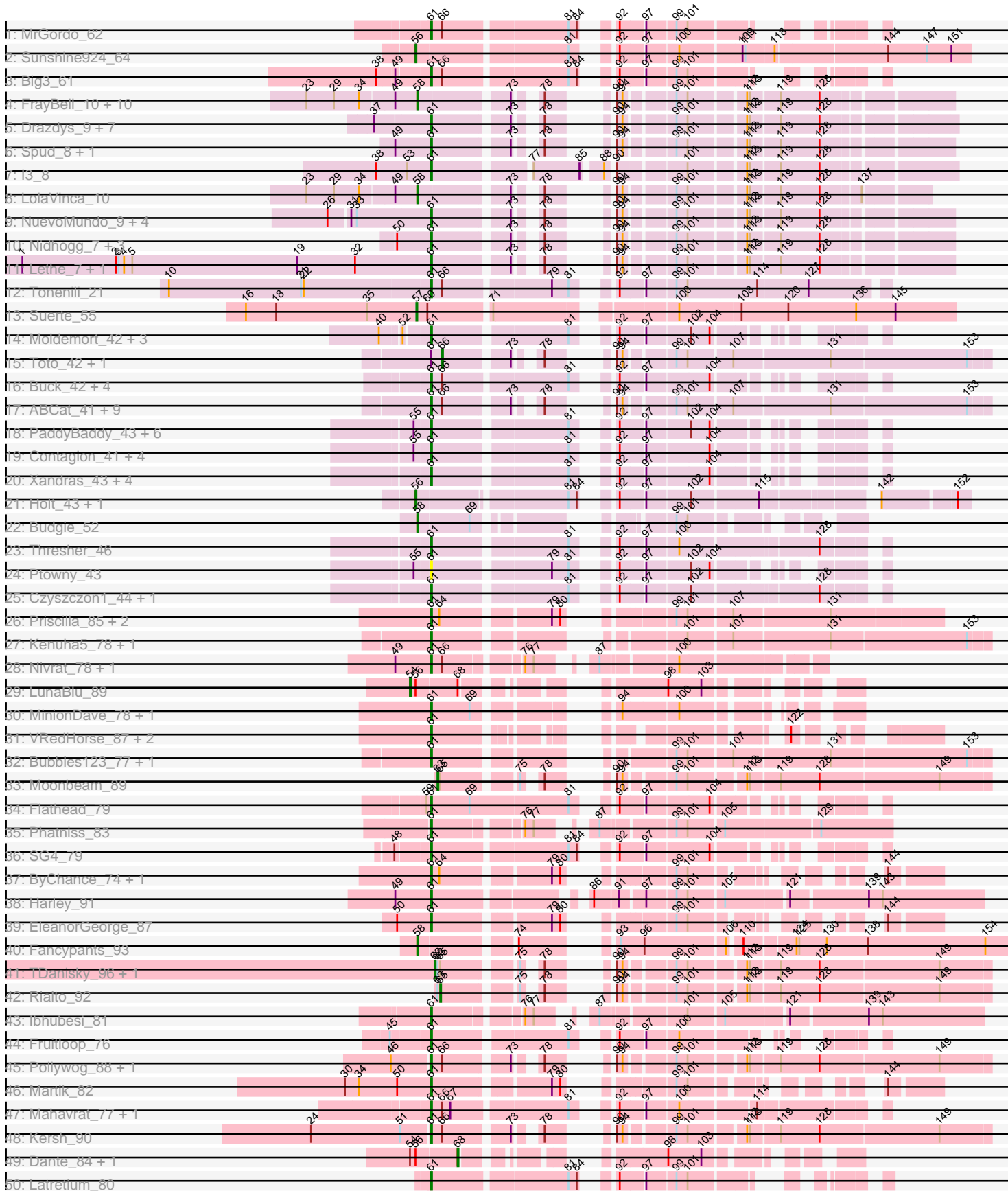
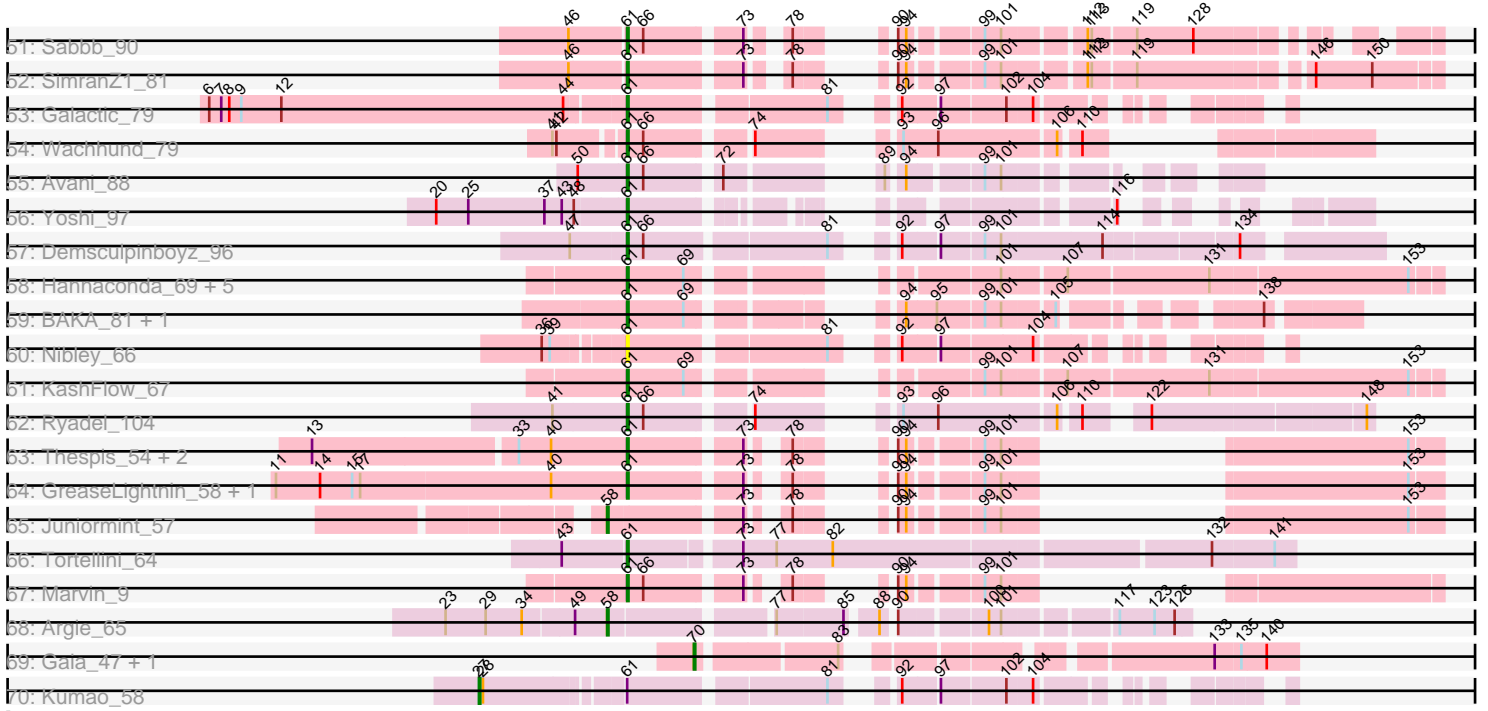


Pham 311324



Pham 311324



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 311324 Report

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

Pham number 311324 has 152 members, 15 are drafts.

Phages represented in each track:

- Track 1 : MrGordo_62
- Track 2 : Sunshine924_64
- Track 3 : Big3_61
- Track 4 : FrayBell_10, Tainan_10, Sebata_9, Specks_10, JigglyPuff_8, InterFolia_10, JayJay_9, Pupusa_10, PharkleMinkus_10, LordLeafolot_10, LinStu_9
- Track 5 : Drazdys_9, Kamryn_7, Jezreel_7, Tyke_9, Mikro_7, DTDevon_9, NoodleTree_7, Bxz1_7
- Track 6 : Spud_8, Pio_8
- Track 7 : l3_8
- Track 8 : LolaVinca_10
- Track 9 : NuevoMundo_9, StephanieG_9, Pier_10, Astraea_9, Dandelion_10
- Track 10 : Nidhogg_7, Sauce_7, MoMoMixon_7, Naval22_8
- Track 11 : Lethe_7, Bigswole_6
- Track 12 : Tonenili_21
- Track 13 : Suerte_55
- Track 14 : Moldemort_42, MadamMonkfish_42, Bogg_42, AmericanBeauty_43
- Track 15 : Toto_42, Marshmallow_42
- Track 16 : Buck_42, TeamEdward_43, StormChicken_43, Rimmer_42, Youngblood_43
- Track 17 : ABCat_41, Inca_40, BilboSwaggins_42, IHOP_41, Tuco_44, CrystalP_43, Myrale_43, ShamWow_43, StellaBean_41, Phaja_41
- Track 18 : PaddyBaddy_43, DrDrey_44, Phrux_42, HanKaySha_43, 244_45, Hopey_44, ShereKhan_42
- Track 19 : Contagion_41, Cookies_41, Mosby_40, TeardropMSU_40, Tomaszewski_40
- Track 20 : Xandras_43, OrionPax_43, JeTaime_44, Filch_44, Pumpkin_45
- Track 21 : Holt_43, DoctorDiddles_42
- Track 22 : Budgie_52
- Track 23 : Thresher_46
- Track 24 : Ptowny_43
- Track 25 : Czyszczonek_44, Cjw1_44
- Track 26 : Priscilla_85, Koella_77, NormanBulbieJr_83
- Track 27 : Kenuha5_78, Nekros_71
- Track 28 : Nivrat_78, LilMoolah_80
- Track 29 : LunaBlu_89
- Track 30 : MinionDave_78, CaptainTrips_82
- Track 31 : VRedHorse_87, Estave1_94, Avani_91

- Track 32 : Bubbles123_77, Shauna1_82
- Track 33 : Moonbeam_89
- Track 34 : Flathead_79
- Track 35 : Phatniss_83
- Track 36 : SG4_79
- Track 37 : ByChance_74, ShowerHandel_83
- Track 38 : Harley_91
- Track 39 : EleanorGeorge_87
- Track 40 : Fancypants_93
- Track 41 : TDanisky_96, Sparkdehlily_95
- Track 42 : Rialto_92
- Track 43 : lbhubesi_81
- Track 44 : Fruitloop_76
- Track 45 : Pollywog_88, Rearden_72
- Track 46 : Martik_82
- Track 47 : Mahavrat_77, Grimmer_91
- Track 48 : Kersh_90
- Track 49 : Dante_84, Latretium_87
- Track 50 : Latretium_80
- Track 51 : Sabbb_90
- Track 52 : SimranZ1_81
- Track 53 : Galactic_79
- Track 54 : Wachhund_79
- Track 55 : Avani_88
- Track 56 : Yoshi_97
- Track 57 : Demsculpinboyz_96
- Track 58 : Hannaconda_69, BronnyJames_66, Aubs_83, Shaboozey_65, SuperGrey_83, Donkeykong_89
- Track 59 : BAKA_81, Duke13_79
- Track 60 : Nibley_66
- Track 61 : KashFlow_67
- Track 62 : Ryadel_104
- Track 63 : Thespis_54, Brusacoram_54, Atcoo_54
- Track 64 : GreaseLightnin_58, StevieRay_57
- Track 65 : Juniormint_57
- Track 66 : Tortellini_64
- Track 67 : Marvin_9
- Track 68 : Argie_65
- Track 69 : Gaia_47, Nebkiss_50
- Track 70 : Kumao_58

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

The start number called the most often in the published annotations is 61, it was called in 109 of the 137 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

• 244_45, ABCat_41, AmericanBeauty_43, Astraea_9, Atcoo_54, Aubs_83, Avani_88, Avani_91, BAKA_81, Big3_61, Bigswole_6, BilboSwaggins_42, Bogg_42, BronnyJames_66, Brusacoram_54, Bubbles123_77, Buck_42, Bxz1_7,

ByChance_74, CaptainTrips_82, Cjw1_44, Contagion_41, Cookies_41, CrystalP_43, Czyszczonek_44, DTDevon_9, Dandelion_10, Demsculpinboyz_96, Donkeykong_89, DrDrey_44, Drazdys_9, Duke13_79, EleanorGeorge_87, Estave1_94, Filch_44, Flathead_79, Fruitloop_76, Galactic_79, GreaseLightnin_58, Grimmer_91, HanKaySha_43, Hannaconda_69, Harley_91, Hopey_44, I3_8, IHOP_41, Ibhubesi_81, Inca_40, JeTaime_44, Jezreel_7, Kamryn_7, KashFlow_67, Kenuha5_78, Kersh_90, Koella_77, Latretium_80, Lethe_7, LilMoolah_80, MadamMonkfish_42, Mahavrat_77, Martik_82, Marvin_9, Mikro_7, MinionDave_78, MoMoMixon_7, Moldemort_42, Mosby_40, MrGordo_62, Myrale_43, Naval22_8, Nekros_71, Nibley_66, Nidhogg_7, Nivrat_78, NoodleTree_7, NormanBulbieJr_83, NuevoMundo_9, OrionPax_43, PaddyBaddy_43, Phaja_41, Phatniss_83, Phrux_42, Pier_10, Pio_8, Pollywog_88, Priscilla_85, Ptowny_43, Pumpkin_45, Rearden_72, Rimmer_42, Ryadel_104, SG4_79, Sabbb_90, Sauce_7, Shaboozey_65, ShamWow_43, Shauna1_82, ShereKhan_42, ShowerHandel_83, SimranZ1_81, Spud_8, StellaBean_41, StephanieG_9, StevieRay_57, StormChicken_43, SuperGrey_83, TeamEdward_43, TeardropMSU_40, Thespis_54, Thresher_46, Tomaszewski_40, Tonenili_21, Tortellini_64, Tuco_44, Tyke_9, VRedHorse_87, Wachhund_79, Xandras_43, Yoshi_97, Youngblood_43,

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

- Kumao_58, Marshmallow_42, Toto_42,

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

- Argie_65, Budgie_52, Dante_84, DoctorDiddles_42, Fancypants_93, FrayBell_10, Gaia_47, Holt_43, InterFolia_10, JayJay_9, JigglyPuff_8, Juniormint_57, Latretium_87, LinStu_9, LolaVinca_10, LordLeafolot_10, LunaBlu_89, Moonbeam_89, Nebkiss_50, PharkleMinkus_10, Pupusa_10, Rialto_92, Sebata_9, Sparkdehlily_95, Specks_10, Suerte_55, Sunshine924_64, TDanisky_96, Tainan_10,

Summary by start number:

Start 27:

- Found in 1 of 152 (0.7%) of genes in pham
- Manual Annotations of this start: 1 of 137
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Kumao_58 (singleton),

Start 54:

- Found in 3 of 152 (2.0%) of genes in pham
- Manual Annotations of this start: 1 of 137
- Called 33.3% of time when present
- Phage (with cluster) where this start called: LunaBlu_89 (F1),

Start 56:

- Found in 6 of 152 (3.9%) of genes in pham
- Manual Annotations of this start: 3 of 137
- Called 50.0% of time when present
- Phage (with cluster) where this start called: DoctorDiddles_42 (E), Holt_43 (E), Sunshine924_64 (A1),

Start 57:

- Found in 1 of 152 (0.7%) of genes in pham
- Manual Annotations of this start: 1 of 137

- Called 100.0% of time when present
- Phage (with cluster) where this start called: Suerte_55 (CZ4),

Start 58:

- Found in 16 of 152 (10.5%) of genes in pham
- Manual Annotations of this start: 12 of 137
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Argie_65 (W), Budgie_52 (E), FancyPants_93 (F1), FrayBell_10 (C1), InterFolia_10 (C1), JayJay_9 (C1), JigglyPuff_8 (C1), Juniormint_57 (P1), LinStu_9 (C1), LolaVinca_10 (C1), LordLeafolot_10 (C1), PharkleMinkus_10 (C1), Pupusa_10 (C1), Sebata_9 (C1), Specks_10 (C1), Tainan_10 (C1),

Start 61:

- Found in 123 of 152 (80.9%) of genes in pham
- Manual Annotations of this start: 109 of 137
- Called 97.6% of time when present
- Phage (with cluster) where this start called: 244_45 (E), ABCat_41 (E), AmericanBeauty_43 (E), Astraea_9 (C1), Atcoo_54 (P1), Aubs_83 (F1), Avani_88 (F2), Avani_91 (F2), BAKA_81 (J), Big3_61 (A1), Bigswole_6 (C1), BilboSwaggins_42 (E), Bogg_42 (E), BronnyJames_66 (J), Brusacoram_54 (P1), Bubbles123_77 (F1), Buck_42 (E), Bxz1_7 (C1), ByChance_74 (F1), CaptainTrips_82 (F1), Cjw1_44 (E), Contagion_41 (E), Cookies_41 (E), CrystalP_43 (E), Czyszczonek_44 (E), DTDevon_9 (C1), Dandelion_10 (C1), Demsculpinboyz_96 (F2), Donkeykong_89 (F1), DrDrey_44 (E), Drazdys_9 (C1), Duke13_79 (J), EleanorGeorge_87 (F1), Estave1_94 (F1), Filch_44 (E), Flathead_79 (F1), Fruitloop_76 (F1), Galactic_79 (F1), GreaseLightnin_58 (P1), Grimmer_91 (F1), HanKaySha_43 (E), Hannaconda_69 (J), Harley_91 (F1), Hopey_44 (E), I3_8 (C1), IHOP_41 (E), Ibhubesi_81 (F1), Inca_40 (E), JeTaime_44 (E), Jezreel_7 (C1), Kamryn_7 (C1), KashFlow_67 (J), Kenuha5_78 (F1), Kersh_90 (F1), Koella_77 (F1), Latretium_80 (F1), Lethe_7 (C1), LilMoolah_80 (F1), MadamMonkfish_42 (E), Mahavrat_77 (F1), Martik_82 (F1), Marvin_9 (S), Mikro_7 (C1), MinionDave_78 (F1), MoMoMixon_7 (C1), Moldemort_42 (E), Mosby_40 (E), MrGordo_62 (A1), Myrale_43 (E), Naval22_8 (C1), Nekros_71 (J), Nibley_66 (J), Nidhogg_7 (C1), Nivrat_78 (F1), NoodleTree_7 (C1), NormanBulbieJr_83 (F1), NuevoMundo_9 (C1), OrionPax_43 (E), PaddyBaddy_43 (E), Phaja_41 (E), Phatniss_83 (F1), Phrux_42 (E), Pier_10 (C1), Pio_8 (C1), Pollywog_88 (F1), Priscilla_85 (F1), Ptowny_43 (E), Pumpkin_45 (E), Rearden_72 (J), Rimmer_42 (E), Ryadel_104 (O), SG4_79 (F1), Sabb_90 (F1), Sauce_7 (C1), Shaboozey_65 (J), ShamWow_43 (E), Shauna1_82 (F1), ShereKhan_42 (E), ShowerHandel_83 (F1), SimranZ1_81 (F1), Spud_8 (C1), StellaBean_41 (E), StephanieG_9 (C1), StevieRay_57 (P1), StormChicken_43 (E), SuperGrey_83 (F1), TeamEdward_43 (E), TeardropMSU_40 (E), Thespis_54 (P1), Thresher_46 (E), Tomaszewski_40 (E), Tonenili_21 (C1), Tortellini_64 (P2), Tuco_44 (E), Tyke_9 (C1), VRedHorse_87 (F1), Wachhund_79 (F1), Xandras_43 (E), Yoshi_97 (F2), Youngblood_43 (E),

Start 62:

- Found in 2 of 152 (1.3%) of genes in pham
- Manual Annotations of this start: 2 of 137
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Sparkdehlily_95 (F1), TDanisky_96 (F1),

Start 63:

- Found in 4 of 152 (2.6%) of genes in pham
- Manual Annotations of this start: 1 of 137
- Called 25.0% of time when present
- Phage (with cluster) where this start called: Moonbeam_89 (F1),

Start 65:

- Found in 4 of 152 (2.6%) of genes in pham
- Manual Annotations of this start: 1 of 137
- Called 25.0% of time when present
- Phage (with cluster) where this start called: Rialto_92 (F1),

Start 66:

- Found in 33 of 152 (21.7%) of genes in pham
- Manual Annotations of this start: 2 of 137
- Called 6.1% of time when present
- Phage (with cluster) where this start called: Marshmallow_42 (E), Toto_42 (E),

Start 68:

- Found in 3 of 152 (2.0%) of genes in pham
- Manual Annotations of this start: 2 of 137
- Called 66.7% of time when present
- Phage (with cluster) where this start called: Dante_84 (F1), Latretium_87 (F1),

Start 70:

- Found in 2 of 152 (1.3%) of genes in pham
- Manual Annotations of this start: 2 of 137
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Gaia_47 (X), Nebkiss_50 (X),

Summary by clusters:

There are 14 clusters represented in this pham: P2, F1, F2, P1, E, J, singleton, O, A1, S, CZ4, W, X, C1,

Info for manual annotations of cluster A1:

- Start number 56 was manually annotated 1 time for cluster A1.
- Start number 61 was manually annotated 2 times for cluster A1.

Info for manual annotations of cluster C1:

- Start number 58 was manually annotated 8 times for cluster C1.
- Start number 61 was manually annotated 23 times for cluster C1.

Info for manual annotations of cluster CZ4:

- Start number 57 was manually annotated 1 time for cluster CZ4.

Info for manual annotations of cluster E:

- Start number 56 was manually annotated 2 times for cluster E.
- Start number 58 was manually annotated 1 time for cluster E.
- Start number 61 was manually annotated 35 times for cluster E.
- Start number 66 was manually annotated 2 times for cluster E.

Info for manual annotations of cluster F1:

- Start number 54 was manually annotated 1 time for cluster F1.

- Start number 58 was manually annotated 1 time for cluster F1.
- Start number 61 was manually annotated 33 times for cluster F1.
- Start number 62 was manually annotated 2 times for cluster F1.
- Start number 63 was manually annotated 1 time for cluster F1.
- Start number 65 was manually annotated 1 time for cluster F1.
- Start number 68 was manually annotated 2 times for cluster F1.

Info for manual annotations of cluster F2:

- Start number 61 was manually annotated 4 times for cluster F2.

Info for manual annotations of cluster J:

- Start number 61 was manually annotated 4 times for cluster J.

Info for manual annotations of cluster O:

- Start number 61 was manually annotated 1 time for cluster O.

Info for manual annotations of cluster P1:

- Start number 58 was manually annotated 1 time for cluster P1.
- Start number 61 was manually annotated 5 times for cluster P1.

Info for manual annotations of cluster P2:

- Start number 61 was manually annotated 1 time for cluster P2.

Info for manual annotations of cluster S:

- Start number 61 was manually annotated 1 time for cluster S.

Info for manual annotations of cluster W:

- Start number 58 was manually annotated 1 time for cluster W.

Info for manual annotations of cluster X:

- Start number 70 was manually annotated 2 times for cluster X.

Gene Information:

Gene: 244_45 Start: 35533, Stop: 35168, Start Num: 61

Candidate Starts for 244_45:

(55, 35548), (Start: 61 @35533 has 109 MA's), (81, 35398), (92, 35374), (97, 35350), (102, 35305), (104, 35287),

Gene: ABCat_41 Start: 35824, Stop: 35336, Start Num: 61

Candidate Starts for ABCat_41:

(Start: 61 @35824 has 109 MA's), (Start: 66 @35812 has 2 MA's), (73, 35749), (78, 35734), (90, 35707), (94, 35701), (99, 35656), (101, 35644), (107, 35602), (131, 35500), (153, 35356),

Gene: AmericanBeauty_43 Start: 35021, Stop: 34656, Start Num: 61

Candidate Starts for AmericanBeauty_43:

(40, 35060), (52, 35042), (Start: 61 @35021 has 109 MA's), (81, 34886), (92, 34862), (97, 34838), (102, 34793), (104, 34775),

Gene: Argie_65 Start: 48661, Stop: 49026, Start Num: 58

Candidate Starts for Argie_65:

(23, 48544), (29, 48574), (34, 48601), (49, 48637), (Start: 58 @48661 has 12 MA's), (77, 48766), (85, 48814), (88, 48832), (90, 48838), (100, 48895), (101, 48904), (117, 48976), (123, 49000), (126, 49015),

Gene: Astraea_9 Start: 2499, Stop: 2930, Start Num: 61

Candidate Starts for Astraea_9:

(26, 2394), (31, 2415), (33, 2421), (Start: 61 @2499 has 109 MA's), (73, 2574), (78, 2589), (90, 2616), (94, 2622), (99, 2667), (101, 2679), (112, 2730), (113, 2733), (119, 2763), (128, 2805),

Gene: Atcoo_54 Start: 36879, Stop: 37241, Start Num: 61

Candidate Starts for Atcoo_54:

(13, 36651), (33, 36798), (40, 36822), (Start: 61 @36879 has 109 MA's), (73, 36954), (78, 36969), (90, 36996), (94, 37002), (99, 37047), (101, 37059), (153, 37218),

Gene: Aubs_83 Start: 50008, Stop: 50520, Start Num: 61

Candidate Starts for Aubs_83:

(Start: 61 @50008 has 109 MA's), (69, 50050), (101, 50212), (107, 50254), (131, 50356), (153, 50500),

Gene: Avani_88 Start: 46792, Stop: 47127, Start Num: 61

Candidate Starts for Avani_88:

(50, 46759), (Start: 61 @46792 has 109 MA's), (Start: 66 @46804 has 2 MA's), (72, 46852), (89, 46927), (94, 46936), (99, 46984), (101, 46996),

Gene: Avani_91 Start: 47610, Stop: 47966, Start Num: 61

Candidate Starts for Avani_91:

(Start: 61 @47610 has 109 MA's), (122, 47862),

Gene: BAKA_81 Start: 52347, Stop: 51940, Start Num: 61

Candidate Starts for BAKA_81:

(Start: 61 @52347 has 109 MA's), (69, 52305), (94, 52209), (95, 52188), (99, 52155), (101, 52143), (105, 52110), (138, 52002),

Gene: Big3_61 Start: 41706, Stop: 41350, Start Num: 61

Candidate Starts for Big3_61:

(38, 41754), (49, 41736), (Start: 61 @41706 has 109 MA's), (Start: 66 @41694 has 2 MA's), (81, 41568), (84, 41559), (92, 41544), (97, 41520), (99, 41490), (101, 41478),

Gene: Bigswole_6 Start: 2050, Stop: 2481, Start Num: 61

Candidate Starts for Bigswole_6:

(1, 1606), (2, 1708), (3, 1711), (4, 1717), (5, 1726), (19, 1906), (32, 1969), (Start: 61 @2050 has 109 MA's), (73, 2125), (78, 2140), (90, 2167), (94, 2173), (99, 2218), (101, 2230), (112, 2281), (113, 2284), (119, 2314), (128, 2356),

Gene: BilboSwaggins_42 Start: 35832, Stop: 35344, Start Num: 61

Candidate Starts for BilboSwaggins_42:

(Start: 61 @35832 has 109 MA's), (Start: 66 @35820 has 2 MA's), (73, 35757), (78, 35742), (90, 35715), (94, 35709), (99, 35664), (101, 35652), (107, 35610), (131, 35508), (153, 35364),

Gene: Bogg_42 Start: 34449, Stop: 34084, Start Num: 61

Candidate Starts for Bogg_42:

(40, 34488), (52, 34470), (Start: 61 @34449 has 109 MA's), (81, 34314), (92, 34290), (97, 34266), (102, 34221), (104, 34203),

Gene: BronnyJames_66 Start: 44654, Stop: 44142, Start Num: 61
Candidate Starts for BronnyJames_66:
(Start: 61 @44654 has 109 MA's), (69, 44612), (101, 44450), (107, 44408), (131, 44306), (153, 44162),

Gene: Brusacoram_54 Start: 36385, Stop: 36747, Start Num: 61
Candidate Starts for Brusacoram_54:
(13, 36157), (33, 36304), (40, 36328), (Start: 61 @36385 has 109 MA's), (73, 36460), (78, 36475), (90, 36502), (94, 36508), (99, 36553), (101, 36565), (153, 36724),

Gene: Bubbles123_77 Start: 48885, Stop: 49397, Start Num: 61
Candidate Starts for Bubbles123_77:
(Start: 61 @48885 has 109 MA's), (99, 49077), (101, 49089), (107, 49131), (131, 49233), (153, 49377),

Gene: Buck_42 Start: 35321, Stop: 34953, Start Num: 61
Candidate Starts for Buck_42:
(Start: 61 @35321 has 109 MA's), (Start: 66 @35309 has 2 MA's), (81, 35183), (92, 35159), (97, 35135), (104, 35072),

Gene: Budgie_52 Start: 36596, Stop: 36261, Start Num: 58
Candidate Starts for Budgie_52:
(Start: 58 @36596 has 12 MA's), (69, 36542), (99, 36404), (101, 36392),

Gene: Bxz1_7 Start: 2148, Stop: 2579, Start Num: 61
Candidate Starts for Bxz1_7:
(37, 2091), (Start: 61 @2148 has 109 MA's), (73, 2223), (78, 2238), (90, 2265), (94, 2271), (99, 2316), (101, 2328), (112, 2379), (113, 2382), (119, 2412), (128, 2454),

Gene: ByChance_74 Start: 45038, Stop: 45421, Start Num: 61
Candidate Starts for ByChance_74:
(Start: 61 @45038 has 109 MA's), (64, 45047), (79, 45149), (80, 45158), (99, 45230), (101, 45242), (144, 45368),

Gene: CaptainTrips_82 Start: 48768, Stop: 49100, Start Num: 61
Candidate Starts for CaptainTrips_82:
(Start: 61 @48768 has 109 MA's), (69, 48810), (94, 48906), (100, 48963),

Gene: Cjw1_44 Start: 36482, Stop: 36078, Start Num: 61
Candidate Starts for Cjw1_44:
(Start: 61 @36482 has 109 MA's), (81, 36347), (92, 36323), (97, 36299), (102, 36254), (128, 36131),

Gene: Contagion_41 Start: 34707, Stop: 34342, Start Num: 61
Candidate Starts for Contagion_41:
(55, 34722), (Start: 61 @34707 has 109 MA's), (81, 34572), (92, 34548), (97, 34524), (104, 34461),

Gene: Cookies_41 Start: 35072, Stop: 34707, Start Num: 61
Candidate Starts for Cookies_41:
(55, 35087), (Start: 61 @35072 has 109 MA's), (81, 34937), (92, 34913), (97, 34889), (104, 34826),

Gene: CrystalP_43 Start: 35832, Stop: 35344, Start Num: 61
Candidate Starts for CrystalP_43:
(Start: 61 @35832 has 109 MA's), (Start: 66 @35820 has 2 MA's), (73, 35757), (78, 35742), (90, 35715), (94, 35709), (99, 35664), (101, 35652), (107, 35610), (131, 35508), (153, 35364),

Gene: Czyszczone1_44 Start: 35291, Stop: 34887, Start Num: 61

Candidate Starts for Czyszczone1_44:

(Start: 61 @35291 has 109 MA's), (81, 35156), (92, 35132), (97, 35108), (102, 35063), (128, 34940),

Gene: DTDevon_9 Start: 2817, Stop: 3251, Start Num: 61

Candidate Starts for DTDevon_9:

(37, 2760), (Start: 61 @2817 has 109 MA's), (73, 2892), (78, 2907), (90, 2934), (94, 2940), (99, 2985), (101, 2997), (112, 3048), (113, 3051), (119, 3081), (128, 3123),

Gene: Dandelion_10 Start: 3168, Stop: 3599, Start Num: 61

Candidate Starts for Dandelion_10:

(26, 3063), (31, 3084), (33, 3090), (Start: 61 @3168 has 109 MA's), (73, 3243), (78, 3258), (90, 3285), (94, 3291), (99, 3336), (101, 3348), (112, 3399), (113, 3402), (119, 3432), (128, 3474),

Gene: Dante_84 Start: 51687, Stop: 51980, Start Num: 68

Candidate Starts for Dante_84:

(Start: 54 @51639 has 1 MA's), (Start: 56 @51645 has 3 MA's), (Start: 68 @51687 has 2 MA's), (98, 51831), (103, 51864),

Gene: Demsculpinboyz_96 Start: 48718, Stop: 49200, Start Num: 61

Candidate Starts for Demsculpinboyz_96:

(47, 48679), (Start: 61 @48718 has 109 MA's), (Start: 66 @48730 has 2 MA's), (81, 48856), (92, 48880), (97, 48904), (99, 48934), (101, 48946), (114, 49018), (134, 49108),

Gene: DoctorDiddles_42 Start: 34192, Stop: 33701, Start Num: 56

Candidate Starts for DoctorDiddles_42:

(Start: 56 @34192 has 3 MA's), (81, 34042), (84, 34033), (92, 34018), (97, 33994), (102, 33949), (115, 33883), (142, 33784), (152, 33712),

Gene: Donkeykong_89 Start: 51613, Stop: 52125, Start Num: 61

Candidate Starts for Donkeykong_89:

(Start: 61 @51613 has 109 MA's), (69, 51655), (101, 51817), (107, 51859), (131, 51961), (153, 52105),

Gene: DrDrey_44 Start: 36335, Stop: 35970, Start Num: 61

Candidate Starts for DrDrey_44:

(55, 36350), (Start: 61 @36335 has 109 MA's), (81, 36200), (92, 36176), (97, 36152), (102, 36107), (104, 36089),

Gene: Drazdys_9 Start: 2817, Stop: 3251, Start Num: 61

Candidate Starts for Drazdys_9:

(37, 2760), (Start: 61 @2817 has 109 MA's), (73, 2892), (78, 2907), (90, 2934), (94, 2940), (99, 2985), (101, 2997), (112, 3048), (113, 3051), (119, 3081), (128, 3123),

Gene: Duke13_79 Start: 51559, Stop: 51152, Start Num: 61

Candidate Starts for Duke13_79:

(Start: 61 @51559 has 109 MA's), (69, 51517), (94, 51421), (95, 51400), (99, 51367), (101, 51355), (105, 51322), (138, 51214),

Gene: EleanorGeorge_87 Start: 51109, Stop: 51492, Start Num: 61

Candidate Starts for EleanorGeorge_87:

(50, 51076), (Start: 61 @51109 has 109 MA's), (79, 51220), (80, 51229), (99, 51301), (101, 51313), (144, 51439),

Gene: Estave1_94 Start: 53968, Stop: 54324, Start Num: 61

Candidate Starts for Estave1_94:

(Start: 61 @53968 has 109 MA's), (122, 54220),

Gene: Fancypants_93 Start: 52418, Stop: 52996, Start Num: 58

Candidate Starts for Fancypants_93:

(Start: 58 @52418 has 12 MA's), (74, 52508), (93, 52571), (96, 52595), (106, 52679), (110, 52691), (124, 52742), (125, 52745), (130, 52775), (138, 52817), (154, 52943),

Gene: Filch_44 Start: 35012, Stop: 34647, Start Num: 61

Candidate Starts for Filch_44:

(Start: 61 @35012 has 109 MA's), (81, 34877), (92, 34853), (97, 34829), (104, 34766),

Gene: Flathead_79 Start: 48157, Stop: 48534, Start Num: 61

Candidate Starts for Flathead_79:

(59, 48154), (Start: 61 @48157 has 109 MA's), (69, 48199), (81, 48304), (92, 48328), (97, 48352), (104, 48415),

Gene: FrayBell_10 Start: 2978, Stop: 3421, Start Num: 58

Candidate Starts for FrayBell_10:

(23, 2861), (29, 2891), (34, 2918), (49, 2954), (Start: 58 @2978 has 12 MA's), (73, 3065), (78, 3080), (90, 3107), (94, 3113), (99, 3158), (101, 3170), (112, 3221), (113, 3224), (119, 3254), (128, 3296),

Gene: Fruitloop_76 Start: 48252, Stop: 48602, Start Num: 61

Candidate Starts for Fruitloop_76:

(45, 48216), (Start: 61 @48252 has 109 MA's), (81, 48387), (92, 48411), (97, 48435), (100, 48468),

Gene: Gaia_47 Start: 36098, Stop: 35730, Start Num: 70

Candidate Starts for Gaia_47:

(Start: 70 @36098 has 2 MA's), (83, 36005), (133, 35789), (135, 35771), (140, 35753),

Gene: Galactic_79 Start: 48078, Stop: 48443, Start Num: 61

Candidate Starts for Galactic_79:

(6, 47778), (7, 47787), (8, 47793), (9, 47802), (12, 47832), (44, 48042), (Start: 61 @48078 has 109 MA's), (81, 48213), (92, 48237), (97, 48261), (102, 48306), (104, 48324),

Gene: GreaseLightnin_58 Start: 38269, Stop: 38631, Start Num: 61

Candidate Starts for GreaseLightnin_58:

(11, 38008), (14, 38041), (15, 38065), (17, 38071), (40, 38212), (Start: 61 @38269 has 109 MA's), (73, 38344), (78, 38359), (90, 38386), (94, 38392), (99, 38437), (101, 38449), (153, 38608),

Gene: Grimmer_91 Start: 49019, Stop: 49426, Start Num: 61

Candidate Starts for Grimmer_91:

(Start: 61 @49019 has 109 MA's), (Start: 66 @49031 has 2 MA's), (67, 49040), (81, 49157), (92, 49181), (97, 49205), (100, 49238), (114, 49310),

Gene: HanKaySha_43 Start: 34995, Stop: 34630, Start Num: 61

Candidate Starts for HanKaySha_43:

(55, 35010), (Start: 61 @34995 has 109 MA's), (81, 34860), (92, 34836), (97, 34812), (102, 34767), (104, 34749),

Gene: Hannaconda_69 Start: 45759, Stop: 45247, Start Num: 61

Candidate Starts for Hannaconda_69:

(Start: 61 @45759 has 109 MA's), (69, 45717), (101, 45555), (107, 45513), (131, 45411), (153, 45267),

Gene: Harley_91 Start: 51213, Stop: 51740, Start Num: 61

Candidate Starts for Harley_91:

(49, 51174), (Start: 61 @51213 has 109 MA's), (86, 51351), (91, 51375), (97, 51399), (99, 51429), (101, 51441), (105, 51474), (121, 51537), (139, 51615), (143, 51630),

Gene: Holt_43 Start: 34307, Stop: 33816, Start Num: 56

Candidate Starts for Holt_43:

(Start: 56 @34307 has 3 MA's), (81, 34157), (84, 34148), (92, 34133), (97, 34109), (102, 34064), (115, 33998), (142, 33899), (152, 33827),

Gene: Hopey_44 Start: 35530, Stop: 35165, Start Num: 61

Candidate Starts for Hopey_44:

(55, 35545), (Start: 61 @35530 has 109 MA's), (81, 35395), (92, 35371), (97, 35347), (102, 35302), (104, 35284),

Gene: I3_8 Start: 2847, Stop: 3332, Start Num: 61

Candidate Starts for I3_8:

(38, 2790), (53, 2823), (Start: 61 @2847 has 109 MA's), (77, 2940), (85, 2988), (88, 3006), (90, 3012), (101, 3078), (112, 3129), (113, 3132), (119, 3162), (128, 3204),

Gene: IHOP_41 Start: 35396, Stop: 34908, Start Num: 61

Candidate Starts for IHOP_41:

(Start: 61 @35396 has 109 MA's), (Start: 66 @35384 has 2 MA's), (73, 35321), (78, 35306), (90, 35279), (94, 35273), (99, 35228), (101, 35216), (107, 35174), (131, 35072), (153, 34928),

Gene: Ibhubesi_81 Start: 47329, Stop: 47838, Start Num: 61

Candidate Starts for Ibhubesi_81:

(Start: 61 @47329 has 109 MA's), (76, 47413), (77, 47422), (87, 47458), (101, 47539), (105, 47572), (121, 47635), (139, 47713), (143, 47728),

Gene: Inca_40 Start: 33921, Stop: 33433, Start Num: 61

Candidate Starts for Inca_40:

(Start: 61 @33921 has 109 MA's), (Start: 66 @33909 has 2 MA's), (73, 33846), (78, 33831), (90, 33804), (94, 33798), (99, 33753), (101, 33741), (107, 33699), (131, 33597), (153, 33453),

Gene: InterFolia_10 Start: 2977, Stop: 3420, Start Num: 58

Candidate Starts for InterFolia_10:

(23, 2860), (29, 2890), (34, 2917), (49, 2953), (Start: 58 @2977 has 12 MA's), (73, 3064), (78, 3079), (90, 3106), (94, 3112), (99, 3157), (101, 3169), (112, 3220), (113, 3223), (119, 3253), (128, 3295),

Gene: JayJay_9 Start: 2506, Stop: 2949, Start Num: 58

Candidate Starts for JayJay_9:

(23, 2389), (29, 2419), (34, 2446), (49, 2482), (Start: 58 @2506 has 12 MA's), (73, 2593), (78, 2608), (90, 2635), (94, 2641), (99, 2686), (101, 2698), (112, 2749), (113, 2752), (119, 2782), (128, 2824),

Gene: JeTaime_44 Start: 36054, Stop: 35689, Start Num: 61

Candidate Starts for JeTaime_44:

(Start: 61 @36054 has 109 MA's), (81, 35919), (92, 35895), (97, 35871), (104, 35808),

Gene: Jezreel_7 Start: 2148, Stop: 2579, Start Num: 61

Candidate Starts for Jezreel_7:

(37, 2091), (Start: 61 @2148 has 109 MA's), (73, 2223), (78, 2238), (90, 2265), (94, 2271), (99, 2316), (101, 2328), (112, 2379), (113, 2382), (119, 2412), (128, 2454),

Gene: JigglyPuff_8 Start: 2522, Stop: 2965, Start Num: 58

Candidate Starts for JigglyPuff_8:

(23, 2405), (29, 2435), (34, 2462), (49, 2498), (Start: 58 @2522 has 12 MA's), (73, 2609), (78, 2624), (90, 2651), (94, 2657), (99, 2702), (101, 2714), (112, 2765), (113, 2768), (119, 2798), (128, 2840),

Gene: Juniormint_57 Start: 37791, Stop: 38165, Start Num: 58

Candidate Starts for Juniormint_57:

(Start: 58 @37791 has 12 MA's), (73, 37878), (78, 37893), (90, 37920), (94, 37926), (99, 37971), (101, 37983), (153, 38142),

Gene: Kamryn_7 Start: 2148, Stop: 2579, Start Num: 61

Candidate Starts for Kamryn_7:

(37, 2091), (Start: 61 @2148 has 109 MA's), (73, 2223), (78, 2238), (90, 2265), (94, 2271), (99, 2316), (101, 2328), (112, 2379), (113, 2382), (119, 2412), (128, 2454),

Gene: KashFlow_67 Start: 45630, Stop: 45118, Start Num: 61

Candidate Starts for KashFlow_67:

(Start: 61 @45630 has 109 MA's), (69, 45588), (99, 45438), (101, 45426), (107, 45384), (131, 45282), (153, 45138),

Gene: Kenuha5_78 Start: 49646, Stop: 50158, Start Num: 61

Candidate Starts for Kenuha5_78:

(Start: 61 @49646 has 109 MA's), (101, 49850), (107, 49892), (131, 49994), (153, 50138),

Gene: Kersh_90 Start: 52725, Stop: 53210, Start Num: 61

Candidate Starts for Kersh_90:

(24, 52599), (51, 52695), (Start: 61 @52725 has 109 MA's), (Start: 66 @52737 has 2 MA's), (73, 52800), (78, 52815), (90, 52842), (94, 52848), (99, 52893), (101, 52905), (112, 52956), (113, 52959), (119, 52989), (128, 53031), (149, 53157),

Gene: Koella_77 Start: 46451, Stop: 46915, Start Num: 61

Candidate Starts for Koella_77:

(Start: 61 @46451 has 109 MA's), (64, 46460), (79, 46562), (80, 46571), (99, 46643), (101, 46655), (107, 46697), (131, 46799),

Gene: Kumao_58 Start: 42552, Stop: 43010, Start Num: 27

Candidate Starts for Kumao_58:

(Start: 27 @42552 has 1 MA's), (28, 42555), (Start: 61 @42645 has 109 MA's), (81, 42780), (92, 42804), (97, 42828), (102, 42873), (104, 42891),

Gene: Latretium_80 Start: 47741, Stop: 48100, Start Num: 61

Candidate Starts for Latretium_80:

(Start: 61 @47741 has 109 MA's), (81, 47879), (84, 47888), (92, 47903), (97, 47927), (99, 47957), (101, 47969),

Gene: Latretium_87 Start: 49978, Stop: 50271, Start Num: 68

Candidate Starts for Latretium_87:

(Start: 54 @49930 has 1 MA's), (Start: 56 @49936 has 3 MA's), (Start: 68 @49978 has 2 MA's), (98, 50122), (103, 50155),

Gene: Lethe_7 Start: 2050, Stop: 2481, Start Num: 61

Candidate Starts for Lethe_7:

(1, 1606), (2, 1708), (3, 1711), (4, 1717), (5, 1726), (19, 1906), (32, 1969), (Start: 61 @2050 has 109 MA's), (73, 2125), (78, 2140), (90, 2167), (94, 2173), (99, 2218), (101, 2230), (112, 2281), (113, 2284), (119, 2314), (128, 2356),

Gene: LilMoolah_80 Start: 49043, Stop: 49381, Start Num: 61

Candidate Starts for LilMoolah_80:

(49, 49004), (Start: 61 @49043 has 109 MA's), (Start: 66 @49055 has 2 MA's), (76, 49127), (77, 49136), (87, 49172), (100, 49244),

Gene: LinStu_9 Start: 3505, Stop: 3948, Start Num: 58

Candidate Starts for LinStu_9:

(23, 3388), (29, 3418), (34, 3445), (49, 3481), (Start: 58 @3505 has 12 MA's), (73, 3592), (78, 3607), (90, 3634), (94, 3640), (99, 3685), (101, 3697), (112, 3748), (113, 3751), (119, 3781), (128, 3823),

Gene: LolaVinca_10 Start: 2977, Stop: 3399, Start Num: 58

Candidate Starts for LolaVinca_10:

(23, 2860), (29, 2890), (34, 2917), (49, 2953), (Start: 58 @2977 has 12 MA's), (73, 3064), (78, 3079), (90, 3106), (94, 3112), (99, 3157), (101, 3169), (112, 3220), (113, 3223), (119, 3253), (128, 3295), (137, 3334),

Gene: LordLeafolot_10 Start: 2977, Stop: 3420, Start Num: 58

Candidate Starts for LordLeafolot_10:

(23, 2860), (29, 2890), (34, 2917), (49, 2953), (Start: 58 @2977 has 12 MA's), (73, 3064), (78, 3079), (90, 3106), (94, 3112), (99, 3157), (101, 3169), (112, 3220), (113, 3223), (119, 3253), (128, 3295),

Gene: LunaBlu_89 Start: 51072, Stop: 51413, Start Num: 54

Candidate Starts for LunaBlu_89:

(Start: 54 @51072 has 1 MA's), (Start: 56 @51078 has 3 MA's), (Start: 68 @51120 has 2 MA's), (98, 51264), (103, 51297),

Gene: MadamMonkfish_42 Start: 34547, Stop: 34182, Start Num: 61

Candidate Starts for MadamMonkfish_42:

(40, 34586), (52, 34568), (Start: 61 @34547 has 109 MA's), (81, 34412), (92, 34388), (97, 34364), (102, 34319), (104, 34301),

Gene: Mahavrat_77 Start: 46587, Stop: 46994, Start Num: 61

Candidate Starts for Mahavrat_77:

(Start: 61 @46587 has 109 MA's), (Start: 66 @46599 has 2 MA's), (67, 46608), (81, 46725), (92, 46749), (97, 46773), (100, 46806), (114, 46878),

Gene: Marshmallow_42 Start: 35818, Stop: 35342, Start Num: 66

Candidate Starts for Marshmallow_42:

(Start: 61 @35830 has 109 MA's), (Start: 66 @35818 has 2 MA's), (73, 35755), (78, 35740), (90, 35713), (94, 35707), (99, 35662), (101, 35650), (107, 35608), (131, 35506), (153, 35362),

Gene: Martik_82 Start: 51049, Stop: 51432, Start Num: 61

Candidate Starts for Martik_82:

(30, 50959), (34, 50974), (50, 51016), (Start: 61 @51049 has 109 MA's), (79, 51160), (80, 51169), (99, 51241), (101, 51253), (144, 51379),

Gene: Marvin_9 Start: 3241, Stop: 3600, Start Num: 61

Candidate Starts for Marvin_9:

(Start: 61 @3241 has 109 MA's), (Start: 66 @3253 has 2 MA's), (73, 3316), (78, 3331), (90, 3358), (94, 3364), (99, 3409), (101, 3421),

Gene: Mikro_7 Start: 3147, Stop: 3578, Start Num: 61

Candidate Starts for Mikro_7:

(37, 3090), (Start: 61 @3147 has 109 MA's), (73, 3222), (78, 3237), (90, 3264), (94, 3270), (99, 3315), (101, 3327), (112, 3378), (113, 3381), (119, 3411), (128, 3453),

Gene: MinionDave_78 Start: 48768, Stop: 49100, Start Num: 61

Candidate Starts for MinionDave_78:

(Start: 61 @48768 has 109 MA's), (69, 48810), (94, 48906), (100, 48963),

Gene: MoMoMixon_7 Start: 2383, Stop: 2814, Start Num: 61

Candidate Starts for MoMoMixon_7:

(50, 2347), (Start: 61 @2383 has 109 MA's), (73, 2458), (78, 2473), (90, 2500), (94, 2506), (99, 2551), (101, 2563), (112, 2614), (113, 2617), (119, 2647), (128, 2689),

Gene: Moldemort_42 Start: 34776, Stop: 34411, Start Num: 61

Candidate Starts for Moldemort_42:

(40, 34815), (52, 34797), (Start: 61 @34776 has 109 MA's), (81, 34641), (92, 34617), (97, 34593), (102, 34548), (104, 34530),

Gene: Moonbeam_89 Start: 51150, Stop: 51629, Start Num: 63

Candidate Starts for Moonbeam_89:

(Start: 63 @51150 has 1 MA's), (Start: 65 @51153 has 1 MA's), (75, 51222), (78, 51234), (90, 51261), (94, 51267), (99, 51312), (101, 51324), (112, 51375), (113, 51378), (119, 51408), (128, 51450), (149, 51576),

Gene: Mosby_40 Start: 34707, Stop: 34342, Start Num: 61

Candidate Starts for Mosby_40:

(55, 34722), (Start: 61 @34707 has 109 MA's), (81, 34572), (92, 34548), (97, 34524), (104, 34461),

Gene: MrGordo_62 Start: 40946, Stop: 40590, Start Num: 61

Candidate Starts for MrGordo_62:

(Start: 61 @40946 has 109 MA's), (Start: 66 @40934 has 2 MA's), (81, 40808), (84, 40799), (92, 40784), (97, 40760), (99, 40730), (101, 40718),

Gene: Myrale_43 Start: 35695, Stop: 35207, Start Num: 61

Candidate Starts for Myrale_43:

(Start: 61 @35695 has 109 MA's), (Start: 66 @35683 has 2 MA's), (73, 35620), (78, 35605), (90, 35578), (94, 35572), (99, 35527), (101, 35515), (107, 35473), (131, 35371), (153, 35227),

Gene: Naval22_8 Start: 2383, Stop: 2814, Start Num: 61

Candidate Starts for Naval22_8:

(50, 2347), (Start: 61 @2383 has 109 MA's), (73, 2458), (78, 2473), (90, 2500), (94, 2506), (99, 2551), (101, 2563), (112, 2614), (113, 2617), (119, 2647), (128, 2689),

Gene: Nebkiss_50 Start: 35799, Stop: 35431, Start Num: 70

Candidate Starts for Nebkiss_50:

(Start: 70 @35799 has 2 MA's), (83, 35706), (133, 35490), (135, 35472), (140, 35454),

Gene: Nekros_71 Start: 48970, Stop: 48458, Start Num: 61

Candidate Starts for Nekros_71:

(Start: 61 @48970 has 109 MA's), (101, 48766), (107, 48724), (131, 48622), (153, 48478),

Gene: Nibley_66 Start: 45326, Stop: 44961, Start Num: 61

Candidate Starts for Nibley_66:

(36, 45374), (39, 45368), (Start: 61 @45326 has 109 MA's), (81, 45191), (92, 45167), (97, 45143), (104, 45080),

Gene: Nidhogg_7 Start: 2383, Stop: 2814, Start Num: 61

Candidate Starts for Nidhogg_7:

(50, 2347), (Start: 61 @2383 has 109 MA's), (73, 2458), (78, 2473), (90, 2500), (94, 2506), (99, 2551), (101, 2563), (112, 2614), (113, 2617), (119, 2647), (128, 2689),

Gene: Nivrat_78 Start: 48916, Stop: 49254, Start Num: 61

Candidate Starts for Nivrat_78:

(49, 48877), (Start: 61 @48916 has 109 MA's), (Start: 66 @48928 has 2 MA's), (76, 49000), (77, 49009), (87, 49045), (100, 49117),

Gene: NoodleTree_7 Start: 2148, Stop: 2579, Start Num: 61

Candidate Starts for NoodleTree_7:

(37, 2091), (Start: 61 @2148 has 109 MA's), (73, 2223), (78, 2238), (90, 2265), (94, 2271), (99, 2316), (101, 2328), (112, 2379), (113, 2382), (119, 2412), (128, 2454),

Gene: NormanBulbieJr_83 Start: 50465, Stop: 50929, Start Num: 61

Candidate Starts for NormanBulbieJr_83:

(Start: 61 @50465 has 109 MA's), (64, 50474), (79, 50576), (80, 50585), (99, 50657), (101, 50669), (107, 50711), (131, 50813),

Gene: NuevoMundo_9 Start: 2841, Stop: 3272, Start Num: 61

Candidate Starts for NuevoMundo_9:

(26, 2736), (31, 2757), (33, 2763), (Start: 61 @2841 has 109 MA's), (73, 2916), (78, 2931), (90, 2958), (94, 2964), (99, 3009), (101, 3021), (112, 3072), (113, 3075), (119, 3105), (128, 3147),

Gene: OrionPax_43 Start: 35001, Stop: 34636, Start Num: 61

Candidate Starts for OrionPax_43:

(Start: 61 @35001 has 109 MA's), (81, 34866), (92, 34842), (97, 34818), (104, 34755),

Gene: PaddyBaddy_43 Start: 35008, Stop: 34643, Start Num: 61

Candidate Starts for PaddyBaddy_43:

(55, 35023), (Start: 61 @35008 has 109 MA's), (81, 34873), (92, 34849), (97, 34825), (102, 34780), (104, 34762),

Gene: Phaja_41 Start: 35395, Stop: 34907, Start Num: 61

Candidate Starts for Phaja_41:

(Start: 61 @35395 has 109 MA's), (Start: 66 @35383 has 2 MA's), (73, 35320), (78, 35305), (90, 35278), (94, 35272), (99, 35227), (101, 35215), (107, 35173), (131, 35071), (153, 34927),

Gene: PharkleMinkus_10 Start: 2978, Stop: 3421, Start Num: 58

Candidate Starts for PharkleMinkus_10:

(23, 2861), (29, 2891), (34, 2918), (49, 2954), (Start: 58 @2978 has 12 MA's), (73, 3065), (78, 3080), (90, 3107), (94, 3113), (99, 3158), (101, 3170), (112, 3221), (113, 3224), (119, 3254), (128, 3296),

Gene: Phatniss_83 Start: 49365, Stop: 49781, Start Num: 61

Candidate Starts for Phatniss_83:

(Start: 61 @49365 has 109 MA's), (76, 49449), (77, 49458), (87, 49494), (99, 49563), (101, 49575), (105, 49608), (129, 49707),

Gene: Phrux_42 Start: 34994, Stop: 34629, Start Num: 61

Candidate Starts for Phrux_42:

(55, 35009), (Start: 61 @34994 has 109 MA's), (81, 34859), (92, 34835), (97, 34811), (102, 34766), (104, 34748),

Gene: Pier_10 Start: 2844, Stop: 3275, Start Num: 61

Candidate Starts for Pier_10:

(26, 2739), (31, 2760), (33, 2766), (Start: 61 @2844 has 109 MA's), (73, 2919), (78, 2934), (90, 2961), (94, 2967), (99, 3012), (101, 3024), (112, 3075), (113, 3078), (119, 3108), (128, 3150),

Gene: Pio_8 Start: 2537, Stop: 2968, Start Num: 61

Candidate Starts for Pio_8:

(49, 2501), (Start: 61 @2537 has 109 MA's), (73, 2612), (78, 2627), (90, 2654), (94, 2660), (99, 2705), (101, 2717), (112, 2768), (113, 2771), (119, 2801), (128, 2843),

Gene: Pollywog_88 Start: 51599, Stop: 52084, Start Num: 61

Candidate Starts for Pollywog_88:

(46, 51560), (Start: 61 @51599 has 109 MA's), (Start: 66 @51611 has 2 MA's), (73, 51674), (78, 51689), (90, 51716), (94, 51722), (99, 51767), (101, 51779), (112, 51830), (113, 51833), (119, 51863), (128, 51905), (149, 52031),

Gene: Priscilla_85 Start: 50563, Stop: 51027, Start Num: 61

Candidate Starts for Priscilla_85:

(Start: 61 @50563 has 109 MA's), (64, 50572), (79, 50674), (80, 50683), (99, 50755), (101, 50767), (107, 50809), (131, 50911),

Gene: Ptowny_43 Start: 34586, Stop: 34221, Start Num: 61

Candidate Starts for Ptowny_43:

(55, 34601), (Start: 61 @34586 has 109 MA's), (79, 34469), (81, 34451), (92, 34427), (97, 34403), (102, 34358), (104, 34340),

Gene: Pumpkin_45 Start: 35920, Stop: 35555, Start Num: 61

Candidate Starts for Pumpkin_45:

(Start: 61 @35920 has 109 MA's), (81, 35785), (92, 35761), (97, 35737), (104, 35674),

Gene: Pupusa_10 Start: 2977, Stop: 3420, Start Num: 58

Candidate Starts for Pupusa_10:

(23, 2860), (29, 2890), (34, 2917), (49, 2953), (Start: 58 @2977 has 12 MA's), (73, 3064), (78, 3079), (90, 3106), (94, 3112), (99, 3157), (101, 3169), (112, 3220), (113, 3223), (119, 3253), (128, 3295),

Gene: Rearden_72 Start: 47623, Stop: 47135, Start Num: 61

Candidate Starts for Rearden_72:

(46, 47662), (Start: 61 @47623 has 109 MA's), (Start: 66 @47611 has 2 MA's), (73, 47548), (78, 47533), (90, 47506), (94, 47500), (99, 47455), (101, 47443), (112, 47392), (113, 47389), (119, 47359), (128, 47317), (149, 47191),

Gene: Rialto_92 Start: 51249, Stop: 51725, Start Num: 65

Candidate Starts for Rialto_92:

(Start: 63 @51246 has 1 MA's), (Start: 65 @51249 has 1 MA's), (75, 51318), (78, 51330), (90, 51357), (94, 51363), (99, 51408), (101, 51420), (112, 51471), (113, 51474), (119, 51504), (128, 51546), (149, 51672),

Gene: Rimmer_42 Start: 34931, Stop: 34563, Start Num: 61

Candidate Starts for Rimmer_42:

(Start: 61 @34931 has 109 MA's), (Start: 66 @34919 has 2 MA's), (81, 34793), (92, 34769), (97, 34745), (104, 34682),

Gene: Ryadel_104 Start: 63381, Stop: 62932, Start Num: 61

Candidate Starts for Ryadel_104:

(41, 63432), (Start: 61 @63381 has 109 MA's), (Start: 66 @63369 has 2 MA's), (74, 63303), (93, 63240), (96, 63216), (106, 63132), (110, 63120), (122, 63087), (148, 62937),

Gene: SG4_79 Start: 48739, Stop: 49107, Start Num: 61

Candidate Starts for SG4_79:

(48, 48706), (Start: 61 @48739 has 109 MA's), (81, 48877), (84, 48886), (92, 48901), (97, 48925), (104, 48988),

Gene: Sabbb_90 Start: 48794, Stop: 49228, Start Num: 61

Candidate Starts for Sabbb_90:

(46, 48755), (Start: 61 @48794 has 109 MA's), (Start: 66 @48806 has 2 MA's), (73, 48869), (78, 48884), (90, 48911), (94, 48917), (99, 48962), (101, 48974), (112, 49025), (113, 49028), (119, 49058), (128, 49100),

Gene: Sauce_7 Start: 2387, Stop: 2818, Start Num: 61

Candidate Starts for Sauce_7:

(50, 2351), (Start: 61 @2387 has 109 MA's), (73, 2462), (78, 2477), (90, 2504), (94, 2510), (99, 2555), (101, 2567), (112, 2618), (113, 2621), (119, 2651), (128, 2693),

Gene: Sebata_9 Start: 3505, Stop: 3948, Start Num: 58

Candidate Starts for Sebata_9:

(23, 3388), (29, 3418), (34, 3445), (49, 3481), (Start: 58 @3505 has 12 MA's), (73, 3592), (78, 3607), (90, 3634), (94, 3640), (99, 3685), (101, 3697), (112, 3748), (113, 3751), (119, 3781), (128, 3823),

Gene: Shaboozey_65 Start: 44675, Stop: 44163, Start Num: 61

Candidate Starts for Shaboozey_65:

(Start: 61 @44675 has 109 MA's), (69, 44633), (101, 44471), (107, 44429), (131, 44327), (153, 44183),

Gene: ShamWow_43 Start: 35832, Stop: 35344, Start Num: 61

Candidate Starts for ShamWow_43:

(Start: 61 @35832 has 109 MA's), (Start: 66 @35820 has 2 MA's), (73, 35757), (78, 35742), (90, 35715), (94, 35709), (99, 35664), (101, 35652), (107, 35610), (131, 35508), (153, 35364),

Gene: Shauna1_82 Start: 49932, Stop: 50444, Start Num: 61

Candidate Starts for Shauna1_82:

(Start: 61 @49932 has 109 MA's), (99, 50124), (101, 50136), (107, 50178), (131, 50280), (153, 50424),

Gene: ShereKhan_42 Start: 35964, Stop: 35599, Start Num: 61

Candidate Starts for ShereKhan_42:

(55, 35979), (Start: 61 @35964 has 109 MA's), (81, 35829), (92, 35805), (97, 35781), (102, 35736), (104, 35718),

Gene: ShowerHandel_83 Start: 48976, Stop: 49359, Start Num: 61

Candidate Starts for ShowerHandel_83:

(Start: 61 @48976 has 109 MA's), (64, 48985), (79, 49087), (80, 49096), (99, 49168), (101, 49180), (144, 49306),

Gene: SimranZ1_81 Start: 48125, Stop: 48592, Start Num: 61

Candidate Starts for SimranZ1_81:

(46, 48086), (Start: 61 @48125 has 109 MA's), (73, 48200), (78, 48215), (90, 48242), (94, 48248), (99, 48293), (101, 48305), (112, 48356), (113, 48359), (119, 48389), (146, 48503), (150, 48545),

Gene: Sparkdehlily_95 Start: 49514, Stop: 49996, Start Num: 62

Candidate Starts for Sparkdehlily_95:

(Start: 62 @49514 has 2 MA's), (Start: 63 @49517 has 1 MA's), (Start: 65 @49520 has 1 MA's), (75, 49589), (78, 49601), (90, 49628), (94, 49634), (99, 49679), (101, 49691), (112, 49742), (113, 49745), (119, 49775), (128, 49817), (149, 49943),

Gene: Specks_10 Start: 2977, Stop: 3420, Start Num: 58

Candidate Starts for Specks_10:

(23, 2860), (29, 2890), (34, 2917), (49, 2953), (Start: 58 @2977 has 12 MA's), (73, 3064), (78, 3079), (90, 3106), (94, 3112), (99, 3157), (101, 3169), (112, 3220), (113, 3223), (119, 3253), (128, 3295),

Gene: Spud_8 Start: 2537, Stop: 2968, Start Num: 61

Candidate Starts for Spud_8:

(49, 2501), (Start: 61 @2537 has 109 MA's), (73, 2612), (78, 2627), (90, 2654), (94, 2660), (99, 2705), (101, 2717), (112, 2768), (113, 2771), (119, 2801), (128, 2843),

Gene: StellaBean_41 Start: 35156, Stop: 34668, Start Num: 61

Candidate Starts for StellaBean_41:

(Start: 61 @35156 has 109 MA's), (Start: 66 @35144 has 2 MA's), (73, 35081), (78, 35066), (90, 35039), (94, 35033), (99, 34988), (101, 34976), (107, 34934), (131, 34832), (153, 34688),

Gene: StephanieG_9 Start: 2844, Stop: 3275, Start Num: 61

Candidate Starts for StephanieG_9:

(26, 2739), (31, 2760), (33, 2766), (Start: 61 @2844 has 109 MA's), (73, 2919), (78, 2934), (90, 2961), (94, 2967), (99, 3012), (101, 3024), (112, 3075), (113, 3078), (119, 3108), (128, 3150),

Gene: StevieRay_57 Start: 37992, Stop: 38351, Start Num: 61

Candidate Starts for StevieRay_57:

(11, 37731), (14, 37764), (15, 37788), (17, 37794), (40, 37935), (Start: 61 @37992 has 109 MA's), (73, 38067), (78, 38082), (90, 38109), (94, 38115), (99, 38160), (101, 38172), (153, 38328),

Gene: StormChicken_43 Start: 35539, Stop: 35171, Start Num: 61

Candidate Starts for StormChicken_43:

(Start: 61 @35539 has 109 MA's), (Start: 66 @35527 has 2 MA's), (81, 35401), (92, 35377), (97, 35353), (104, 35290),

Gene: Suerte_55 Start: 39354, Stop: 39890, Start Num: 57

Candidate Starts for Suerte_55:

(16, 39168), (18, 39201), (35, 39300), (Start: 57 @39354 has 1 MA's), (60, 39366), (71, 39429), (100, 39597), (108, 39660), (120, 39711), (136, 39783), (145, 39825),

Gene: Sunshine924_64 Start: 40630, Stop: 40100, Start Num: 56

Candidate Starts for Sunshine924_64:

(Start: 56 @40630 has 3 MA's), (81, 40477), (92, 40453), (97, 40429), (100, 40396), (109, 40336), (111, 40333), (118, 40303), (144, 40189), (147, 40147), (151, 40120),

Gene: SuperGrey_83 Start: 51298, Stop: 51810, Start Num: 61

Candidate Starts for SuperGrey_83:

(Start: 61 @51298 has 109 MA's), (69, 51340), (101, 51502), (107, 51544), (131, 51646), (153, 51790),

Gene: TDanisky_96 Start: 49514, Stop: 49996, Start Num: 62

Candidate Starts for TDanisky_96:

(Start: 62 @49514 has 2 MA's), (Start: 63 @49517 has 1 MA's), (Start: 65 @49520 has 1 MA's), (75, 49589), (78, 49601), (90, 49628), (94, 49634), (99, 49679), (101, 49691), (112, 49742), (113, 49745), (119, 49775), (128, 49817), (149, 49943),

Gene: Tainan_10 Start: 2977, Stop: 3420, Start Num: 58

Candidate Starts for Tainan_10:

(23, 2860), (29, 2890), (34, 2917), (49, 2953), (Start: 58 @2977 has 12 MA's), (73, 3064), (78, 3079), (90, 3106), (94, 3112), (99, 3157), (101, 3169), (112, 3220), (113, 3223), (119, 3253), (128, 3295),

Gene: TeamEdward_43 Start: 35536, Stop: 35168, Start Num: 61

Candidate Starts for TeamEdward_43:

(Start: 61 @35536 has 109 MA's), (Start: 66 @35524 has 2 MA's), (81, 35398), (92, 35374), (97, 35350), (104, 35287),

Gene: TeardropMSU_40 Start: 34933, Stop: 34568, Start Num: 61

Candidate Starts for TeardropMSU_40:

(55, 34948), (Start: 61 @34933 has 109 MA's), (81, 34798), (92, 34774), (97, 34750), (104, 34687),

Gene: Thespis_54 Start: 36385, Stop: 36747, Start Num: 61

Candidate Starts for Thespis_54:

(13, 36157), (33, 36304), (40, 36328), (Start: 61 @36385 has 109 MA's), (73, 36460), (78, 36475), (90, 36502), (94, 36508), (99, 36553), (101, 36565), (153, 36724),

Gene: Thresher_46 Start: 36685, Stop: 36281, Start Num: 61

Candidate Starts for Thresher_46:

(Start: 61 @36685 has 109 MA's), (81, 36550), (92, 36526), (97, 36502), (100, 36469), (128, 36334),

Gene: Tomaszewski_40 Start: 34800, Stop: 34435, Start Num: 61

Candidate Starts for Tomaszewski_40:

(55, 34815), (Start: 61 @34800 has 109 MA's), (81, 34665), (92, 34641), (97, 34617), (104, 34554),

Gene: Tonenili_21 Start: 6415, Stop: 6846, Start Num: 61

Candidate Starts for Tonenili_21:

(10, 6136), (21, 6280), (22, 6283), (Start: 61 @6415 has 109 MA's), (Start: 66 @6427 has 2 MA's), (79, 6535), (81, 6553), (92, 6577), (97, 6601), (99, 6631), (101, 6643), (114, 6715), (127, 6769),

Gene: Tortellini_64 Start: 43747, Stop: 44214, Start Num: 61

Candidate Starts for Tortellini_64:

(43, 43702), (Start: 61 @43747 has 109 MA's), (73, 43822), (77, 43846), (82, 43888), (132, 44155), (141, 44200),

Gene: Toto_42 Start: 35820, Stop: 35344, Start Num: 66

Candidate Starts for Toto_42:

(Start: 61 @35832 has 109 MA's), (Start: 66 @35820 has 2 MA's), (73, 35757), (78, 35742), (90, 35715), (94, 35709), (99, 35664), (101, 35652), (107, 35610), (131, 35508), (153, 35364),

Gene: Tuco_44 Start: 36340, Stop: 35852, Start Num: 61

Candidate Starts for Tuco_44:

(Start: 61 @36340 has 109 MA's), (Start: 66 @36328 has 2 MA's), (73, 36265), (78, 36250), (90, 36223), (94, 36217), (99, 36172), (101, 36160), (107, 36118), (131, 36016), (153, 35872),

Gene: Tyke_9 Start: 2817, Stop: 3251, Start Num: 61

Candidate Starts for Tyke_9:

(37, 2760), (Start: 61 @2817 has 109 MA's), (73, 2892), (78, 2907), (90, 2934), (94, 2940), (99, 2985), (101, 2997), (112, 3048), (113, 3051), (119, 3081), (128, 3123),

Gene: VRedHorse_87 Start: 48107, Stop: 48463, Start Num: 61

Candidate Starts for VRedHorse_87:

(Start: 61 @48107 has 109 MA's), (122, 48359),

Gene: Wachhund_79 Start: 46376, Stop: 46765, Start Num: 61

Candidate Starts for Wachhund_79:

(41, 46334), (42, 46337), (Start: 61 @46376 has 109 MA's), (Start: 66 @46388 has 2 MA's), (74, 46454), (93, 46517), (96, 46541), (106, 46625), (110, 46637),

Gene: Xandras_43 Start: 35049, Stop: 34684, Start Num: 61

Candidate Starts for Xandras_43:

(Start: 61 @35049 has 109 MA's), (81, 34914), (92, 34890), (97, 34866), (104, 34803),

Gene: Yoshi_97 Start: 50855, Stop: 51199, Start Num: 61

Candidate Starts for Yoshi_97:

(20, 50720), (25, 50744), (37, 50801), (43, 50813), (48, 50822), (Start: 61 @50855 has 109 MA's), (116, 51101),

Gene: Youngblood_43 Start: 35542, Stop: 35174, Start Num: 61

Candidate Starts for Youngblood_43:

(Start: 61 @35542 has 109 MA's), (Start: 66 @35530 has 2 MA's), (81, 35404), (92, 35380), (97, 35356), (104, 35293),