

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 163471 Report

This analysis was run 04/28/24 on database version 559.

Pham number 163471 has 108 members, 5 are drafts.

Phages represented in each track:

- Track 1 : Dole_54
- Track 2 : Jarvi_51, Peel_51, Rosmarinus_51, CREW_51, Geraldini_54, Boiii_51, Dalmuri_51, BGIlluviae_51, Asayake_51, Hyperbowlee_51, Jeckyll_51, AlishaPH_51, Atiba_52, ActinUp_51, BEEEST_51, Zabiza_47, Joy99_51, Inky_51, Lunahalos_51, JAWS_51, Capricorn_51, Blizzard_51, Belladonna_51, Beezoo_53, Durfee_51, Adephagia_51, Tachez_51, Homura_51, Spock_51, Ramen_52, Twitch_51, HedwigODU_51, Topper_51, ShiaSurprise_52, Piatt_51, Padfoot_51, Llorens_51, CaseJules_53
- Track 3 : Slimphazie_51, TruffulaTree_51, Tiri_52, Rapunzel97_52, Jayhawk_52, BarrelRoll_51
- Track 4 : TiniBug_52, DrHayes_52, SamuelLPlaqson_52, Urkel_52
- Track 5 : TaiwanKao_53
- Track 6 : Peanam_54, Shaobing_54, Niklas_54
- Track 7 : Megsy_53
- Track 8 : LastHope_54
- Track 9 : LaterM_52
- Track 10 : Efra2_54
- Track 11 : Bella96_52
- Track 12 : Illumine_54, Devera_56
- Track 13 : Apocalypse_54
- Track 14 : Validus_56
- Track 15 : BaghaKamala_50
- Track 16 : Prithvi_52, LindNT_50, TreyKay_52
- Track 17 : Chris_54
- Track 18 : CheetoDust_50
- Track 19 : Zavala_53, Mynx_52
- Track 20 : Nibb_54
- Track 21 : Pokerus_50
- Track 22 : Ageofdapage_53
- Track 23 : Veliki_52
- Track 24 : Adonis_51, Ganymede_52, QuincyRose_50
- Track 25 : YoureAdopted_50
- Track 26 : MarkPhew_55
- Track 27 : Angelica_51, Sulley_51
- Track 28 : CrimD_51
- Track 29 : Yunkel11_54
- Track 30 : Padpat_53, Emerson_52

- Track 31 : Guanica15_54
- Track 32 : Anaya_53
- Track 33 : MeaningOfLife_52
- Track 34 : Deby_51
- Track 35 : Curiosium_53
- Track 36 : Stinson_52
- Track 37 : Murucutumbu_52
- Track 38 : MacnCheese_56
- Track 39 : Fefferhead_52, Ellie_50
- Track 40 : Bryler_55, Cain_55, Phrank_55
- Track 41 : Hammy_54, DarthP_54, Amohnition_54
- Track 42 : Ekdilam_51
- Track 43 : Krueger_58
- Track 44 : Tierra_55
- Track 45 : Yuna_58
- Track 46 : Ximenita_58
- Track 47 : SirPhilip_54
- Track 48 : Amgine_52

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

The start number called the most often in the published annotations is 8, it was called in 79 of the 103 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- ActinUp_51, Adephagia_51, Adonis_51, Ageofdapage_53, AlishaPH_51, Anaya_53, Angelica_51, Apocalypse_54, Asayake_51, Atiba_52, BEEST_51, BGIlluviae_51, BaghaKamala_50, BarrelRoll_51, Beezoo_53, Bella96_52, Belladonna_51, Blizzard_51, Boiiii_51, CREW_51, Capricorn_51, CaseJules_53, CheetoDust_50, CrimD_51, Curiosium_53, Dalmuri_51, Deby_51, Devera_56, DrHayes_52, Durfee_51, Efra2_54, Emerson_52, Ganymede_52, Geraldini_54, Guanica15_54, HedwigODU_51, Homura_51, Hyperbowlee_51, Illumine_54, Inky_51, JAWS_51, Jarvi_51, Jayhawk_52, Jeckyll_51, Joy99_51, LastHope_54, LaterM_52, LindNT_50, Llorens_51, Lunahalos_51, MeaningOfLife_52, Megsy_53, Murucutumbu_52, Mynx_52, Padfoot_51, Padpat_53, Peel_51, Piatt_51, Pokerus_50, Prithvi_52, QuincyRose_50, Ramen_52, Rapunzel97_52, Rosmarinus_51, SamuelLPlaqson_52, ShiaSurprise_52, Slimphazie_51, Spock_51, Stinson_52, Sulley_51, Tachez_51, TaiwanKao_53, TiniBug_52, Tiri_52, Topper_51, TreyKay_52, TruffulaTree_51, Twitch_51, Urkel_52, Veliki_52, YoureAdopted_50, Yunkel11_54, Zabiza_47, Zavala_53,

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

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

- Amgine_52, Amohnition_54, Bryler_55, Cain_55, Chris_54, DarthP_54, Dole_54, Ekdilam_51, Ellie_50, Fefferhead_52, Hammy_54, Krueger_58, MacnCheese_56, MarkPhew_55, Nibb_54, Niklas_54, Peanam_54, Phrank_55, Shaobing_54, SirPhilip_54, Tierra_55, Validus_56, Ximenita_58, Yuna_58,

Summary by start number:

Start 8:

- Found in 84 of 108 (77.8%) of genes in pham
- Manual Annotations of this start: 79 of 103
- Called 100.0% of time when present
- Phage (with cluster) where this start called: ActinUp_51 (K1), Adephagia_51 (K1), Adonis_51 (K1), Ageofdapage_53 (K1), AlishaPH_51 (K1), Anaya_53 (K1), Angelica_51 (K1), Apocalypse_54 (K1), Asayake_51 (K1), Atiba_52 (K1), BEEST_51 (K1), BGIluviae_51 (K1), BaghaKamala_50 (K1), BarrelRoll_51 (K1), Beezoo_53 (K1), Bella96_52 (K1), Belladonna_51 (K1), Blizzard_51 (K1), Boiiii_51 (K1), CREW_51 (K1), Capricorn_51 (K1), CaseJules_53 (K1), CheetoDust_50 (K1), CrimD_51 (K1), Curiosium_53 (K1), Dalmuri_51 (K1), Deby_51 (K1), Devera_56 (K1), DrHayes_52 (K1), Durfee_51 (K1), Efra2_54 (K1), Emerson_52 (K1), Ganymede_52 (K1), Geraldini_54 (K1), Guanica15_54 (K1), HedwigODU_51 (K1), Homura_51 (K1), Hyperbowlee_51 (K1), Illumine_54 (K1), Inky_51 (K1), JAWS_51 (K1), Jarvi_51 (K1), Jayhawk_52 (K1), Jeckyll_51 (K1), Joy99_51 (K1), LastHope_54 (K1), LaterM_52 (K1), LindNT_50 (K1), Llorens_51 (K1), Lunahalos_51 (K1), MeaningOfLife_52 (K1), Megsy_53 (K1), Murucutumbu_52 (K1), Mynx_52 (K1), Padfoot_51 (K1), Padpat_53 (K1), Peel_51 (K1), Piatt_51 (K1), Pokerus_50 (K1), Prithvi_52 (K1), QuincyRose_50 (K1), Ramen_52 (K1), Rapunzel97_52 (K1), Rosmarinus_51 (K1), SamuelLPlaqsom_52 (K1), ShiaSurprise_52 (K1), Slimphazie_51 (K1), Spock_51 (K1), Stinson_52 (K1), Sulley_51 (K1), Tachez_51 (K1), TaiwanKao_53 (K1), TiniBug_52 (K1), Tiri_52 (K1), Topper_51 (K1), TreyKay_52 (K1), TruffulaTree_51 (K1), Twitch_51 (K1), Urkel_52 (K1), Veliki_52 (K1), YoureAdopted_50 (K1), Yunkel11_54 (K1), Zabiza_47 (K1), Zavala_53 (K1),

Start 11:

- Found in 1 of 108 (0.9%) of genes in pham
- Manual Annotations of this start: 1 of 103
- Called 100.0% of time when present
- Phage (with cluster) where this start called: MacnCheese_56 (K3),

Start 12:

- Found in 4 of 108 (3.7%) of genes in pham
- Manual Annotations of this start: 4 of 103
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Niklas_54 (K1), Peanam_54 (K1), Shaobing_54 (K1), Validus_56 (K1),

Start 17:

- Found in 88 of 108 (81.5%) of genes in pham
- Manual Annotations of this start: 1 of 103
- Called 1.1% of time when present
- Phage (with cluster) where this start called: Chris_54 (K1),

Start 20:

- Found in 14 of 108 (13.0%) of genes in pham
- Manual Annotations of this start: 14 of 103
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Amgine_52 (K6), Amohnition_54 (K6), Bryler_55 (K6), Cain_55 (K6), DarthP_54 (K6), Ekdilam_51 (K6), Ellie_50 (K6), Fefferhead_52 (K6), Hammy_54 (K6), Krueger_58 (K6), Phrank_55 (K6), SirPhilip_54

(K6), Tierra_55 (K6), Ximenita_58 (K6),

Start 29:

- Found in 3 of 108 (2.8%) of genes in pham
- Manual Annotations of this start: 3 of 103
- Called 100.0% of time when present
- Phage (with cluster) where this start called: MarkPhew_55 (K1), Nibb_54 (K1), Yuna_58 (K6),

Start 47:

- Found in 20 of 108 (18.5%) of genes in pham
- Manual Annotations of this start: 1 of 103
- Called 5.0% of time when present
- Phage (with cluster) where this start called: Dole_54 (K1),

Summary by clusters:

There are 3 clusters represented in this pham: K3, K1, K6,

Info for manual annotations of cluster K1:

- Start number 8 was manually annotated 79 times for cluster K1.
- Start number 12 was manually annotated 4 times for cluster K1.
- Start number 17 was manually annotated 1 time for cluster K1.
- Start number 29 was manually annotated 2 times for cluster K1.
- Start number 47 was manually annotated 1 time for cluster K1.

Info for manual annotations of cluster K3:

- Start number 11 was manually annotated 1 time for cluster K3.

Info for manual annotations of cluster K6:

- Start number 20 was manually annotated 14 times for cluster K6.
- Start number 29 was manually annotated 1 time for cluster K6.

Gene Information:

Gene: ActinUp_51 Start: 37616, Stop: 38557, Start Num: 8

Candidate Starts for ActinUp_51:

(Start: 8 @37616 has 79 MA's), (16, 37655), (Start: 17 @37679 has 1 MA's), (18, 37700), (19, 37712), (21, 37724), (24, 37745), (38, 37814), (51, 37892), (65, 37943), (67, 37961), (73, 37988), (78, 38039), (91, 38117), (106, 38186), (117, 38228), (128, 38291), (131, 38324), (132, 38327), (135, 38414),

Gene: Adephagia_51 Start: 37613, Stop: 38554, Start Num: 8

Candidate Starts for Adephagia_51:

(Start: 8 @37613 has 79 MA's), (16, 37652), (Start: 17 @37676 has 1 MA's), (18, 37697), (19, 37709), (21, 37721), (24, 37742), (38, 37811), (51, 37889), (65, 37940), (67, 37958), (73, 37985), (78, 38036), (91, 38114), (106, 38183), (117, 38225), (128, 38288), (131, 38321), (132, 38324), (135, 38411),

Gene: Adonis_51 Start: 37911, Stop: 38798, Start Num: 8

Candidate Starts for Adonis_51:

(Start: 8 @37911 has 79 MA's), (10, 37929), (16, 37953), (Start: 17 @37977 has 1 MA's), (19, 38010), (21, 38022), (24, 38043), (38, 38112), (51, 38190), (65, 38241), (67, 38259), (78, 38331), (82, 38376),

(103, 38454), (124, 38514), (128, 38532), (131, 38565), (132, 38568), (135, 38655), (137, 38688),

Gene: Ageofdapage_53 Start: 38596, Stop: 39540, Start Num: 8

Candidate Starts for Ageofdapage_53:

(Start: 8 @38596 has 79 MA's), (16, 38632), (Start: 17 @38656 has 1 MA's), (18, 38677), (21, 38701), (24, 38722), (25, 38728), (38, 38791), (42, 38812), (43, 38821), (Start: 47 @38848 has 1 MA's), (54, 38875), (66, 38929), (78, 39022), (87, 39094), (91, 39100), (106, 39169), (117, 39211), (128, 39274), (132, 39310), (135, 39397), (137, 39430),

Gene: AlishaPH_51 Start: 37886, Stop: 38827, Start Num: 8

Candidate Starts for AlishaPH_51:

(Start: 8 @37886 has 79 MA's), (16, 37925), (Start: 17 @37949 has 1 MA's), (18, 37970), (19, 37982), (21, 37994), (24, 38015), (38, 38084), (51, 38162), (65, 38213), (67, 38231), (73, 38258), (78, 38309), (91, 38387), (106, 38456), (117, 38498), (128, 38561), (131, 38594), (132, 38597), (135, 38684),

Gene: Amgine_52 Start: 38804, Stop: 39586, Start Num: 20

Candidate Starts for Amgine_52:

(Start: 20 @38804 has 14 MA's), (24, 38819), (30, 38852), (34, 38873), (48, 38960), (57, 38990), (59, 39011), (64, 39029), (69, 39071), (78, 39146), (88, 39218), (101, 39260), (131, 39341), (132, 39344), (135, 39431),

Gene: Amohnition_54 Start: 38811, Stop: 39545, Start Num: 20

Candidate Starts for Amohnition_54:

(Start: 20 @38811 has 14 MA's), (24, 38826), (30, 38859), (34, 38880), (Start: 47 @38928 has 1 MA's), (66, 38988), (70, 39003), (75, 39027), (78, 39075), (104, 39213), (118, 39255), (131, 39306), (132, 39309), (135, 39393), (137, 39426), (139, 39480),

Gene: Anaya_53 Start: 38213, Stop: 39073, Start Num: 8

Candidate Starts for Anaya_53:

(Start: 8 @38213 has 79 MA's), (16, 38255), (Start: 17 @38279 has 1 MA's), (19, 38312), (21, 38324), (24, 38345), (38, 38414), (51, 38492), (65, 38543), (67, 38561), (73, 38588), (78, 38639), (99, 38747), (102, 38750), (131, 38840), (132, 38843), (135, 38930), (137, 38963), (138, 39002),

Gene: Angelica_51 Start: 37843, Stop: 38703, Start Num: 8

Candidate Starts for Angelica_51:

(Start: 8 @37843 has 79 MA's), (10, 37861), (16, 37885), (Start: 17 @37909 has 1 MA's), (19, 37942), (21, 37954), (24, 37975), (38, 38044), (66, 38092), (78, 38185), (91, 38263), (106, 38332), (117, 38374), (128, 38437), (131, 38470), (132, 38473), (135, 38560),

Gene: Apocalypse_54 Start: 38622, Stop: 39491, Start Num: 8

Candidate Starts for Apocalypse_54:

(Start: 8 @38622 has 79 MA's), (10, 38640), (16, 38664), (Start: 17 @38688 has 1 MA's), (19, 38721), (21, 38733), (24, 38754), (38, 38823), (51, 38901), (65, 38952), (67, 38970), (73, 38997), (78, 39048), (80, 39069), (93, 39126), (95, 39129), (124, 39207), (131, 39258), (132, 39261), (135, 39348),

Gene: Asayake_51 Start: 37928, Stop: 38869, Start Num: 8

Candidate Starts for Asayake_51:

(Start: 8 @37928 has 79 MA's), (16, 37967), (Start: 17 @37991 has 1 MA's), (18, 38012), (19, 38024), (21, 38036), (24, 38057), (38, 38126), (51, 38204), (65, 38255), (67, 38273), (73, 38300), (78, 38351), (91, 38429), (106, 38498), (117, 38540), (128, 38603), (131, 38636), (132, 38639), (135, 38726),

Gene: Atiba_52 Start: 37576, Stop: 38517, Start Num: 8

Candidate Starts for Atiba_52:

(Start: 8 @37576 has 79 MA's), (16, 37615), (Start: 17 @37639 has 1 MA's), (18, 37660), (19, 37672), (21, 37684), (24, 37705), (38, 37774), (51, 37852), (65, 37903), (67, 37921), (73, 37948), (78, 37999), (91, 38077), (106, 38146), (117, 38188), (128, 38251), (131, 38284), (132, 38287), (135, 38374),

Gene: BEEST_51 Start: 37928, Stop: 38869, Start Num: 8

Candidate Starts for BEEST_51:

(Start: 8 @37928 has 79 MA's), (16, 37967), (Start: 17 @37991 has 1 MA's), (18, 38012), (19, 38024), (21, 38036), (24, 38057), (38, 38126), (51, 38204), (65, 38255), (67, 38273), (73, 38300), (78, 38351), (91, 38429), (106, 38498), (117, 38540), (128, 38603), (131, 38636), (132, 38639), (135, 38726),

Gene: BGlluviae_51 Start: 37731, Stop: 38672, Start Num: 8

Candidate Starts for BGlluviae_51:

(Start: 8 @37731 has 79 MA's), (16, 37770), (Start: 17 @37794 has 1 MA's), (18, 37815), (19, 37827), (21, 37839), (24, 37860), (38, 37929), (51, 38007), (65, 38058), (67, 38076), (73, 38103), (78, 38154), (91, 38232), (106, 38301), (117, 38343), (128, 38406), (131, 38439), (132, 38442), (135, 38529),

Gene: BaghaKamala_50 Start: 37051, Stop: 37917, Start Num: 8

Candidate Starts for BaghaKamala_50:

(Start: 8 @37051 has 79 MA's), (10, 37069), (16, 37093), (18, 37138), (19, 37150), (21, 37162), (38, 37252), (51, 37336), (65, 37387), (67, 37405), (78, 37483), (102, 37594), (131, 37684), (132, 37687), (135, 37774),

Gene: BarrelRoll_51 Start: 37599, Stop: 38540, Start Num: 8

Candidate Starts for BarrelRoll_51:

(Start: 8 @37599 has 79 MA's), (16, 37638), (Start: 17 @37662 has 1 MA's), (18, 37683), (19, 37695), (21, 37707), (24, 37728), (38, 37797), (51, 37875), (65, 37926), (67, 37944), (73, 37971), (78, 38022), (91, 38100), (106, 38169), (117, 38211), (128, 38274), (131, 38307), (132, 38310), (135, 38397), (137, 38430),

Gene: Beezoo_53 Start: 38574, Stop: 39515, Start Num: 8

Candidate Starts for Beezoo_53:

(Start: 8 @38574 has 79 MA's), (16, 38613), (Start: 17 @38637 has 1 MA's), (18, 38658), (19, 38670), (21, 38682), (24, 38703), (38, 38772), (51, 38850), (65, 38901), (67, 38919), (73, 38946), (78, 38997), (91, 39075), (106, 39144), (117, 39186), (128, 39249), (131, 39282), (132, 39285), (135, 39372),

Gene: Bella96_52 Start: 38440, Stop: 39297, Start Num: 8

Candidate Starts for Bella96_52:

(Start: 8 @38440 has 79 MA's), (16, 38482), (Start: 17 @38506 has 1 MA's), (18, 38527), (19, 38539), (21, 38551), (24, 38572), (31, 38605), (66, 38686), (78, 38779), (81, 38815), (91, 38857), (100, 38890), (107, 38929), (128, 39031), (131, 39064), (132, 39067), (135, 39154), (137, 39187),

Gene: Belladonna_51 Start: 37731, Stop: 38672, Start Num: 8

Candidate Starts for Belladonna_51:

(Start: 8 @37731 has 79 MA's), (16, 37770), (Start: 17 @37794 has 1 MA's), (18, 37815), (19, 37827), (21, 37839), (24, 37860), (38, 37929), (51, 38007), (65, 38058), (67, 38076), (73, 38103), (78, 38154), (91, 38232), (106, 38301), (117, 38343), (128, 38406), (131, 38439), (132, 38442), (135, 38529),

Gene: Blizzard_51 Start: 37928, Stop: 38869, Start Num: 8

Candidate Starts for Blizzard_51:

(Start: 8 @37928 has 79 MA's), (16, 37967), (Start: 17 @37991 has 1 MA's), (18, 38012), (19, 38024), (21, 38036), (24, 38057), (38, 38126), (51, 38204), (65, 38255), (67, 38273), (73, 38300), (78, 38351), (91, 38429), (106, 38498), (117, 38540), (128, 38603), (131, 38636), (132, 38639), (135, 38726),

Gene: Boiiii_51 Start: 37930, Stop: 38871, Start Num: 8

Candidate Starts for Boiiii_51:

(Start: 8 @37930 has 79 MA's), (16, 37969), (Start: 17 @37993 has 1 MA's), (18, 38014), (19, 38026), (21, 38038), (24, 38059), (38, 38128), (51, 38206), (65, 38257), (67, 38275), (73, 38302), (78, 38353), (91, 38431), (106, 38500), (117, 38542), (128, 38605), (131, 38638), (132, 38641), (135, 38728),

Gene: Bryler_55 Start: 37408, Stop: 38334, Start Num: 20

Candidate Starts for Bryler_55:

(7, 37285), (9, 37303), (Start: 20 @37408 has 14 MA's), (26, 37441), (30, 37465), (34, 37486), (36, 37498), (39, 37510), (41, 37531), (52, 37588), (56, 37594), (66, 37642), (74, 37684), (94, 37810), (97, 37816), (105, 37858), (110, 37876), (113, 37885), (116, 37918), (121, 37966), (123, 37996), (131, 38062), (132, 38065), (135, 38149), (137, 38182), (139, 38236),

Gene: CREW_51 Start: 37731, Stop: 38672, Start Num: 8

Candidate Starts for CREW_51:

(Start: 8 @37731 has 79 MA's), (16, 37770), (Start: 17 @37794 has 1 MA's), (18, 37815), (19, 37827), (21, 37839), (24, 37860), (38, 37929), (51, 38007), (65, 38058), (67, 38076), (73, 38103), (78, 38154), (91, 38232), (106, 38301), (117, 38343), (128, 38406), (131, 38439), (132, 38442), (135, 38529),

Gene: Cain_55 Start: 37396, Stop: 38322, Start Num: 20

Candidate Starts for Cain_55:

(7, 37273), (9, 37291), (Start: 20 @37396 has 14 MA's), (26, 37429), (30, 37453), (34, 37474), (36, 37486), (39, 37498), (41, 37519), (52, 37576), (56, 37582), (66, 37630), (74, 37672), (94, 37798), (97, 37804), (105, 37846), (110, 37864), (113, 37873), (116, 37906), (121, 37954), (123, 37984), (131, 38050), (132, 38053), (135, 38137), (137, 38170), (139, 38224),

Gene: Capricorn_51 Start: 37731, Stop: 38672, Start Num: 8

Candidate Starts for Capricorn_51:

(Start: 8 @37731 has 79 MA's), (16, 37770), (Start: 17 @37794 has 1 MA's), (18, 37815), (19, 37827), (21, 37839), (24, 37860), (38, 37929), (51, 38007), (65, 38058), (67, 38076), (73, 38103), (78, 38154), (91, 38232), (106, 38301), (117, 38343), (128, 38406), (131, 38439), (132, 38442), (135, 38529),

Gene: CaseJules_53 Start: 37928, Stop: 38869, Start Num: 8

Candidate Starts for CaseJules_53:

(Start: 8 @37928 has 79 MA's), (16, 37967), (Start: 17 @37991 has 1 MA's), (18, 38012), (19, 38024), (21, 38036), (24, 38057), (38, 38126), (51, 38204), (65, 38255), (67, 38273), (73, 38300), (78, 38351), (91, 38429), (106, 38498), (117, 38540), (128, 38603), (131, 38636), (132, 38639), (135, 38726),

Gene: CheetoDust_50 Start: 37100, Stop: 37960, Start Num: 8

Candidate Starts for CheetoDust_50:

(Start: 8 @37100 has 79 MA's), (10, 37118), (16, 37142), (Start: 17 @37166 has 1 MA's), (18, 37187), (19, 37199), (21, 37211), (24, 37232), (38, 37301), (51, 37379), (65, 37430), (67, 37448), (73, 37475), (78, 37526), (99, 37634), (102, 37637), (128, 37694), (131, 37727), (132, 37730), (135, 37817), (137, 37850),

Gene: Chris_54 Start: 38558, Stop: 39373, Start Num: 17

Candidate Starts for Chris_54:

(Start: 17 @38558 has 1 MA's), (23, 38618), (27, 38639), (32, 38663), (36, 38684), (45, 38741), (53, 38774), (131, 39137), (135, 39224),

Gene: CrimD_51 Start: 37837, Stop: 38787, Start Num: 8

Candidate Starts for CrimD_51:

(Start: 8 @37837 has 79 MA's), (16, 37879), (Start: 17 @37903 has 1 MA's), (18, 37924), (19, 37936), (21, 37948), (24, 37969), (38, 38038), (42, 38059), (Start: 47 @38095 has 1 MA's), (66, 38176), (78, 38269), (87, 38341), (91, 38347), (106, 38416), (113, 38443), (117, 38458), (128, 38521), (131, 38554), (132, 38557), (135, 38644), (137, 38677),

Gene: Curiosium_53 Start: 36518, Stop: 37456, Start Num: 8

Candidate Starts for Curiosium_53:

(Start: 8 @36518 has 79 MA's), (16, 36548), (Start: 17 @36572 has 1 MA's), (18, 36593), (19, 36605), (21, 36617), (24, 36638), (25, 36644), (38, 36707), (46, 36764), (Start: 47 @36767 has 1 MA's), (66, 36848), (91, 37019), (106, 37088), (131, 37223), (132, 37226), (134, 37301), (135, 37313), (137, 37346),

Gene: Dalmuri_51 Start: 37731, Stop: 38672, Start Num: 8

Candidate Starts for Dalmuri_51:

(Start: 8 @37731 has 79 MA's), (16, 37770), (Start: 17 @37794 has 1 MA's), (18, 37815), (19, 37827), (21, 37839), (24, 37860), (38, 37929), (51, 38007), (65, 38058), (67, 38076), (73, 38103), (78, 38154), (91, 38232), (106, 38301), (117, 38343), (128, 38406), (131, 38439), (132, 38442), (135, 38529),

Gene: DARTH_P_54 Start: 38695, Stop: 39429, Start Num: 20

Candidate Starts for DARTH_P_54:

(Start: 20 @38695 has 14 MA's), (24, 38710), (30, 38743), (34, 38764), (Start: 47 @38812 has 1 MA's), (66, 38872), (70, 38887), (75, 38911), (78, 38959), (104, 39097), (118, 39139), (131, 39190), (132, 39193), (135, 39277), (137, 39310), (139, 39364),

Gene: Deby_51 Start: 37859, Stop: 38731, Start Num: 8

Candidate Starts for Deby_51:

(Start: 8 @37859 has 79 MA's), (16, 37898), (Start: 17 @37922 has 1 MA's), (18, 37943), (19, 37955), (21, 37967), (24, 37988), (38, 38057), (51, 38141), (65, 38192), (67, 38210), (73, 38237), (78, 38288), (80, 38309), (91, 38366), (92, 38369), (128, 38465), (131, 38498), (132, 38501), (135, 38588),

Gene: Devera_56 Start: 38363, Stop: 39304, Start Num: 8

Candidate Starts for Devera_56:

(Start: 8 @38363 has 79 MA's), (16, 38399), (Start: 17 @38423 has 1 MA's), (18, 38444), (21, 38468), (24, 38489), (25, 38495), (38, 38558), (42, 38579), (Start: 47 @38615 has 1 MA's), (51, 38636), (66, 38696), (78, 38789), (91, 38867), (106, 38936), (108, 38945), (131, 39071), (132, 39074), (135, 39161), (137, 39194),

Gene: Dole_54 Start: 38618, Stop: 39307, Start Num: 47

Candidate Starts for Dole_54:

(Start: 47 @38618 has 1 MA's), (51, 38639), (66, 38699), (78, 38792), (91, 38870), (106, 38939), (108, 38948), (131, 39074), (132, 39077), (135, 39164), (137, 39197),

Gene: DrHayes_52 Start: 38502, Stop: 39452, Start Num: 8

Candidate Starts for DrHayes_52:

(Start: 8 @38502 has 79 MA's), (16, 38544), (Start: 17 @38568 has 1 MA's), (18, 38589), (19, 38601), (21, 38613), (24, 38634), (38, 38703), (Start: 47 @38760 has 1 MA's), (52, 38784), (66, 38841), (78, 38934), (106, 39081), (108, 39090), (128, 39186), (131, 39219), (132, 39222), (135, 39309), (137, 39342),

Gene: Durfee_51 Start: 37928, Stop: 38869, Start Num: 8

Candidate Starts for Durfee_51:

(Start: 8 @37928 has 79 MA's), (16, 37967), (Start: 17 @37991 has 1 MA's), (18, 38012), (19, 38024), (21, 38036), (24, 38057), (38, 38126), (51, 38204), (65, 38255), (67, 38273), (73, 38300), (78, 38351),

(91, 38429), (106, 38498), (117, 38540), (128, 38603), (131, 38636), (132, 38639), (135, 38726),

Gene: Efra2_54 Start: 37447, Stop: 38388, Start Num: 8

Candidate Starts for Efra2_54:

(Start: 8 @37447 has 79 MA's), (16, 37486), (Start: 17 @37510 has 1 MA's), (18, 37531), (19, 37543), (21, 37555), (24, 37576), (51, 37723), (65, 37774), (67, 37792), (78, 37870), (91, 37948), (106, 38017), (117, 38059), (131, 38155), (132, 38158), (134, 38233), (135, 38245), (137, 38278),

Gene: Ekdilam_51 Start: 38242, Stop: 39063, Start Num: 20

Candidate Starts for Ekdilam_51:

(Start: 20 @38242 has 14 MA's), (24, 38254), (30, 38287), (34, 38308), (57, 38380), (61, 38395), (68, 38425), (80, 38527), (90, 38584), (98, 38605), (118, 38722), (125, 38764), (131, 38824), (132, 38827), (135, 38911), (137, 38944), (139, 38998),

Gene: Ellie_50 Start: 37992, Stop: 38804, Start Num: 20

Candidate Starts for Ellie_50:

(Start: 20 @37992 has 14 MA's), (24, 38007), (30, 38040), (34, 38061), (62, 38139), (78, 38232), (106, 38379), (112, 38403), (126, 38499), (129, 38520), (131, 38550), (132, 38553), (135, 38637), (137, 38670),

Gene: Emerson_52 Start: 37607, Stop: 38551, Start Num: 8

Candidate Starts for Emerson_52:

(Start: 8 @37607 has 79 MA's), (13, 37640), (16, 37649), (Start: 17 @37673 has 1 MA's), (18, 37694), (19, 37706), (21, 37718), (24, 37739), (25, 37745), (38, 37808), (51, 37886), (65, 37937), (67, 37955), (73, 37982), (78, 38033), (91, 38111), (106, 38180), (117, 38222), (128, 38285), (131, 38318), (132, 38321), (135, 38408),

Gene: Fefferhead_52 Start: 37942, Stop: 38751, Start Num: 20

Candidate Starts for Fefferhead_52:

(Start: 20 @37942 has 14 MA's), (24, 37957), (30, 37990), (34, 38011), (62, 38089), (78, 38182), (106, 38329), (112, 38353), (126, 38449), (129, 38470), (131, 38497), (132, 38500), (135, 38584), (137, 38617),

Gene: Ganymede_52 Start: 38046, Stop: 38933, Start Num: 8

Candidate Starts for Ganymede_52:

(Start: 8 @38046 has 79 MA's), (10, 38064), (16, 38088), (Start: 17 @38112 has 1 MA's), (19, 38145), (21, 38157), (24, 38178), (38, 38247), (51, 38325), (65, 38376), (67, 38394), (78, 38466), (82, 38511), (103, 38589), (124, 38649), (128, 38667), (131, 38700), (132, 38703), (135, 38790), (137, 38823),

Gene: Geraldini_54 Start: 38663, Stop: 39604, Start Num: 8

Candidate Starts for Geraldini_54:

(Start: 8 @38663 has 79 MA's), (16, 38702), (Start: 17 @38726 has 1 MA's), (18, 38747), (19, 38759), (21, 38771), (24, 38792), (38, 38861), (51, 38939), (65, 38990), (67, 39008), (73, 39035), (78, 39086), (91, 39164), (106, 39233), (117, 39275), (128, 39338), (131, 39371), (132, 39374), (135, 39461),

Gene: Guanica15_54 Start: 37404, Stop: 38348, Start Num: 8

Candidate Starts for Guanica15_54:

(Start: 8 @37404 has 79 MA's), (16, 37443), (Start: 17 @37467 has 1 MA's), (18, 37488), (19, 37500), (21, 37512), (24, 37533), (33, 37575), (38, 37602), (65, 37734), (67, 37752), (78, 37830), (91, 37908), (106, 37977), (117, 38019), (131, 38115), (132, 38118), (133, 38130), (135, 38205),

Gene: Hammy_54 Start: 38683, Stop: 39417, Start Num: 20

Candidate Starts for Hammy_54:

(Start: 20 @38683 has 14 MA's), (24, 38698), (30, 38731), (34, 38752), (Start: 47 @38800 has 1 MA's), (66, 38860), (70, 38875), (75, 38899), (78, 38947), (104, 39085), (118, 39127), (131, 39178), (132, 39181), (135, 39265), (137, 39298), (139, 39352),

Gene: HedwigODU_51 Start: 37616, Stop: 38557, Start Num: 8

Candidate Starts for HedwigODU_51:

(Start: 8 @37616 has 79 MA's), (16, 37655), (Start: 17 @37679 has 1 MA's), (18, 37700), (19, 37712), (21, 37724), (24, 37745), (38, 37814), (51, 37892), (65, 37943), (67, 37961), (73, 37988), (78, 38039), (91, 38117), (106, 38186), (117, 38228), (128, 38291), (131, 38324), (132, 38327), (135, 38414),

Gene: Homura_51 Start: 37731, Stop: 38672, Start Num: 8

Candidate Starts for Homura_51:

(Start: 8 @37731 has 79 MA's), (16, 37770), (Start: 17 @37794 has 1 MA's), (18, 37815), (19, 37827), (21, 37839), (24, 37860), (38, 37929), (51, 38007), (65, 38058), (67, 38076), (73, 38103), (78, 38154), (91, 38232), (106, 38301), (117, 38343), (128, 38406), (131, 38439), (132, 38442), (135, 38529),

Gene: Hyperbowlee_51 Start: 37928, Stop: 38869, Start Num: 8

Candidate Starts for Hyperbowlee_51:

(Start: 8 @37928 has 79 MA's), (16, 37967), (Start: 17 @37991 has 1 MA's), (18, 38012), (19, 38024), (21, 38036), (24, 38057), (38, 38126), (51, 38204), (65, 38255), (67, 38273), (73, 38300), (78, 38351), (91, 38429), (106, 38498), (117, 38540), (128, 38603), (131, 38636), (132, 38639), (135, 38726),

Gene: Illumine_54 Start: 38365, Stop: 39306, Start Num: 8

Candidate Starts for Illumine_54:

(Start: 8 @38365 has 79 MA's), (16, 38401), (Start: 17 @38425 has 1 MA's), (18, 38446), (21, 38470), (24, 38491), (25, 38497), (38, 38560), (42, 38581), (Start: 47 @38617 has 1 MA's), (51, 38638), (66, 38698), (78, 38791), (91, 38869), (106, 38938), (108, 38947), (131, 39073), (132, 39076), (135, 39163), (137, 39196),

Gene: Inky_51 Start: 37731, Stop: 38672, Start Num: 8

Candidate Starts for Inky_51:

(Start: 8 @37731 has 79 MA's), (16, 37770), (Start: 17 @37794 has 1 MA's), (18, 37815), (19, 37827), (21, 37839), (24, 37860), (38, 37929), (51, 38007), (65, 38058), (67, 38076), (73, 38103), (78, 38154), (91, 38232), (106, 38301), (117, 38343), (128, 38406), (131, 38439), (132, 38442), (135, 38529),

Gene: JAWS_51 Start: 37605, Stop: 38546, Start Num: 8

Candidate Starts for JAWS_51:

(Start: 8 @37605 has 79 MA's), (16, 37644), (Start: 17 @37668 has 1 MA's), (18, 37689), (19, 37701), (21, 37713), (24, 37734), (38, 37803), (51, 37881), (65, 37932), (67, 37950), (73, 37977), (78, 38028), (91, 38106), (106, 38175), (117, 38217), (128, 38280), (131, 38313), (132, 38316), (135, 38403),

Gene: Jarvi_51 Start: 37731, Stop: 38672, Start Num: 8

Candidate Starts for Jarvi_51:

(Start: 8 @37731 has 79 MA's), (16, 37770), (Start: 17 @37794 has 1 MA's), (18, 37815), (19, 37827), (21, 37839), (24, 37860), (38, 37929), (51, 38007), (65, 38058), (67, 38076), (73, 38103), (78, 38154), (91, 38232), (106, 38301), (117, 38343), (128, 38406), (131, 38439), (132, 38442), (135, 38529),

Gene: Jayhawk_52 Start: 37614, Stop: 38555, Start Num: 8

Candidate Starts for Jayhawk_52:

(Start: 8 @37614 has 79 MA's), (16, 37653), (Start: 17 @37677 has 1 MA's), (18, 37698), (19, 37710), (21, 37722), (24, 37743), (38, 37812), (51, 37890), (65, 37941), (67, 37959), (73, 37986), (78, 38037), (91, 38115), (106, 38184), (117, 38226), (128, 38289), (131, 38322), (132, 38325), (135, 38412), (137, 38445),

Gene: Jeckyll_51 Start: 37731, Stop: 38672, Start Num: 8

Candidate Starts for Jeckyll_51:

(Start: 8 @37731 has 79 MA's), (16, 37770), (Start: 17 @37794 has 1 MA's), (18, 37815), (19, 37827), (21, 37839), (24, 37860), (38, 37929), (51, 38007), (65, 38058), (67, 38076), (73, 38103), (78, 38154), (91, 38232), (106, 38301), (117, 38343), (128, 38406), (131, 38439), (132, 38442), (135, 38529),

Gene: Joy99_51 Start: 37660, Stop: 38601, Start Num: 8

Candidate Starts for Joy99_51:

(Start: 8 @37660 has 79 MA's), (16, 37699), (Start: 17 @37723 has 1 MA's), (18, 37744), (19, 37756), (21, 37768), (24, 37789), (38, 37858), (51, 37936), (65, 37987), (67, 38005), (73, 38032), (78, 38083), (91, 38161), (106, 38230), (117, 38272), (128, 38335), (131, 38368), (132, 38371), (135, 38458),

Gene: Krueger_58 Start: 38393, Stop: 39313, Start Num: 20

Candidate Starts for Krueger_58:

(Start: 20 @38393 has 14 MA's), (22, 38405), (26, 38420), (30, 38444), (34, 38465), (51, 38531), (66, 38576), (78, 38669), (91, 38747), (98, 38765), (106, 38819), (114, 38861), (121, 38945), (123, 38975), (131, 39041), (132, 39044), (135, 39128), (137, 39161), (139, 39215),

Gene: LastHope_54 Start: 36888, Stop: 37739, Start Num: 8

Candidate Starts for LastHope_54:

(Start: 8 @36888 has 79 MA's), (16, 36924), (Start: 17 @36948 has 1 MA's), (18, 36969), (19, 36981), (21, 36993), (24, 37014), (66, 37128), (78, 37221), (79, 37233), (87, 37293), (91, 37299), (106, 37368), (117, 37410), (131, 37506), (132, 37509), (134, 37584), (135, 37596), (137, 37629), (138, 37668),

Gene: LaterM_52 Start: 38493, Stop: 39431, Start Num: 8

Candidate Starts for LaterM_52:

(Start: 8 @38493 has 79 MA's), (16, 38529), (Start: 17 @38553 has 1 MA's), (18, 38574), (21, 38598), (24, 38619), (25, 38625), (33, 38661), (38, 38688), (51, 38766), (65, 38817), (67, 38835), (78, 38913), (87, 38985), (91, 38991), (106, 39060), (117, 39102), (128, 39165), (131, 39198), (132, 39201), (135, 39288), (137, 39321),

Gene: LindNT_50 Start: 37816, Stop: 38760, Start Num: 8

Candidate Starts for LindNT_50:

(Start: 8 @37816 has 79 MA's), (16, 37858), (Start: 17 @37882 has 1 MA's), (18, 37903), (19, 37915), (21, 37927), (24, 37948), (33, 37990), (38, 38017), (51, 38095), (58, 38113), (65, 38146), (67, 38164), (73, 38191), (78, 38242), (87, 38314), (91, 38320), (106, 38389), (117, 38431), (128, 38494), (131, 38527), (132, 38530), (135, 38617), (137, 38650),

Gene: Llorens_51 Start: 37731, Stop: 38672, Start Num: 8

Candidate Starts for Llorens_51:

(Start: 8 @37731 has 79 MA's), (16, 37770), (Start: 17 @37794 has 1 MA's), (18, 37815), (19, 37827), (21, 37839), (24, 37860), (38, 37929), (51, 38007), (65, 38058), (67, 38076), (73, 38103), (78, 38154), (91, 38232), (106, 38301), (117, 38343), (128, 38406), (131, 38439), (132, 38442), (135, 38529),

Gene: Lunahalos_51 Start: 37731, Stop: 38672, Start Num: 8

Candidate Starts for Lunahalos_51:

(Start: 8 @37731 has 79 MA's), (16, 37770), (Start: 17 @37794 has 1 MA's), (18, 37815), (19, 37827), (21, 37839), (24, 37860), (38, 37929), (51, 38007), (65, 38058), (67, 38076), (73, 38103), (78, 38154), (91, 38232), (106, 38301), (117, 38343), (128, 38406), (131, 38439), (132, 38442), (135, 38529),

Gene: MacnCheese_56 Start: 39191, Stop: 40129, Start Num: 11

Candidate Starts for MacnCheese_56:

(1, 39053), (3, 39080), (4, 39116), (5, 39125), (Start: 11 @39191 has 1 MA's), (14, 39212), (16, 39224), (Start: 17 @39248 has 1 MA's), (19, 39281), (24, 39314), (28, 39335), (31, 39347), (35, 39371), (52, 39467), (58, 39482), (76, 39572), (77, 39590), (83, 39653), (85, 39668), (86, 39674), (89, 39686), (96, 39704), (106, 39752), (120, 39827), (135, 39986), (136, 40007), (137, 40019),

Gene: MarkPhew_55 Start: 38390, Stop: 39106, Start Num: 29

Candidate Starts for MarkPhew_55:

(Start: 29 @38390 has 3 MA's), (36, 38423), (40, 38447), (Start: 47 @38492 has 1 MA's), (55, 38513), (67, 38570), (72, 38594), (106, 38759), (131, 38870), (135, 38957), (137, 38990), (139, 39044),

Gene: MeaningOfLife_52 Start: 38540, Stop: 39427, Start Num: 8

Candidate Starts for MeaningOfLife_52:

(Start: 8 @38540 has 79 MA's), (10, 38558), (19, 38639), (21, 38651), (24, 38672), (38, 38741), (51, 38819), (67, 38888), (78, 38960), (82, 39005), (103, 39083), (124, 39143), (131, 39194), (132, 39197), (135, 39284), (137, 39317),

Gene: Megsy_53 Start: 37875, Stop: 38825, Start Num: 8

Candidate Starts for Megsy_53:

(Start: 8 @37875 has 79 MA's), (16, 37917), (Start: 17 @37941 has 1 MA's), (18, 37962), (19, 37974), (21, 37986), (24, 38007), (38, 38076), (Start: 47 @38133 has 1 MA's), (66, 38214), (78, 38307), (87, 38379), (91, 38385), (106, 38454), (117, 38496), (119, 38526), (128, 38559), (131, 38592), (132, 38595), (135, 38682), (137, 38715),

Gene: Murucutumbu_52 Start: 38586, Stop: 39530, Start Num: 8

Candidate Starts for Murucutumbu_52:

(Start: 8 @38586 has 79 MA's), (16, 38622), (Start: 17 @38646 has 1 MA's), (18, 38667), (21, 38691), (24, 38712), (25, 38718), (38, 38781), (42, 38802), (Start: 47 @38838 has 1 MA's), (78, 39012), (91, 39090), (106, 39159), (108, 39168), (117, 39201), (128, 39264), (132, 39300), (135, 39387), (137, 39420),

Gene: Mynx_52 Start: 37932, Stop: 38876, Start Num: 8

Candidate Starts for Mynx_52:

(Start: 8 @37932 has 79 MA's), (13, 37965), (16, 37974), (Start: 17 @37998 has 1 MA's), (18, 38019), (19, 38031), (21, 38043), (24, 38064), (25, 38070), (38, 38133), (51, 38211), (65, 38262), (67, 38280), (73, 38307), (78, 38358), (91, 38436), (106, 38505), (117, 38547), (128, 38610), (131, 38643), (132, 38646), (135, 38733), (137, 38766),

Gene: Nibb_54 Start: 38079, Stop: 38801, Start Num: 29

Candidate Starts for Nibb_54:

(Start: 29 @38079 has 3 MA's), (34, 38100), (36, 38112), (40, 38136), (Start: 47 @38181 has 1 MA's), (55, 38202), (60, 38223), (67, 38259), (106, 38448), (109, 38460), (111, 38469), (122, 38514), (131, 38559), (135, 38646), (137, 38679), (139, 38733),

Gene: Niklas_54 Start: 38606, Stop: 39313, Start Num: 12

Candidate Starts for Niklas_54:

(Start: 12 @38606 has 4 MA's), (15, 38621), (16, 38630), (Start: 17 @38654 has 1 MA's), (18, 38675), (19, 38687), (21, 38699), (24, 38720), (37, 38786), (78, 38879), (99, 38987), (102, 38990), (124, 39029), (131, 39080), (132, 39083), (135, 39170), (137, 39203), (138, 39242),

Gene: Padfoot_51 Start: 37928, Stop: 38869, Start Num: 8

Candidate Starts for Padfoot_51:

(Start: 8 @37928 has 79 MA's), (16, 37967), (Start: 17 @37991 has 1 MA's), (18, 38012), (19, 38024), (21, 38036), (24, 38057), (38, 38126), (51, 38204), (65, 38255), (67, 38273), (73, 38300), (78, 38351), (91, 38429), (106, 38498), (117, 38540), (128, 38603), (131, 38636), (132, 38639), (135, 38726),

Gene: Padpat_53 Start: 37607, Stop: 38551, Start Num: 8

Candidate Starts for Padpat_53:

(Start: 8 @37607 has 79 MA's), (13, 37640), (16, 37649), (Start: 17 @37673 has 1 MA's), (18, 37694), (19, 37706), (21, 37718), (24, 37739), (25, 37745), (38, 37808), (51, 37886), (65, 37937), (67, 37955), (73, 37982), (78, 38033), (91, 38111), (106, 38180), (117, 38222), (128, 38285), (131, 38318), (132, 38321), (135, 38408),

Gene: Peanam_54 Start: 38564, Stop: 39271, Start Num: 12

Candidate Starts for Peanam_54:

(Start: 12 @38564 has 4 MA's), (15, 38579), (16, 38588), (Start: 17 @38612 has 1 MA's), (18, 38633), (19, 38645), (21, 38657), (24, 38678), (37, 38744), (78, 38837), (99, 38945), (102, 38948), (124, 38987), (131, 39038), (132, 39041), (135, 39128), (137, 39161), (138, 39200),

Gene: Peel_51 Start: 37733, Stop: 38674, Start Num: 8

Candidate Starts for Peel_51:

(Start: 8 @37733 has 79 MA's), (16, 37772), (Start: 17 @37796 has 1 MA's), (18, 37817), (19, 37829), (21, 37841), (24, 37862), (38, 37931), (51, 38009), (65, 38060), (67, 38078), (73, 38105), (78, 38156), (91, 38234), (106, 38303), (117, 38345), (128, 38408), (131, 38441), (132, 38444), (135, 38531),

Gene: Phrank_55 Start: 37386, Stop: 38312, Start Num: 20

Candidate Starts for Phrank_55:

(7, 37263), (9, 37281), (Start: 20 @37386 has 14 MA's), (26, 37419), (30, 37443), (34, 37464), (36, 37476), (39, 37488), (41, 37509), (52, 37566), (56, 37572), (66, 37620), (74, 37662), (94, 37788), (97, 37794), (105, 37836), (110, 37854), (113, 37863), (116, 37896), (121, 37944), (123, 37974), (131, 38040), (132, 38043), (135, 38127), (137, 38160), (139, 38214),

Gene: Piatt_51 Start: 37928, Stop: 38869, Start Num: 8

Candidate Starts for Piatt_51:

(Start: 8 @37928 has 79 MA's), (16, 37967), (Start: 17 @37991 has 1 MA's), (18, 38012), (19, 38024), (21, 38036), (24, 38057), (38, 38126), (51, 38204), (65, 38255), (67, 38273), (73, 38300), (78, 38351), (91, 38429), (106, 38498), (117, 38540), (128, 38603), (131, 38636), (132, 38639), (135, 38726),

Gene: Pokerus_50 Start: 37654, Stop: 38604, Start Num: 8

Candidate Starts for Pokerus_50:

(Start: 8 @37654 has 79 MA's), (16, 37696), (Start: 17 @37720 has 1 MA's), (18, 37741), (19, 37753), (21, 37765), (24, 37786), (38, 37855), (Start: 47 @37912 has 1 MA's), (52, 37936), (66, 37993), (78, 38086), (79, 38098), (91, 38164), (106, 38233), (117, 38275), (128, 38338), (131, 38371), (132, 38374), (135, 38461),

Gene: Prithvi_52 Start: 37816, Stop: 38760, Start Num: 8

Candidate Starts for Prithvi_52:

(Start: 8 @37816 has 79 MA's), (16, 37858), (Start: 17 @37882 has 1 MA's), (18, 37903), (19, 37915), (21, 37927), (24, 37948), (33, 37990), (38, 38017), (51, 38095), (58, 38113), (65, 38146), (67, 38164), (73, 38191), (78, 38242), (87, 38314), (91, 38320), (106, 38389), (117, 38431), (128, 38494), (131, 38527), (132, 38530), (135, 38617), (137, 38650),

Gene: QuincyRose_50 Start: 38046, Stop: 38933, Start Num: 8

Candidate Starts for QuincyRose_50:

(Start: 8 @38046 has 79 MA's), (10, 38064), (16, 38088), (Start: 17 @38112 has 1 MA's), (19, 38145), (21, 38157), (24, 38178), (38, 38247), (51, 38325), (65, 38376), (67, 38394), (78, 38466), (82, 38511), (103, 38589), (124, 38649), (128, 38667), (131, 38700), (132, 38703), (135, 38790), (137, 38823),

Gene: Ramen_52 Start: 37618, Stop: 38559, Start Num: 8

Candidate Starts for Ramen_52:

(Start: 8 @37618 has 79 MA's), (16, 37657), (Start: 17 @37681 has 1 MA's), (18, 37702), (19, 37714), (21, 37726), (24, 37747), (38, 37816), (51, 37894), (65, 37945), (67, 37963), (73, 37990), (78, 38041), (91, 38119), (106, 38188), (117, 38230), (128, 38293), (131, 38326), (132, 38329), (135, 38416),

Gene: Rapunzel97_52 Start: 37614, Stop: 38555, Start Num: 8

Candidate Starts for Rapunzel97_52:

(Start: 8 @37614 has 79 MA's), (16, 37653), (Start: 17 @37677 has 1 MA's), (18, 37698), (19, 37710), (21, 37722), (24, 37743), (38, 37812), (51, 37890), (65, 37941), (67, 37959), (73, 37986), (78, 38037), (91, 38115), (106, 38184), (117, 38226), (128, 38289), (131, 38322), (132, 38325), (135, 38412), (137, 38445),

Gene: Rosmarinus_51 Start: 37719, Stop: 38660, Start Num: 8

Candidate Starts for Rosmarinus_51:

(Start: 8 @37719 has 79 MA's), (16, 37758), (Start: 17 @37782 has 1 MA's), (18, 37803), (19, 37815), (21, 37827), (24, 37848), (38, 37917), (51, 37995), (65, 38046), (67, 38064), (73, 38091), (78, 38142), (91, 38220), (106, 38289), (117, 38331), (128, 38394), (131, 38427), (132, 38430), (135, 38517),

Gene: SamuelLPlaqson_52 Start: 38502, Stop: 39452, Start Num: 8

Candidate Starts for SamuelLPlaqson_52:

(Start: 8 @38502 has 79 MA's), (16, 38544), (Start: 17 @38568 has 1 MA's), (18, 38589), (19, 38601), (21, 38613), (24, 38634), (38, 38703), (Start: 47 @38760 has 1 MA's), (52, 38784), (66, 38841), (78, 38934), (106, 39081), (108, 39090), (128, 39186), (131, 39219), (132, 39222), (135, 39309), (137, 39342),

Gene: Shaobing_54 Start: 38582, Stop: 39289, Start Num: 12

Candidate Starts for Shaobing_54:

(Start: 12 @38582 has 4 MA's), (15, 38597), (16, 38606), (Start: 17 @38630 has 1 MA's), (18, 38651), (19, 38663), (21, 38675), (24, 38696), (37, 38762), (78, 38855), (99, 38963), (102, 38966), (124, 39005), (131, 39056), (132, 39059), (135, 39146), (137, 39179), (138, 39218),

Gene: ShiaSurprise_52 Start: 37928, Stop: 38869, Start Num: 8

Candidate Starts for ShiaSurprise_52:

(Start: 8 @37928 has 79 MA's), (16, 37967), (Start: 17 @37991 has 1 MA's), (18, 38012), (19, 38024), (21, 38036), (24, 38057), (38, 38126), (51, 38204), (65, 38255), (67, 38273), (73, 38300), (78, 38351), (91, 38429), (106, 38498), (117, 38540), (128, 38603), (131, 38636), (132, 38639), (135, 38726),

Gene: SirPhilip_54 Start: 38933, Stop: 39697, Start Num: 20

Candidate Starts for SirPhilip_54:

(Start: 20 @38933 has 14 MA's), (26, 38963), (34, 39008), (39, 39032), (44, 39053), (80, 39245), (84, 39278), (94, 39299), (97, 39305), (119, 39392), (135, 39530), (137, 39563),

Gene: Slimphazie_51 Start: 37614, Stop: 38555, Start Num: 8

Candidate Starts for Slimphazie_51:

(Start: 8 @37614 has 79 MA's), (16, 37653), (Start: 17 @37677 has 1 MA's), (18, 37698), (19, 37710), (21, 37722), (24, 37743), (38, 37812), (51, 37890), (65, 37941), (67, 37959), (73, 37986), (78, 38037), (91, 38115), (106, 38184), (117, 38226), (128, 38289), (131, 38322), (132, 38325), (135, 38412), (137, 38445),

Gene: Spock_51 Start: 37732, Stop: 38673, Start Num: 8

Candidate Starts for Spock_51:

(Start: 8 @37732 has 79 MA's), (16, 37771), (Start: 17 @37795 has 1 MA's), (18, 37816), (19, 37828), (21, 37840), (24, 37861), (38, 37930), (51, 38008), (65, 38059), (67, 38077), (73, 38104), (78, 38155), (91, 38233), (106, 38302), (117, 38344), (128, 38407), (131, 38440), (132, 38443), (135, 38530),

Gene: Stinson_52 Start: 38106, Stop: 39053, Start Num: 8

Candidate Starts for Stinson_52:

(Start: 8 @38106 has 79 MA's), (16, 38142), (Start: 17 @38166 has 1 MA's), (18, 38187), (21, 38211), (24, 38232), (25, 38238), (38, 38301), (42, 38322), (43, 38331), (46, 38355), (Start: 47 @38358 has 1 MA's), (52, 38382), (66, 38439), (78, 38532), (91, 38610), (106, 38682), (108, 38691), (128, 38787), (131, 38820), (132, 38823), (135, 38910), (137, 38943),

Gene: Sulley_51 Start: 37858, Stop: 38718, Start Num: 8

Candidate Starts for Sulley_51:

(Start: 8 @37858 has 79 MA's), (10, 37876), (16, 37900), (Start: 17 @37924 has 1 MA's), (19, 37957), (21, 37969), (24, 37990), (38, 38059), (66, 38107), (78, 38200), (91, 38278), (106, 38347), (117, 38389), (128, 38452), (131, 38485), (132, 38488), (135, 38575),

Gene: Tachez_51 Start: 37576, Stop: 38517, Start Num: 8

Candidate Starts for Tachez_51:

(Start: 8 @37576 has 79 MA's), (16, 37615), (Start: 17 @37639 has 1 MA's), (18, 37660), (19, 37672), (21, 37684), (24, 37705), (38, 37774), (51, 37852), (65, 37903), (67, 37921), (73, 37948), (78, 37999), (91, 38077), (106, 38146), (117, 38188), (128, 38251), (131, 38284), (132, 38287), (135, 38374),

Gene: TaiwanKao_53 Start: 37872, Stop: 38816, Start Num: 8

Candidate Starts for TaiwanKao_53:

(Start: 8 @37872 has 79 MA's), (16, 37914), (Start: 17 @37938 has 1 MA's), (18, 37959), (19, 37971), (21, 37983), (24, 38004), (38, 38073), (51, 38151), (65, 38202), (67, 38220), (71, 38235), (73, 38247), (78, 38298), (87, 38370), (91, 38376), (106, 38445), (117, 38487), (119, 38517), (131, 38583), (132, 38586), (135, 38673), (137, 38706),

Gene: Tierra_55 Start: 38197, Stop: 39123, Start Num: 20

Candidate Starts for Tierra_55:

(9, 38092), (Start: 20 @38197 has 14 MA's), (26, 38230), (30, 38254), (34, 38275), (36, 38287), (39, 38299), (41, 38320), (52, 38377), (56, 38383), (66, 38431), (74, 38473), (94, 38599), (97, 38605), (105, 38647), (110, 38665), (113, 38674), (116, 38707), (121, 38755), (123, 38785), (131, 38851), (132, 38854), (135, 38938), (137, 38971), (139, 39025),

Gene: TiniBug_52 Start: 38498, Stop: 39448, Start Num: 8

Candidate Starts for TiniBug_52:

(Start: 8 @38498 has 79 MA's), (16, 38540), (Start: 17 @38564 has 1 MA's), (18, 38585), (19, 38597), (21, 38609), (24, 38630), (38, 38699), (Start: 47 @38756 has 1 MA's), (52, 38780), (66, 38837), (78, 38930), (106, 39077), (108, 39086), (128, 39182), (131, 39215), (132, 39218), (135, 39305), (137, 39338),

Gene: Tiri_52 Start: 37906, Stop: 38847, Start Num: 8

Candidate Starts for Tiri_52:

(Start: 8 @37906 has 79 MA's), (16, 37945), (Start: 17 @37969 has 1 MA's), (18, 37990), (19, 38002), (21, 38014), (24, 38035), (38, 38104), (51, 38182), (65, 38233), (67, 38251), (73, 38278), (78, 38329), (91, 38407), (106, 38476), (117, 38518), (128, 38581), (131, 38614), (132, 38617), (135, 38704), (137, 38737),

Gene: Topper_51 Start: 37731, Stop: 38672, Start Num: 8

Candidate Starts for Topper_51:

(Start: 8 @37731 has 79 MA's), (16, 37770), (Start: 17 @37794 has 1 MA's), (18, 37815), (19, 37827), (21, 37839), (24, 37860), (38, 37929), (51, 38007), (65, 38058), (67, 38076), (73, 38103), (78, 38154), (91, 38232), (106, 38301), (117, 38343), (128, 38406), (131, 38439), (132, 38442), (135, 38529),

Gene: TreyKay_52 Start: 37816, Stop: 38760, Start Num: 8

Candidate Starts for TreyKay_52:

(Start: 8 @37816 has 79 MA's), (16, 37858), (Start: 17 @37882 has 1 MA's), (18, 37903), (19, 37915), (21, 37927), (24, 37948), (33, 37990), (38, 38017), (51, 38095), (58, 38113), (65, 38146), (67, 38164), (73, 38191), (78, 38242), (87, 38314), (91, 38320), (106, 38389), (117, 38431), (128, 38494), (131, 38527), (132, 38530), (135, 38617), (137, 38650),

Gene: TruffulaTree_51 Start: 37610, Stop: 38551, Start Num: 8

Candidate Starts for TruffulaTree_51:

(Start: 8 @37610 has 79 MA's), (16, 37649), (Start: 17 @37673 has 1 MA's), (18, 37694), (19, 37706), (21, 37718), (24, 37739), (38, 37808), (51, 37886), (65, 37937), (67, 37955), (73, 37982), (78, 38033), (91, 38111), (106, 38180), (117, 38222), (128, 38285), (131, 38318), (132, 38321), (135, 38408), (137, 38441),

Gene: Twitch_51 Start: 37733, Stop: 38674, Start Num: 8

Candidate Starts for Twitch_51:

(Start: 8 @37733 has 79 MA's), (16, 37772), (Start: 17 @37796 has 1 MA's), (18, 37817), (19, 37829), (21, 37841), (24, 37862), (38, 37931), (51, 38009), (65, 38060), (67, 38078), (73, 38105), (78, 38156), (91, 38234), (106, 38303), (117, 38345), (128, 38408), (131, 38441), (132, 38444), (135, 38531),

Gene: Urkel_52 Start: 38502, Stop: 39452, Start Num: 8

Candidate Starts for Urkel_52:

(Start: 8 @38502 has 79 MA's), (16, 38544), (Start: 17 @38568 has 1 MA's), (18, 38589), (19, 38601), (21, 38613), (24, 38634), (38, 38703), (Start: 47 @38760 has 1 MA's), (52, 38784), (66, 38841), (78, 38934), (106, 39081), (108, 39090), (128, 39186), (131, 39219), (132, 39222), (135, 39309), (137, 39342),

Gene: Validus_56 Start: 38620, Stop: 39468, Start Num: 12

Candidate Starts for Validus_56:

(1, 38473), (2, 38482), (3, 38500), (5, 38545), (Start: 12 @38620 has 4 MA's), (15, 38635), (16, 38644), (Start: 17 @38668 has 1 MA's), (18, 38689), (21, 38713), (24, 38734), (37, 38800), (49, 38869), (51, 38881), (65, 38932), (67, 38950), (73, 38977), (78, 39028), (87, 39100), (99, 39136), (102, 39139), (131, 39232), (132, 39235), (135, 39322), (137, 39355), (138, 39394),

Gene: Veliki_52 Start: 37650, Stop: 38537, Start Num: 8

Candidate Starts for Veliki_52:

(Start: 8 @37650 has 79 MA's), (10, 37668), (Start: 17 @37716 has 1 MA's), (19, 37749), (21, 37761), (24, 37782), (38, 37851), (51, 37929), (65, 37980), (67, 37998), (78, 38070), (82, 38115), (103, 38193), (124, 38253), (128, 38271), (131, 38304), (132, 38307), (135, 38394), (137, 38427),

Gene: Ximenita_58 Start: 38492, Stop: 39322, Start Num: 20

Candidate Starts for Ximenita_58:

(6, 38366), (7, 38375), (Start: 20 @38492 has 14 MA's), (22, 38504), (34, 38564), (39, 38588), (50, 38603), (52, 38609), (66, 38654), (78, 38747), (91, 38825), (98, 38843), (106, 38897), (115, 38939), (119, 38975), (125, 39011), (128, 39032), (131, 39065), (132, 39068), (135, 39152), (137, 39185),

Gene: YoureAdopted_50 Start: 37815, Stop: 38675, Start Num: 8

Candidate Starts for YoureAdopted_50:

(Start: 8 @37815 has 79 MA's), (10, 37833), (16, 37857), (Start: 17 @37881 has 1 MA's), (19, 37914), (21, 37926), (24, 37947), (38, 38016), (66, 38064), (78, 38157), (91, 38235), (106, 38304), (117, 38346), (128, 38409), (131, 38442), (132, 38445), (135, 38532), (137, 38565), (138, 38604),

Gene: Yuna_58 Start: 39426, Stop: 40163, Start Num: 29

Candidate Starts for Yuna_58:

(Start: 29 @39426 has 3 MA's), (34, 39444), (38, 39465), (40, 39480), (44, 39513), (Start: 47 @39525 has 1 MA's), (55, 39546), (60, 39567), (63, 39579), (67, 39603), (78, 39672), (79, 39684), (106, 39789), (111, 39810), (127, 39879), (130, 39891), (135, 39993), (137, 40026),

Gene: Yunkel11_54 Start: 37403, Stop: 38347, Start Num: 8

Candidate Starts for Yunkel11_54:

(Start: 8 @37403 has 79 MA's), (16, 37442), (Start: 17 @37466 has 1 MA's), (18, 37487), (19, 37499), (21, 37511), (24, 37532), (33, 37574), (38, 37601), (65, 37733), (67, 37751), (78, 37829), (91, 37907), (106, 37976), (117, 38018), (131, 38114), (132, 38117), (135, 38204),

Gene: Zabiza_47 Start: 33921, Stop: 34862, Start Num: 8

Candidate Starts for Zabiza_47:

(Start: 8 @33921 has 79 MA's), (16, 33960), (Start: 17 @33984 has 1 MA's), (18, 34005), (19, 34017), (21, 34029), (24, 34050), (38, 34119), (51, 34197), (65, 34248), (67, 34266), (73, 34293), (78, 34344), (91, 34422), (106, 34491), (117, 34533), (128, 34596), (131, 34629), (132, 34632), (135, 34719),

Gene: Zavala_53 Start: 37892, Stop: 38836, Start Num: 8

Candidate Starts for Zavala_53:

(Start: 8 @37892 has 79 MA's), (13, 37925), (16, 37934), (Start: 17 @37958 has 1 MA's), (18, 37979), (19, 37991), (21, 38003), (24, 38024), (25, 38030), (38, 38093), (51, 38171), (65, 38222), (67, 38240), (73, 38267), (78, 38318), (91, 38396), (106, 38465), (117, 38507), (128, 38570), (131, 38603), (132, 38606), (135, 38693), (137, 38726),