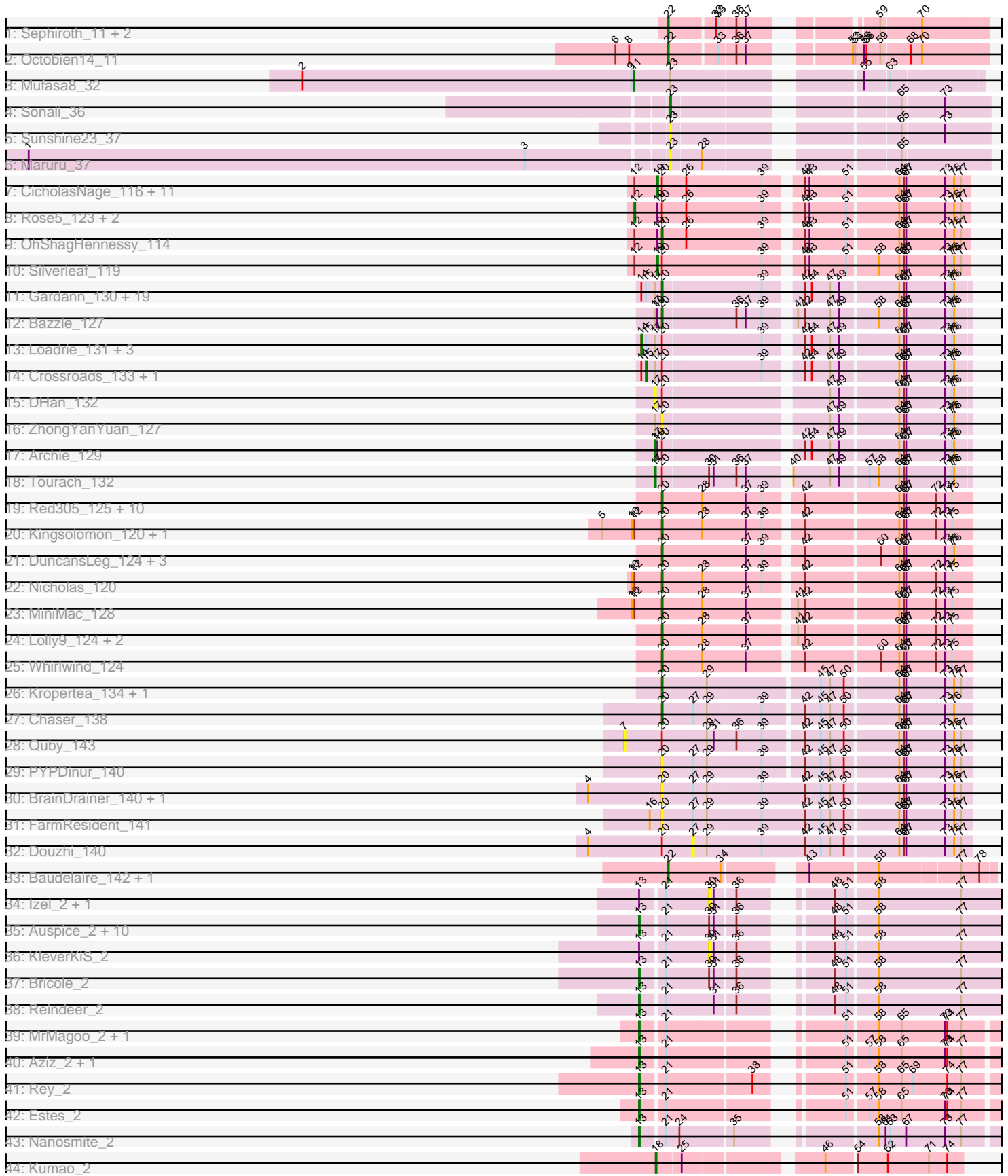


Pham 215989



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 215989 Report

This analysis was run 02/22/25 on database version 588.

Pham number 215989 has 114 members, 23 are drafts.

Phages represented in each track:

- Track 1 : Sephiroth_11, Kudefre_10, Syleon_11
- Track 2 : Octobien14_11
- Track 3 : Mufasa8_32
- Track 4 : Sonali_36
- Track 5 : Sunshine23_37
- Track 6 : Maruru_37
- Track 7 : CicholasNage_116, Wyatt2_122, Appletree2_121, Calm_129, LeBron_121, Zaria_126, Acquire49_122, JoeDirt_124, Wamburggrxpress_124, UPIE_121, MAckerman_123, AvadaKedavra_122
- Track 8 : Rose5_123, Halena_122, Tyson_123
- Track 9 : OhShagHennessy_114
- Track 10 : Silverleaf_119
- Track 11 : Gardann_130, BigCheese_129, Netyap_128, SoJulia_133, Kahlid_130, Underpass_120, Finemlucis_130, DrSeegs_128, Wigglewiggles_131, LilDestine_127, MkaliMitinis3_132, Wilder_131, Miley16_130, GuuelaD_128, Gabriela_130, Itos_130, Soap141_131, Zakai_132, Lewan_132, Vetrix_130
- Track 12 : Bazzle_127
- Track 13 : Loadrie_131, Breezona_130, Winky_130, Faith1_128
- Track 14 : Crossroads_133, Nicholasp3_131
- Track 15 : DHan_132
- Track 16 : ZhongYanYuan_127
- Track 17 : Archie_129
- Track 18 : Tourach_132
- Track 19 : Red305_125, Jubie_124, Lumos_124, Clautastrophe_123, Snenia_123, Finnry_122, Samty_122, MsGreen_125, Bellis_121, Jobypre_124, TriFive_124
- Track 20 : Kingsolomon_120, Moostard_117
- Track 21 : DuncansLeg_124, Ellson_122, KirDoubleO7_121, BourbonZero_124
- Track 22 : Nicholas_120
- Track 23 : MiniMac_128
- Track 24 : Lolly9_124, Krypton555_126, MiniLon_128
- Track 25 : Whirlwind_124
- Track 26 : Kropertea_134, DyoEdafos_141
- Track 27 : Chaser_138
- Track 28 : Quby_143
- Track 29 : PYPDinur_140
- Track 30 : BrainDrainer_140, Sheng711_142
- Track 31 : FarmResident_141

- Track 32 : Douzhi_140
- Track 33 : Baudelaire_142, Aegeus_142
- Track 34 : Izel_2, FreakyGoo_2
- Track 35 : Auspice_2, IPhane7_2, Dulcita_2, Skinny_2, TyDawg_2, LilhomieP_2, SlimJimmy_2, Diminimus_2, Bongo_2, PegLeg_2, Glaske16_2
- Track 36 : KleverKiS_2
- Track 37 : Bricole_2
- Track 38 : Reindeer_2
- Track 39 : MrMagoo_2, GardenSalsa_2
- Track 40 : Aziz_2, GenevaB15_2
- Track 41 : Rey_2
- Track 42 : Estes_2
- Track 43 : Nanosmite_2
- Track 44 : Kumao_2

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

The start number called the most often in the published annotations is 20, it was called in 38 of the 91 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Bazzle_127, Bellis_121, BigCheese_129, BourbonZero_124, BrainDrainer_140, Chaser_138, Clautastrophe_123, DrSeegs_128, DuncansLeg_124, DyoEdafos_141, Ellson_122, FarmResident_141, Finemlucis_130, Finnry_122, Gabriela_130, Gardann_130, GuuelaD_128, Itos_130, Jobypre_124, Jubie_124, Kahlid_130, Kingsolomon_120, KirDoubleO7_121, Kropertea_134, Krypton555_126, Lewan_132, LilDestine_127, Lolly9_124, Lumos_124, Miley16_130, MiniLon_128, MiniMac_128, MkaliMitinis3_132, Moostard_117, MsGreen_125, Netyap_128, Nicholas_120, OhShagHennessy_114, PYPDinur_140, Red305_125, Samty_122, Sheng711_142, Snenia_123, SoJulia_133, Soap141_131, TriFive_124, Underpass_120, Vetrix_130, Whirlwind_124, Wigglewiggle_131, Wilder_131, Zakai_132, ZhongYanYuan_127,

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

- Acquire49_122, Appletree2_121, Archie_129, AvadaKedavra_122, Breezona_130, Calm_129, CicholasNage_116, Crossroads_133, DHan_132, Douzhi_140, Faith1_128, Halena_122, JoeDirt_124, LeBron_121, Loadrie_131, MAckerman_123, Nicholasp3_131, Quby_143, Rose5_123, Silverleaf_119, Tourach_132, Tyson_123, UPIE_121, Wamburgxpress_124, Winky_130, Wyatt2_122, Zaria_126,

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

- Aegeus_142, Auspice_2, Aziz_2, Baudelaire_142, Bongo_2, Bricole_2, Diminimus_2, Dulcita_2, Estes_2, FreakyGoo_2, GardenSalsa_2, GenevaB15_2, Glaske16_2, IPhane7_2, Izel_2, KleverKiS_2, Kudrefre_10, Kumao_2, LilhomieP_2, Maruru_37, MrMagoo_2, Mufasa8_32, Nanosmite_2, Octobien14_11, PegLeg_2, Reindeer_2, Rey_2, Sephiroth_11, Skinny_2, SlimJimmy_2, Sonali_36, Sunshine23_37, Syleon_11, TyDawg_2,

Summary by start number:

Start 7:

- Found in 1 of 114 (0.9%) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Quby_143 (L4),

Start 11:

- Found in 1 of 114 (0.9%) of genes in pham
- Manual Annotations of this start: 1 of 91
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Mufasa8_32 (FG),

Start 12:

- Found in 21 of 114 (18.4%) of genes in pham
- Manual Annotations of this start: 3 of 91
- Called 14.3% of time when present
- Phage (with cluster) where this start called: Halena_122 (L1), Rose5_123 (L1), Tyson_123 (L1),

Start 13:

- Found in 23 of 114 (20.2%) of genes in pham
- Manual Annotations of this start: 20 of 91
- Called 87.0% of time when present
- Phage (with cluster) where this start called: Auspice_2 (M1), Aziz_2 (M2), Bongo_2 (M1), Bricole_2 (M1), Diminimus_2 (M1), Dulcita_2 (M1), Estes_2 (M2), GardenSalsa_2 (M2), GenevaB15_2 (M2), Glaske16_2 (M1), IPhone7_2 (M1), LilhomieP_2 (M1), MrMagoo_2 (M2), Nanosmite_2 (M3), PegLeg_2 (M1), Reindeer_2 (M1), Rey_2 (M2), Skinny_2 (M1), SlimJimmy_2 (M1), TyDawg_2 (M1),

Start 14:

- Found in 26 of 114 (22.8%) of genes in pham
- Manual Annotations of this start: 4 of 91
- Called 15.4% of time when present
- Phage (with cluster) where this start called: Breezona_130 (L2), Faith1_128 (L2), Loadrie_131 (L2), Winky_130 (L2),

Start 15:

- Found in 26 of 114 (22.8%) of genes in pham
- Manual Annotations of this start: 2 of 91
- Called 7.7% of time when present
- Phage (with cluster) where this start called: Crossroads_133 (L2), Nicholasp3_131 (L2),

Start 17:

- Found in 31 of 114 (27.2%) of genes in pham
- Manual Annotations of this start: 2 of 91
- Called 9.7% of time when present
- Phage (with cluster) where this start called: Archie_129 (L2), DHan_132 (L2), Tourach_132 (L2),

Start 18:

- Found in 1 of 114 (0.9%) of genes in pham
- Manual Annotations of this start: 1 of 91
- Called 100.0% of time when present

- Phage (with cluster) where this start called: Kumao_2 (singleton),

Start 19:

- Found in 19 of 114 (16.7%) of genes in pham
- Manual Annotations of this start: 13 of 91
- Called 68.4% of time when present
- Phage (with cluster) where this start called: Acquire49_122 (L1), Appletree2_121 (L1), AvadaKedavra_122 (L1), Calm_129 (L1), CicholasNage_116 (L1), JoeDirt_124 (L1), LeBron_121 (L1), MAckerman_123 (L1), Silverleaf_119 (L1), UPIE_121 (L1), Wamburgxpress_124 (L1), Wyatt2_122 (L1), Zaria_126 (L1),

Start 20:

- Found in 80 of 114 (70.2%) of genes in pham
- Manual Annotations of this start: 38 of 91
- Called 66.2% of time when present
- Phage (with cluster) where this start called: Bazzle_127 (L2), Bellis_121 (L3), BigCheese_129 (L2), BourbonZero_124 (L3), BrainDrainer_140 (L4), Chaser_138 (L4), Clautastrophe_123 (L3), DrSeegs_128 (L2), DuncansLeg_124 (L3), DyoEdafos_141 (L4), Ellson_122 (L3), FarmResident_141 (L4), Finemlucis_130 (L2), Finnry_122 (L3), Gabriela_130 (L2), Gardann_130 (L2), GuuelaD_128 (L2), Itos_130 (L2), Jobypre_124 (L3), Jubie_124 (L3), Kahlid_130 (L2), Kingsolomon_120 (L3), KirDoubleO7_121 (L3), Kropertea_134 (L4), Krypton555_126 (L3), Lewan_132 (L2), LilDestine_127 (L2), Lolly9_124 (L3), Lumos_124 (L3), Miley16_130 (L2), MiniLon_128 (L3), MiniMac_128 (L3), MkaliMitinis3_132 (L2), Moostard_117 (L3), MsGreen_125 (L3), Netyap_128 (L2), Nicholas_120 (L3), OhShagHennessy_114 (L1), PYPDinur_140 (L4), Red305_125 (L3), Samty_122 (L3), Sheng711_142 (L4), Snenia_123 (L3), SoJulia_133 (L2), Soap141_131 (L2), TriFive_124 (L3), Underpass_120 (L2), Vetrix_130 (L2), Whirlwind_124 (L3), Wigglewiggle_131 (L2), Wilder_131 (L2), Zakai_132 (L2), ZhongYanYuan_127 (L2),

Start 22:

- Found in 6 of 114 (5.3%) of genes in pham
- Manual Annotations of this start: 6 of 91
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Aegeus_142 (L5), Baudelaire_142 (L5), Kudrefre_10 (DU1), Octobien14_11 (DU1), Sephiroth_11 (DU1), Syleon_11 (DU1),

Start 23:

- Found in 4 of 114 (3.5%) of genes in pham
- Manual Annotations of this start: 1 of 91
- Called 75.0% of time when present
- Phage (with cluster) where this start called: Maruru_37 (FG), Sonali_36 (FG), Sunshine23_37 (FG),

Start 27:

- Found in 6 of 114 (5.3%) of genes in pham
- No Manual Annotations of this start.
- Called 16.7% of time when present
- Phage (with cluster) where this start called: Douzhi_140 (L4),

Start 30:

- Found in 16 of 114 (14.0%) of genes in pham
- No Manual Annotations of this start.

- Called 18.8% of time when present
- Phage (with cluster) where this start called: FreakyGoo_2 (M1), Izel_2 (M1), KleverKiS_2 (M1),

Summary by clusters:

There are 11 clusters represented in this pham: FG, singleton, M2, DU1, L4, L5, M1, L3, M3, L1, L2,

Info for manual annotations of cluster DU1:

- Start number 22 was manually annotated 4 times for cluster DU1.

Info for manual annotations of cluster FG:

- Start number 11 was manually annotated 1 time for cluster FG.
- Start number 23 was manually annotated 1 time for cluster FG.

Info for manual annotations of cluster L1:

- Start number 12 was manually annotated 3 times for cluster L1.
- Start number 19 was manually annotated 13 times for cluster L1.
- Start number 20 was manually annotated 1 time for cluster L1.

Info for manual annotations of cluster L2:

- Start number 14 was manually annotated 4 times for cluster L2.
- Start number 15 was manually annotated 2 times for cluster L2.
- Start number 17 was manually annotated 2 times for cluster L2.
- Start number 20 was manually annotated 18 times for cluster L2.

Info for manual annotations of cluster L3:

- Start number 20 was manually annotated 17 times for cluster L3.

Info for manual annotations of cluster L4:

- Start number 20 was manually annotated 2 times for cluster L4.

Info for manual annotations of cluster L5:

- Start number 22 was manually annotated 2 times for cluster L5.

Info for manual annotations of cluster M1:

- Start number 13 was manually annotated 13 times for cluster M1.

Info for manual annotations of cluster M2:

- Start number 13 was manually annotated 6 times for cluster M2.

Info for manual annotations of cluster M3:

- Start number 13 was manually annotated 1 time for cluster M3.

Gene Information:

Gene: Acquire49_122 Start: 66709, Stop: 66329, Start Num: 19

Candidate Starts for Acquire49_122:

(Start: 12 @66739 has 3 MA's), (Start: 19 @66709 has 13 MA's), (Start: 20 @66703 has 38 MA's), (26, 66673), (39, 66577), (42, 66538), (43, 66532), (51, 66484), (64, 66421), (66, 66415), (67, 66412), (73,

66361), (76, 66349), (77, 66340),

Gene: Aegeus_142 Start: 70111, Stop: 69734, Start Num: 22

Candidate Starts for Aegeus_142:

(Start: 22 @70111 has 6 MA's), (34, 70042), (43, 69961), (58, 69877), (77, 69778), (78, 69754),

Gene: Appletree2_121 Start: 66750, Stop: 66370, Start Num: 19

Candidate Starts for Appletree2_121:

(Start: 12 @66780 has 3 MA's), (Start: 19 @66750 has 13 MA's), (Start: 20 @66744 has 38 MA's), (26, 66714), (39, 66618), (42, 66579), (43, 66573), (51, 66525), (64, 66462), (66, 66456), (67, 66453), (73, 66402), (76, 66390), (77, 66381),

Gene: Archie_129 Start: 69357, Stop: 68974, Start Num: 17

Candidate Starts for Archie_129:

(Start: 17 @69357 has 2 MA's), (Start: 19 @69354 has 13 MA's), (Start: 20 @69348 has 38 MA's), (42, 69183), (44, 69174), (47, 69150), (49, 69138), (64, 69066), (66, 69060), (67, 69057), (73, 69006), (75, 68997), (76, 68994),

Gene: Auspice_2 Start: 1191, Stop: 760, Start Num: 13

Candidate Starts for Auspice_2:

(Start: 13 @1191 has 20 MA's), (21, 1164), (30, 1110), (31, 1104), (36, 1080), (48, 993), (51, 978), (58, 942), (77, 834),

Gene: AvadaKedavra_122 Start: 66823, Stop: 66443, Start Num: 19

Candidate Starts for AvadaKedavra_122:

(Start: 12 @66853 has 3 MA's), (Start: 19 @66823 has 13 MA's), (Start: 20 @66817 has 38 MA's), (26, 66787), (39, 66691), (42, 66652), (43, 66646), (51, 66598), (64, 66535), (66, 66529), (67, 66526), (73, 66475), (76, 66463), (77, 66454),

Gene: Aziz_2 Start: 1206, Stop: 784, Start Num: 13

Candidate Starts for Aziz_2:

(Start: 13 @1206 has 20 MA's), (21, 1179), (51, 993), (57, 969), (58, 957), (65, 927), (73, 870), (74, 867), (77, 849),

Gene: Baudelaire_142 Start: 70111, Stop: 69734, Start Num: 22

Candidate Starts for Baudelaire_142:

(Start: 22 @70111 has 6 MA's), (34, 70042), (43, 69961), (58, 69877), (77, 69778), (78, 69754),

Gene: Bazzle_127 Start: 69522, Stop: 69151, Start Num: 20

Candidate Starts for Bazzle_127:

(Start: 17 @69531 has 2 MA's), (Start: 19 @69528 has 13 MA's), (Start: 20 @69522 has 38 MA's), (36, 69432), (37, 69420), (39, 69399), (41, 69369), (42, 69360), (47, 69327), (49, 69315), (58, 69270), (64, 69243), (66, 69237), (67, 69234), (73, 69183), (75, 69174), (76, 69171),

Gene: Bellis_121 Start: 68329, Stop: 67949, Start Num: 20

Candidate Starts for Bellis_121:

(Start: 20 @68329 has 38 MA's), (28, 68278), (37, 68224), (39, 68203), (42, 68161), (64, 68044), (66, 68038), (67, 68035), (72, 67996), (73, 67984), (75, 67975),

Gene: BigCheese_129 Start: 69304, Stop: 68930, Start Num: 20

Candidate Starts for BigCheese_129:

(Start: 14 @69331 has 4 MA's), (Start: 15 @69325 has 2 MA's), (Start: 17 @69313 has 2 MA's), (Start: 20 @69304 has 38 MA's), (39, 69178), (42, 69139), (44, 69130), (47, 69106), (49, 69094), (64, 69022),

(66, 69016), (67, 69013), (73, 68962), (75, 68953), (76, 68950),

Gene: Bongo_2 Start: 1191, Stop: 760, Start Num: 13

Candidate Starts for Bongo_2:

(Start: 13 @1191 has 20 MA's), (21, 1164), (30, 1110), (31, 1104), (36, 1080), (48, 993), (51, 978), (58, 942), (77, 834),

Gene: BourbonZero_124 Start: 68597, Stop: 68217, Start Num: 20

Candidate Starts for BourbonZero_124:

(Start: 20 @68597 has 38 MA's), (37, 68492), (39, 68471), (42, 68429), (60, 68336), (64, 68312), (66, 68306), (67, 68303), (73, 68252), (75, 68243), (76, 68240),

Gene: BrainDrainer_140 Start: 71190, Stop: 70795, Start Num: 20

Candidate Starts for BrainDrainer_140:

(4, 71286), (Start: 20 @71190 has 38 MA's), (27, 71151), (29, 71133), (39, 71064), (42, 71007), (45, 70986), (47, 70974), (50, 70956), (64, 70890), (66, 70884), (67, 70881), (73, 70830), (76, 70818), (77, 70809),

Gene: Breezona_130 Start: 69666, Stop: 69265, Start Num: 14

Candidate Starts for Breezona_130:

(Start: 14 @69666 has 4 MA's), (Start: 15 @69660 has 2 MA's), (Start: 17 @69648 has 2 MA's), (Start: 20 @69639 has 38 MA's), (39, 69513), (42, 69474), (44, 69465), (47, 69441), (49, 69429), (64, 69357), (66, 69351), (67, 69348), (73, 69297), (75, 69288), (76, 69285),

Gene: Bricole_2 Start: 1190, Stop: 759, Start Num: 13

Candidate Starts for Bricole_2:

(Start: 13 @1190 has 20 MA's), (21, 1163), (30, 1109), (31, 1103), (36, 1079), (48, 992), (51, 977), (58, 941), (77, 833),

Gene: Calm_129 Start: 67924, Stop: 67544, Start Num: 19

Candidate Starts for Calm_129:

(Start: 12 @67954 has 3 MA's), (Start: 19 @67924 has 13 MA's), (Start: 20 @67918 has 38 MA's), (26, 67888), (39, 67792), (42, 67753), (43, 67747), (51, 67699), (64, 67636), (66, 67630), (67, 67627), (73, 67576), (76, 67564), (77, 67555),

Gene: Chaser_138 Start: 71035, Stop: 70649, Start Num: 20

Candidate Starts for Chaser_138:

(Start: 20 @71035 has 38 MA's), (27, 70996), (29, 70978), (39, 70909), (42, 70861), (45, 70840), (47, 70828), (50, 70810), (64, 70744), (66, 70738), (67, 70735), (73, 70684), (76, 70672),

Gene: CicholasNage_116 Start: 67054, Stop: 66674, Start Num: 19

Candidate Starts for CicholasNage_116:

(Start: 12 @67084 has 3 MA's), (Start: 19 @67054 has 13 MA's), (Start: 20 @67048 has 38 MA's), (26, 67018), (39, 66922), (42, 66883), (43, 66877), (51, 66829), (64, 66766), (66, 66760), (67, 66757), (73, 66706), (76, 66694), (77, 66685),

Gene: Clautastrophe_123 Start: 68440, Stop: 68060, Start Num: 20

Candidate Starts for Clautastrophe_123:

(Start: 20 @68440 has 38 MA's), (28, 68389), (37, 68335), (39, 68314), (42, 68272), (64, 68155), (66, 68149), (67, 68146), (72, 68107), (73, 68095), (75, 68086),

Gene: Crossroads_133 Start: 69594, Stop: 69199, Start Num: 15

Candidate Starts for Crossroads_133:

(Start: 14 @69600 has 4 MA's), (Start: 15 @69594 has 2 MA's), (Start: 17 @69582 has 2 MA's), (Start: 20 @69573 has 38 MA's), (39, 69447), (42, 69408), (44, 69399), (47, 69375), (49, 69363), (64, 69291), (66, 69285), (67, 69282), (73, 69231), (75, 69222), (76, 69219),

Gene: DHan_132 Start: 69722, Stop: 69339, Start Num: 17

Candidate Starts for DHan_132:

(Start: 17 @69722 has 2 MA's), (Start: 20 @69713 has 38 MA's), (47, 69515), (49, 69503), (64, 69431), (66, 69425), (67, 69422), (73, 69371), (75, 69362), (76, 69359),

Gene: Diminimus_2 Start: 1190, Stop: 759, Start Num: 13

Candidate Starts for Diminimus_2:

(Start: 13 @1190 has 20 MA's), (21, 1163), (30, 1109), (31, 1103), (36, 1079), (48, 992), (51, 977), (58, 941), (77, 833),

Gene: Douzhi_140 Start: 71323, Stop: 70967, Start Num: 27

Candidate Starts for Douzhi_140:

(4, 71458), (Start: 20 @71362 has 38 MA's), (27, 71323), (29, 71305), (39, 71236), (42, 71179), (45, 71158), (47, 71146), (50, 71128), (64, 71062), (66, 71056), (67, 71053), (73, 71002), (76, 70990), (77, 70981),

Gene: DrSeegs_128 Start: 69639, Stop: 69265, Start Num: 20

Candidate Starts for DrSeegs_128:

(Start: 14 @69666 has 4 MA's), (Start: 15 @69660 has 2 MA's), (Start: 17 @69648 has 2 MA's), (Start: 20 @69639 has 38 MA's), (39, 69513), (42, 69474), (44, 69465), (47, 69441), (49, 69429), (64, 69357), (66, 69351), (67, 69348), (73, 69297), (75, 69288), (76, 69285),

Gene: Dulcita_2 Start: 1190, Stop: 759, Start Num: 13

Candidate Starts for Dulcita_2:

(Start: 13 @1190 has 20 MA's), (21, 1163), (30, 1109), (31, 1103), (36, 1079), (48, 992), (51, 977), (58, 941), (77, 833),

Gene: DuncansLeg_124 Start: 68623, Stop: 68243, Start Num: 20

Candidate Starts for DuncansLeg_124:

(Start: 20 @68623 has 38 MA's), (37, 68518), (39, 68497), (42, 68455), (60, 68362), (64, 68338), (66, 68332), (67, 68329), (73, 68278), (75, 68269), (76, 68266),

Gene: DyoEdafos_141 Start: 70626, Stop: 70240, Start Num: 20

Candidate Starts for DyoEdafos_141:

(Start: 20 @70626 has 38 MA's), (29, 70569), (45, 70431), (47, 70419), (50, 70401), (64, 70335), (66, 70329), (67, 70326), (73, 70275), (76, 70263), (77, 70254),

Gene: Ellson_122 Start: 68879, Stop: 68499, Start Num: 20

Candidate Starts for Ellson_122:

(Start: 20 @68879 has 38 MA's), (37, 68774), (39, 68753), (42, 68711), (60, 68618), (64, 68594), (66, 68588), (67, 68585), (73, 68534), (75, 68525), (76, 68522),

Gene: Estes_2 Start: 1217, Stop: 795, Start Num: 13

Candidate Starts for Estes_2:

(Start: 13 @1217 has 20 MA's), (21, 1190), (51, 1004), (57, 980), (58, 968), (65, 938), (73, 881), (74, 878), (77, 860),

Gene: Faith1_128 Start: 68974, Stop: 68573, Start Num: 14

Candidate Starts for Faith1_128:

(Start: 14 @68974 has 4 MA's), (Start: 15 @68968 has 2 MA's), (Start: 17 @68956 has 2 MA's), (Start: 20 @68947 has 38 MA's), (39, 68821), (42, 68782), (44, 68773), (47, 68749), (49, 68737), (64, 68665), (66, 68659), (67, 68656), (73, 68605), (75, 68596), (76, 68593),

Gene: FarmResident_141 Start: 70745, Stop: 70350, Start Num: 20

Candidate Starts for FarmResident_141:

(16, 70760), (Start: 20 @70745 has 38 MA's), (27, 70706), (29, 70688), (39, 70619), (42, 70562), (45, 70541), (47, 70529), (50, 70511), (64, 70445), (66, 70439), (67, 70436), (73, 70385), (76, 70373), (77, 70364),

Gene: Finemlucis_130 Start: 70398, Stop: 70024, Start Num: 20

Candidate Starts for Finemlucis_130:

(Start: 14 @70425 has 4 MA's), (Start: 15 @70419 has 2 MA's), (Start: 17 @70407 has 2 MA's), (Start: 20 @70398 has 38 MA's), (39, 70272), (42, 70233), (44, 70224), (47, 70200), (49, 70188), (64, 70116), (66, 70110), (67, 70107), (73, 70056), (75, 70047), (76, 70044),

Gene: Finnry_122 Start: 68677, Stop: 68297, Start Num: 20

Candidate Starts for Finnry_122:

(Start: 20 @68677 has 38 MA's), (28, 68626), (37, 68572), (39, 68551), (42, 68509), (64, 68392), (66, 68386), (67, 68383), (72, 68344), (73, 68332), (75, 68323),

Gene: FreakyGoo_2 Start: 1110, Stop: 760, Start Num: 30

Candidate Starts for FreakyGoo_2:

(Start: 13 @1191 has 20 MA's), (21, 1164), (30, 1110), (31, 1104), (36, 1080), (48, 993), (51, 978), (58, 942), (77, 834),

Gene: Gabriela_130 Start: 68735, Stop: 68361, Start Num: 20

Candidate Starts for Gabriela_130:

(Start: 14 @68762 has 4 MA's), (Start: 15 @68756 has 2 MA's), (Start: 17 @68744 has 2 MA's), (Start: 20 @68735 has 38 MA's), (39, 68609), (42, 68570), (44, 68561), (47, 68537), (49, 68525), (64, 68453), (66, 68447), (67, 68444), (73, 68393), (75, 68384), (76, 68381),

Gene: Gardann_130 Start: 69412, Stop: 69038, Start Num: 20

Candidate Starts for Gardann_130:

(Start: 14 @69439 has 4 MA's), (Start: 15 @69433 has 2 MA's), (Start: 17 @69421 has 2 MA's), (Start: 20 @69412 has 38 MA's), (39, 69286), (42, 69247), (44, 69238), (47, 69214), (49, 69202), (64, 69130), (66, 69124), (67, 69121), (73, 69070), (75, 69061), (76, 69058),

Gene: GardenSalsa_2 Start: 1217, Stop: 795, Start Num: 13

Candidate Starts for GardenSalsa_2:

(Start: 13 @1217 has 20 MA's), (21, 1190), (51, 1004), (58, 968), (65, 938), (73, 881), (74, 878), (77, 860),

Gene: GenevaB15_2 Start: 1206, Stop: 784, Start Num: 13

Candidate Starts for GenevaB15_2:

(Start: 13 @1206 has 20 MA's), (21, 1179), (51, 993), (57, 969), (58, 957), (65, 927), (73, 870), (74, 867), (77, 849),

Gene: Glaske16_2 Start: 1190, Stop: 759, Start Num: 13

Candidate Starts for Glaske16_2:

(Start: 13 @1190 has 20 MA's), (21, 1163), (30, 1109), (31, 1103), (36, 1079), (48, 992), (51, 977), (58, 941), (77, 833),

Gene: GuuelaD_128 Start: 69300, Stop: 68926, Start Num: 20

Candidate Starts for GuuelaD_128:

(Start: 14 @69327 has 4 MA's), (Start: 15 @69321 has 2 MA's), (Start: 17 @69309 has 2 MA's), (Start: 20 @69300 has 38 MA's), (39, 69174), (42, 69135), (44, 69126), (47, 69102), (49, 69090), (64, 69018), (66, 69012), (67, 69009), (73, 68958), (75, 68949), (76, 68946),

Gene: Halena_122 Start: 66727, Stop: 66317, Start Num: 12

Candidate Starts for Halena_122:

(Start: 12 @66727 has 3 MA's), (Start: 19 @66697 has 13 MA's), (Start: 20 @66691 has 38 MA's), (26, 66661), (39, 66565), (42, 66526), (43, 66520), (51, 66472), (64, 66409), (66, 66403), (67, 66400), (73, 66349), (76, 66337), (77, 66328),

Gene: IPhane7_2 Start: 1191, Stop: 760, Start Num: 13

Candidate Starts for IPhane7_2:

(Start: 13 @1191 has 20 MA's), (21, 1164), (30, 1110), (31, 1104), (36, 1080), (48, 993), (51, 978), (58, 942), (77, 834),

Gene: Itos_130 Start: 67853, Stop: 67479, Start Num: 20

Candidate Starts for Itos_130:

(Start: 14 @67880 has 4 MA's), (Start: 15 @67874 has 2 MA's), (Start: 17 @67862 has 2 MA's), (Start: 20 @67853 has 38 MA's), (39, 67727), (42, 67688), (44, 67679), (47, 67655), (49, 67643), (64, 67571), (66, 67565), (67, 67562), (73, 67511), (75, 67502), (76, 67499),

Gene: Izel_2 Start: 1109, Stop: 759, Start Num: 30

Candidate Starts for Izel_2:

(Start: 13 @1190 has 20 MA's), (21, 1163), (30, 1109), (31, 1103), (36, 1079), (48, 992), (51, 977), (58, 941), (77, 833),

Gene: Jobypre_124 Start: 68438, Stop: 68058, Start Num: 20

Candidate Starts for Jobypre_124:

(Start: 20 @68438 has 38 MA's), (28, 68387), (37, 68333), (39, 68312), (42, 68270), (64, 68153), (66, 68147), (67, 68144), (72, 68105), (73, 68093), (75, 68084),

Gene: JoeDirt_124 Start: 67928, Stop: 67548, Start Num: 19

Candidate Starts for JoeDirt_124:

(Start: 12 @67958 has 3 MA's), (Start: 19 @67928 has 13 MA's), (Start: 20 @67922 has 38 MA's), (26, 67892), (39, 67796), (42, 67757), (43, 67751), (51, 67703), (64, 67640), (66, 67634), (67, 67631), (73, 67580), (76, 67568), (77, 67559),

Gene: Jubie_124 Start: 68573, Stop: 68193, Start Num: 20

Candidate Starts for Jubie_124:

(Start: 20 @68573 has 38 MA's), (28, 68522), (37, 68468), (39, 68447), (42, 68405), (64, 68288), (66, 68282), (67, 68279), (72, 68240), (73, 68228), (75, 68219),

Gene: Kahlid_130 Start: 69251, Stop: 68877, Start Num: 20

Candidate Starts for Kahlid_130:

(Start: 14 @69278 has 4 MA's), (Start: 15 @69272 has 2 MA's), (Start: 17 @69260 has 2 MA's), (Start: 20 @69251 has 38 MA's), (39, 69125), (42, 69086), (44, 69077), (47, 69053), (49, 69041), (64, 68969), (66, 68963), (67, 68960), (73, 68909), (75, 68900), (76, 68897),

Gene: Kingsolomon_120 Start: 68433, Stop: 68053, Start Num: 20

Candidate Starts for Kingsolomon_120:

(5, 68511), (10, 68472), (Start: 12 @68469 has 3 MA's), (Start: 20 @68433 has 38 MA's), (28, 68382), (37, 68328), (39, 68307), (42, 68265), (64, 68148), (66, 68142), (67, 68139), (72, 68100), (73, 68088), (75, 68079),

Gene: KirDoubleO7_121 Start: 68570, Stop: 68190, Start Num: 20

Candidate Starts for KirDoubleO7_121:

(Start: 20 @68570 has 38 MA's), (37, 68465), (39, 68444), (42, 68402), (60, 68309), (64, 68285), (66, 68279), (67, 68276), (73, 68225), (75, 68216), (76, 68213),

Gene: KleverKiS_2 Start: 1109, Stop: 759, Start Num: 30

Candidate Starts for KleverKiS_2:

(Start: 13 @1190 has 20 MA's), (21, 1163), (30, 1109), (31, 1103), (36, 1079), (48, 992), (51, 977), (58, 941), (77, 833),

Gene: Kropertea_134 Start: 70294, Stop: 69908, Start Num: 20

Candidate Starts for Kropertea_134:

(Start: 20 @70294 has 38 MA's), (29, 70237), (45, 70099), (47, 70087), (50, 70069), (64, 70003), (66, 69997), (67, 69994), (73, 69943), (76, 69931), (77, 69922),

Gene: Krypton555_126 Start: 68819, Stop: 68439, Start Num: 20

Candidate Starts for Krypton555_126:

(Start: 20 @68819 has 38 MA's), (28, 68768), (37, 68714), (41, 68660), (42, 68651), (64, 68534), (66, 68528), (67, 68525), (72, 68486), (73, 68474), (75, 68465),

Gene: Kudrefre_10 Start: 4412, Stop: 4059, Start Num: 22

Candidate Starts for Kudrefre_10:

(Start: 22 @4412 has 6 MA's), (32, 4355), (33, 4352), (36, 4331), (37, 4319), (59, 4196), (70, 4145),

Gene: Kumao_2 Start: 683, Stop: 321, Start Num: 18

Candidate Starts for Kumao_2:

(Start: 18 @683 has 1 MA's), (25, 653), (46, 494), (54, 458), (62, 419), (71, 365), (74, 341),

Gene: LeBron_121 Start: 66313, Stop: 65933, Start Num: 19

Candidate Starts for LeBron_121:

(Start: 12 @66343 has 3 MA's), (Start: 19 @66313 has 13 MA's), (Start: 20 @66307 has 38 MA's), (26, 66277), (39, 66181), (42, 66142), (43, 66136), (51, 66088), (64, 66025), (66, 66019), (67, 66016), (73, 65965), (76, 65953), (77, 65944),

Gene: Lewan_132 Start: 69930, Stop: 69556, Start Num: 20

Candidate Starts for Lewan_132:

(Start: 14 @69957 has 4 MA's), (Start: 15 @69951 has 2 MA's), (Start: 17 @69939 has 2 MA's), (Start: 20 @69930 has 38 MA's), (39, 69804), (42, 69765), (44, 69756), (47, 69732), (49, 69720), (64, 69648), (66, 69642), (67, 69639), (73, 69588), (75, 69579), (76, 69576),

Gene: LilDestine_127 Start: 68421, Stop: 68047, Start Num: 20

Candidate Starts for LilDestine_127:

(Start: 14 @68448 has 4 MA's), (Start: 15 @68442 has 2 MA's), (Start: 17 @68430 has 2 MA's), (Start: 20 @68421 has 38 MA's), (39, 68295), (42, 68256), (44, 68247), (47, 68223), (49, 68211), (64, 68139), (66, 68133), (67, 68130), (73, 68079), (75, 68070), (76, 68067),

Gene: LilhomieP_2 Start: 1191, Stop: 760, Start Num: 13

Candidate Starts for LilhomieP_2:

(Start: 13 @1191 has 20 MA's), (21, 1164), (30, 1110), (31, 1104), (36, 1080), (48, 993), (51, 978), (58, 942), (77, 834),

Gene: Loadrie_131 Start: 69990, Stop: 69589, Start Num: 14

Candidate Starts for Loadrie_131:

(Start: 14 @69990 has 4 MA's), (Start: 15 @69984 has 2 MA's), (Start: 17 @69972 has 2 MA's), (Start: 20 @69963 has 38 MA's), (39, 69837), (42, 69798), (44, 69789), (47, 69765), (49, 69753), (64, 69681), (66, 69675), (67, 69672), (73, 69621), (75, 69612), (76, 69609),

Gene: Lolly9_124 Start: 68974, Stop: 68594, Start Num: 20

Candidate Starts for Lolly9_124:

(Start: 20 @68974 has 38 MA's), (28, 68923), (37, 68869), (41, 68815), (42, 68806), (64, 68689), (66, 68683), (67, 68680), (72, 68641), (73, 68629), (75, 68620),

Gene: Lumos_124 Start: 68435, Stop: 68055, Start Num: 20

Candidate Starts for Lumos_124:

(Start: 20 @68435 has 38 MA's), (28, 68384), (37, 68330), (39, 68309), (42, 68267), (64, 68150), (66, 68144), (67, 68141), (72, 68102), (73, 68090), (75, 68081),

Gene: MAckerman_123 Start: 66690, Stop: 66310, Start Num: 19

Candidate Starts for MAckerman_123:

(Start: 12 @66720 has 3 MA's), (Start: 19 @66690 has 13 MA's), (Start: 20 @66684 has 38 MA's), (26, 66654), (39, 66558), (42, 66519), (43, 66513), (51, 66465), (64, 66402), (66, 66396), (67, 66393), (73, 66342), (76, 66330), (77, 66321),

Gene: Maruru_37 Start: 31228, Stop: 30860, Start Num: 23

Candidate Starts for Maruru_37:

(1, 32053), (3, 31402), (Start: 23 @31228 has 1 MA's), (28, 31189), (65, 30973),

Gene: Miley16_130 Start: 69639, Stop: 69265, Start Num: 20

Candidate Starts for Miley16_130:

(Start: 14 @69666 has 4 MA's), (Start: 15 @69660 has 2 MA's), (Start: 17 @69648 has 2 MA's), (Start: 20 @69639 has 38 MA's), (39, 69513), (42, 69474), (44, 69465), (47, 69441), (49, 69429), (64, 69357), (66, 69351), (67, 69348), (73, 69297), (75, 69288), (76, 69285),

Gene: MiniLon_128 Start: 68975, Stop: 68595, Start Num: 20

Candidate Starts for MiniLon_128:

(Start: 20 @68975 has 38 MA's), (28, 68924), (37, 68870), (41, 68816), (42, 68807), (64, 68690), (66, 68684), (67, 68681), (72, 68642), (73, 68630), (75, 68621),

Gene: MiniMac_128 Start: 68977, Stop: 68597, Start Num: 20

Candidate Starts for MiniMac_128:

(10, 69016), (Start: 12 @69013 has 3 MA's), (Start: 20 @68977 has 38 MA's), (28, 68926), (37, 68872), (41, 68818), (42, 68809), (64, 68692), (66, 68686), (67, 68683), (72, 68644), (73, 68632), (75, 68623),

Gene: MkaliMitinis3_132 Start: 69336, Stop: 68962, Start Num: 20

Candidate Starts for MkaliMitinis3_132:

(Start: 14 @69363 has 4 MA's), (Start: 15 @69357 has 2 MA's), (Start: 17 @69345 has 2 MA's), (Start: 20 @69336 has 38 MA's), (39, 69210), (42, 69171), (44, 69162), (47, 69138), (49, 69126), (64, 69054), (66, 69048), (67, 69045), (73, 68994), (75, 68985), (76, 68982),

Gene: Moostard_117 Start: 68428, Stop: 68048, Start Num: 20

Candidate Starts for Moostard_117:

(5, 68506), (10, 68467), (Start: 12 @68464 has 3 MA's), (Start: 20 @68428 has 38 MA's), (28, 68377), (37, 68323), (39, 68302), (42, 68260), (64, 68143), (66, 68137), (67, 68134), (72, 68095), (73, 68083), (75, 68074),

Gene: MrMagoo_2 Start: 1217, Stop: 795, Start Num: 13

Candidate Starts for MrMagoo_2:

(Start: 13 @1217 has 20 MA's), (21, 1190), (51, 1004), (58, 968), (65, 938), (73, 881), (74, 878), (77, 860),

Gene: MsGreen_125 Start: 68437, Stop: 68057, Start Num: 20

Candidate Starts for MsGreen_125:

(Start: 20 @68437 has 38 MA's), (28, 68386), (37, 68332), (39, 68311), (42, 68269), (64, 68152), (66, 68146), (67, 68143), (72, 68104), (73, 68092), (75, 68083),

Gene: Mufasa8_32 Start: 28225, Stop: 27818, Start Num: 11

Candidate Starts for Mufasa8_32:

(2, 28660), (9, 28228), (Start: 11 @28225 has 1 MA's), (Start: 23 @28177 has 1 MA's), (55, 27964), (63, 27934),

Gene: Nanosmite_2 Start: 1155, Stop: 733, Start Num: 13

Candidate Starts for Nanosmite_2:

(Start: 13 @1155 has 20 MA's), (21, 1128), (24, 1110), (35, 1047), (58, 906), (61, 897), (63, 891), (67, 870), (73, 819), (77, 798),

Gene: Netyap_128 Start: 69353, Stop: 68979, Start Num: 20

Candidate Starts for Netyap_128:

(Start: 14 @69380 has 4 MA's), (Start: 15 @69374 has 2 MA's), (Start: 17 @69362 has 2 MA's), (Start: 20 @69353 has 38 MA's), (39, 69227), (42, 69188), (44, 69179), (47, 69155), (49, 69143), (64, 69071), (66, 69065), (67, 69062), (73, 69011), (75, 69002), (76, 68999),

Gene: Nicholas_120 Start: 68433, Stop: 68053, Start Num: 20

Candidate Starts for Nicholas_120:

(10, 68472), (Start: 12 @68469 has 3 MA's), (Start: 20 @68433 has 38 MA's), (28, 68382), (37, 68328), (39, 68307), (42, 68265), (64, 68148), (66, 68142), (67, 68139), (72, 68100), (73, 68088), (75, 68079),

Gene: Nicholasp3_131 Start: 69433, Stop: 69038, Start Num: 15

Candidate Starts for Nicholasp3_131:

(Start: 14 @69439 has 4 MA's), (Start: 15 @69433 has 2 MA's), (Start: 17 @69421 has 2 MA's), (Start: 20 @69412 has 38 MA's), (39, 69286), (42, 69247), (44, 69238), (47, 69214), (49, 69202), (64, 69130), (66, 69124), (67, 69121), (73, 69070), (75, 69061), (76, 69058),

Gene: Octobien14_11 Start: 5485, Stop: 5117, Start Num: 22

Candidate Starts for Octobien14_11:

(6, 5554), (8, 5536), (Start: 22 @5485 has 6 MA's), (33, 5425), (36, 5404), (37, 5392), (52, 5290), (53, 5287), (55, 5275), (56, 5272), (59, 5254), (68, 5218), (70, 5203),

Gene: OhShagHennessy_114 Start: 65469, Stop: 65095, Start Num: 20

Candidate Starts for OhShagHennessy_114:

(Start: 12 @65505 has 3 MA's), (Start: 19 @65475 has 13 MA's), (Start: 20 @65469 has 38 MA's), (26, 65439), (39, 65343), (42, 65304), (43, 65298), (51, 65250), (64, 65187), (66, 65181), (67, 65178), (73, 65127), (76, 65115), (77, 65106),

Gene: PYPDinur_140 Start: 71174, Stop: 70788, Start Num: 20

Candidate Starts for PYPDinur_140:

(Start: 20 @71174 has 38 MA's), (27, 71135), (29, 71117), (39, 71048), (42, 71000), (45, 70979), (47, 70967), (50, 70949), (64, 70883), (66, 70877), (67, 70874), (73, 70823), (76, 70811), (77, 70802),

Gene: PegLeg_2 Start: 1190, Stop: 759, Start Num: 13

Candidate Starts for PegLeg_2:

(Start: 13 @1190 has 20 MA's), (21, 1163), (30, 1109), (31, 1103), (36, 1079), (48, 992), (51, 977), (58, 941), (77, 833),

Gene: Quby_143 Start: 71209, Stop: 70775, Start Num: 7

Candidate Starts for Quby_143:

(7, 71209), (Start: 20 @71161 has 38 MA's), (29, 71104), (31, 71095), (36, 71068), (39, 71035), (42, 70987), (45, 70966), (47, 70954), (50, 70936), (64, 70870), (66, 70864), (67, 70861), (73, 70810), (76, 70798), (77, 70789),

Gene: Red305_125 Start: 68438, Stop: 68058, Start Num: 20

Candidate Starts for Red305_125:

(Start: 20 @68438 has 38 MA's), (28, 68387), (37, 68333), (39, 68312), (42, 68270), (64, 68153), (66, 68147), (67, 68144), (72, 68105), (73, 68093), (75, 68084),

Gene: Reindeer_2 Start: 1201, Stop: 770, Start Num: 13

Candidate Starts for Reindeer_2:

(Start: 13 @1201 has 20 MA's), (21, 1174), (31, 1114), (36, 1090), (48, 1003), (51, 988), (58, 952), (77, 844),

Gene: Rey_2 Start: 1222, Stop: 800, Start Num: 13

Candidate Starts for Rey_2:

(Start: 13 @1222 has 20 MA's), (21, 1195), (38, 1090), (51, 1009), (58, 973), (65, 943), (69, 928), (74, 883), (77, 865),

Gene: Rose5_123 Start: 67017, Stop: 66607, Start Num: 12

Candidate Starts for Rose5_123:

(Start: 12 @67017 has 3 MA's), (Start: 19 @66987 has 13 MA's), (Start: 20 @66981 has 38 MA's), (26, 66951), (39, 66855), (42, 66816), (43, 66810), (51, 66762), (64, 66699), (66, 66693), (67, 66690), (73, 66639), (76, 66627), (77, 66618),

Gene: Samty_122 Start: 68420, Stop: 68040, Start Num: 20

Candidate Starts for Samty_122:

(Start: 20 @68420 has 38 MA's), (28, 68369), (37, 68315), (39, 68294), (42, 68252), (64, 68135), (66, 68129), (67, 68126), (72, 68087), (73, 68075), (75, 68066),

Gene: Sephiroth_11 Start: 4584, Stop: 4231, Start Num: 22

Candidate Starts for Sephiroth_11:

(Start: 22 @4584 has 6 MA's), (32, 4527), (33, 4524), (36, 4503), (37, 4491), (59, 4368), (70, 4317),

Gene: Sheng711_142 Start: 70786, Stop: 70391, Start Num: 20

Candidate Starts for Sheng711_142:

(4, 70882), (Start: 20 @70786 has 38 MA's), (27, 70747), (29, 70729), (39, 70660), (42, 70603), (45, 70582), (47, 70570), (50, 70552), (64, 70486), (66, 70480), (67, 70477), (73, 70426), (76, 70414), (77, 70405),

Gene: Silverleaf_119 Start: 66288, Stop: 65905, Start Num: 19

Candidate Starts for Silverleaf_119:

(Start: 12 @66318 has 3 MA's), (Start: 19 @66288 has 13 MA's), (Start: 20 @66282 has 38 MA's), (39, 66153), (42, 66114), (43, 66108), (51, 66060), (58, 66024), (64, 65997), (66, 65991), (67, 65988), (73, 65937), (75, 65928), (76, 65925), (77, 65916),

Gene: Skinny_2 Start: 1190, Stop: 759, Start Num: 13

Candidate Starts for Skinny_2:

(Start: 13 @1190 has 20 MA's), (21, 1163), (30, 1109), (31, 1103), (36, 1079), (48, 992), (51, 977), (58, 941), (77, 833),

Gene: SlimJimmy_2 Start: 1190, Stop: 759, Start Num: 13

Candidate Starts for SlimJimmy_2:

(Start: 13 @1190 has 20 MA's), (21, 1163), (30, 1109), (31, 1103), (36, 1079), (48, 992), (51, 977), (58, 941), (77, 833),

Gene: Snenia_123 Start: 68439, Stop: 68059, Start Num: 20

Candidate Starts for Snenia_123:

(Start: 20 @68439 has 38 MA's), (28, 68388), (37, 68334), (39, 68313), (42, 68271), (64, 68154), (66, 68148), (67, 68145), (72, 68106), (73, 68094), (75, 68085),

Gene: SoJulia_133 Start: 71415, Stop: 71041, Start Num: 20

Candidate Starts for SoJulia_133:

(Start: 14 @71442 has 4 MA's), (Start: 15 @71436 has 2 MA's), (Start: 17 @71424 has 2 MA's), (Start: 20 @71415 has 38 MA's), (39, 71289), (42, 71250), (44, 71241), (47, 71217), (49, 71205), (64, 71133), (66, 71127), (67, 71124), (73, 71073), (75, 71064), (76, 71061),

Gene: Soap141_131 Start: 70308, Stop: 69934, Start Num: 20

Candidate Starts for Soap141_131:

(Start: 14 @70335 has 4 MA's), (Start: 15 @70329 has 2 MA's), (Start: 17 @70317 has 2 MA's), (Start: 20 @70308 has 38 MA's), (39, 70182), (42, 70143), (44, 70134), (47, 70110), (49, 70098), (64, 70026), (66, 70020), (67, 70017), (73, 69966), (75, 69957), (76, 69954),

Gene: Sonali_36 Start: 31695, Stop: 31327, Start Num: 23

Candidate Starts for Sonali_36:

(Start: 23 @31695 has 1 MA's), (65, 31440), (73, 31386),

Gene: Sunshine23_37 Start: 31568, Stop: 31200, Start Num: 23

Candidate Starts for Sunshine23_37:

(Start: 23 @31568 has 1 MA's), (65, 31313), (73, 31259),

Gene: Syleon_11 Start: 4506, Stop: 4153, Start Num: 22

Candidate Starts for Syleon_11:

(Start: 22 @4506 has 6 MA's), (32, 4449), (33, 4446), (36, 4425), (37, 4413), (59, 4290), (70, 4239),

Gene: Tourach_132 Start: 70836, Stop: 70456, Start Num: 17

Candidate Starts for Tourach_132:

(Start: 17 @70836 has 2 MA's), (Start: 20 @70827 has 38 MA's), (30, 70770), (31, 70764), (36, 70737), (37, 70725), (40, 70680), (47, 70632), (49, 70620), (57, 70587), (58, 70575), (64, 70548), (66, 70542), (67, 70539), (73, 70488), (75, 70479), (76, 70476),

Gene: TriFive_124 Start: 68551, Stop: 68171, Start Num: 20

Candidate Starts for TriFive_124:

(Start: 20 @68551 has 38 MA's), (28, 68500), (37, 68446), (39, 68425), (42, 68383), (64, 68266), (66, 68260), (67, 68257), (72, 68218), (73, 68206), (75, 68197),

Gene: TyDawg_2 Start: 1191, Stop: 760, Start Num: 13

Candidate Starts for TyDawg_2:

(Start: 13 @1191 has 20 MA's), (21, 1164), (30, 1110), (31, 1104), (36, 1080), (48, 993), (51, 978), (58, 942), (77, 834),

Gene: Tyson_123 Start: 67447, Stop: 67037, Start Num: 12

Candidate Starts for Tyson_123:

(Start: 12 @67447 has 3 MA's), (Start: 19 @67417 has 13 MA's), (Start: 20 @67411 has 38 MA's), (26, 67381), (39, 67285), (42, 67246), (43, 67240), (51, 67192), (64, 67129), (66, 67123), (67, 67120), (73, 67069), (76, 67057), (77, 67048),

Gene: UPIE_121 Start: 66654, Stop: 66274, Start Num: 19

Candidate Starts for UPIE_121:

(Start: 12 @66684 has 3 MA's), (Start: 19 @66654 has 13 MA's), (Start: 20 @66648 has 38 MA's), (26, 66618), (39, 66522), (42, 66483), (43, 66477), (51, 66429), (64, 66366), (66, 66360), (67, 66357), (73, 66306), (76, 66294), (77, 66285),

Gene: Underpass_120 Start: 64452, Stop: 64078, Start Num: 20

Candidate Starts for Underpass_120:

(Start: 14 @64479 has 4 MA's), (Start: 15 @64473 has 2 MA's), (Start: 17 @64461 has 2 MA's), (Start: 20 @64452 has 38 MA's), (39, 64326), (42, 64287), (44, 64278), (47, 64254), (49, 64242), (64, 64170), (66, 64164), (67, 64161), (73, 64110), (75, 64101), (76, 64098),

Gene: Vetrix_130 Start: 69949, Stop: 69575, Start Num: 20

Candidate Starts for Vetrix_130:

(Start: 14 @69976 has 4 MA's), (Start: 15 @69970 has 2 MA's), (Start: 17 @69958 has 2 MA's), (Start: 20 @69949 has 38 MA's), (39, 69823), (42, 69784), (44, 69775), (47, 69751), (49, 69739), (64, 69667), (66, 69661), (67, 69658), (73, 69607), (75, 69598), (76, 69595),

Gene: Wamburgexpress_124 Start: 67320, Stop: 66940, Start Num: 19

Candidate Starts for Wamburgexpress_124:

(Start: 12 @67350 has 3 MA's), (Start: 19 @67320 has 13 MA's), (Start: 20 @67314 has 38 MA's), (26, 67284), (39, 67188), (42, 67149), (43, 67143), (51, 67095), (64, 67032), (66, 67026), (67, 67023), (73, 66972), (76, 66960), (77, 66951),

Gene: Whirlwind_124 Start: 68695, Stop: 68315, Start Num: 20

Candidate Starts for Whirlwind_124:

(Start: 20 @68695 has 38 MA's), (28, 68644), (37, 68590), (42, 68527), (60, 68434), (64, 68410), (66, 68404), (67, 68401), (72, 68362), (73, 68350), (75, 68341),

Gene: Wigglewobble_131 Start: 69545, Stop: 69171, Start Num: 20

Candidate Starts for Wigglewobble_131:

(Start: 14 @69572 has 4 MA's), (Start: 15 @69566 has 2 MA's), (Start: 17 @69554 has 2 MA's), (Start: 20 @69545 has 38 MA's), (39, 69419), (42, 69380), (44, 69371), (47, 69347), (49, 69335), (64, 69263), (66, 69257), (67, 69254), (73, 69203), (75, 69194), (76, 69191),

Gene: Wilder_131 Start: 69105, Stop: 68731, Start Num: 20

Candidate Starts for Wilder_131:

(Start: 14 @69132 has 4 MA's), (Start: 15 @69126 has 2 MA's), (Start: 17 @69114 has 2 MA's), (Start: 20 @69105 has 38 MA's), (39, 68979), (42, 68940), (44, 68931), (47, 68907), (49, 68895), (64, 68823), (66, 68817), (67, 68814), (73, 68763), (75, 68754), (76, 68751),

Gene: Winky_130 Start: 69667, Stop: 69266, Start Num: 14

Candidate Starts for Winky_130:

(Start: 14 @69667 has 4 MA's), (Start: 15 @69661 has 2 MA's), (Start: 17 @69649 has 2 MA's), (Start: 20 @69640 has 38 MA's), (39, 69514), (42, 69475), (44, 69466), (47, 69442), (49, 69430), (64, 69358), (66, 69352), (67, 69349), (73, 69298), (75, 69289), (76, 69286),

Gene: Wyatt2_122 Start: 67080, Stop: 66700, Start Num: 19

Candidate Starts for Wyatt2_122:

(Start: 12 @67110 has 3 MA's), (Start: 19 @67080 has 13 MA's), (Start: 20 @67074 has 38 MA's), (26, 67044), (39, 66948), (42, 66909), (43, 66903), (51, 66855), (64, 66792), (66, 66786), (67, 66783), (73, 66732), (76, 66720), (77, 66711),

Gene: Zakai_132 Start: 69350, Stop: 68976, Start Num: 20

Candidate Starts for Zakai_132:

(Start: 14 @69377 has 4 MA's), (Start: 15 @69371 has 2 MA's), (Start: 17 @69359 has 2 MA's), (Start: 20 @69350 has 38 MA's), (39, 69224), (42, 69185), (44, 69176), (47, 69152), (49, 69140), (64, 69068), (66, 69062), (67, 69059), (73, 69008), (75, 68999), (76, 68996),

Gene: Zaria_126 Start: 67389, Stop: 67009, Start Num: 19

Candidate Starts for Zaria_126:

(Start: 12 @67419 has 3 MA's), (Start: 19 @67389 has 13 MA's), (Start: 20 @67383 has 38 MA's), (26, 67353), (39, 67257), (42, 67218), (43, 67212), (51, 67164), (64, 67101), (66, 67095), (67, 67092), (73, 67041), (76, 67029), (77, 67020),

Gene: ZhongYanYuan_127 Start: 68833, Stop: 68459, Start Num: 20

Candidate Starts for ZhongYanYuan_127:

(Start: 17 @68842 has 2 MA's), (Start: 20 @68833 has 38 MA's), (47, 68635), (49, 68623), (64, 68551), (66, 68545), (67, 68542), (73, 68491), (75, 68482), (76, 68479),