162, 41581), (165, 41608), (166, 41617), (168, 41689), (172, 41743), (174, 41779), (175, 41785), (191, 41998), (194, 42016),

Gene: Cerasum_63 Start: 39525, Stop: 42044, Start Num: 33
Candidate Starts for Cerasum_63:
(Start: 33 @39525 has 73 MA's), (36, 39537), (41, 39621), (45, 39648), (47, 39699), (48, 39711), (49, 39714), (51, 39729), (52, 39735), (55, 39774), (56, 39777), (57, 39789), (59, 39819), (64, 39915), (68, 39960), (69, 39963), (75, 40098), (76, 40101), (79, 40224), (81, 40278), (82, 40284), (101, 40476), (103, 40539), (104, 40554), (106, 40581), (109, 40641), (110, 40644), (111, 40659), (112, 40686), (113, 40692), (115, 40731), (117, 40779), (118, 40806), (119, 40809), (122, 40848), (123, 40860), (127, 40965), (129, 41004), (130, 41019), (132, 41124), (138, 41202), (140, 41229), (141, 41238), (145, 41301), (146, 41310), (148, 41322), (149, 41325), (152, 41388), (159, 41511), (162, 41592), (168, 41700), (170, 41733), (171, 41745), (172, 41754), (173, 41763), (175, 41796), (176, 41802), (179, 41865), (180, 41868), (182, 41898), (183, 41904), (191, 42009),

Gene: Charlie_56 Start: 34933, Stop: 37557, Start Num: 30
Candidate Starts for Charlie_56:
(Start: 30 @34933 has 7 MA's), (31, 34939), (Start: 33 @34948 has 73 MA's), (36, 34960), (37, 34978), (41, 35044), (42, 35047), (43, 35050), (45, 35071), (47, 35122), (48, 35134), (49, 35137), (51, 35152), (55, 35197), (56, 35200), (57, 35212), (59, 35242), (64, 35338), (68, 35383), (71, 35440), (75, 35521), (76, 35524), (79, 35647), (82, 35707), (83, 35710), (89, 35773), (90, 35776), (91, 35785), (93, 35830), (101, 35899), (103, 35962), (104, 35977), (106, 36004), (109, 36064), (110, 36067), (111, 36082), (112, 36109), (115, 36154), (117, 36202), (118, 36229), (119, 36232), (122, 36271), (123, 36283), (127, 36388), (129, 36427), (130, 36442), (132, 36547), (138, 36625), (140, 36652), (141, 36661), (145, 36724), (148, 36745), (149, 36748), (152, 36811), (157, 36937), (158, 36955), (159, 37024), (164, 37114), (168, 37213), (170, 37246), (171, 37258), (172, 37267), (173, 37276), (175, 37309), (176, 37315), (179, 37378), (180, 37381), (182, 37411), (183, 37417), (190, 37495), (191, 37522), (196, 37549),

Gene: Coco12_66 Start: 43582, Stop: 46101, Start Num: 33
Candidate Starts for Coco12_66:
(Start: 33 @43582 has 73 MA's), (36, 43594), (41, 43678), (45, 43705), (47, 43756), (48, 43768), (49, 43771), (51, 43786), (52, 43792), (55, 43831), (56, 43834), (57, 43846), (59, 43876), (64, 43972), (68, 44017), (69, 44020), (75, 44155), (76, 44158), (79, 44281), (81, 44335), (82, 44341), (101, 44533),

(103, 44596), (104, 44611), (106, 44638), (109, 44698), (110, 44701), (111, 44716), (112, 44743), (113, 44749), (115, 44788), (117, 44836), (118, 44863), (119, 44866), (122, 44905), (123, 44917), (127, 45022), (129, 45061), (130, 45076), (132, 45181), (138, 45259), (140, 45286), (141, 45295), (145, 45358), (146, 45367), (148, 45379), (149, 45382), (152, 45445), (159, 45568), (162, 45649), (168, 45757), (170, 45790), (171, 45802), (172, 45811), (173, 45820), (175, 45853), (176, 45859), (179, 45922), (180, 45925), (182, 45955), (183, 45961), (191, 46066),

Gene: CookieBear_74 Start: 39164, Stop: 41692, Start Num: 33
Candidate Starts for CookieBear_74:
(Start: 33 @39164 has 73 MA's), (35, 39176), (48, 39350), (49, 39353), (62, 39497), (70, 39641), (76, 39737), (78, 39833), (95, 40067), (109, 40277), (112, 40322), (117, 40415), (123, 40496), (124, 40562), (129, 40643), (132, 40763), (137, 40826), (144, 40934), (145, 40940), (151, 41006), (152, 41027), (168, 41339), (169, 41348), (172, 41393), (174, 41429), (175, 41435), (178, 41465), (185, 41552), (189, 41603),

Gene: Cornie_64 Start: 41301, Stop: 43820, Start Num: 33
Candidate Starts for Cornie_64:
(Start: 33 @41301 has 73 MA's), (36, 41313), (37, 41331), (41, 41397), (45, 41424), (47, 41475), (48, 41487), (49, 41490), (51, 41505), (52, 41511), (55, 41550), (56, 41553), (57, 41565), (59, 41595), (64, 41691), (66, 41703), (68, 41736), (69, 41739), (71, 41793), (75, 41874), (76, 41877), (79, 42000), (82, 42060), (83, 42063), (89, 42126), (90, 42129), (91, 42138), (93, 42183), (101, 42252), (103, 42315), (104, 42330), (106, 42357), (109, 42417), (110, 42420), (111, 42435), (112, 42462), (115, 42507), (117, 42555), (118, 42582), (119, 42585), (122, 42624), (123, 42636), (127, 42741), (129, 42780), (130, 42795), (132, 42900), (138, 42978), (140, 43005), (141, 43014), (145, 43077), (146, 43086), (148, 43098), (149, 43101), (152, 43164), (159, 43287), (162, 43368), (168, 43476), (170, 43509), (171, 43521), (172, 43530), (173, 43539), (175, 43572), (176, 43578), (179, 43641), (180, 43644), (182, 43674), (183, 43680), (191, 43785),

Gene: Crescenzo_78 Start: 41959, Stop: 44487, Start Num: 33
Candidate Starts for Crescenzo_78:
(12, 41752), (14, 41791), (Start: 33 @41959 has 73 MA's), (35, 41971), (48, 42145), (49, 42148), (62, 42292), (70, 42436), (76, 42532), (78, 42628), (95, 42862), (112, 43117), (117, 43210), (123, 43291), (124, 43357), (129, 43438), (132, 43558), (144, 43729), (145, 43735), (151, 43801), (152, 43822), (160, 44002), (168, 44134), (169, 44143), (172, 44188), (175, 44230), (178, 44260), (185, 44347), (189, 44398),

Gene: Cubone_61 Start: 35724, Stop: 38363, Start Num: 30
Candidate Starts for Cubone_61:
(21, 35661), (Start: 30 @35724 has 7 MA's), (37, 35784), (41, 35850), (45, 35877), (47, 35928), (48, 35940), (49, 35943), (50, 35949), (51, 35958), (55, 36003), (56, 36006), (57, 36018), (59, 36048), (64, 36144), (68, 36189), (71, 36246), (75, 36327), (76, 36330), (78, 36426), (79, 36453), (89, 36579), (90, 36582), (91, 36591), (101, 36705), (103, 36768), (104, 36783), (106, 36810), (109, 36870), (110, 36873), (111, 36888), (112, 36915), (115, 36960), (117, 37008), (118, 37035), (119, 37038), (122, 37077), (123, 37089), (127, 37194), (129, 37233), (130, 37248), (132, 37353), (138, 37431), (140, 37458), (141, 37467), (145, 37530), (148, 37551), (149, 37554), (152, 37617), (157, 37743), (158, 37761), (159, 37830), (164, 37920), (168, 38019), (170, 38052), (171, 38064), (172, 38073), (173, 38082), (175, 38115), (176, 38121), (179, 38184), (180, 38187), (182, 38217), (183, 38223), (190, 38301), (191, 38328),

Gene: DarwinJr_79 Start: 41914, Stop: 44442, Start Num: 33
Candidate Starts for DarwinJr_79:
(12, 41707), (14, 41746), (Start: 33 @41914 has 73 MA's), (35, 41926), (48, 42100), (49, 42103), (62, 42247), (70, 42391), (76, 42487), (78, 42583), (95, 42817), (112, 43072), (117, 43165), (123, 43246),

(124, 43312), (129, 43393), (132, 43513), (144, 43684), (145, 43690), (151, 43756), (152, 43777), (160, 43957), (168, 44089), (169, 44098), (172, 44143), (175, 44185), (178, 44215), (185, 44302), (189, 44353),

Gene: Ding_75 Start: 39710, Stop: 42238, Start Num: 33
Candidate Starts for Ding_75:
(Start: 33 @39710 has 73 MA's), (36, 39722), (40, 39797), (43, 39812), (47, 39884), (49, 39899), (61, 40016), (62, 40043), (67, 40121), (68, 40142), (70, 40187), (76, 40283), (78, 40379), (80, 40451), (86, 40487), (92, 40565), (95, 40613), (96, 40619), (97, 40625), (108, 40781), (110, 40826), (116, 40955), (119, 40991), (123, 41042), (124, 41108), (129, 41189), (130, 41204), (131, 41210), (132, 41309), (144, 41480), (145, 41486), (151, 41552), (152, 41573), (168, 41885), (169, 41894), (170, 41918), (172, 41939), (175, 41981), (178, 42011),

Gene: DosHalletts_68 Start: 43662, Stop: 46181, Start Num: 33
Candidate Starts for DosHalletts_68:
(Start: 33 @43662 has 73 MA's), (36, 43674), (37, 43692), (41, 43758), (42, 43761), (43, 43764), (45, 43785), (47, 43836), (48, 43848), (49, 43851), (50, 43857), (55, 43911), (56, 43914), (57, 43926), (59, 43956), (64, 44052), (68, 44097), (69, 44100), (71, 44154), (75, 44235), (76, 44238), (79, 44361), (82, 44421), (101, 44613), (103, 44676), (104, 44691), (106, 44718), (109, 44778), (110, 44781), (111, 44796), (115, 44868), (117, 44916), (118, 44943), (119, 44946), (120, 44952), (122, 44985), (123, 44997), (127, 45102), (129, 45141), (130, 45156), (132, 45261), (138, 45339), (140, 45366), (141, 45375), (145, 45438), (146, 45447), (148, 45459), (149, 45462), (152, 45525), (159, 45648), (162, 45729), (168, 45837), (170, 45870), (171, 45882), (172, 45891), (173, 45900), (175, 45933), (176, 45939), (179, 46002), (180, 46005), (182, 46035), (183, 46041), (191, 46146),

Gene: Eish_69 Start: 42896, Stop: 45415, Start Num: 33
Candidate Starts for Eish_69:
(Start: 33 @42896 has 73 MA's), (36, 42908), (37, 42926), (41, 42992), (45, 43019), (47, 43070), (48, 43082), (49, 43085), (51, 43100), (52, 43106), (55, 43145), (56, 43148), (57, 43160), (59, 43190), (64, 43286), (68, 43331), (75, 43469), (76, 43472), (79, 43595), (82, 43655), (89, 43721), (90, 43724), (91, 43733), (93, 43778), (101, 43847), (103, 43910), (104, 43925), (106, 43952), (109, 44012), (110, 44015), (111, 44030), (112, 44057), (115, 44102), (117, 44150), (118, 44177), (119, 44180), (122, 44219), (123, 44231), (127, 44336), (129, 44375), (130, 44390), (132, 44495), (138, 44573), (140, 44600), (141, 44609), (145, 44672), (146, 44681), (148, 44693), (149, 44696), (152, 44759), (159, 44882), (162, 44963), (165, 44990), (168, 45071), (170, 45104), (171, 45116), (172, 45125), (173, 45134), (175, 45167), (176, 45173), (179, 45236), (180, 45239), (182, 45269), (183, 45275), (191, 45380),

Gene: EmiMonkey_64 Start: 44467, Stop: 46986, Start Num: 33
Candidate Starts for EmiMonkey_64:
(Start: 33 @44467 has 73 MA's), (36, 44479), (37, 44497), (41, 44563), (42, 44566), (43, 44569), (45, 44590), (47, 44641), (48, 44653), (49, 44656), (50, 44662), (55, 44716), (56, 44719), (57, 44731), (59, 44761), (64, 44857), (68, 44902), (69, 44905), (71, 44959), (75, 45040), (76, 45043), (79, 45166), (82, 45226), (83, 45229), (89, 45292), (90, 45295), (91, 45304), (101, 45418), (103, 45481), (106, 45523), (109, 45583), (110, 45586), (111, 45601), (112, 45628), (115, 45673), (117, 45721), (118, 45748), (119, 45751), (120, 45757), (122, 45790), (123, 45802), (129, 45946), (130, 45961), (132, 46066), (138, 46144), (145, 46243), (148, 46264), (149, 46267), (152, 46330), (154, 46360), (159, 46453), (162, 46534), (168, 46642), (170, 46675), (171, 46687), (172, 46696), (173, 46705), (175, 46738), (176, 46744), (179, 46807), (180, 46810), (182, 46840), (183, 46846), (187, 46882), (191, 46951),

Gene: Eradicator_59 Start: 40808, Stop: 43327, Start Num: 33
Candidate Starts for Eradicator_59:

(Start: 33 @40808 has 73 MA's), (36, 40820), (37, 40838), (41, 40904), (45, 40931), (47, 40982), (48, 40994), (49, 40997), (51, 41012), (52, 41018), (55, 41057), (56, 41060), (57, 41072), (59, 41102), (64, 41198), (68, 41243), (69, 41246), (75, 41381), (76, 41384), (79, 41507), (81, 41561), (82, 41567), (101, 41759), (103, 41822), (104, 41837), (106, 41864), (109, 41924), (110, 41927), (111, 41942), (113, 41975), (115, 42014), (117, 42062), (118, 42089), (119, 42092), (120, 42098), (122, 42131), (123, 42143), (127, 42248), (128, 42269), (129, 42287), (132, 42407), (138, 42485), (145, 42584), (146, 42593), (148, 42605), (149, 42608), (152, 42671), (159, 42794), (168, 42983), (170, 43016), (171, 43028), (172, 43037), (173, 43046), (175, 43079), (176, 43085), (177, 43094), (179, 43148), (180, 43151), (182, 43181), (183, 43187), (191, 43292),

Gene: EvePickles_74 Start: 40431, Stop: 42962, Start Num: 33
Candidate Starts for EvePickles_74:
(Start: 33 @40431 has 73 MA's), (36, 40443), (47, 40605), (49, 40620), (61, 40740), (62, 40767), (68, 40866), (71, 40923), (76, 41007), (78, 41103), (88, 41250), (92, 41289), (95, 41337), (96, 41343), (108, 41505), (110, 41550), (116, 41679), (118, 41712), (119, 41715), (122, 41754), (123, 41766), (124, 41832), (129, 41913), (130, 41928), (131, 41934), (132, 42033), (136, 42066), (139, 42123), (143, 42183), (144, 42204), (145, 42210), (151, 42276), (152, 42297), (156, 42378), (168, 42609), (169, 42618), (172, 42663), (175, 42705), (191, 42918),

Gene: Faja_78 Start: 41206, Stop: 43734, Start Num: 33
Candidate Starts for Faja_78:
(Start: 33 @41206 has 73 MA's), (35, 41218), (48, 41392), (49, 41395), (62, 41539), (70, 41683), (76, 41779), (78, 41875), (95, 42109), (109, 42319), (112, 42364), (117, 42457), (123, 42538), (124, 42604), (129, 42685), (132, 42805), (137, 42868), (144, 42976), (145, 42982), (151, 43048), (152, 43069), (168, 43381), (169, 43390), (172, 43435), (174, 43471), (175, 43477), (178, 43507), (185, 43594), (189, 43645),

Gene: Farewell_68 Start: 44606, Stop: 47125, Start Num: 33
Candidate Starts for Farewell_68:
(10, 44336), (19, 44504), (Start: 30 @44585 has 7 MA's), (31, 44594), (Start: 33 @44606 has 73 MA's), (36, 44618), (37, 44636), (41, 44702), (42, 44705), (43, 44708), (45, 44729), (48, 44792), (49, 44795), (51, 44810), (54, 44849), (55, 44855), (56, 44858), (57, 44870), (59, 44900), (68, 45041), (71, 45098), (75, 45179), (76, 45182), (78, 45278), (79, 45305), (82, 45365), (89, 45431), (90, 45434), (91, 45443), (101, 45557), (103, 45620), (104, 45635), (106, 45662), (109, 45722), (110, 45725), (111, 45740), (115, 45812), (117, 45860), (118, 45887), (119, 45890), (123, 45941), (129, 46085), (130, 46100), (132, 46205), (138, 46283), (145, 46382), (146, 46391), (148, 46403), (149, 46406), (152, 46469), (154, 46499), (159, 46592), (167, 46730), (168, 46781), (171, 46826), (172, 46835), (173, 46844), (175, 46877), (176, 46883), (177, 46892), (179, 46946), (180, 46949), (182, 46979), (183, 46985), (190, 47063), (191, 47090), (196, 47117),

Gene: GUmbie_64 Start: 42035, Stop: 44554, Start Num: 33
Candidate Starts for GUmbie_64:
(Start: 33 @42035 has 73 MA's), (36, 42047), (37, 42065), (41, 42131), (45, 42158), (47, 42209), (48, 42221), (49, 42224), (51, 42239), (52, 42245), (55, 42284), (56, 42287), (57, 42299), (59, 42329), (64, 42425), (68, 42470), (69, 42473), (75, 42608), (76, 42611), (79, 42734), (81, 42788), (82, 42794), (101, 42986), (103, 43049), (104, 43064), (106, 43091), (109, 43151), (110, 43154), (111, 43169), (112, 43196), (113, 43202), (115, 43241), (117, 43289), (118, 43316), (119, 43319), (122, 43358), (123, 43370), (127, 43475), (129, 43514), (130, 43529), (132, 43634), (138, 43712), (140, 43739), (141, 43748), (145, 43811), (146, 43820), (148, 43832), (149, 43835), (152, 43898), (159, 44021), (162, 44102), (168, 44210), (170, 44243), (171, 44255), (172, 44264), (173, 44273), (175, 44306), (176, 44312), (179, 44375), (180, 44378), (182, 44408), (183, 44414), (191, 44519),

Gene: Galactic_65 Start: 42192, Stop: 44711, Start Num: 33

Candidate Starts for Galactic_65:
(Start: 33 @42192 has 73 MA's), (36, 42204), (37, 42222), (41, 42288), (45, 42315), (47, 42366), (48, 42378), (49, 42381), (51, 42396), (52, 42402), (55, 42441), (56, 42444), (57, 42456), (59, 42486), (64, 42582), (68, 42627), (69, 42630), (75, 42765), (76, 42768), (79, 42891), (81, 42945), (82, 42951), (101, 43143), (103, 43206), (104, 43221), (106, 43248), (109, 43308), (110, 43311), (111, 43326), (112, 43353), (115, 43398), (117, 43446), (118, 43473), (119, 43476), (122, 43515), (123, 43527), (127, 43632), (129, 43671), (130, 43686), (132, 43791), (138, 43869), (140, 43896), (141, 43905), (145, 43968), (146, 43977), (148, 43989), (149, 43992), (152, 44055), (159, 44178), (162, 44259), (168, 44367), (170, 44400), (171, 44412), (172, 44421), (173, 44430), (175, 44463), (176, 44469), (179, 44532), (180, 44535), (182, 44565), (183, 44571), (191, 44676),

Gene: GigiOuiOui_62 Start: 41181, Stop: 43700, Start Num: 33
Candidate Starts for GigiOuiOui_62:
(Start: 33 @41181 has 73 MA's), (36, 41193), (37, 41211), (41, 41277), (42, 41280), (43, 41283), (45, 41304), (48, 41367), (49, 41370), (51, 41385), (54, 41424), (55, 41430), (56, 41433), (57, 41445), (59, 41475), (64, 41571), (68, 41616), (71, 41673), (75, 41754), (76, 41757), (79, 41880), (82, 41940), (83, 41943), (89, 42006), (90, 42009), (91, 42018), (101, 42132), (103, 42195), (106, 42237), (109, 42297), (110, 42300), (111, 42315), (112, 42342), (115, 42387), (117, 42435), (118, 42462), (119, 42465), (120, 42471), (122, 42504), (123, 42516), (127, 42621), (129, 42660), (130, 42675), (132, 42780), (138, 42858), (140, 42885), (141, 42894), (145, 42957), (146, 42966), (148, 42978), (149, 42981), (152, 43044), (159, 43167), (168, 43356), (170, 43389), (171, 43401), (172, 43410), (173, 43419), (175, 43452), (176, 43458), (179, 43521), (180, 43524), (182, 43554), (183, 43560), (191, 43665),

Gene: Girr_64 Start: 42051, Stop: 44570, Start Num: 33
Candidate Starts for Girr_64:
(Start: 33 @42051 has 73 MA's), (36, 42063), (37, 42081), (41, 42147), (45, 42174), (47, 42225), (48, 42237), (49, 42240), (51, 42255), (52, 42261), (55, 42300), (56, 42303), (57, 42315), (59, 42345), (64, 42441), (68, 42486), (69, 42489), (75, 42624), (76, 42627), (79, 42750), (81, 42804), (82, 42810), (101, 43002), (103, 43065), (104, 43080), (106, 43107), (109, 43167), (110, 43170), (111, 43185), (112, 43212), (113, 43218), (115, 43257), (117, 43305), (118, 43332), (119, 43335), (122, 43374), (123, 43386), (127, 43491), (129, 43530), (130, 43545), (132, 43650), (138, 43728), (140, 43755), (141, 43764), (145, 43827), (146, 43836), (148, 43848), (149, 43851), (152, 43914), (159, 44037), (168, 44226), (170, 44259), (171, 44271), (172, 44280), (173, 44289), (175, 44322), (176, 44328), (179, 44391), (180, 44394), (182, 44424), (183, 44430), (191, 44535),

Gene: Globfish_75 Start: 38895, Stop: 41429, Start Num: 33
Candidate Starts for Globfish_75:
(Start: 33 @38895 has 73 MA's), (36, 38910), (39, 38970), (47, 39072), (49, 39087), (61, 39207), (62, 39234), (68, 39333), (71, 39390), (73, 39405), (76, 39474), (78, 39570), (84, 39666), (85, 39672), (95, 39804), (102, 39864), (109, 40014), (111, 40032), (117, 40152), (118, 40179), (123, 40233), (124, 40299), (129, 40380), (130, 40395), (131, 40401), (132, 40500), (136, 40533), (139, 40590), (143, 40650), (144, 40671), (145, 40677), (151, 40743), (156, 40845), (168, 41076), (169, 41085), (172, 41130), (175, 41172), (191, 41385),

Gene: Gorge_70 Start: 43977, Stop: 46496, Start Num: 33
Candidate Starts for Gorge_70:
(Start: 33 @43977 has 73 MA's), (36, 43989), (37, 44007), (41, 44073), (45, 44100), (47, 44151), (48, 44163), (49, 44166), (51, 44181), (52, 44187), (55, 44226), (56, 44229), (57, 44241), (59, 44271), (64, 44367), (68, 44412), (69, 44415), (75, 44550), (76, 44553), (79, 44676), (81, 44730), (82, 44736), (101, 44928), (103, 44991), (104, 45006), (106, 45033), (109, 45093), (110, 45096), (111, 45111), (112, 45138), (113, 45144), (115, 45183), (117, 45231), (118, 45258), (119, 45261), (122, 45300), (123, 45312), (129, 45456), (130, 45471), (132, 45576), (134, 45600), (138, 45654), (140, 45681), (141, 45690), (145, 45753), (148, 45774), (150, 45804), (152, 45840), (159, 45963), (161, 46029), (168,

46152), (170, 46185), (171, 46197), (172, 46206), (173, 46215), (175, 46248), (176, 46254), (179, 46317), (180, 46320), (182, 46350), (183, 46356), (191, 46461),

Gene: Gorpy_73 Start: 40405, Stop: 42933, Start Num: 33
Candidate Starts for Gorpy_73:
(Start: 33 @40405 has 73 MA's), (36, 40420), (47, 40582), (48, 40594), (49, 40597), (50, 40603), (73, 40912), (76, 40981), (85, 41179), (95, 41311), (104, 41434), (112, 41566), (123, 41740), (124, 41806), (129, 41884), (130, 41899), (132, 42004), (141, 42118), (142, 42133), (145, 42181), (152, 42268), (162, 42472), (168, 42580), (171, 42625), (172, 42634), (175, 42676), (178, 42706), (191, 42889),

Gene: GumGum_80 Start: 40351, Stop: 42876, Start Num: 33
Candidate Starts for GumGum_80:
(Start: 33 @40351 has 73 MA's), (35, 40363), (39, 40423), (45, 40474), (47, 40525), (49, 40540), (61, 40657), (62, 40684), (76, 40924), (78, 41020), (86, 41128), (88, 41167), (95, 41254), (96, 41260), (108, 41422), (110, 41467), (116, 41596), (118, 41629), (119, 41632), (123, 41683), (124, 41749), (129, 41827), (130, 41842), (132, 41947), (135, 41977), (137, 42010), (143, 42097), (144, 42118), (145, 42124), (152, 42211), (162, 42415), (168, 42523), (171, 42568), (172, 42577), (175, 42619), (191, 42832),

Gene: Hestia_69 Start: 37429, Stop: 39957, Start Num: 33
Candidate Starts for Hestia_69:
(Start: 33 @37429 has 73 MA's), (35, 37441), (48, 37615), (49, 37618), (62, 37762), (70, 37906), (76, 38002), (78, 38098), (95, 38332), (109, 38542), (112, 38587), (117, 38680), (123, 38761), (124, 38827), (129, 38908), (132, 39028), (137, 39091), (144, 39199), (145, 39205), (151, 39271), (152, 39292), (168, 39604), (169, 39613), (172, 39658), (174, 39694), (175, 39700), (178, 39730), (185, 39817), (189, 39868),

Gene: Hillester_79 Start: 40447, Stop: 42978, Start Num: 33
Candidate Starts for Hillester_79:
(Start: 33 @40447 has 73 MA's), (36, 40462), (48, 40636), (49, 40639), (62, 40783), (70, 40927), (76, 41023), (78, 41119), (95, 41353), (112, 41608), (117, 41701), (123, 41782), (124, 41848), (129, 41929), (132, 42049), (144, 42220), (145, 42226), (151, 42292), (152, 42313), (168, 42625), (169, 42634), (172, 42679), (175, 42721), (178, 42751), (185, 42838), (189, 42889),

Gene: Hlubikazi_67 Start: 41441, Stop: 44065, Start Num: 30
Candidate Starts for Hlubikazi_67:
(Start: 30 @41441 has 7 MA's), (31, 41447), (Start: 33 @41456 has 73 MA's), (36, 41468), (37, 41486), (41, 41552), (42, 41555), (43, 41558), (45, 41579), (48, 41642), (49, 41645), (51, 41660), (54, 41699), (55, 41705), (56, 41708), (57, 41720), (59, 41750), (64, 41846), (68, 41891), (71, 41948), (75, 42029), (76, 42032), (79, 42155), (82, 42215), (83, 42218), (89, 42281), (90, 42284), (91, 42293), (93, 42338), (101, 42407), (103, 42470), (104, 42485), (106, 42512), (109, 42572), (110, 42575), (111, 42590), (112, 42617), (115, 42662), (117, 42710), (118, 42737), (119, 42740), (122, 42779), (123, 42791), (127, 42896), (129, 42935), (130, 42950), (132, 43055), (138, 43133), (140, 43160), (141, 43169), (145, 43232), (148, 43253), (149, 43256), (152, 43319), (157, 43445), (158, 43463), (159, 43532), (164, 43622), (168, 43721), (170, 43754), (171, 43766), (172, 43775), (173, 43784), (175, 43817), (176, 43823), (179, 43886), (180, 43889), (182, 43919), (183, 43925), (190, 44003), (191, 44030),

Gene: Isolde_73 Start: 39275, Stop: 41803, Start Num: 33
Candidate Starts for Isolde_73:
(Start: 33 @39275 has 73 MA's), (35, 39287), (48, 39461), (49, 39464), (62, 39608), (70, 39752), (76, 39848), (78, 39944), (95, 40178), (109, 40388), (112, 40433), (117, 40526), (123, 40607), (124, 40673), (129, 40754), (132, 40874), (137, 40937), (144, 41045), (145, 41051), (151, 41117), (152, 41138), (168, 41450), (169, 41459), (172, 41504), (174, 41540), (175, 41546), (178, 41576), (185,

41663), (189, 41714),

Gene: JakeTheSnake_78 Start: 42259, Stop: 44787, Start Num: 33
Candidate Starts for JakeTheSnake_78:
(Start: 33 @42259 has 73 MA's), (48, 42448), (49, 42451), (73, 42766), (76, 42835), (82, 43018), (85, 43033), (95, 43165), (123, 43594), (124, 43660), (125, 43666), (129, 43738), (132, 43858), (137, 43921), (139, 43948), (142, 43987), (144, 44029), (145, 44035), (152, 44122), (162, 44326), (168, 44434), (172, 44488), (175, 44530), (191, 44743),

Gene: James_70 Start: 44102, Stop: 46621, Start Num: 33
Candidate Starts for James_70:
(Start: 33 @44102 has 73 MA's), (36, 44114), (37, 44132), (41, 44198), (45, 44225), (47, 44276), (48, 44288), (49, 44291), (51, 44306), (52, 44312), (55, 44351), (56, 44354), (57, 44366), (59, 44396), (64, 44492), (68, 44537), (69, 44540), (75, 44675), (76, 44678), (79, 44801), (81, 44855), (82, 44861), (101, 45053), (103, 45116), (104, 45131), (106, 45158), (109, 45218), (110, 45221), (111, 45236), (112, 45263), (113, 45269), (115, 45308), (117, 45356), (118, 45383), (119, 45386), (122, 45425), (123, 45437), (129, 45581), (130, 45596), (132, 45701), (134, 45725), (138, 45779), (140, 45806), (141, 45815), (145, 45878), (148, 45899), (150, 45929), (152, 45965), (159, 46088), (161, 46154), (168, 46277), (170, 46310), (171, 46322), (172, 46331), (173, 46340), (175, 46373), (176, 46379), (179, 46442), (180, 46445), (182, 46475), (183, 46481), (191, 46586),

Gene: JellyBread_72 Start: 39420, Stop: 41948, Start Num: 33
Candidate Starts for JellyBread_72:
(Start: 33 @39420 has 73 MA's), (35, 39432), (48, 39606), (49, 39609), (62, 39753), (70, 39897), (72, 39912), (76, 39993), (78, 40089), (95, 40323), (112, 40578), (117, 40671), (123, 40752), (124, 40818), (129, 40899), (132, 41019), (144, 41190), (145, 41196), (151, 41262), (152, 41283), (168, 41595), (169, 41604), (172, 41649), (175, 41691), (178, 41721), (185, 41808), (189, 41859),

Gene: Kabloowy_75 Start: 40304, Stop: 42832, Start Num: 33
Candidate Starts for Kabloowy_75:
(Start: 33 @40304 has 73 MA's), (35, 40316), (48, 40490), (49, 40493), (62, 40637), (70, 40781), (76, 40877), (78, 40973), (95, 41207), (112, 41462), (117, 41555), (123, 41636), (124, 41702), (129, 41783), (132, 41903), (137, 41966), (144, 42074), (145, 42080), (151, 42146), (152, 42167), (168, 42479), (169, 42488), (172, 42533), (174, 42569), (175, 42575), (178, 42605), (185, 42692), (189, 42743), (195, 42815),

Gene: Kenuha5_64 Start: 41648, Stop: 44167, Start Num: 33
Candidate Starts for Kenuha5_64:
(13, 41471), (15, 41477), (16, 41486), (17, 41495), (24, 41591), (Start: 33 @41648 has 73 MA's), (36, 41660), (37, 41678), (41, 41744), (42, 41747), (43, 41750), (45, 41771), (47, 41822), (48, 41834), (49, 41837), (50, 41843), (55, 41897), (56, 41900), (57, 41912), (59, 41942), (64, 42038), (68, 42083), (69, 42086), (71, 42140), (75, 42221), (76, 42224), (79, 42347), (82, 42407), (83, 42410), (89, 42473), (90, 42476), (91, 42485), (101, 42599), (103, 42662), (106, 42704), (109, 42764), (110, 42767), (111, 42782), (112, 42809), (115, 42854), (118, 42929), (119, 42932), (120, 42938), (122, 42971), (123, 42983), (127, 43088), (129, 43127), (130, 43142), (132, 43247), (138, 43325), (140, 43352), (141, 43361), (145, 43424), (148, 43445), (149, 43448), (152, 43511), (154, 43541), (159, 43634), (162, 43715), (168, 43823), (170, 43856), (171, 43868), (172, 43877), (173, 43886), (175, 43919), (176, 43925), (179, 43988), (180, 43991), (182, 44021), (183, 44027), (187, 44063), (191, 44132),

Gene: Kingsley_64 Start: 42315, Stop: 44834, Start Num: 33
Candidate Starts for Kingsley_64:
(Start: 33 @42315 has 73 MA's), (36, 42327), (41, 42411), (45, 42438), (47, 42489), (48, 42501), (49, 42504), (51, 42519), (52, 42525), (55, 42564), (56, 42567), (57, 42579), (59, 42609), (64, 42705), (68,

42750), (69, 42753), (75, 42888), (76, 42891), (79, 43014), (81, 43068), (82, 43074), (101, 43266), (103, 43329), (104, 43344), (106, 43371), (109, 43431), (110, 43434), (111, 43449), (112, 43476), (113, 43482), (115, 43521), (117, 43569), (118, 43596), (119, 43599), (122, 43638), (123, 43650), (127, 43755), (129, 43794), (130, 43809), (132, 43914), (138, 43992), (140, 44019), (141, 44028), (145, 44091), (146, 44100), (148, 44112), (149, 44115), (152, 44178), (159, 44301), (162, 44382), (168, 44490), (170, 44523), (171, 44535), (172, 44544), (173, 44553), (175, 44586), (176, 44592), (179, 44655), (180, 44658), (182, 44688), (183, 44694), (191, 44799),

Gene: Lasker_77 Start: 40799, Stop: 43327, Start Num: 33
Candidate Starts for Lasker_77:
(Start: 33 @40799 has 73 MA's), (35, 40811), (48, 40985), (49, 40988), (62, 41132), (70, 41276), (76, 41372), (78, 41468), (95, 41702), (112, 41957), (117, 42050), (123, 42131), (124, 42197), (129, 42278), (132, 42398), (137, 42461), (144, 42569), (145, 42575), (151, 42641), (152, 42662), (163, 42872), (168, 42974), (169, 42983), (172, 43028), (175, 43070), (178, 43100), (185, 43187), (189, 43238),

Gene: Lawnathon_77 Start: 39525, Stop: 42053, Start Num: 33
Candidate Starts for Lawnathon_77:
(Start: 33 @39525 has 73 MA's), (35, 39537), (48, 39711), (49, 39714), (62, 39858), (70, 40002), (76, 40098), (78, 40194), (95, 40428), (112, 40683), (117, 40776), (123, 40857), (124, 40923), (129, 41004), (132, 41124), (137, 41187), (144, 41295), (145, 41301), (151, 41367), (152, 41388), (168, 41700), (169, 41709), (172, 41754), (174, 41790), (175, 41796), (178, 41826), (185, 41913), (189, 41964),

Gene: LeBruni_76 Start: 39355, Stop: 41871, Start Num: 34
Candidate Starts for LeBruni_76:
(20, 39271), (22, 39274), (Start: 34 @39355 has 3 MA's), (40, 39433), (47, 39520), (53, 39562), (60, 39646), (61, 39652), (62, 39679), (66, 39745), (68, 39778), (70, 39823), (71, 39835), (76, 39919), (78, 40015), (86, 40123), (95, 40249), (96, 40255), (108, 40417), (110, 40462), (116, 40591), (118, 40624), (119, 40627), (123, 40678), (124, 40744), (129, 40822), (130, 40837), (132, 40942), (133, 40963), (139, 41032), (141, 41056), (143, 41092), (144, 41113), (145, 41119), (147, 41131), (148, 41140), (152, 41206), (160, 41386), (162, 41410), (168, 41518), (172, 41572), (175, 41614), (185, 41731), (191, 41827),

Gene: LilMoolah_65 Start: 42579, Stop: 45227, Start Num: 25
Candidate Starts for LilMoolah_65:
(Start: 25 @42579 has 3 MA's), (Start: 26 @42591 has 1 MA's), (36, 42630), (37, 42648), (41, 42714), (42, 42717), (43, 42720), (45, 42741), (48, 42804), (49, 42807), (51, 42822), (54, 42861), (55, 42867), (56, 42870), (57, 42882), (59, 42912), (68, 43053), (71, 43110), (75, 43191), (76, 43194), (78, 43290), (79, 43317), (82, 43377), (89, 43443), (90, 43446), (91, 43455), (101, 43569), (103, 43632), (104, 43647), (106, 43674), (109, 43734), (110, 43737), (111, 43752), (115, 43824), (118, 43899), (123, 43953), (127, 44058), (128, 44079), (129, 44097), (132, 44217), (138, 44295), (145, 44394), (146, 44403), (148, 44415), (149, 44418), (152, 44481), (153, 44505), (154, 44511), (155, 44556), (157, 44607), (158, 44625), (168, 44883), (170, 44916), (171, 44928), (172, 44937), (173, 44946), (175, 44979), (176, 44985), (179, 45048), (180, 45051), (182, 45081), (183, 45087), (188, 45129), (191, 45192),

Gene: Lizziana_72 Start: 43583, Stop: 46102, Start Num: 33
Candidate Starts for Lizziana_72:
(Start: 33 @43583 has 73 MA's), (36, 43595), (37, 43613), (41, 43679), (45, 43706), (47, 43757), (48, 43769), (49, 43772), (51, 43787), (52, 43793), (55, 43832), (56, 43835), (57, 43847), (59, 43877), (64, 43973), (68, 44018), (69, 44021), (75, 44156), (76, 44159), (79, 44282), (81, 44336), (82, 44342), (101, 44534), (103, 44597), (104, 44612), (106, 44639), (109, 44699), (110, 44702), (111, 44717), (112,

44744), (113, 44750), (115, 44789), (117, 44837), (118, 44864), (119, 44867), (122, 44906), (123, 44918), (127, 45023), (129, 45062), (130, 45077), (132, 45182), (138, 45260), (140, 45287), (141, 45296), (145, 45359), (146, 45368), (148, 45380), (149, 45383), (152, 45446), (159, 45569), (162, 45650), (168, 45758), (170, 45791), (171, 45803), (172, 45812), (173, 45821), (175, 45854), (176, 45860), (179, 45923), (180, 45926), (182, 45956), (183, 45962), (191, 46067),

Gene: LordVader_72 Start: 41473, Stop: 44022, Start Num: 28
Candidate Starts for LordVader_72:
(18, 41362), (23, 41428), (Start: 28 @41473 has 2 MA's), (37, 41533), (41, 41599), (45, 41626), (47, 41677), (48, 41689), (49, 41692), (50, 41698), (51, 41707), (55, 41752), (56, 41755), (57, 41767), (59, 41797), (64, 41893), (68, 41938), (71, 41995), (75, 42076), (76, 42079), (78, 42175), (79, 42202), (82, 42262), (89, 42328), (90, 42331), (91, 42340), (101, 42454), (103, 42517), (104, 42532), (106, 42559), (109, 42619), (110, 42622), (111, 42637), (117, 42757), (118, 42784), (119, 42787), (122, 42826), (123, 42838), (129, 42982), (130, 42997), (132, 43102), (138, 43180), (145, 43279), (146, 43288), (148, 43300), (149, 43303), (152, 43366), (159, 43489), (164, 43579), (168, 43678), (170, 43711), (171, 43723), (172, 43732), (173, 43741), (175, 43774), (176, 43780), (177, 43789), (179, 43843), (180, 43846), (182, 43876), (183, 43882), (188, 43924), (191, 43987),

Gene: LunaBlu_68 Start: 42851, Stop: 45370, Start Num: 33
Candidate Starts for LunaBlu_68:
(Start: 33 @42851 has 73 MA's), (36, 42863), (37, 42881), (41, 42947), (45, 42974), (47, 43025), (48, 43037), (49, 43040), (51, 43055), (52, 43061), (55, 43100), (56, 43103), (57, 43115), (59, 43145), (64, 43241), (68, 43286), (69, 43289), (75, 43424), (76, 43427), (79, 43550), (81, 43604), (82, 43610), (101, 43802), (103, 43865), (104, 43880), (106, 43907), (109, 43967), (110, 43970), (111, 43985), (112, 44012), (115, 44057), (117, 44105), (118, 44132), (119, 44135), (122, 44174), (123, 44186), (127, 44291), (129, 44330), (130, 44345), (132, 44450), (138, 44528), (140, 44555), (141, 44564), (145, 44627), (146, 44636), (148, 44648), (149, 44651), (152, 44714), (159, 44837), (162, 44918), (168, 45026), (170, 45059), (171, 45071), (172, 45080), (173, 45089), (175, 45122), (176, 45128), (179, 45191), (180, 45194), (182, 45224), (183, 45230), (191, 45335),

Gene: MUWow_77 Start: 41130, Stop: 43658, Start Num: 33
Candidate Starts for MUWow_77:
(Start: 33 @41130 has 73 MA's), (36, 41145), (47, 41307), (48, 41319), (49, 41322), (50, 41328), (73, 41637), (76, 41706), (85, 41904), (95, 42036), (104, 42159), (112, 42291), (123, 42465), (124, 42531), (129, 42609), (130, 42624), (132, 42729), (141, 42843), (142, 42858), (145, 42906), (152, 42993), (162, 43197), (168, 43305), (172, 43359), (174, 43395), (175, 43401), (178, 43431), (180, 43473), (181, 43494), (191, 43614),

Gene: Madiba_67 Start: 42084, Stop: 44603, Start Num: 33
Candidate Starts for Madiba_67:
(Start: 33 @42084 has 73 MA's), (36, 42096), (37, 42114), (41, 42180), (42, 42183), (43, 42186), (45, 42207), (47, 42258), (48, 42270), (49, 42273), (51, 42288), (55, 42333), (56, 42336), (57, 42348), (59, 42378), (64, 42474), (71, 42576), (75, 42657), (76, 42660), (79, 42783), (82, 42843), (89, 42909), (90, 42912), (91, 42921), (93, 42966), (101, 43035), (103, 43098), (104, 43113), (106, 43140), (109, 43200), (110, 43203), (111, 43218), (112, 43245), (115, 43290), (117, 43338), (118, 43365), (119, 43368), (122, 43407), (123, 43419), (127, 43524), (129, 43563), (130, 43578), (132, 43683), (138, 43761), (140, 43788), (141, 43797), (145, 43860), (148, 43881), (149, 43884), (152, 43947), (159, 44070), (162, 44151), (168, 44259), (170, 44292), (171, 44304), (172, 44313), (173, 44322), (175, 44355), (176, 44361), (179, 44424), (180, 44427), (182, 44457), (183, 44463), (191, 44568),

Gene: Mandlovu_67 Start: 41383, Stop: 44007, Start Num: 30
Candidate Starts for Mandlovu_67:

(Start: 30 @41383 has 7 MA's), (31, 41389), (Start: 33 @41398 has 73 MA's), (36, 41410), (37, 41428), (41, 41494), (42, 41497), (43, 41500), (45, 41521), (48, 41584), (49, 41587), (51, 41602), (54, 41641), (55, 41647), (56, 41650), (57, 41662), (59, 41692), (64, 41788), (68, 41833), (71, 41890), (75, 41971), (76, 41974), (79, 42097), (82, 42157), (83, 42160), (89, 42223), (90, 42226), (91, 42235), (93, 42280), (101, 42349), (103, 42412), (104, 42427), (106, 42454), (109, 42514), (110, 42517), (111, 42532), (112, 42559), (115, 42604), (117, 42652), (118, 42679), (119, 42682), (122, 42721), (123, 42733), (127, 42838), (129, 42877), (130, 42892), (132, 42997), (138, 43075), (140, 43102), (141, 43111), (145, 43174), (148, 43195), (149, 43198), (152, 43261), (157, 43387), (158, 43405), (159, 43474), (164, 43564), (168, 43663), (170, 43696), (171, 43708), (172, 43717), (173, 43726), (175, 43759), (176, 43765), (179, 43828), (180, 43831), (182, 43861), (183, 43867), (190, 43945), (191, 43972),

Gene: Mapleville_70 Start: 38844, Stop: 41372, Start Num: 33
Candidate Starts for Mapleville_70:
(Start: 33 @38844 has 73 MA's), (35, 38856), (48, 39030), (49, 39033), (62, 39177), (70, 39321), (76, 39417), (78, 39513), (95, 39747), (112, 40002), (117, 40095), (123, 40176), (124, 40242), (129, 40323), (132, 40443), (137, 40506), (144, 40614), (145, 40620), (151, 40686), (152, 40707), (168, 41019), (169, 41028), (172, 41073), (174, 41109), (175, 41115), (178, 41145), (185, 41232), (189, 41283),

Gene: MaterMagnus_75 Start: 40157, Stop: 42685, Start Num: 33
Candidate Starts for MaterMagnus_75:
(Start: 33 @40157 has 73 MA's), (36, 40172), (47, 40334), (48, 40346), (49, 40349), (50, 40355), (73, 40664), (76, 40733), (85, 40931), (95, 41063), (104, 41186), (112, 41318), (123, 41492), (124, 41558), (129, 41636), (130, 41651), (132, 41756), (141, 41870), (142, 41885), (145, 41933), (152, 42020), (162, 42224), (168, 42332), (171, 42377), (172, 42386), (175, 42428), (178, 42458), (191, 42641),

Gene: Mattes_70 Start: 44102, Stop: 46621, Start Num: 33
Candidate Starts for Mattes_70:
(Start: 33 @44102 has 73 MA's), (36, 44114), (37, 44132), (41, 44198), (45, 44225), (47, 44276), (48, 44288), (49, 44291), (51, 44306), (52, 44312), (55, 44351), (56, 44354), (57, 44366), (59, 44396), (64, 44492), (68, 44537), (69, 44540), (75, 44675), (76, 44678), (79, 44801), (81, 44855), (82, 44861), (101, 45053), (103, 45116), (104, 45131), (106, 45158), (109, 45218), (110, 45221), (111, 45236), (112, 45263), (113, 45269), (115, 45308), (117, 45356), (118, 45383), (119, 45386), (122, 45425), (123, 45437), (129, 45581), (130, 45596), (132, 45701), (134, 45725), (138, 45779), (140, 45806), (141, 45815), (145, 45878), (148, 45899), (150, 45929), (152, 45965), (159, 46088), (161, 46154), (168, 46277), (170, 46310), (171, 46322), (172, 46331), (173, 46340), (175, 46373), (176, 46379), (179, 46442), (180, 46445), (182, 46475), (183, 46481), (191, 46586),

Gene: MidnightRain_80 Start: 40745, Stop: 43273, Start Num: 33
Candidate Starts for MidnightRain_80:
(Start: 33 @40745 has 73 MA's), (36, 40760), (39, 40820), (45, 40871), (47, 40922), (49, 40937), (61, 41054), (62, 41081), (76, 41321), (78, 41417), (86, 41525), (88, 41564), (95, 41651), (96, 41657), (108, 41819), (110, 41864), (116, 41993), (118, 42026), (119, 42029), (123, 42080), (124, 42146), (129, 42224), (130, 42239), (132, 42344), (135, 42374), (137, 42407), (144, 42515), (145, 42521), (152, 42608), (162, 42812), (165, 42839), (166, 42848), (168, 42920), (172, 42974), (174, 43010), (175, 43016), (178, 43046), (180, 43088), (181, 43109), (191, 43229), (194, 43247),

Gene: MisterCuddles_64 Start: 42051, Stop: 44570, Start Num: 33
Candidate Starts for MisterCuddles_64:
(Start: 33 @42051 has 73 MA's), (36, 42063), (37, 42081), (41, 42147), (45, 42174), (47, 42225), (48, 42237), (49, 42240), (51, 42255), (52, 42261), (55, 42300), (56, 42303), (57, 42315), (59, 42345), (64, 42441), (68, 42486), (69, 42489), (75, 42624), (76, 42627), (79, 42750), (81, 42804), (82, 42810), (101, 43002), (103, 43065), (104, 43080), (106, 43107), (109, 43167), (110, 43170), (111, 43185), (112,

43212), (113, 43218), (115, 43257), (117, 43305), (118, 43332), (119, 43335), (122, 43374), (123, 43386), (127, 43491), (129, 43530), (130, 43545), (132, 43650), (138, 43728), (140, 43755), (141, 43764), (145, 43827), (146, 43836), (148, 43848), (149, 43851), (152, 43914), (159, 44037), (168, 44226), (170, 44259), (171, 44271), (172, 44280), (173, 44289), (175, 44322), (176, 44328), (179, 44391), (180, 44394), (182, 44424), (183, 44430), (191, 44535),

Gene: MurphyJoseph_71 Start: 38182, Stop: 40713, Start Num: 33
Candidate Starts for MurphyJoseph_71:
(Start: 33 @38182 has 73 MA's), (36, 38197), (48, 38371), (49, 38374), (62, 38518), (70, 38662), (76, 38758), (78, 38854), (95, 39088), (112, 39343), (117, 39436), (123, 39517), (124, 39583), (129, 39664), (132, 39784), (137, 39847), (144, 39955), (145, 39961), (151, 40027), (152, 40048), (168, 40360), (169, 40369), (172, 40414), (174, 40450), (175, 40456), (178, 40486), (185, 40573), (189, 40624),

Gene: Mwanjiwa_72 Start: 43900, Stop: 46419, Start Num: 33
Candidate Starts for Mwanjiwa_72:
(Start: 33 @43900 has 73 MA's), (36, 43912), (37, 43930), (41, 43996), (42, 43999), (43, 44002), (45, 44023), (47, 44074), (48, 44086), (49, 44089), (51, 44104), (55, 44149), (56, 44152), (57, 44164), (59, 44194), (64, 44290), (71, 44392), (75, 44473), (76, 44476), (79, 44599), (82, 44659), (89, 44725), (90, 44728), (91, 44737), (93, 44782), (101, 44851), (103, 44914), (104, 44929), (106, 44956), (109, 45016), (110, 45019), (111, 45034), (112, 45061), (115, 45106), (117, 45154), (118, 45181), (119, 45184), (122, 45223), (123, 45235), (127, 45340), (129, 45379), (130, 45394), (132, 45499), (138, 45577), (140, 45604), (141, 45613), (145, 45676), (148, 45697), (149, 45700), (152, 45763), (159, 45886), (162, 45967), (168, 46075), (171, 46120), (172, 46129), (173, 46138), (175, 46171), (176, 46177), (179, 46240), (182, 46273), (183, 46279), (187, 46315), (191, 46384),

Gene: NewKitty_77 Start: 41124, Stop: 43643, Start Num: 33
Candidate Starts for NewKitty_77:
(Start: 33 @41124 has 73 MA's), (48, 41301), (49, 41304), (62, 41448), (70, 41592), (76, 41688), (78, 41784), (95, 42018), (109, 42228), (112, 42273), (117, 42366), (123, 42447), (124, 42513), (129, 42594), (132, 42714), (137, 42777), (144, 42885), (145, 42891), (151, 42957), (152, 42978), (168, 43290), (169, 43299), (172, 43344), (174, 43380), (175, 43386), (178, 43416), (185, 43503), (189, 43554),

Gene: Nivrat_63 Start: 42452, Stop: 45100, Start Num: 25
Candidate Starts for Nivrat_63:
(Start: 25 @42452 has 3 MA's), (Start: 26 @42464 has 1 MA's), (36, 42503), (37, 42521), (41, 42587), (42, 42590), (43, 42593), (45, 42614), (48, 42677), (49, 42680), (51, 42695), (54, 42734), (55, 42740), (56, 42743), (57, 42755), (59, 42785), (68, 42926), (71, 42983), (75, 43064), (76, 43067), (78, 43163), (79, 43190), (82, 43250), (89, 43316), (90, 43319), (91, 43328), (101, 43442), (103, 43505), (104, 43520), (106, 43547), (109, 43607), (110, 43610), (111, 43625), (115, 43697), (118, 43772), (123, 43826), (127, 43931), (128, 43952), (129, 43970), (132, 44090), (138, 44168), (145, 44267), (146, 44276), (148, 44288), (149, 44291), (152, 44354), (153, 44378), (154, 44384), (155, 44429), (157, 44480), (158, 44498), (168, 44756), (170, 44789), (171, 44801), (172, 44810), (173, 44819), (175, 44852), (176, 44858), (179, 44921), (180, 44924), (182, 44954), (183, 44960), (188, 45002), (191, 45065),

Gene: Nyilah_78 Start: 39430, Stop: 41955, Start Num: 33
Candidate Starts for Nyilah_78:
(Start: 33 @39430 has 73 MA's), (35, 39442), (39, 39502), (45, 39553), (47, 39604), (49, 39619), (61, 39736), (62, 39763), (71, 39919), (76, 40003), (78, 40099), (86, 40207), (88, 40246), (95, 40333), (96, 40339), (105, 40474), (108, 40501), (110, 40546), (116, 40675), (118, 40708), (119, 40711), (123, 40762), (124, 40828), (126, 40843), (129, 40906), (130, 40921), (132, 41026), (135, 41056), (137,

41089), (140, 41131), (143, 41176), (144, 41197), (145, 41203), (152, 41290), (162, 41494), (165, 41521), (166, 41530), (168, 41602), (172, 41656), (174, 41692), (175, 41698), (180, 41770), (181, 41791), (191, 41911), (194, 41929),

Gene: OlympiaSaint_68 Start: 43044, Stop: 45563, Start Num: 33
Candidate Starts for OlympiaSaint_68:
(Start: 33 @43044 has 73 MA's), (36, 43056), (37, 43074), (41, 43140), (45, 43167), (47, 43218), (48, 43230), (49, 43233), (51, 43248), (52, 43254), (55, 43293), (56, 43296), (57, 43308), (59, 43338), (64, 43434), (68, 43479), (69, 43482), (75, 43617), (76, 43620), (79, 43743), (81, 43797), (82, 43803), (101, 43995), (103, 44058), (104, 44073), (106, 44100), (109, 44160), (110, 44163), (111, 44178), (112, 44205), (113, 44211), (115, 44250), (117, 44298), (118, 44325), (119, 44328), (122, 44367), (123, 44379), (129, 44523), (130, 44538), (132, 44643), (134, 44667), (138, 44721), (140, 44748), (141, 44757), (145, 44820), (148, 44841), (150, 44871), (152, 44907), (159, 45030), (161, 45096), (168, 45219), (170, 45252), (171, 45264), (172, 45273), (173, 45282), (175, 45315), (176, 45321), (179, 45384), (180, 45387), (182, 45417), (183, 45423), (191, 45528),

Gene: Persistence_69 Start: 37815, Stop: 40346, Start Num: 33
Candidate Starts for Persistence_69:
(Start: 33 @37815 has 73 MA's), (48, 38007), (49, 38010), (53, 38037), (58, 38109), (73, 38325), (76, 38394), (82, 38577), (85, 38592), (95, 38724), (109, 38934), (123, 39153), (124, 39219), (125, 39225), (129, 39297), (132, 39417), (139, 39507), (142, 39546), (144, 39588), (145, 39594), (152, 39681), (162, 39885), (168, 39993), (172, 40047), (174, 40083), (175, 40089), (191, 40302), (192, 40308),

Gene: PhlipPhlop_66 Start: 44467, Stop: 46986, Start Num: 33
Candidate Starts for PhlipPhlop_66:
(Start: 33 @44467 has 73 MA's), (36, 44479), (37, 44497), (41, 44563), (42, 44566), (43, 44569), (45, 44590), (47, 44641), (48, 44653), (49, 44656), (50, 44662), (55, 44716), (56, 44719), (57, 44731), (59, 44761), (64, 44857), (68, 44902), (69, 44905), (71, 44959), (75, 45040), (76, 45043), (79, 45166), (82, 45226), (83, 45229), (89, 45292), (90, 45295), (91, 45304), (101, 45418), (103, 45481), (106, 45523), (109, 45583), (110, 45586), (111, 45601), (112, 45628), (115, 45673), (117, 45721), (118, 45748), (119, 45751), (120, 45757), (122, 45790), (123, 45802), (129, 45946), (130, 45961), (132, 46066), (138, 46144), (145, 46243), (148, 46264), (149, 46267), (152, 46330), (154, 46360), (159, 46453), (162, 46534), (168, 46642), (170, 46675), (171, 46687), (172, 46696), (173, 46705), (175, 46738), (176, 46744), (179, 46807), (180, 46810), (182, 46840), (183, 46846), (187, 46882), (191, 46951),

Gene: Phrank15_77 Start: 39240, Stop: 41798, Start Num: 33
Candidate Starts for Phrank15_77:
(Start: 33 @39240 has 73 MA's), (61, 39552), (63, 39624), (71, 39741), (76, 39825), (82, 40008), (95, 40155), (104, 40278), (117, 40503), (123, 40584), (124, 40650), (125, 40656), (129, 40728), (132, 40848), (139, 40938), (142, 40977), (144, 41019), (145, 41025), (152, 41112), (162, 41316), (168, 41424), (172, 41478), (174, 41514), (175, 41520), (177, 41535), (179, 41589), (182, 41622), (186, 41643), (188, 41670), (189, 41688), (191, 41733), (194, 41751),

Gene: Phrann_57 Start: 37839, Stop: 40448, Start Num: 33
Candidate Starts for Phrann_57:
(19, 37737), (Start: 30 @37818 has 7 MA's), (31, 37827), (Start: 33 @37839 has 73 MA's), (36, 37851), (37, 37869), (41, 37935), (42, 37938), (43, 37941), (45, 37962), (48, 38025), (49, 38028), (51, 38043), (54, 38082), (55, 38088), (56, 38091), (57, 38103), (59, 38133), (68, 38274), (71, 38331), (75, 38412), (76, 38415), (79, 38538), (82, 38598), (83, 38601), (89, 38664), (90, 38667), (91, 38676), (93, 38721), (101, 38790), (103, 38853), (104, 38868), (106, 38895), (109, 38955), (110, 38958), (111, 38973), (115, 39045), (117, 39093), (118, 39120), (119, 39123), (120, 39129), (122, 39162), (123, 39174), (127, 39279), (129, 39318), (130, 39333), (132, 39438), (138, 39516), (140, 39543), (141, 39552), (145, 39615), (148, 39636), (149, 39639), (152, 39702), (157, 39828), (158, 39846), (159, 39915),

(164, 40005), (168, 40104), (170, 40137), (171, 40149), (172, 40158), (173, 40167), (175, 40200), (176, 40206), (179, 40269), (180, 40272), (182, 40302), (183, 40308), (190, 40386), (191, 40413),

Gene: Piper2020_77 Start: 46674, Stop: 49193, Start Num: 33
Candidate Starts for Piper2020_77:
(10, 46404), (19, 46572), (Start: 30 @46653 has 7 MA's), (31, 46662), (Start: 33 @46674 has 73 MA's), (36, 46686), (37, 46704), (41, 46770), (42, 46773), (43, 46776), (45, 46797), (48, 46860), (49, 46863), (51, 46878), (54, 46917), (55, 46923), (56, 46926), (57, 46938), (59, 46968), (68, 47109), (71, 47166), (75, 47247), (76, 47250), (78, 47346), (79, 47373), (82, 47433), (89, 47499), (90, 47502), (91, 47511), (101, 47625), (103, 47688), (104, 47703), (106, 47730), (109, 47790), (110, 47793), (111, 47808), (115, 47880), (117, 47928), (118, 47955), (119, 47958), (123, 48009), (129, 48153), (130, 48168), (132, 48273), (138, 48351), (145, 48450), (146, 48459), (148, 48471), (149, 48474), (152, 48537), (154, 48567), (159, 48660), (168, 48849), (170, 48882), (171, 48894), (172, 48903), (173, 48912), (175, 48945), (176, 48951), (179, 49014), (180, 49017), (182, 49047), (183, 49053), (190, 49131), (191, 49158),

Gene: RadFad_80 Start: 40447, Stop: 42978, Start Num: 33
Candidate Starts for RadFad_80:
(Start: 33 @40447 has 73 MA's), (36, 40462), (48, 40636), (49, 40639), (62, 40783), (70, 40927), (76, 41023), (78, 41119), (95, 41353), (112, 41608), (117, 41701), (123, 41782), (124, 41848), (129, 41929), (132, 42049), (144, 42220), (145, 42226), (151, 42292), (152, 42313), (168, 42625), (169, 42634), (172, 42679), (175, 42721), (178, 42751), (185, 42838), (189, 42889),

Gene: Raphaella_76 Start: 39221, Stop: 41749, Start Num: 33
Candidate Starts for Raphaella_76:
(Start: 33 @39221 has 73 MA's), (35, 39233), (48, 39407), (49, 39410), (62, 39554), (70, 39698), (76, 39794), (78, 39890), (95, 40124), (109, 40334), (112, 40379), (117, 40472), (123, 40553), (124, 40619), (129, 40700), (132, 40820), (137, 40883), (144, 40991), (145, 40997), (151, 41063), (152, 41084), (155, 41159), (168, 41396), (169, 41405), (172, 41450), (174, 41486), (175, 41492), (178, 41522), (185, 41609), (189, 41660),

Gene: Raqqa_73 Start: 39905, Stop: 42439, Start Num: 33
Candidate Starts for Raqqa_73:
(Start: 33 @39905 has 73 MA's), (46, 40043), (48, 40094), (49, 40097), (54, 40148), (61, 40214), (62, 40241), (63, 40286), (76, 40487), (82, 40670), (87, 40712), (95, 40817), (104, 40940), (117, 41165), (123, 41246), (124, 41312), (125, 41318), (129, 41390), (132, 41510), (138, 41588), (139, 41600), (141, 41624), (142, 41639), (144, 41681), (145, 41687), (152, 41774), (162, 41978), (168, 42086), (172, 42140), (175, 42182), (178, 42212), (182, 42284), (191, 42395), (193, 42404),

Gene: Richie_78 Start: 41089, Stop: 43617, Start Num: 33
Candidate Starts for Richie_78:
(12, 40882), (Start: 33 @41089 has 73 MA's), (36, 41104), (45, 41215), (47, 41266), (49, 41281), (60, 41392), (61, 41398), (62, 41425), (76, 41665), (78, 41761), (86, 41869), (88, 41908), (95, 41995), (96, 42001), (108, 42163), (110, 42208), (116, 42337), (118, 42370), (119, 42373), (123, 42424), (124, 42490), (129, 42568), (130, 42583), (132, 42688), (135, 42718), (137, 42751), (139, 42778), (142, 42817), (144, 42859), (145, 42865), (152, 42952), (162, 43156), (166, 43192), (168, 43264), (172, 43318), (175, 43360), (178, 43390), (181, 43453), (191, 43573), (194, 43591),

Gene: RockyHorror_67 Start: 41923, Stop: 44442, Start Num: 33
Candidate Starts for RockyHorror_67:
(Start: 33 @41923 has 73 MA's), (36, 41935), (37, 41953), (41, 42019), (45, 42046), (47, 42097), (48, 42109), (49, 42112), (51, 42127), (52, 42133), (55, 42172), (56, 42175), (57, 42187), (59, 42217), (64, 42313), (68, 42358), (69, 42361), (75, 42496), (76, 42499), (79, 42622), (81, 42676), (82, 42682), (101,

42874), (103, 42937), (104, 42952), (106, 42979), (109, 43039), (110, 43042), (111, 43057), (112, 43084), (113, 43090), (115, 43129), (117, 43177), (118, 43204), (119, 43207), (122, 43246), (123, 43258), (127, 43363), (129, 43402), (130, 43417), (132, 43522), (138, 43600), (140, 43627), (141, 43636), (145, 43699), (146, 43708), (148, 43720), (149, 43723), (152, 43786), (159, 43909), (162, 43990), (168, 44098), (170, 44131), (171, 44143), (172, 44152), (173, 44161), (175, 44194), (176, 44200), (179, 44263), (180, 44266), (182, 44296), (183, 44302), (191, 44407),

Gene: Ruby_62 Start: 42052, Stop: 44571, Start Num: 33
Candidate Starts for Ruby_62:
(Start: 33 @42052 has 73 MA's), (36, 42064), (37, 42082), (41, 42148), (45, 42175), (47, 42226), (48, 42238), (49, 42241), (51, 42256), (52, 42262), (55, 42301), (56, 42304), (57, 42316), (59, 42346), (64, 42442), (68, 42487), (69, 42490), (75, 42625), (76, 42628), (79, 42751), (81, 42805), (82, 42811), (101, 43003), (103, 43066), (104, 43081), (106, 43108), (109, 43168), (110, 43171), (111, 43186), (112, 43213), (113, 43219), (115, 43258), (117, 43306), (118, 43333), (119, 43336), (122, 43375), (123, 43387), (127, 43492), (129, 43531), (130, 43546), (132, 43651), (138, 43729), (140, 43756), (141, 43765), (145, 43828), (146, 43837), (148, 43849), (149, 43852), (152, 43915), (159, 44038), (168, 44227), (170, 44260), (171, 44272), (172, 44281), (173, 44290), (175, 44323), (176, 44329), (179, 44392), (180, 44395), (182, 44425), (183, 44431), (191, 44536),

Gene: Saal_68 Start: 43796, Stop: 46315, Start Num: 33
Candidate Starts for Saal_68:
(Start: 33 @43796 has 73 MA's), (36, 43808), (37, 43826), (41, 43892), (45, 43919), (47, 43970), (48, 43982), (49, 43985), (51, 44000), (52, 44006), (55, 44045), (56, 44048), (57, 44060), (59, 44090), (64, 44186), (68, 44231), (69, 44234), (75, 44369), (76, 44372), (79, 44495), (81, 44549), (82, 44555), (101, 44747), (103, 44810), (104, 44825), (106, 44852), (109, 44912), (110, 44915), (111, 44930), (112, 44957), (113, 44963), (115, 45002), (117, 45050), (118, 45077), (119, 45080), (122, 45119), (123, 45131), (129, 45275), (130, 45290), (132, 45395), (134, 45419), (138, 45473), (140, 45500), (141, 45509), (145, 45572), (148, 45593), (150, 45623), (152, 45659), (159, 45782), (161, 45848), (168, 45971), (170, 46004), (171, 46016), (172, 46025), (173, 46034), (175, 46067), (176, 46073), (179, 46136), (180, 46139), (182, 46169), (183, 46175), (191, 46280),

Gene: Sakai_72 Start: 39116, Stop: 41644, Start Num: 33
Candidate Starts for Sakai_72:
(Start: 33 @39116 has 73 MA's), (36, 39131), (47, 39293), (48, 39305), (49, 39308), (50, 39314), (73, 39623), (76, 39692), (85, 39890), (95, 40022), (104, 40145), (112, 40277), (123, 40451), (124, 40517), (129, 40595), (130, 40610), (132, 40715), (141, 40829), (142, 40844), (145, 40892), (152, 40979), (162, 41183), (168, 41291), (171, 41336), (172, 41345), (175, 41387), (178, 41417), (191, 41600),

Gene: Sandalphon_67 Start: 43303, Stop: 45951, Start Num: 25
Candidate Starts for Sandalphon_67:
(Start: 25 @43303 has 3 MA's), (Start: 26 @43315 has 1 MA's), (36, 43354), (37, 43372), (41, 43438), (42, 43441), (43, 43444), (45, 43465), (48, 43528), (49, 43531), (51, 43546), (54, 43585), (55, 43591), (56, 43594), (57, 43606), (59, 43636), (64, 43732), (68, 43777), (71, 43834), (75, 43915), (76, 43918), (79, 44041), (82, 44101), (83, 44104), (89, 44167), (90, 44170), (91, 44179), (93, 44224), (101, 44293), (103, 44356), (104, 44371), (106, 44398), (109, 44458), (110, 44461), (111, 44476), (112, 44503), (115, 44548), (117, 44596), (118, 44623), (119, 44626), (122, 44665), (123, 44677), (127, 44782), (129, 44821), (130, 44836), (132, 44941), (138, 45019), (140, 45046), (141, 45055), (145, 45118), (148, 45139), (149, 45142), (152, 45205), (157, 45331), (158, 45349), (159, 45418), (164, 45508), (168, 45607), (170, 45640), (171, 45652), (172, 45661), (173, 45670), (175, 45703), (176, 45709), (179, 45772), (180, 45775), (182, 45805), (183, 45811), (190, 45889), (191, 45916),

Gene: Sarma624_65 Start: 39507, Stop: 42026, Start Num: 33
Candidate Starts for Sarma624_65:

(Start: 33 @39507 has 73 MA's), (36, 39519), (41, 39603), (45, 39630), (47, 39681), (48, 39693), (49, 39696), (51, 39711), (52, 39717), (55, 39756), (56, 39759), (57, 39771), (59, 39801), (64, 39897), (68, 39942), (69, 39945), (75, 40080), (76, 40083), (79, 40206), (81, 40260), (82, 40266), (101, 40458), (103, 40521), (104, 40536), (106, 40563), (109, 40623), (110, 40626), (111, 40641), (112, 40668), (113, 40674), (115, 40713), (117, 40761), (118, 40788), (119, 40791), (122, 40830), (123, 40842), (127, 40947), (129, 40986), (130, 41001), (132, 41106), (138, 41184), (140, 41211), (141, 41220), (145, 41283), (146, 41292), (148, 41304), (149, 41307), (152, 41370), (159, 41493), (162, 41574), (168, 41682), (170, 41715), (171, 41727), (172, 41736), (173, 41745), (175, 41778), (176, 41784), (179, 41847), (180, 41850), (182, 41880), (183, 41886), (191, 41991),

Gene: Sashimi_73 Start: 39807, Stop: 42329, Start Num: 34
Candidate Starts for Sashimi_73:
(20, 39723), (22, 39726), (Start: 34 @39807 has 3 MA's), (40, 39891), (47, 39978), (61, 40110), (67, 40215), (68, 40236), (69, 40239), (76, 40377), (78, 40473), (88, 40620), (95, 40707), (96, 40713), (97, 40719), (108, 40875), (109, 40917), (110, 40920), (116, 41049), (119, 41085), (123, 41136), (124, 41202), (129, 41280), (130, 41295), (132, 41400), (135, 41430), (143, 41550), (144, 41571), (145, 41577), (152, 41664), (162, 41868), (168, 41976), (172, 42030), (174, 42066), (175, 42072), (178, 42102), (180, 42144), (191, 42285),

Gene: Satrap_75 Start: 39863, Stop: 42391, Start Num: 33
Candidate Starts for Satrap_75:
(Start: 33 @39863 has 73 MA's), (36, 39878), (42, 39965), (47, 40040), (48, 40052), (49, 40055), (50, 40061), (51, 40070), (65, 40259), (73, 40370), (76, 40439), (82, 40622), (85, 40637), (95, 40769), (104, 40892), (112, 41024), (123, 41198), (124, 41264), (129, 41342), (130, 41357), (132, 41462), (141, 41576), (142, 41591), (144, 41633), (145, 41639), (152, 41726), (162, 41930), (168, 42038), (171, 42083), (172, 42092), (175, 42134), (191, 42347),

Gene: Scitech_50 Start: 33763, Stop: 36387, Start Num: 30
Candidate Starts for Scitech_50:
(21, 33700), (Start: 30 @33763 has 7 MA's), (31, 33769), (Start: 33 @33778 has 73 MA's), (36, 33790), (37, 33808), (41, 33874), (42, 33877), (43, 33880), (45, 33901), (48, 33964), (49, 33967), (51, 33982), (54, 34021), (55, 34027), (56, 34030), (57, 34042), (59, 34072), (64, 34168), (68, 34213), (71, 34270), (75, 34351), (76, 34354), (79, 34477), (82, 34537), (83, 34540), (89, 34603), (90, 34606), (91, 34615), (93, 34660), (101, 34729), (103, 34792), (104, 34807), (106, 34834), (109, 34894), (110, 34897), (111, 34912), (112, 34939), (115, 34984), (117, 35032), (118, 35059), (119, 35062), (122, 35101), (123, 35113), (127, 35218), (129, 35257), (130, 35272), (132, 35377), (138, 35455), (140, 35482), (141, 35491), (145, 35554), (148, 35575), (149, 35578), (152, 35641), (157, 35767), (158, 35785), (159, 35854), (164, 35944), (168, 36043), (170, 36076), (171, 36088), (172, 36097), (173, 36106), (175, 36139), (176, 36145), (179, 36208), (180, 36211), (182, 36241), (183, 36247), (190, 36325), (191, 36352),

Gene: Seahorse_83 Start: 44779, Stop: 47307, Start Num: 33
Candidate Starts for Seahorse_83:
(32, 44773), (Start: 33 @44779 has 73 MA's), (39, 44854), (45, 44905), (46, 44917), (47, 44956), (49, 44971), (61, 45088), (62, 45115), (68, 45214), (70, 45259), (71, 45271), (76, 45355), (78, 45451), (86, 45559), (88, 45598), (89, 45604), (95, 45685), (96, 45691), (108, 45853), (110, 45898), (116, 46027), (118, 46060), (119, 46063), (121, 46072), (123, 46114), (124, 46180), (126, 46195), (129, 46258), (130, 46273), (132, 46378), (143, 46528), (144, 46549), (145, 46555), (152, 46642), (155, 46717), (162, 46846), (166, 46882), (168, 46954), (172, 47008), (174, 47044), (175, 47050), (181, 47143), (191, 47263),

Gene: Shukran_71 Start: 38159, Stop: 40699, Start Num: 33
Candidate Starts for Shukran_71:

(Start: 33 @38159 has 73 MA's), (61, 38474), (63, 38546), (76, 38747), (82, 38930), (95, 39077), (109, 39287), (117, 39425), (121, 39464), (123, 39506), (124, 39572), (125, 39578), (129, 39650), (132, 39770), (142, 39899), (144, 39941), (145, 39947), (152, 40034), (161, 40223), (162, 40238), (168, 40346), (171, 40391), (172, 40400), (173, 40409), (180, 40514), (181, 40535), (182, 40544), (184, 40553), (190, 40628),

Gene: SiSi_65 Start: 41752, Stop: 44313, Start Num: 26
Candidate Starts for SiSi_65:
(Start: 26 @41752 has 1 MA's), (27, 41764), (29, 41770), (37, 41824), (41, 41890), (43, 41896), (44, 41914), (45, 41917), (48, 41980), (49, 41983), (50, 41989), (51, 41998), (55, 42043), (56, 42046), (57, 42058), (59, 42088), (68, 42229), (71, 42286), (75, 42367), (76, 42370), (77, 42388), (79, 42493), (82, 42553), (89, 42619), (90, 42622), (91, 42631), (94, 42688), (104, 42823), (106, 42850), (107, 42862), (109, 42910), (110, 42913), (111, 42928), (115, 43000), (118, 43075), (119, 43078), (122, 43117), (123, 43129), (127, 43234), (128, 43255), (129, 43273), (130, 43288), (132, 43393), (138, 43471), (140, 43498), (141, 43507), (145, 43570), (146, 43579), (148, 43591), (149, 43594), (152, 43657), (159, 43780), (162, 43861), (168, 43969), (170, 44002), (171, 44014), (172, 44023), (173, 44032), (175, 44065), (176, 44071), (179, 44134), (180, 44137), (182, 44167), (183, 44173), (191, 44278),

Gene: SilverChicken_79 Start: 43476, Stop: 46010, Start Num: 31
Candidate Starts for SilverChicken_79:
(31, 43476), (Start: 33 @43488 has 73 MA's), (37, 43521), (41, 43587), (43, 43593), (44, 43611), (45, 43614), (48, 43677), (49, 43680), (51, 43695), (52, 43701), (54, 43734), (55, 43740), (56, 43743), (57, 43755), (59, 43785), (68, 43926), (71, 43983), (74, 44037), (76, 44067), (79, 44190), (82, 44250), (89, 44316), (90, 44319), (91, 44328), (101, 44442), (103, 44505), (104, 44520), (106, 44547), (109, 44607), (110, 44610), (111, 44625), (117, 44745), (118, 44772), (119, 44775), (122, 44814), (123, 44826), (127, 44931), (128, 44952), (129, 44970), (132, 45090), (138, 45168), (145, 45267), (146, 45276), (148, 45288), (149, 45291), (152, 45354), (159, 45477), (168, 45666), (170, 45699), (171, 45711), (172, 45720), (173, 45729), (175, 45762), (176, 45768), (177, 45777), (179, 45831), (180, 45834), (182, 45864), (183, 45870), (191, 45975),

Gene: SonDevVon_82 Start: 40165, Stop: 42693, Start Num: 33
Candidate Starts for SonDevVon_82:
(Start: 33 @40165 has 73 MA's), (36, 40180), (47, 40342), (48, 40354), (49, 40357), (50, 40363), (73, 40672), (76, 40741), (85, 40939), (95, 41071), (104, 41194), (112, 41326), (123, 41500), (124, 41566), (129, 41644), (130, 41659), (132, 41764), (141, 41878), (142, 41893), (145, 41941), (152, 42028), (162, 42232), (168, 42340), (171, 42385), (172, 42394), (175, 42436), (178, 42466), (191, 42649),

Gene: Sparky_66 Start: 45788, Stop: 48307, Start Num: 33
Candidate Starts for Sparky_66:
(2, 45374), (7, 45458), (10, 45518), (19, 45686), (Start: 30 @45767 has 7 MA's), (31, 45776), (Start: 33 @45788 has 73 MA's), (36, 45800), (37, 45818), (41, 45884), (42, 45887), (43, 45890), (45, 45911), (48, 45974), (49, 45977), (51, 45992), (54, 46031), (55, 46037), (56, 46040), (57, 46052), (59, 46082), (68, 46223), (71, 46280), (76, 46364), (78, 46460), (79, 46487), (82, 46547), (89, 46613), (90, 46616), (91, 46625), (101, 46739), (103, 46802), (104, 46817), (106, 46844), (109, 46904), (110, 46907), (111, 46922), (115, 46994), (117, 47042), (118, 47069), (119, 47072), (122, 47111), (123, 47123), (128, 47249), (129, 47267), (132, 47387), (138, 47465), (145, 47564), (146, 47573), (148, 47585), (149, 47588), (152, 47651), (159, 47774), (168, 47963), (170, 47996), (171, 48008), (172, 48017), (173, 48026), (175, 48059), (176, 48065), (177, 48074), (179, 48128), (180, 48131), (182, 48161), (183, 48167), (190, 48245), (191, 48272),

Gene: Spartacus_70 Start: 43606, Stop: 46155, Start Num: 28
Candidate Starts for Spartacus_70:

(3, 43234), (5, 43243), (9, 43336), (11, 43393), (18, 43495), (23, 43561), (Start: 28 @43606 has 2 MA's), (37, 43666), (41, 43732), (45, 43759), (47, 43810), (48, 43822), (49, 43825), (50, 43831), (51, 43840), (55, 43885), (56, 43888), (57, 43900), (59, 43930), (64, 44026), (68, 44071), (71, 44128), (75, 44209), (76, 44212), (78, 44308), (79, 44335), (82, 44395), (89, 44461), (90, 44464), (91, 44473), (101, 44587), (103, 44650), (104, 44665), (106, 44692), (109, 44752), (110, 44755), (111, 44770), (115, 44842), (117, 44890), (118, 44917), (119, 44920), (120, 44926), (122, 44959), (123, 44971), (129, 45115), (130, 45130), (132, 45235), (138, 45313), (145, 45412), (146, 45421), (148, 45433), (149, 45436), (152, 45499), (159, 45622), (168, 45811), (170, 45844), (171, 45856), (172, 45865), (173, 45874), (175, 45907), (176, 45913), (177, 45922), (179, 45976), (180, 45979), (182, 46009), (183, 46015), (191, 46120),

Gene: SpicyFrank_77 Start: 39506, Stop: 42046, Start Num: 33
Candidate Starts for SpicyFrank_77:
(Start: 33 @39506 has 73 MA's), (35, 39518), (47, 39680), (61, 39812), (62, 39839), (68, 39938), (71, 39995), (76, 40079), (78, 40175), (86, 40283), (88, 40322), (95, 40409), (114, 40691), (116, 40766), (118, 40799), (119, 40802), (122, 40841), (123, 40853), (124, 40919), (126, 40934), (129, 40997), (130, 41012), (132, 41117), (135, 41147), (136, 41150), (139, 41207), (143, 41267), (144, 41288), (145, 41294), (152, 41381), (155, 41456), (159, 41504), (162, 41585), (165, 41612), (166, 41621), (168, 41693), (172, 41747), (175, 41789), (181, 41882), (191, 42002), (194, 42020),

Gene: Sporco_77 Start: 40901, Stop: 43429, Start Num: 33
Candidate Starts for Sporco_77:
(Start: 33 @40901 has 73 MA's), (35, 40913), (48, 41087), (49, 41090), (62, 41234), (70, 41378), (76, 41474), (78, 41570), (95, 41804), (109, 42014), (112, 42059), (117, 42152), (123, 42233), (124, 42299), (129, 42380), (132, 42500), (137, 42563), (144, 42671), (145, 42677), (151, 42743), (152, 42764), (168, 43076), (169, 43085), (172, 43130), (174, 43166), (175, 43172), (178, 43202), (185, 43289), (189, 43340),

Gene: Strokeseat_67 Start: 41440, Stop: 44064, Start Num: 30
Candidate Starts for Strokeseat_67:
(Start: 30 @41440 has 7 MA's), (31, 41446), (Start: 33 @41455 has 73 MA's), (36, 41467), (37, 41485), (41, 41551), (42, 41554), (43, 41557), (45, 41578), (48, 41641), (49, 41644), (51, 41659), (54, 41698), (55, 41704), (56, 41707), (57, 41719), (59, 41749), (64, 41845), (68, 41890), (71, 41947), (75, 42028), (76, 42031), (79, 42154), (82, 42214), (83, 42217), (89, 42280), (90, 42283), (91, 42292), (93, 42337), (101, 42406), (103, 42469), (104, 42484), (106, 42511), (109, 42571), (110, 42574), (111, 42589), (112, 42616), (115, 42661), (117, 42709), (118, 42736), (119, 42739), (122, 42778), (123, 42790), (127, 42895), (129, 42934), (130, 42949), (132, 43054), (138, 43132), (140, 43159), (141, 43168), (145, 43231), (148, 43252), (149, 43255), (152, 43318), (157, 43444), (158, 43462), (159, 43531), (164, 43621), (168, 43720), (170, 43753), (171, 43765), (172, 43774), (173, 43783), (175, 43816), (176, 43822), (179, 43885), (180, 43888), (182, 43918), (183, 43924), (190, 44002), (191, 44029),

Gene: SuperGrey_70 Start: 44825, Stop: 47344, Start Num: 33
Candidate Starts for SuperGrey_70:
(13, 44648), (15, 44654), (16, 44663), (17, 44672), (24, 44768), (Start: 33 @44825 has 73 MA's), (36, 44837), (37, 44855), (41, 44921), (42, 44924), (43, 44927), (45, 44948), (47, 44999), (48, 45011), (49, 45014), (50, 45020), (55, 45074), (56, 45077), (57, 45089), (59, 45119), (64, 45215), (68, 45260), (69, 45263), (71, 45317), (75, 45398), (76, 45401), (79, 45524), (82, 45584), (83, 45587), (89, 45650), (90, 45653), (91, 45662), (101, 45776), (103, 45839), (106, 45881), (109, 45941), (110, 45944), (111, 45959), (112, 45986), (115, 46031), (118, 46106), (119, 46109), (120, 46115), (122, 46148), (123, 46160), (127, 46265), (129, 46304), (130, 46319), (132, 46424), (138, 46502), (140, 46529), (141, 46538), (145, 46601), (148, 46622), (149, 46625), (152, 46688), (154, 46718), (159, 46811), (162, 46892), (168, 47000), (170, 47033), (171, 47045), (172, 47054), (173, 47063), (175, 47096), (176, 47102), (179, 47165), (180, 47168), (182, 47198), (183, 47204), (187, 47240), (191, 47309),

Gene: Tapioca_56 Start: 36042, Stop: 38666, Start Num: 30
Candidate Starts for Tapioca_56:
(Start: 30 @36042 has 7 MA's), (31, 36048), (Start: 33 @36057 has 73 MA's), (36, 36069), (37, 36087), (41, 36153), (42, 36156), (43, 36159), (45, 36180), (48, 36243), (49, 36246), (51, 36261), (54, 36300), (55, 36306), (56, 36309), (57, 36321), (59, 36351), (64, 36447), (68, 36492), (71, 36549), (75, 36630), (76, 36633), (79, 36756), (82, 36816), (83, 36819), (89, 36882), (90, 36885), (91, 36894), (93, 36939), (101, 37008), (103, 37071), (106, 37113), (109, 37173), (110, 37176), (111, 37191), (112, 37218), (115, 37263), (117, 37311), (118, 37338), (119, 37341), (122, 37380), (123, 37392), (127, 37497), (129, 37536), (130, 37551), (132, 37656), (138, 37734), (140, 37761), (141, 37770), (145, 37833), (148, 37854), (149, 37857), (152, 37920), (157, 38046), (158, 38064), (159, 38133), (164, 38223), (168, 38322), (170, 38355), (171, 38367), (172, 38376), (173, 38385), (175, 38418), (176, 38424), (179, 38487), (180, 38490), (182, 38520), (183, 38526), (190, 38604), (191, 38631),

Gene: Tchotchke_65 Start: 42287, Stop: 44806, Start Num: 33
Candidate Starts for Tchotchke_65:
(Start: 33 @42287 has 73 MA's), (36, 42299), (37, 42317), (41, 42383), (45, 42410), (47, 42461), (48, 42473), (49, 42476), (51, 42491), (52, 42497), (55, 42536), (56, 42539), (57, 42551), (59, 42581), (64, 42677), (68, 42722), (69, 42725), (75, 42860), (76, 42863), (79, 42986), (81, 43040), (82, 43046), (101, 43238), (103, 43301), (106, 43343), (109, 43403), (110, 43406), (111, 43421), (112, 43448), (115, 43493), (117, 43541), (118, 43568), (119, 43571), (122, 43610), (123, 43622), (127, 43727), (129, 43766), (130, 43781), (132, 43886), (138, 43964), (140, 43991), (141, 44000), (145, 44063), (148, 44084), (149, 44087), (152, 44150), (154, 44180), (159, 44273), (162, 44354), (168, 44462), (170, 44495), (171, 44507), (172, 44516), (173, 44525), (175, 44558), (176, 44564), (179, 44627), (180, 44630), (182, 44660), (183, 44666), (187, 44702), (191, 44771),

Gene: ThayneTheZag_80 Start: 40139, Stop: 42673, Start Num: 33
Candidate Starts for ThayneTheZag_80:
(6, 39794), (14, 39971), (Start: 33 @40139 has 73 MA's), (36, 40154), (44, 40262), (61, 40451), (62, 40478), (68, 40577), (71, 40634), (76, 40718), (78, 40814), (84, 40910), (85, 40916), (95, 41048), (102, 41108), (109, 41258), (111, 41276), (117, 41396), (118, 41423), (123, 41477), (124, 41543), (129, 41624), (130, 41639), (131, 41645), (132, 41744), (136, 41777), (137, 41807), (139, 41834), (143, 41894), (144, 41915), (145, 41921), (147, 41933), (151, 41987), (152, 42008), (156, 42089), (166, 42248), (168, 42320), (169, 42329), (172, 42374), (174, 42410), (175, 42416), (191, 42629),

Gene: Tiff81_71 Start: 38408, Stop: 40924, Start Num: 34
Candidate Starts for Tiff81_71:
(20, 38324), (22, 38327), (Start: 34 @38408 has 3 MA's), (40, 38486), (47, 38573), (53, 38615), (61, 38705), (62, 38732), (66, 38798), (68, 38831), (76, 38972), (78, 39068), (86, 39176), (88, 39215), (95, 39302), (96, 39308), (108, 39470), (110, 39515), (116, 39644), (118, 39677), (119, 39680), (123, 39731), (124, 39797), (126, 39812), (130, 39890), (132, 39995), (143, 40145), (144, 40166), (145, 40172), (152, 40259), (155, 40334), (162, 40463), (166, 40499), (168, 40571), (172, 40625), (174, 40661), (175, 40667), (178, 40697), (181, 40760), (191, 40880),

Gene: Velveteen_62 Start: 39507, Stop: 42026, Start Num: 33
Candidate Starts for Velveteen_62:
(Start: 33 @39507 has 73 MA's), (36, 39519), (41, 39603), (45, 39630), (47, 39681), (48, 39693), (49, 39696), (51, 39711), (52, 39717), (55, 39756), (56, 39759), (57, 39771), (59, 39801), (64, 39897), (68, 39942), (69, 39945), (75, 40080), (76, 40083), (79, 40206), (81, 40260), (82, 40266), (101, 40458), (103, 40521), (104, 40536), (106, 40563), (109, 40623), (110, 40626), (111, 40641), (112, 40668), (113, 40674), (115, 40713), (117, 40761), (118, 40788), (119, 40791), (122, 40830), (123, 40842), (127, 40947), (129, 40986), (130, 41001), (132, 41106), (138, 41184), (140, 41211), (141, 41220), (145, 41283), (146, 41292), (148, 41304), (149, 41307), (152, 41370), (159, 41493), (162, 41574),

(168, 41682), (170, 41715), (171, 41727), (172, 41736), (173, 41745), (175, 41778), (176, 41784), (179, 41847), (180, 41850), (182, 41880), (183, 41886), (191, 41991),

Gene: Violac_67 Start: 43287, Stop: 45806, Start Num: 33
Candidate Starts for Violac_67:
(Start: 33 @43287 has 73 MA's), (36, 43299), (37, 43317), (41, 43383), (42, 43386), (43, 43389), (45, 43410), (47, 43461), (48, 43473), (49, 43476), (51, 43491), (55, 43536), (56, 43539), (57, 43551), (59, 43581), (64, 43677), (71, 43779), (75, 43860), (76, 43863), (79, 43986), (82, 44046), (89, 44112), (90, 44115), (91, 44124), (93, 44169), (101, 44238), (103, 44301), (104, 44316), (106, 44343), (109, 44403), (110, 44406), (111, 44421), (112, 44448), (115, 44493), (117, 44541), (118, 44568), (119, 44571), (122, 44610), (123, 44622), (127, 44727), (129, 44766), (130, 44781), (132, 44886), (138, 44964), (140, 44991), (141, 45000), (145, 45063), (148, 45084), (149, 45087), (152, 45150), (159, 45273), (168, 45462), (170, 45495), (171, 45507), (172, 45516), (173, 45525), (175, 45558), (176, 45564), (179, 45627), (182, 45660), (183, 45666), (187, 45702), (191, 45771),

Gene: Vivum_67 Start: 43076, Stop: 45595, Start Num: 33
Candidate Starts for Vivum_67:
(Start: 33 @43076 has 73 MA's), (36, 43088), (37, 43106), (41, 43172), (42, 43175), (43, 43178), (45, 43199), (47, 43250), (48, 43262), (49, 43265), (50, 43271), (55, 43325), (56, 43328), (57, 43340), (59, 43370), (64, 43466), (68, 43511), (69, 43514), (71, 43568), (75, 43649), (76, 43652), (79, 43775), (82, 43835), (83, 43838), (89, 43901), (90, 43904), (91, 43913), (101, 44027), (103, 44090), (106, 44132), (109, 44192), (110, 44195), (111, 44210), (112, 44237), (115, 44282), (117, 44330), (118, 44357), (119, 44360), (120, 44366), (122, 44399), (123, 44411), (129, 44555), (130, 44570), (132, 44675), (138, 44753), (145, 44852), (148, 44873), (149, 44876), (152, 44939), (154, 44969), (159, 45062), (162, 45143), (168, 45251), (170, 45284), (171, 45296), (172, 45305), (173, 45314), (175, 45347), (176, 45353), (179, 45416), (180, 45419), (182, 45449), (183, 45455), (187, 45491), (191, 45560),

Gene: Windest_79 Start: 38583, Stop: 41111, Start Num: 33
Candidate Starts for Windest_79:
(Start: 33 @38583 has 73 MA's), (35, 38595), (48, 38769), (49, 38772), (62, 38916), (70, 39060), (76, 39156), (78, 39252), (95, 39486), (112, 39741), (117, 39834), (123, 39915), (124, 39981), (129, 40062), (132, 40182), (144, 40353), (145, 40359), (151, 40425), (152, 40446), (168, 40758), (169, 40767), (172, 40812), (174, 40848), (175, 40854), (178, 40884), (185, 40971), (189, 41022),

Gene: XFactor_64 Start: 41191, Stop: 43710, Start Num: 33
Candidate Starts for XFactor_64:
(Start: 33 @41191 has 73 MA's), (36, 41203), (37, 41221), (41, 41287), (42, 41290), (43, 41293), (45, 41314), (48, 41377), (49, 41380), (51, 41395), (55, 41440), (56, 41443), (57, 41455), (59, 41485), (64, 41581), (68, 41626), (71, 41683), (75, 41764), (76, 41767), (79, 41890), (82, 41950), (89, 42016), (90, 42019), (91, 42028), (101, 42142), (103, 42205), (104, 42220), (106, 42247), (109, 42307), (110, 42310), (111, 42325), (112, 42352), (115, 42397), (117, 42445), (118, 42472), (119, 42475), (122, 42514), (123, 42526), (127, 42631), (129, 42670), (130, 42685), (132, 42790), (138, 42868), (140, 42895), (141, 42904), (145, 42967), (148, 42988), (149, 42991), (152, 43054), (159, 43177), (162, 43258), (168, 43366), (170, 43399), (171, 43411), (172, 43420), (173, 43429), (175, 43462), (176, 43468), (179, 43531), (180, 43534), (182, 43564), (183, 43570), (191, 43675),

Gene: YoungHarleezy_75 Start: 39488, Stop: 42019, Start Num: 33
Candidate Starts for YoungHarleezy_75:
(Start: 33 @39488 has 73 MA's), (36, 39503), (48, 39677), (49, 39680), (62, 39824), (70, 39968), (76, 40064), (78, 40160), (95, 40394), (112, 40649), (117, 40742), (123, 40823), (124, 40889), (129, 40970), (132, 41090), (137, 41153), (144, 41261), (145, 41267), (151, 41333), (152, 41354), (168, 41666), (169, 41675), (172, 41720), (174, 41756), (175, 41762), (178, 41792), (185, 41879), (189, 41930),

Gene: Zerg_66 Start: 42035, Stop: 44554, Start Num: 33
Candidate Starts for Zerg_66:
(Start: 33 @42035 has 73 MA's), (36, 42047), (37, 42065), (41, 42131), (45, 42158), (47, 42209), (48, 42221), (49, 42224), (51, 42239), (52, 42245), (55, 42284), (56, 42287), (57, 42299), (59, 42329), (64, 42425), (68, 42470), (69, 42473), (75, 42608), (76, 42611), (79, 42734), (81, 42788), (82, 42794), (101, 42986), (103, 43049), (104, 43064), (106, 43091), (109, 43151), (110, 43154), (111, 43169), (112, 43196), (113, 43202), (115, 43241), (117, 43289), (118, 43316), (119, 43319), (122, 43358), (123, 43370), (127, 43475), (129, 43514), (130, 43529), (132, 43634), (138, 43712), (140, 43739), (141, 43748), (145, 43811), (146, 43820), (148, 43832), (149, 43835), (152, 43898), (159, 44021), (168, 44210), (170, 44243), (171, 44255), (172, 44264), (173, 44273), (175, 44306), (176, 44312), (179, 44375), (180, 44378), (182, 44408), (183, 44414), (191, 44519),