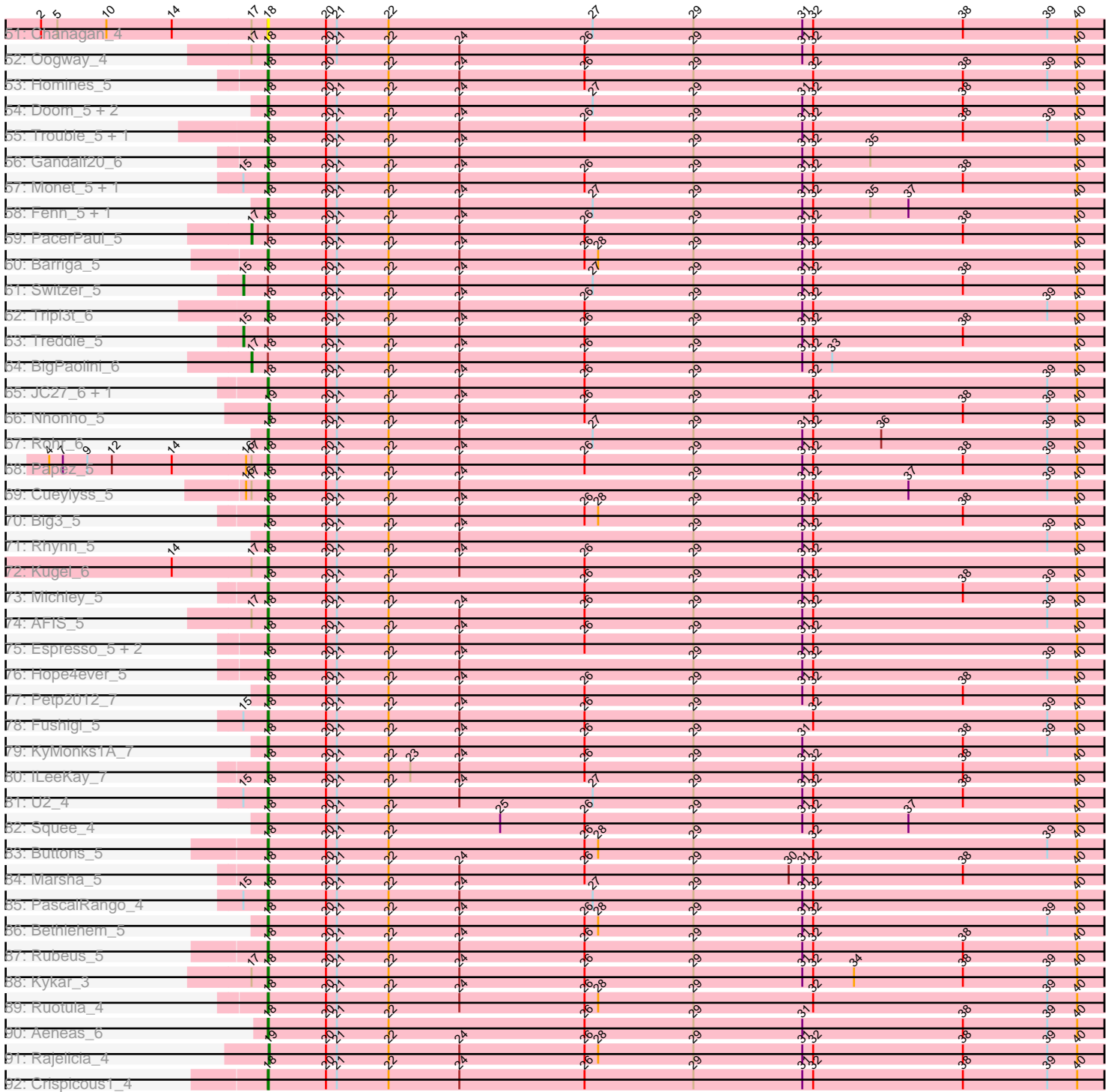


Pham 156111



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 156111 Report

This analysis was run 04/12/24 on database version 558.

Pham number 156111 has 208 members, 15 are drafts.

Phages represented in each track:

- Track 1 : Rufus_5
- Track 2 : Pita2_7, Pari_6, Swole_7, Alsfro_9, BPBiebs31_6, HermioneGrange_6, PSullivan_6, Tote_7, Tasp14_6, JuliaChild_7
- Track 3 : Ashballer_3, Abrogate_60
- Track 4 : Fascinus_4, BillKnuckles_5, Wheeler_5, CactusRose_4, Maroc7_4
- Track 5 : Euphoria_5, NEHalo_5, BaconJack_6
- Track 6 : Beatrix_4, Bexan_4, Alvin_6, Agaliana_5, Bob3_4, Altman_6, Sumter_4, Bones_5, IgnatiusPatJac_4, BluSpix_4, Pinto_7, HanShotFirst_5, StrongArm_4, Violet_4, Arlo_4, Lesedi_4, ConceptII_5, Kanely_6, RidgeCB_5, MPlant7149_4, Eyeball_5, Sibs6_6, Turj99_4
- Track 7 : Zephyr_5, Corvo_5, Ohno789_4, MaryBeth_5, MetalQZJ_5
- Track 8 : Carlyle_7
- Track 9 : TwoPeat_5
- Track 10 : Seabiscuit_6, McGuire_5, Dynamix_5, DD5_5, BeesKnees_5, Ichabod_5
- Track 11 : Bruns_3
- Track 12 : Jerm2_5, BigMau_6
- Track 13 : Dulcie_4, Museum_6, Burton_5, Graduation_6, GrecoEtereo_6, Nerujay_5, HarryOW_6, Hermia_5, TheloniousMonk_5, QTRlifeCrisis_5
- Track 14 : Solon_4
- Track 15 : Petruchio_5, Froghopper_6
- Track 16 : Paphu_4, Topgun_5, Scowl_6, Paraselene_4, StewieG_4, A6_03, GageAP_6, Licorice_7, MrGordo_5, Gyzlar_6, Magnar_5, SpikeBT_5, Mule_4, Pepe_6, Anglerfish_5, PhrostyMug_4, BK1_03, Marcell_5, Wilkins_5, Bxb1_4
- Track 17 : Mryolo_4
- Track 18 : KBG_5
- Track 19 : Snazzy_3
- Track 20 : LilBib_4
- Track 21 : Smairt_6
- Track 22 : Teodoridan_3, Ajay_5, Killigrew_3, PattyP_6
- Track 23 : KSSJEB_4, Molly_6, STLscum_6
- Track 24 : Dexes_6
- Track 25 : Target_6
- Track 26 : PherrisBueller_6, Jasper_6, Jorgensen_5, Dreamboat_6
- Track 27 : Makemake_5
- Track 28 : Applejack_5, Rutherferd_6, Gompeii16_5, Lockley_5, Sunshine924_4, Bircsak_5
- Track 29 : DrFeelGood_4, Zeuska_4

- Track 30 : Thor_5, JackSparrow_5, SarFire_5
- Track 31 : SkiPole_6
- Track 32 : Blue_5
- Track 33 : Zeeculate_4
- Track 34 : Pippin_6, Greg_6, Marge_5, Fajezeel_6, Acme_6
- Track 35 : Francis47_5, Pelly_6
- Track 36 : Edtherson_5, Traft412_7
- Track 37 : Slagathor_5, Arcanine_5
- Track 38 : Niza_6
- Track 39 : Norz_5
- Track 40 : Gwendoluna_5, Smeagol_6
- Track 41 : DreamCatcher_6, Atkinbua_5
- Track 42 : Ringer_4
- Track 43 : SwissCheese_5, Lamina13_5, Forsytheast_4, Moose_4
- Track 44 : Kenmech_6, Abbysshoes_6, Dussy_6
- Track 45 : Perseus_6
- Track 46 : Watermelon_7
- Track 47 : Ciao_5
- Track 48 : Seanderson_6, PinkPlastic_3
- Track 49 : Manatee_5
- Track 50 : Lopton_6
- Track 51 : Chanagan_4
- Track 52 : Oogway_4
- Track 53 : Homines_5
- Track 54 : Doom_5, Briton15_6, Adahisdi_6
- Track 55 : Trouble_5, Peterson_7
- Track 56 : Gandalf20_6
- Track 57 : Monet_5, Sagefire_6
- Track 58 : Fenn_5, Naira_5
- Track 59 : PacerPaul_5
- Track 60 : Barriga_5
- Track 61 : Switzer_5
- Track 62 : Tripl3t_6
- Track 63 : Treddle_5
- Track 64 : BigPaolini_6
- Track 65 : JC27_6, Bigfoot_4
- Track 66 : Nhonho_5
- Track 67 : Rohr_6
- Track 68 : Papez_5
- Track 69 : Cueylyss_5
- Track 70 : Big3_5
- Track 71 : Rhynn_5
- Track 72 : Kugel_6
- Track 73 : Michley_5
- Track 74 : AFIS_5
- Track 75 : Espresso_5, Magnito_4, Parliament_4
- Track 76 : Hope4ever_5
- Track 77 : Petp2012_7
- Track 78 : Fushigi_5
- Track 79 : KyMonks1A_7
- Track 80 : ILeeKay_7
- Track 81 : U2_4
- Track 82 : Squee_4

- Track 83 : Buttons_5
- Track 84 : Marsha_5
- Track 85 : PascalRango_4
- Track 86 : Bethlehem_5
- Track 87 : Rubeus_5
- Track 88 : Kykar_3
- Track 89 : Ruotula_4
- Track 90 : Aeneas_6
- Track 91 : Rajelicia_4
- Track 92 : Crispicous1_4

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

The start number called the most often in the published annotations is 18, it was called in 180 of the 193 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- A6_03, AFIS_5, Abbyshoes_6, Abrogate_60, Acme_6, Adahisdi_6, Aeneas_6, Agaliana_5, Ajay_5, Alsfro_9, Altman_6, Alvin_6, Anglerfish_5, Applejack_5, Arcanine_5, Arlo_4, Ashballer_3, BK1_03, BPBiebs31_6, BaconJack_6, Barriga_5, Beatrix_4, BeesKnees_5, Bethlehem_5, Bexan_4, Big3_5, BigMau_6, Bigfoot_4, BillKnuckles_5, Bircsak_5, BluSpix_4, Blue_5, Bob3_4, Bones_5, Briton15_6, Bruns_3, Burton_5, Buttons_5, Bxb1_4, CactusRose_4, Carlyle_7, Chanagan_4, Ciao_5, ConceptII_5, Corvo_5, Crispicous1_4, Cueylyss_5, DD5_5, Dexes_6, Doom_5, DrFeelGood_4, Dreamboat_6, Dulcie_4, Dussy_6, Dynamix_5, Edtherson_5, Espresso_5, Euphoria_5, Eyeball_5, Fajezeel_6, Fascinus_4, Fenn_5, Forsytheast_4, Francis47_5, Froghopper_6, Fushigi_5, GageAP_6, Gandalf20_6, Gompeii16_5, Graduation_6, GrecoEtereo_6, Greg_6, Gwendoluna_5, Gyzlar_6, HanShotFirst_5, HarryOW_6, Hermia_5, HermioneGrange_6, Homines_5, Hope4ever_5, ILeeKay_7, Ichabod_5, IgnatiusPatJac_4, JC27_6, JackSparrow_5, Jasper_6, Jerm2_5, Jorgensen_5, JuliaChild_7, KSSJEB_4, Kanely_6, Kenmech_6, Killigrew_3, Kugel_6, KyMonks1A_7, Kykar_3, Lamina13_5, Lesedi_4, Licorice_7, LilBib_4, Lockley_5, Lopton_6, MPlant7149_4, Magnar_5, Magnito_4, Makemake_5, Marcell_5, Marge_5, Maroc7_4, Marsha_5, MaryBeth_5, McGuire_5, MetalQZJ_5, Michley_5, Molly_6, Monet_5, Moose_4, MrGordo_5, Mryolo_4, Mule_4, Museum_6, NEHalo_5, Naira_5, Nerujay_5, Niza_6, Norz_5, Ohno789_4, Oogway_4, PSullivan_6, Papez_5, Paphu_4, Paraselene_4, Pari_6, Parliament_4, PascalRango_4, PattyP_6, Pelly_6, Pepe_6, Perseus_6, Peterson_7, Petp2012_7, Petruccio_5, PherrisBueller_6, PhrostyMug_4, Pinto_7, Pippin_6, Pita2_7, QTRlifeCrisis_5, Rhynn_5, RidgeCB_5, Ringer_4, Rohr_6, Rubeus_5, Rufus_5, Ruotula_4, Rutherford_6, STLscum_6, Sagefire_6, SarFire_5, Scowl_6, Seabiscuit_6, Sibs6_6, Slagathor_5, Smairt_6, Smeagol_6, Snazzy_3, Solon_4, SpikeBT_5, Squee_4, StewieG_4, StrongArm_4, Sumter_4, Sunshine924_4, SwissCheese_5, Swole_7, Target_6, Tasp14_6, Teodoridan_3, TheloniousMonk_5, Thor_5, Topgun_5, Tote_7, Traft412_7, Tripl3t_6, Trouble_5, Turj99_4, TwoPeat_5, U2_4, Violet_4, Watermelon_7, Wheeler_5, Wilkins_5, Zeeculate_4, Zephyr_5, Zeuska_4,

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

- BigPaolini_6, KBG_5, PacerPaul_5, SkiPole_6, Switzer_5, Treddle_5,

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

- Atkinbua_5, DreamCatcher_6, Manatee_5, Nhonho_5, PinkPlastic_3, Rajelicia_4, Seanderson_6,

Summary by start number:

Start 15:

- Found in 12 of 208 (5.8%) of genes in pham
- Manual Annotations of this start: 3 of 193
- Called 25.0% of time when present
- Phage (with cluster) where this start called: SkiPole_6 (A1), Switzer_5 (A1), Treddle_5 (A1),

Start 17:

- Found in 30 of 208 (14.4%) of genes in pham
- Manual Annotations of this start: 3 of 193
- Called 10.0% of time when present
- Phage (with cluster) where this start called: BigPaolini_6 (A1), KBG_5 (A1), PacerPaul_5 (A1),

Start 18:

- Found in 201 of 208 (96.6%) of genes in pham
- Manual Annotations of this start: 180 of 193
- Called 97.0% of time when present
- Phage (with cluster) where this start called: A6_03 (A1), AFIS_5 (A1), Abbysshoes_6 (A1), Abrogate_60 (A1), Acme_6 (A1), Adahisdi_6 (A1), Aeneas_6 (A1), Agaliana_5 (A1), Ajay_5 (A1), Alsfro_9 (A1), Altman_6 (A1), Alvin_6 (A1), Anglerfish_5 (A1), Applejack_5 (A1), Arcanine_5 (A1), Arlo_4 (A1), Ashballer_3 (A1), BK1_03 (A1), BPBiebs31_6 (A1), BaconJack_6 (A1), Barriga_5 (A1), Beatrix_4 (A1), BeesKnees_5 (A1), Bethlehem_5 (A1), Bexan_4 (A1), Big3_5 (A1), BigMau_6 (A1), Bigfoot_4 (A1), BillKnuckles_5 (A1), Bircsak_5 (A1), BluSpix_4 (A1), Blue_5 (A1), Bob3_4 (A1), Bones_5 (A1), Briton15_6 (A1), Bruns_3 (A1), Burton_5 (A1), Buttons_5 (A1), Bxb1_4 (A1), CactusRose_4 (A1), Carlyle_7 (A1), Chanagan_4 (A1), Ciao_5 (A1), Conceptll_5 (A1), Corvo_5 (A1), Crispicous1_4 (A1), Cueylyss_5 (A1), DD5_5 (A1), Dexes_6 (A1), Doom_5 (A1), DrFeelGood_4 (A1), Dreamboat_6 (A1), Dulcie_4 (A1), Dussy_6 (A1), Dynamix_5 (A1), Edtherson_5 (A1), Espresso_5 (A1), Euphoria_5 (A1), Eyeball_5 (A1), Fajezeel_6 (A1), Fascinus_4 (A1), Fenn_5 (A1), Forsytheast_4 (A1), Francis47_5 (A1), Froghopper_6 (A1), Fushigi_5 (A1), GageAP_6 (A1), Gandalf20_6 (A1), Gompeii16_5 (A1), Graduation_6 (A1), GrecoEtereo_6 (A1), Greg_6 (A1), Gwendoluna_5 (A1), Gyzlar_6 (A1), HanShotFirst_5 (A1), HarryOW_6 (A1), Hermia_5 (A1), HermioneGrange_6 (A1), Homines_5 (A1), Hope4ever_5 (A1), ILeeKay_7 (A1), Ichabod_5 (A1), IgnatiusPatJac_4 (A1), JC27_6 (A1), JackSparrow_5 (A1), Jasper_6 (A1), Jerm2_5 (A1), Jorgensen_5 (A1), JuliaChild_7 (A1), KSSJEB_4 (A1), Kanely_6 (A1), Kenmech_6 (A1), Killigrew_3 (A1), Kugel_6 (A1), KyMonks1A_7 (A1), Kykar_3 (A1), Lamina13_5 (A1), Lesedi_4 (A1), Licorice_7 (A1), LiiBib_4 (A1), Lockley_5 (A1), Lopton_6 (A1), MPlant7149_4 (A1), Magnar_5 (A1), Magnito_4 (A1), Makemake_5 (A1), Marcell_5 (A1), Marge_5 (A1), Maroc7_4 (A1), Marsha_5 (A1), MaryBeth_5 (A1), McGuire_5 (A1), MetalQZJ_5 (A1), Michley_5 (A1), Molly_6 (A1), Monet_5 (A1), Moose_4 (A1), MrGordo_5 (A1), Mryolo_4 (A1), Mule_4 (A1), Museum_6 (A1), NEHalo_5 (A1), Naira_5 (A1), Nerujay_5 (A1), Niza_6 (A1), Norz_5 (A1), Ohno789_4 (A1), Oogway_4 (A1), PSullivan_6 (A1), Papez_5 (A1), Paphu_4 (A1), Paraselene_4 (A1), Pari_6 (A1),

Parliament_4 (A1), PascalRango_4 (A1), PattyP_6 (A1), Pelly_6 (A1), Pepe_6 (A1), Perseus_6 (A1), Peterson_7 (A1), Petp2012_7 (A1), Petruccio_5 (A1), PherrisBueller_6 (A1), PhrostyMug_4 (A1), Pinto_7 (A1), Pippin_6 (A1), Pita2_7 (A1), QTRLifeCrisis_5 (A1), Rhynn_5 (A1), RidgeCB_5 (A1), Ringer_4 (A1), Rohr_6 (A1), Rubeus_5 (A1), Rufus_5 (A1), Ruotula_4 (A1), Rutherford_6 (A1), STLscum_6 (A1), Sagefire_6 (A1), SarFire_5 (A1), Scowl_6 (A1), Seabiscuit_6 (A1), Sibs6_6 (A1), Slagathor_5 (A1), Smairt_6 (A1), Smeagol_6 (A1), Snazzy_3 (A1), Solon_4 (A1), SpikeBT_5 (A1), Squee_4 (A1), StewieG_4 (A1), StrongArm_4 (A1), Sumter_4 (A1), Sunshine924_4 (A1), SwissCheese_5 (A1), Swole_7 (A1), Target_6 (A1), Tasp14_6 (A1), Teodoridan_3 (A1), TheloniousMonk_5 (A1), Thor_5 (A1), Topgun_5 (A1), Tote_7 (A1), Traft412_7 (A1), Tripl3t_6 (A1), Trouble_5 (A1), Turj99_4 (A1), TwoPeat_5 (A1), U2_4 (A1), Violet_4 (A1), Watermelon_7 (A1), Wheeler_5 (A1), Wilkins_5 (A1), Zeeculate_4 (A1), Zephyr_5 (A1), Zeuska_4 (A1),

Start 19:

- Found in 7 of 208 (3.4%) of genes in pham
- Manual Annotations of this start: 7 of 193
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Atkinbua_5 (A1), DreamCatcher_6 (A1), Manatee_5 (A1), Nhonho_5 (A1), PinkPlastic_3 (A1), Rajelicia_4 (A1), Seanderson_6 (A1),

Summary by clusters:

There is one cluster represented in this pham: A1

Info for manual annotations of cluster A1:

- Start number 15 was manually annotated 3 times for cluster A1.
- Start number 17 was manually annotated 3 times for cluster A1.
- Start number 18 was manually annotated 180 times for cluster A1.
- Start number 19 was manually annotated 7 times for cluster A1.

Gene Information:

Gene: A6_03 Start: 1841, Stop: 2911, Start Num: 18

Candidate Starts for A6_03:

(Start: 18 @1841 has 180 MA's), (20, 1904), (21, 1916), (22, 1973), (24, 2051), (26, 2189), (29, 2309), (31, 2429), (32, 2441), (38, 2606), (39, 2699), (40, 2732),

Gene: AFIS_5 Start: 2208, Stop: 3278, Start Num: 18

Candidate Starts for AFIS_5:

(Start: 17 @2190 has 3 MA's), (Start: 18 @2208 has 180 MA's), (20, 2271), (21, 2283), (22, 2340), (24, 2418), (26, 2556), (29, 2676), (31, 2796), (32, 2808), (39, 3066), (40, 3099),

Gene: Abbyshoes_6 Start: 2288, Stop: 3358, Start Num: 18

Candidate Starts for Abbyshoes_6:

(Start: 18 @2288 has 180 MA's), (20, 2351), (21, 2363), (22, 2420), (24, 2498), (27, 2645), (29, 2756), (32, 2888), (38, 3053), (39, 3146), (40, 3179),

Gene: Abrogate_60 Start: 2939, Stop: 4009, Start Num: 18

Candidate Starts for Abrogate_60:

(Start: 15 @2912 has 3 MA's), (Start: 18 @2939 has 180 MA's), (20, 3002), (21, 3014), (22, 3071), (24, 3149), (26, 3287), (29, 3407), (31, 3527), (32, 3539), (38, 3704), (39, 3797), (40, 3830),

Gene: Acme_6 Start: 2121, Stop: 3191, Start Num: 18

Candidate Starts for Acme_6:

(Start: 17 @2103 has 3 MA's), (Start: 18 @2121 has 180 MA's), (20, 2184), (21, 2196), (22, 2253), (24, 2331), (26, 2469), (29, 2589), (31, 2709), (32, 2721), (38, 2886), (40, 3012),

Gene: Adahisdi_6 Start: 2515, Stop: 3585, Start Num: 18

Candidate Starts for Adahisdi_6:

(Start: 18 @2515 has 180 MA's), (20, 2578), (21, 2590), (22, 2647), (24, 2725), (27, 2872), (29, 2983), (31, 3103), (32, 3115), (38, 3280), (40, 3406),

Gene: Aeneas_6 Start: 2400, Stop: 3470, Start Num: 18

Candidate Starts for Aeneas_6:

(Start: 18 @2400 has 180 MA's), (20, 2463), (21, 2475), (22, 2532), (26, 2748), (29, 2868), (31, 2988), (38, 3165), (39, 3258), (40, 3291),

Gene: Agaliana_5 Start: 2324, Stop: 3394, Start Num: 18

Candidate Starts for Agaliana_5:

(Start: 18 @2324 has 180 MA's), (20, 2387), (21, 2399), (22, 2456), (24, 2534), (26, 2672), (29, 2792), (31, 2912), (32, 2924), (38, 3089), (40, 3215),

Gene: Ajay_5 Start: 2352, Stop: 3422, Start Num: 18

Candidate Starts for Ajay_5:

(Start: 18 @2352 has 180 MA's), (20, 2415), (21, 2427), (22, 2484), (24, 2562), (27, 2709), (29, 2820), (31, 2940), (32, 2952), (40, 3243),

Gene: Alsfro_9 Start: 3036, Stop: 4106, Start Num: 18

Candidate Starts for Alsfro_9:

(Start: 18 @3036 has 180 MA's), (20, 3099), (21, 3111), (22, 3168), (24, 3246), (27, 3393), (29, 3504), (31, 3624), (32, 3636), (40, 3927),

Gene: Altman_6 Start: 2858, Stop: 3928, Start Num: 18

Candidate Starts for Altman_6:

(Start: 18 @2858 has 180 MA's), (20, 2921), (21, 2933), (22, 2990), (24, 3068), (26, 3206), (29, 3326), (31, 3446), (32, 3458), (38, 3623), (40, 3749),

Gene: Alvin_6 Start: 2566, Stop: 3636, Start Num: 18

Candidate Starts for Alvin_6:

(Start: 18 @2566 has 180 MA's), (20, 2629), (21, 2641), (22, 2698), (24, 2776), (26, 2914), (29, 3034), (31, 3154), (32, 3166), (38, 3331), (40, 3457),

Gene: Anglerfish_5 Start: 1883, Stop: 2953, Start Num: 18

Candidate Starts for Anglerfish_5:

(Start: 18 @1883 has 180 MA's), (20, 1946), (21, 1958), (22, 2015), (24, 2093), (26, 2231), (29, 2351), (31, 2471), (32, 2483), (38, 2648), (39, 2741), (40, 2774),

Gene: Applejack_5 Start: 2258, Stop: 3328, Start Num: 18

Candidate Starts for Applejack_5:

(Start: 17 @2240 has 3 MA's), (Start: 18 @2258 has 180 MA's), (20, 2321), (21, 2333), (22, 2390), (24, 2468), (26, 2606), (29, 2726), (31, 2846), (32, 2858), (38, 3023), (39, 3116), (40, 3149),

Gene: Arcanine_5 Start: 1849, Stop: 2919, Start Num: 18

Candidate Starts for Arcanine_5:

(Start: 18 @1849 has 180 MA's), (20, 1912), (21, 1924), (22, 1981), (24, 2059), (26, 2197), (29, 2317), (30, 2422), (31, 2437), (32, 2449), (35, 2512), (40, 2740),

Gene: Arlo_4 Start: 1883, Stop: 2953, Start Num: 18

Candidate Starts for Arlo_4:

(Start: 18 @1883 has 180 MA's), (20, 1946), (21, 1958), (22, 2015), (24, 2093), (26, 2231), (29, 2351), (31, 2471), (32, 2483), (38, 2648), (40, 2774),

Gene: Ashballer_3 Start: 1752, Stop: 2822, Start Num: 18

Candidate Starts for Ashballer_3:

(Start: 15 @1725 has 3 MA's), (Start: 18 @1752 has 180 MA's), (20, 1815), (21, 1827), (22, 1884), (24, 1962), (26, 2100), (29, 2220), (31, 2340), (32, 2352), (38, 2517), (39, 2610), (40, 2643),

Gene: Atkinbua_5 Start: 1921, Stop: 2991, Start Num: 19

Candidate Starts for Atkinbua_5:

(Start: 19 @1921 has 7 MA's), (20, 1984), (21, 1996), (22, 2053), (24, 2131), (26, 2269), (29, 2389), (31, 2509), (32, 2521), (38, 2686), (39, 2779), (40, 2812),

Gene: BK1_03 Start: 1841, Stop: 2911, Start Num: 18

Candidate Starts for BK1_03:

(Start: 18 @1841 has 180 MA's), (20, 1904), (21, 1916), (22, 1973), (24, 2051), (26, 2189), (29, 2309), (31, 2429), (32, 2441), (38, 2606), (39, 2699), (40, 2732),

Gene: BPBiebs31_6 Start: 2522, Stop: 3592, Start Num: 18

Candidate Starts for BPBiebs31_6:

(Start: 18 @2522 has 180 MA's), (20, 2585), (21, 2597), (22, 2654), (24, 2732), (27, 2879), (29, 2990), (31, 3110), (32, 3122), (40, 3413),

Gene: BaconJack_6 Start: 2106, Stop: 3176, Start Num: 18

Candidate Starts for BaconJack_6:

(Start: 18 @2106 has 180 MA's), (20, 2169), (21, 2181), (22, 2238), (24, 2316), (26, 2454), (29, 2574), (31, 2694), (32, 2706), (39, 2964), (40, 2997),

Gene: Barriga_5 Start: 2138, Stop: 3208, Start Num: 18

Candidate Starts for Barriga_5:

(Start: 18 @2138 has 180 MA's), (20, 2201), (21, 2213), (22, 2270), (24, 2348), (26, 2486), (28, 2501), (29, 2606), (31, 2726), (32, 2738), (40, 3029),

Gene: Beatrix_4 Start: 1955, Stop: 3025, Start Num: 18

Candidate Starts for Beatrix_4:

(Start: 18 @1955 has 180 MA's), (20, 2018), (21, 2030), (22, 2087), (24, 2165), (26, 2303), (29, 2423), (31, 2543), (32, 2555), (38, 2720), (40, 2846),

Gene: BeesKnees_5 Start: 2002, Stop: 3072, Start Num: 18

Candidate Starts for BeesKnees_5:

(Start: 18 @2002 has 180 MA's), (20, 2065), (21, 2077), (22, 2134), (24, 2212), (27, 2359), (29, 2470), (31, 2590), (32, 2602), (38, 2767), (39, 2860), (40, 2893),

Gene: Bethlehem_5 Start: 2529, Stop: 3599, Start Num: 18

Candidate Starts for Bethlehem_5:

(Start: 18 @2529 has 180 MA's), (20, 2592), (21, 2604), (22, 2661), (24, 2739), (26, 2877), (28, 2892), (29, 2997), (31, 3117), (32, 3129), (39, 3387), (40, 3420),

Gene: Bexan_4 Start: 1955, Stop: 3025, Start Num: 18

Candidate Starts for Bexan_4:

(Start: 18 @1955 has 180 MA's), (20, 2018), (21, 2030), (22, 2087), (24, 2165), (26, 2303), (29, 2423), (31, 2543), (32, 2555), (38, 2720), (40, 2846),

Gene: Big3_5 Start: 1899, Stop: 2969, Start Num: 18

Candidate Starts for Big3_5:

(Start: 18 @1899 has 180 MA's), (20, 1962), (21, 1974), (22, 2031), (24, 2109), (26, 2247), (28, 2262), (29, 2367), (31, 2487), (32, 2499), (38, 2664), (40, 2790),

Gene: BigMau_6 Start: 2006, Stop: 3076, Start Num: 18

Candidate Starts for BigMau_6:

(Start: 18 @2006 has 180 MA's), (20, 2069), (21, 2081), (22, 2138), (24, 2216), (26, 2354), (29, 2474), (31, 2594), (32, 2606), (40, 2897),

Gene: BigPaolini_6 Start: 2897, Stop: 3985, Start Num: 17

Candidate Starts for BigPaolini_6:

(Start: 17 @2897 has 3 MA's), (Start: 18 @2915 has 180 MA's), (20, 2978), (21, 2990), (22, 3047), (24, 3125), (26, 3263), (29, 3383), (31, 3503), (32, 3515), (33, 3536), (40, 3806),

Gene: Bigfoot_4 Start: 2014, Stop: 3084, Start Num: 18

Candidate Starts for Bigfoot_4:

(Start: 18 @2014 has 180 MA's), (20, 2077), (21, 2089), (22, 2146), (24, 2224), (26, 2362), (29, 2482), (32, 2614), (39, 2872), (40, 2905),

Gene: BillKnuckles_5 Start: 2380, Stop: 3450, Start Num: 18

Candidate Starts for BillKnuckles_5:

(Start: 18 @2380 has 180 MA's), (20, 2443), (21, 2455), (22, 2512), (24, 2590), (26, 2728), (29, 2848), (32, 2980), (38, 3145), (39, 3238), (40, 3271),

Gene: Bircsak_5 Start: 2491, Stop: 3561, Start Num: 18

Candidate Starts for Bircsak_5:

(Start: 17 @2473 has 3 MA's), (Start: 18 @2491 has 180 MA's), (20, 2554), (21, 2566), (22, 2623), (24, 2701), (26, 2839), (29, 2959), (31, 3079), (32, 3091), (38, 3256), (39, 3349), (40, 3382),

Gene: BluSpix_4 Start: 2282, Stop: 3352, Start Num: 18

Candidate Starts for BluSpix_4:

(Start: 18 @2282 has 180 MA's), (20, 2345), (21, 2357), (22, 2414), (24, 2492), (26, 2630), (29, 2750), (31, 2870), (32, 2882), (38, 3047), (40, 3173),

Gene: Blue_5 Start: 2383, Stop: 3453, Start Num: 18

Candidate Starts for Blue_5:

(Start: 18 @2383 has 180 MA's), (20, 2446), (21, 2458), (22, 2515), (24, 2593), (26, 2731), (28, 2746), (29, 2851), (31, 2971), (32, 2983), (37, 3088), (40, 3274),

Gene: Bob3_4 Start: 1846, Stop: 2916, Start Num: 18

Candidate Starts for Bob3_4:

(Start: 18 @1846 has 180 MA's), (20, 1909), (21, 1921), (22, 1978), (24, 2056), (26, 2194), (29, 2314), (31, 2434), (32, 2446), (38, 2611), (40, 2737),

Gene: Bones_5 Start: 2039, Stop: 3109, Start Num: 18

Candidate Starts for Bones_5:

(Start: 18 @2039 has 180 MA's), (20, 2102), (21, 2114), (22, 2171), (24, 2249), (26, 2387), (29, 2507), (31, 2627), (32, 2639), (38, 2804), (40, 2930),

Gene: Briton15_6 Start: 2057, Stop: 3127, Start Num: 18

Candidate Starts for Briton15_6:

(Start: 18 @2057 has 180 MA's), (20, 2120), (21, 2132), (22, 2189), (24, 2267), (27, 2414), (29, 2525), (31, 2645), (32, 2657), (38, 2822), (40, 2948),

Gene: Bruns_3 Start: 1690, Stop: 2760, Start Num: 18

Candidate Starts for Bruns_3:

(Start: 18 @1690 has 180 MA's), (20, 1753), (22, 1822), (24, 1900), (27, 2047), (29, 2158), (31, 2278), (32, 2290), (39, 2548), (40, 2581),

Gene: Burton_5 Start: 1907, Stop: 2977, Start Num: 18

Candidate Starts for Burton_5:

(Start: 18 @1907 has 180 MA's), (20, 1970), (21, 1982), (22, 2039), (24, 2117), (26, 2255), (29, 2375), (31, 2495), (32, 2507), (39, 2765), (40, 2798),

Gene: Buttons_5 Start: 1900, Stop: 2970, Start Num: 18

Candidate Starts for Buttons_5:

(Start: 18 @1900 has 180 MA's), (20, 1963), (21, 1975), (22, 2032), (26, 2248), (28, 2263), (29, 2368), (32, 2500), (39, 2758), (40, 2791),

Gene: Bxb1_4 Start: 2291, Stop: 3361, Start Num: 18

Candidate Starts for Bxb1_4:

(Start: 18 @2291 has 180 MA's), (20, 2354), (21, 2366), (22, 2423), (24, 2501), (26, 2639), (29, 2759), (31, 2879), (32, 2891), (38, 3056), (39, 3149), (40, 3182),

Gene: CactusRose_4 Start: 2013, Stop: 3083, Start Num: 18

Candidate Starts for CactusRose_4:

(Start: 18 @2013 has 180 MA's), (20, 2076), (21, 2088), (22, 2145), (24, 2223), (26, 2361), (29, 2481), (32, 2613), (38, 2778), (39, 2871), (40, 2904),

Gene: Carlyle_7 Start: 2854, Stop: 3924, Start Num: 18

Candidate Starts for Carlyle_7:

(Start: 18 @2854 has 180 MA's), (20, 2917), (21, 2929), (22, 2986), (24, 3064), (26, 3202), (29, 3322), (31, 3442), (32, 3454), (38, 3619), (39, 3712), (40, 3745),

Gene: Chanagan_4 Start: 1872, Stop: 2942, Start Num: 18

Candidate Starts for Chanagan_4:

(2, 1623), (5, 1641), (10, 1695), (14, 1767), (Start: 17 @1854 has 3 MA's), (Start: 18 @1872 has 180 MA's), (20, 1935), (21, 1947), (22, 2004), (27, 2229), (29, 2340), (31, 2460), (32, 2472), (38, 2637), (39, 2730), (40, 2763),

Gene: Ciao_5 Start: 2245, Stop: 3315, Start Num: 18

Candidate Starts for Ciao_5:

(Start: 18 @2245 has 180 MA's), (20, 2308), (21, 2320), (22, 2377), (24, 2455), (26, 2593), (28, 2608), (29, 2713), (31, 2833), (32, 2845), (35, 2908), (37, 2950), (40, 3136),

Gene: ConceptII_5 Start: 2494, Stop: 3564, Start Num: 18

Candidate Starts for ConceptII_5:

(Start: 18 @2494 has 180 MA's), (20, 2557), (21, 2569), (22, 2626), (24, 2704), (26, 2842), (29, 2962), (31, 3082), (32, 3094), (38, 3259), (40, 3385),

Gene: Corvo_5 Start: 2440, Stop: 3510, Start Num: 18

Candidate Starts for Corvo_5:

(Start: 18 @2440 has 180 MA's), (20, 2503), (21, 2515), (22, 2572), (24, 2650), (27, 2797), (29, 2908), (31, 3028), (32, 3040), (37, 3145), (40, 3331),

Gene: Crispicous1_4 Start: 1736, Stop: 2806, Start Num: 18

Candidate Starts for Crispicous1_4:

(Start: 18 @1736 has 180 MA's), (20, 1799), (21, 1811), (22, 1868), (24, 1946), (26, 2084), (29, 2204), (31, 2324), (32, 2336), (38, 2501), (39, 2594), (40, 2627),

Gene: Cueylyss_5 Start: 2374, Stop: 3444, Start Num: 18

Candidate Starts for Cueylyss_5:

(16, 2350), (Start: 17 @2356 has 3 MA's), (Start: 18 @2374 has 180 MA's), (20, 2437), (21, 2449), (22, 2506), (24, 2584), (29, 2842), (31, 2962), (32, 2974), (37, 3079), (39, 3232), (40, 3265),

Gene: DD5_5 Start: 2422, Stop: 3492, Start Num: 18

Candidate Starts for DD5_5:

(Start: 18 @2422 has 180 MA's), (20, 2485), (21, 2497), (22, 2554), (24, 2632), (27, 2779), (29, 2890), (31, 3010), (32, 3022), (38, 3187), (39, 3280), (40, 3313),

Gene: Dexes_6 Start: 2878, Stop: 3948, Start Num: 18

Candidate Starts for Dexes_6:

(1, 2620), (3, 2635), (4, 2638), (14, 2773), (16, 2854), (Start: 17 @2860 has 3 MA's), (Start: 18 @2878 has 180 MA's), (20, 2941), (21, 2953), (22, 3010), (24, 3088), (26, 3226), (29, 3346), (31, 3466), (32, 3478), (38, 3643), (40, 3769),

Gene: Doom_5 Start: 2516, Stop: 3586, Start Num: 18

Candidate Starts for Doom_5:

(Start: 18 @2516 has 180 MA's), (20, 2579), (21, 2591), (22, 2648), (24, 2726), (27, 2873), (29, 2984), (31, 3104), (32, 3116), (38, 3281), (40, 3407),

Gene: DrFeelGood_4 Start: 2053, Stop: 3123, Start Num: 18

Candidate Starts for DrFeelGood_4:

(Start: 18 @2053 has 180 MA's), (20, 2116), (21, 2128), (22, 2185), (24, 2263), (26, 2401), (28, 2416), (29, 2521), (31, 2641), (32, 2653), (38, 2818), (39, 2911), (40, 2944),

Gene: DreamCatcher_6 Start: 2650, Stop: 3720, Start Num: 19

Candidate Starts for DreamCatcher_6:

(Start: 19 @2650 has 7 MA's), (20, 2713), (21, 2725), (22, 2782), (24, 2860), (26, 2998), (29, 3118), (31, 3238), (32, 3250), (38, 3415), (39, 3508), (40, 3541),

Gene: Dreamboat_6 Start: 2119, Stop: 3189, Start Num: 18

Candidate Starts for Dreamboat_6:

(Start: 18 @2119 has 180 MA's), (20, 2182), (21, 2194), (22, 2251), (24, 2329), (29, 2587), (31, 2707), (32, 2719), (37, 2824), (40, 3010),

Gene: Dulcie_4 Start: 1951, Stop: 3021, Start Num: 18

Candidate Starts for Dulcie_4:

(Start: 18 @1951 has 180 MA's), (20, 2014), (21, 2026), (22, 2083), (24, 2161), (26, 2299), (29, 2419), (31, 2539), (32, 2551), (39, 2809), (40, 2842),

Gene: Dussy_6 Start: 2288, Stop: 3358, Start Num: 18

Candidate Starts for Dussy_6:

(Start: 18 @2288 has 180 MA's), (20, 2351), (21, 2363), (22, 2420), (24, 2498), (27, 2645), (29, 2756), (32, 2888), (38, 3053), (39, 3146), (40, 3179),

Gene: Dynamix_5 Start: 2004, Stop: 3074, Start Num: 18

Candidate Starts for Dynamix_5:

(Start: 18 @2004 has 180 MA's), (20, 2067), (21, 2079), (22, 2136), (24, 2214), (27, 2361), (29, 2472), (31, 2592), (32, 2604), (38, 2769), (39, 2862), (40, 2895),

Gene: Edtherson_5 Start: 2210, Stop: 3280, Start Num: 18

Candidate Starts for Edtherson_5:

(Start: 18 @2210 has 180 MA's), (20, 2273), (21, 2285), (22, 2342), (24, 2420), (26, 2558), (29, 2678), (31, 2798), (32, 2810), (40, 3101),

Gene: Espresso_5 Start: 2369, Stop: 3439, Start Num: 18

Candidate Starts for Espresso_5:

(Start: 18 @2369 has 180 MA's), (20, 2432), (21, 2444), (22, 2501), (24, 2579), (26, 2717), (29, 2837), (31, 2957), (32, 2969), (40, 3260),

Gene: Euphoria_5 Start: 2267, Stop: 3337, Start Num: 18

Candidate Starts for Euphoria_5:

(Start: 18 @2267 has 180 MA's), (20, 2330), (21, 2342), (22, 2399), (24, 2477), (26, 2615), (29, 2735), (31, 2855), (32, 2867), (39, 3125), (40, 3158),

Gene: Eyeball_5 Start: 2047, Stop: 3117, Start Num: 18

Candidate Starts for Eyeball_5:

(Start: 18 @2047 has 180 MA's), (20, 2110), (21, 2122), (22, 2179), (24, 2257), (26, 2395), (29, 2515), (31, 2635), (32, 2647), (38, 2812), (40, 2938),

Gene: Fajezeel_6 Start: 2089, Stop: 3159, Start Num: 18

Candidate Starts for Fajezeel_6:

(Start: 17 @2071 has 3 MA's), (Start: 18 @2089 has 180 MA's), (20, 2152), (21, 2164), (22, 2221), (24, 2299), (26, 2437), (29, 2557), (31, 2677), (32, 2689), (38, 2854), (40, 2980),

Gene: Fascinus_4 Start: 2015, Stop: 3085, Start Num: 18

Candidate Starts for Fascinus_4:

(Start: 18 @2015 has 180 MA's), (20, 2078), (21, 2090), (22, 2147), (24, 2225), (26, 2363), (29, 2483), (32, 2615), (38, 2780), (39, 2873), (40, 2906),

Gene: Fenn_5 Start: 2235, Stop: 3305, Start Num: 18

Candidate Starts for Fenn_5:

(Start: 18 @2235 has 180 MA's), (20, 2298), (21, 2310), (22, 2367), (24, 2445), (27, 2592), (29, 2703), (31, 2823), (32, 2835), (35, 2898), (37, 2940), (40, 3126),

Gene: Forsytheast_4 Start: 2279, Stop: 3349, Start Num: 18

Candidate Starts for Forsytheast_4:

(Start: 18 @2279 has 180 MA's), (20, 2342), (21, 2354), (22, 2411), (24, 2489), (27, 2636), (29, 2747), (31, 2867), (32, 2879), (39, 3137), (40, 3170),

Gene: Francis47_5 Start: 2537, Stop: 3607, Start Num: 18

Candidate Starts for Francis47_5:

(Start: 17 @2519 has 3 MA's), (Start: 18 @2537 has 180 MA's), (20, 2600), (21, 2612), (22, 2669), (24, 2747), (26, 2885), (28, 2900), (29, 3005), (31, 3125), (32, 3137), (38, 3302), (40, 3428),

Gene: Froghopper_6 Start: 1949, Stop: 3019, Start Num: 18

Candidate Starts for Froghopper_6:

(Start: 17 @1931 has 3 MA's), (Start: 18 @1949 has 180 MA's), (20, 2012), (21, 2024), (22, 2081), (26, 2297), (29, 2417), (31, 2537), (32, 2549), (40, 2840),

Gene: Fushigi_5 Start: 2169, Stop: 3239, Start Num: 18

Candidate Starts for Fushigi_5:

(Start: 15 @2142 has 3 MA's), (Start: 18 @2169 has 180 MA's), (20, 2232), (21, 2244), (22, 2301), (24, 2379), (26, 2517), (29, 2637), (32, 2769), (39, 3027), (40, 3060),

Gene: GageAP_6 Start: 2503, Stop: 3573, Start Num: 18

Candidate Starts for GageAP_6:

(Start: 18 @2503 has 180 MA's), (20, 2566), (21, 2578), (22, 2635), (24, 2713), (26, 2851), (29, 2971), (31, 3091), (32, 3103), (38, 3268), (39, 3361), (40, 3394),

Gene: Gandalf20_6 Start: 2379, Stop: 3449, Start Num: 18

Candidate Starts for Gandalf20_6:

(Start: 18 @2379 has 180 MA's), (20, 2442), (21, 2454), (22, 2511), (24, 2589), (29, 2847), (31, 2967), (32, 2979), (35, 3042), (40, 3270),

Gene: Gompeii16_5 Start: 2491, Stop: 3561, Start Num: 18

Candidate Starts for Gompeii16_5:

(Start: 17 @2473 has 3 MA's), (Start: 18 @2491 has 180 MA's), (20, 2554), (21, 2566), (22, 2623), (24, 2701), (26, 2839), (29, 2959), (31, 3079), (32, 3091), (38, 3256), (39, 3349), (40, 3382),

Gene: Graduation_6 Start: 2366, Stop: 3436, Start Num: 18

Candidate Starts for Graduation_6:

(Start: 18 @2366 has 180 MA's), (20, 2429), (21, 2441), (22, 2498), (24, 2576), (26, 2714), (29, 2834), (31, 2954), (32, 2966), (39, 3224), (40, 3257),

Gene: GrecoEtereo_6 Start: 2573, Stop: 3643, Start Num: 18

Candidate Starts for GrecoEtereo_6:

(Start: 18 @2573 has 180 MA's), (20, 2636), (21, 2648), (22, 2705), (24, 2783), (26, 2921), (29, 3041), (31, 3161), (32, 3173), (39, 3431), (40, 3464),

Gene: Greg_6 Start: 2089, Stop: 3159, Start Num: 18

Candidate Starts for Greg_6:

(Start: 17 @2071 has 3 MA's), (Start: 18 @2089 has 180 MA's), (20, 2152), (21, 2164), (22, 2221), (24, 2299), (26, 2437), (29, 2557), (31, 2677), (32, 2689), (38, 2854), (40, 2980),

Gene: Gwendoluna_5 Start: 2371, Stop: 3441, Start Num: 18

Candidate Starts for Gwendoluna_5:

(Start: 18 @2371 has 180 MA's), (20, 2434), (21, 2446), (22, 2503), (24, 2581), (26, 2719), (28, 2734), (29, 2839), (31, 2959), (32, 2971), (38, 3136), (40, 3262),

Gene: Gyzlar_6 Start: 2708, Stop: 3778, Start Num: 18

Candidate Starts for Gyzlar_6:

(Start: 18 @2708 has 180 MA's), (20, 2771), (21, 2783), (22, 2840), (24, 2918), (26, 3056), (29, 3176), (31, 3296), (32, 3308), (38, 3473), (39, 3566), (40, 3599),

Gene: HanShotFirst_5 Start: 1882, Stop: 2952, Start Num: 18

Candidate Starts for HanShotFirst_5:

(Start: 18 @1882 has 180 MA's), (20, 1945), (21, 1957), (22, 2014), (24, 2092), (26, 2230), (29, 2350), (31, 2470), (32, 2482), (38, 2647), (40, 2773),

Gene: HarryOW_6 Start: 2573, Stop: 3643, Start Num: 18

Candidate Starts for HarryOW_6:

(Start: 18 @2573 has 180 MA's), (20, 2636), (21, 2648), (22, 2705), (24, 2783), (26, 2921), (29, 3041), (31, 3161), (32, 3173), (39, 3431), (40, 3464),

Gene: Hermia_5 Start: 2454, Stop: 3524, Start Num: 18

Candidate Starts for Hermia_5:

(Start: 18 @2454 has 180 MA's), (20, 2517), (21, 2529), (22, 2586), (24, 2664), (26, 2802), (29, 2922), (31, 3042), (32, 3054), (39, 3312), (40, 3345),

Gene: HermioneGrange_6 Start: 2007, Stop: 3077, Start Num: 18

Candidate Starts for HermioneGrange_6:

(Start: 18 @2007 has 180 MA's), (20, 2070), (21, 2082), (22, 2139), (24, 2217), (27, 2364), (29, 2475), (31, 2595), (32, 2607), (40, 2898),

Gene: Homines_5 Start: 2286, Stop: 3356, Start Num: 18

Candidate Starts for Homines_5:

(Start: 18 @2286 has 180 MA's), (20, 2349), (22, 2418), (24, 2496), (26, 2634), (29, 2754), (32, 2886), (38, 3051), (39, 3144), (40, 3177),

Gene: Hope4ever_5 Start: 2413, Stop: 3483, Start Num: 18

Candidate Starts for Hope4ever_5:

(Start: 18 @2413 has 180 MA's), (20, 2476), (21, 2488), (22, 2545), (24, 2623), (29, 2881), (31, 3001), (32, 3013), (39, 3271), (40, 3304),

Gene: ILeeKay_7 Start: 2484, Stop: 3554, Start Num: 18

Candidate Starts for ILeeKay_7:

(Start: 18 @2484 has 180 MA's), (20, 2547), (21, 2559), (22, 2616), (23, 2640), (24, 2694), (26, 2832), (29, 2952), (31, 3072), (32, 3084), (38, 3249), (40, 3375),

Gene: Ichabod_5 Start: 2006, Stop: 3076, Start Num: 18

Candidate Starts for Ichabod_5:

(Start: 18 @2006 has 180 MA's), (20, 2069), (21, 2081), (22, 2138), (24, 2216), (27, 2363), (29, 2474), (31, 2594), (32, 2606), (38, 2771), (39, 2864), (40, 2897),

Gene: IgnatiusPatJac_4 Start: 2282, Stop: 3352, Start Num: 18

Candidate Starts for IgnatiusPatJac_4:

(Start: 18 @2282 has 180 MA's), (20, 2345), (21, 2357), (22, 2414), (24, 2492), (26, 2630), (29, 2750), (31, 2870), (32, 2882), (38, 3047), (40, 3173),

Gene: JC27_6 Start: 2704, Stop: 3774, Start Num: 18

Candidate Starts for JC27_6:

(Start: 18 @2704 has 180 MA's), (20, 2767), (21, 2779), (22, 2836), (24, 2914), (26, 3052), (29, 3172), (32, 3304), (39, 3562), (40, 3595),

Gene: JackSparrow_5 Start: 2271, Stop: 3341, Start Num: 18

Candidate Starts for JackSparrow_5:

(Start: 18 @2271 has 180 MA's), (20, 2334), (21, 2346), (22, 2403), (26, 2619), (29, 2739), (31, 2859), (32, 2871), (39, 3129), (40, 3162),

Gene: Jasper_6 Start: 2119, Stop: 3189, Start Num: 18

Candidate Starts for Jasper_6:

(Start: 18 @2119 has 180 MA's), (20, 2182), (21, 2194), (22, 2251), (24, 2329), (29, 2587), (31, 2707), (32, 2719), (37, 2824), (40, 3010),

Gene: Jerm2_5 Start: 2006, Stop: 3076, Start Num: 18

Candidate Starts for Jerm2_5:

(Start: 18 @2006 has 180 MA's), (20, 2069), (21, 2081), (22, 2138), (24, 2216), (26, 2354), (29, 2474), (31, 2594), (32, 2606), (40, 2897),

Gene: Jorgensen_5 Start: 2024, Stop: 3094, Start Num: 18

Candidate Starts for Jorgensen_5:

(Start: 18 @2024 has 180 MA's), (20, 2087), (21, 2099), (22, 2156), (24, 2234), (29, 2492), (31, 2612), (32, 2624), (37, 2729), (40, 2915),

Gene: JuliaChild_7 Start: 2748, Stop: 3818, Start Num: 18

Candidate Starts for JuliaChild_7:

(Start: 18 @2748 has 180 MA's), (20, 2811), (21, 2823), (22, 2880), (24, 2958), (27, 3105), (29, 3216), (31, 3336), (32, 3348), (40, 3639),

Gene: KBG_5 Start: 2621, Stop: 3709, Start Num: 17

Candidate Starts for KBG_5:

(Start: 17 @2621 has 3 MA's), (Start: 18 @2639 has 180 MA's), (20, 2702), (21, 2714), (22, 2771), (24, 2849), (26, 2987), (28, 3002), (29, 3107), (31, 3227), (32, 3239), (38, 3404), (40, 3530),

Gene: KSSJEB_4 Start: 1764, Stop: 2834, Start Num: 18

Candidate Starts for KSSJEB_4:

(Start: 18 @1764 has 180 MA's), (20, 1827), (21, 1839), (22, 1896), (24, 1974), (27, 2121), (29, 2232), (31, 2352), (32, 2364), (38, 2529), (39, 2622), (40, 2655),

Gene: Kanely_6 Start: 2858, Stop: 3928, Start Num: 18

Candidate Starts for Kanely_6:

(Start: 18 @2858 has 180 MA's), (20, 2921), (21, 2933), (22, 2990), (24, 3068), (26, 3206), (29, 3326), (31, 3446), (32, 3458), (38, 3623), (40, 3749),

Gene: Kenmech_6 Start: 2288, Stop: 3358, Start Num: 18

Candidate Starts for Kenmech_6:

(Start: 18 @2288 has 180 MA's), (20, 2351), (21, 2363), (22, 2420), (24, 2498), (27, 2645), (29, 2756), (32, 2888), (38, 3053), (39, 3146), (40, 3179),

Gene: Killigrew_3 Start: 1751, Stop: 2818, Start Num: 18

Candidate Starts for Killigrew_3:

(Start: 18 @1751 has 180 MA's), (20, 1814), (21, 1826), (22, 1883), (24, 1961), (27, 2108), (29, 2219), (31, 2339), (32, 2351), (40, 2642),

Gene: Kugel_6 Start: 2326, Stop: 3396, Start Num: 18

Candidate Starts for Kugel_6:

(14, 2221), (Start: 17 @2308 has 3 MA's), (Start: 18 @2326 has 180 MA's), (20, 2389), (21, 2401), (22, 2458), (24, 2536), (26, 2674), (29, 2794), (31, 2914), (32, 2926), (40, 3217),

Gene: KyMonks1A_7 Start: 2592, Stop: 3662, Start Num: 18

Candidate Starts for KyMonks1A_7:

(Start: 18 @2592 has 180 MA's), (20, 2655), (21, 2667), (22, 2724), (24, 2802), (26, 2940), (29, 3060), (31, 3180), (38, 3357), (39, 3450), (40, 3483),

Gene: Kykar_3 Start: 1803, Stop: 2873, Start Num: 18

Candidate Starts for Kykar_3:

(Start: 17 @1785 has 3 MA's), (Start: 18 @1803 has 180 MA's), (20, 1866), (21, 1878), (22, 1935), (24, 2013), (26, 2151), (29, 2271), (31, 2391), (32, 2403), (34, 2448), (38, 2568), (39, 2661), (40, 2694),

Gene: Lamina13_5 Start: 1880, Stop: 2950, Start Num: 18

Candidate Starts for Lamina13_5:

(Start: 18 @1880 has 180 MA's), (20, 1943), (21, 1955), (22, 2012), (24, 2090), (27, 2237), (29, 2348), (31, 2468), (32, 2480), (39, 2738), (40, 2771),

Gene: Lesedi_4 Start: 2018, Stop: 3088, Start Num: 18

Candidate Starts for Lesedi_4:

(Start: 18 @2018 has 180 MA's), (20, 2081), (21, 2093), (22, 2150), (24, 2228), (26, 2366), (29, 2486), (31, 2606), (32, 2618), (38, 2783), (40, 2909),

Gene: Licorice_7 Start: 2877, Stop: 3947, Start Num: 18

Candidate Starts for Licorice_7:

(Start: 18 @2877 has 180 MA's), (20, 2940), (21, 2952), (22, 3009), (24, 3087), (26, 3225), (29, 3345), (31, 3465), (32, 3477), (38, 3642), (39, 3735), (40, 3768),

Gene: LilBib_4 Start: 2061, Stop: 3131, Start Num: 18

Candidate Starts for LilBib_4:

(Start: 15 @2034 has 3 MA's), (Start: 18 @2061 has 180 MA's), (20, 2124), (21, 2136), (22, 2193), (24, 2271), (26, 2409), (29, 2529), (31, 2649), (32, 2661), (40, 2952),

Gene: Lockley_5 Start: 2199, Stop: 3269, Start Num: 18

Candidate Starts for Lockley_5:

(Start: 17 @2181 has 3 MA's), (Start: 18 @2199 has 180 MA's), (20, 2262), (21, 2274), (22, 2331), (24, 2409), (26, 2547), (29, 2667), (31, 2787), (32, 2799), (38, 2964), (39, 3057), (40, 3090),

Gene: Lopton_6 Start: 2613, Stop: 3683, Start Num: 18

Candidate Starts for Lopton_6:

(Start: 18 @2613 has 180 MA's), (20, 2676), (21, 2688), (22, 2745), (24, 2823), (27, 2970), (29, 3081), (31, 3201), (32, 3213), (37, 3318), (40, 3504),

Gene: MPlant7149_4 Start: 1846, Stop: 2916, Start Num: 18

Candidate Starts for MPlant7149_4:

(Start: 18 @1846 has 180 MA's), (20, 1909), (21, 1921), (22, 1978), (24, 2056), (26, 2194), (29, 2314), (31, 2434), (32, 2446), (38, 2611), (40, 2737),

Gene: Magnar_5 Start: 1998, Stop: 3068, Start Num: 18

Candidate Starts for Magnar_5:

(Start: 18 @1998 has 180 MA's), (20, 2061), (21, 2073), (22, 2130), (24, 2208), (26, 2346), (29, 2466), (31, 2586), (32, 2598), (38, 2763), (39, 2856), (40, 2889),

Gene: Magnito_4 Start: 1734, Stop: 2804, Start Num: 18

Candidate Starts for Magnito_4:

(Start: 18 @1734 has 180 MA's), (20, 1797), (21, 1809), (22, 1866), (24, 1944), (26, 2082), (29, 2202), (31, 2322), (32, 2334), (40, 2625),

Gene: Makemake_5 Start: 2471, Stop: 3541, Start Num: 18

Candidate Starts for Makemake_5:

(Start: 18 @2471 has 180 MA's), (20, 2534), (21, 2546), (22, 2603), (24, 2681), (26, 2819), (29, 2939), (31, 3059), (32, 3071), (37, 3176), (40, 3362),

Gene: Manatee_5 Start: 1933, Stop: 3003, Start Num: 19

Candidate Starts for Manatee_5:

(Start: 19 @1933 has 7 MA's), (20, 1996), (21, 2008), (22, 2065), (24, 2143), (26, 2281), (28, 2296), (29, 2401), (31, 2521), (32, 2533), (39, 2791), (40, 2824),

Gene: Marcell_5 Start: 2194, Stop: 3264, Start Num: 18

Candidate Starts for Marcell_5:

(Start: 18 @2194 has 180 MA's), (20, 2257), (21, 2269), (22, 2326), (24, 2404), (26, 2542), (29, 2662), (31, 2782), (32, 2794), (38, 2959), (39, 3052), (40, 3085),

Gene: Marge_5 Start: 2215, Stop: 3285, Start Num: 18

Candidate Starts for Marge_5:

(Start: 17 @2197 has 3 MA's), (Start: 18 @2215 has 180 MA's), (20, 2278), (21, 2290), (22, 2347), (24, 2425), (26, 2563), (29, 2683), (31, 2803), (32, 2815), (38, 2980), (40, 3106),

Gene: Maroc7_4 Start: 2016, Stop: 3086, Start Num: 18

Candidate Starts for Maroc7_4:

(Start: 18 @2016 has 180 MA's), (20, 2079), (21, 2091), (22, 2148), (24, 2226), (26, 2364), (29, 2484), (32, 2616), (38, 2781), (39, 2874), (40, 2907),

Gene: Marsha_5 Start: 2469, Stop: 3539, Start Num: 18

Candidate Starts for Marsha_5:

(Start: 18 @2469 has 180 MA's), (20, 2532), (21, 2544), (22, 2601), (24, 2679), (26, 2817), (29, 2937), (30, 3042), (31, 3057), (32, 3069), (38, 3234), (40, 3360),

Gene: MaryBeth_5 Start: 2440, Stop: 3510, Start Num: 18

Candidate Starts for MaryBeth_5:

(Start: 18 @2440 has 180 MA's), (20, 2503), (21, 2515), (22, 2572), (24, 2650), (27, 2797), (29, 2908), (31, 3028), (32, 3040), (37, 3145), (40, 3331),

Gene: McGuire_5 Start: 2000, Stop: 3070, Start Num: 18

Candidate Starts for McGuire_5:

(Start: 18 @2000 has 180 MA's), (20, 2063), (21, 2075), (22, 2132), (24, 2210), (27, 2357), (29, 2468), (31, 2588), (32, 2600), (38, 2765), (39, 2858), (40, 2891),

Gene: MetalQZJ_5 Start: 2440, Stop: 3510, Start Num: 18

Candidate Starts for MetalQZJ_5:

(Start: 18 @2440 has 180 MA's), (20, 2503), (21, 2515), (22, 2572), (24, 2650), (27, 2797), (29, 2908), (31, 3028), (32, 3040), (37, 3145), (40, 3331),

Gene: Michley_5 Start: 2199, Stop: 3269, Start Num: 18

Candidate Starts for Michley_5:

(Start: 18 @2199 has 180 MA's), (20, 2262), (21, 2274), (22, 2331), (26, 2547), (29, 2667), (31, 2787), (32, 2799), (38, 2964), (39, 3057), (40, 3090),

Gene: Molly_6 Start: 2046, Stop: 3116, Start Num: 18

Candidate Starts for Molly_6:

(Start: 18 @2046 has 180 MA's), (20, 2109), (21, 2121), (22, 2178), (24, 2256), (27, 2403), (29, 2514), (31, 2634), (32, 2646), (38, 2811), (39, 2904), (40, 2937),

Gene: Monet_5 Start: 2169, Stop: 3239, Start Num: 18

Candidate Starts for Monet_5:

(Start: 15 @2142 has 3 MA's), (Start: 18 @2169 has 180 MA's), (20, 2232), (21, 2244), (22, 2301), (24, 2379), (26, 2517), (29, 2637), (31, 2757), (32, 2769), (38, 2934), (40, 3060),

Gene: Moose_4 Start: 2279, Stop: 3349, Start Num: 18

Candidate Starts for Moose_4:

(Start: 18 @2279 has 180 MA's), (20, 2342), (21, 2354), (22, 2411), (24, 2489), (27, 2636), (29, 2747), (31, 2867), (32, 2879), (39, 3137), (40, 3170),

Gene: MrGordo_5 Start: 2032, Stop: 3102, Start Num: 18

Candidate Starts for MrGordo_5:

(Start: 18 @2032 has 180 MA's), (20, 2095), (21, 2107), (22, 2164), (24, 2242), (26, 2380), (29, 2500), (31, 2620), (32, 2632), (38, 2797), (39, 2890), (40, 2923),

Gene: Mryolo_4 Start: 2015, Stop: 3085, Start Num: 18

Candidate Starts for Mryolo_4:

(Start: 18 @2015 has 180 MA's), (20, 2078), (21, 2090), (22, 2147), (24, 2225), (26, 2363), (29, 2483), (32, 2615), (37, 2720), (40, 2906),

Gene: Mule_4 Start: 2104, Stop: 3174, Start Num: 18

Candidate Starts for Mule_4:

(Start: 18 @2104 has 180 MA's), (20, 2167), (21, 2179), (22, 2236), (24, 2314), (26, 2452), (29, 2572), (31, 2692), (32, 2704), (38, 2869), (39, 2962), (40, 2995),

Gene: Museum_6 Start: 1846, Stop: 2916, Start Num: 18

Candidate Starts for Museum_6:

(Start: 18 @1846 has 180 MA's), (20, 1909), (21, 1921), (22, 1978), (24, 2056), (26, 2194), (29, 2314), (31, 2434), (32, 2446), (39, 2704), (40, 2737),

Gene: NEHalo_5 Start: 1840, Stop: 2910, Start Num: 18

Candidate Starts for NEHalo_5:

(Start: 18 @1840 has 180 MA's), (20, 1903), (21, 1915), (22, 1972), (24, 2050), (26, 2188), (29, 2308), (31, 2428), (32, 2440), (39, 2698), (40, 2731),

Gene: Naira_5 Start: 2235, Stop: 3305, Start Num: 18

Candidate Starts for Naira_5:

(Start: 18 @2235 has 180 MA's), (20, 2298), (21, 2310), (22, 2367), (24, 2445), (27, 2592), (29, 2703), (31, 2823), (32, 2835), (35, 2898), (37, 2940), (40, 3126),

Gene: Nerujay_5 Start: 2133, Stop: 3203, Start Num: 18

Candidate Starts for Nerujay_5:

(Start: 18 @2133 has 180 MA's), (20, 2196), (21, 2208), (22, 2265), (24, 2343), (26, 2481), (29, 2601), (31, 2721), (32, 2733), (39, 2991), (40, 3024),

Gene: Nhonho_5 Start: 2136, Stop: 3206, Start Num: 19

Candidate Starts for Nhonho_5:

(Start: 19 @2136 has 7 MA's), (20, 2199), (21, 2211), (22, 2268), (24, 2346), (26, 2484), (29, 2604), (32, 2736), (38, 2901), (39, 2994), (40, 3027),

Gene: Niza_6 Start: 2852, Stop: 3922, Start Num: 18

Candidate Starts for Niza_6:

(Start: 18 @2852 has 180 MA's), (20, 2915), (21, 2927), (22, 2984), (24, 3062), (26, 3200), (29, 3320), (31, 3440), (32, 3452), (37, 3557), (38, 3617), (40, 3743),

Gene: Norz_5 Start: 2232, Stop: 3302, Start Num: 18

Candidate Starts for Norz_5:

(3, 1992), (6, 2007), (8, 2034), (11, 2061), (13, 2127), (Start: 17 @2214 has 3 MA's), (Start: 18 @2232 has 180 MA's), (20, 2295), (21, 2307), (22, 2364), (24, 2442), (27, 2589), (29, 2700), (31, 2820), (32, 2832), (38, 2997), (40, 3123),

Gene: Ohno789_4 Start: 1689, Stop: 2759, Start Num: 18

Candidate Starts for Ohno789_4:

(Start: 18 @1689 has 180 MA's), (20, 1752), (21, 1764), (22, 1821), (24, 1899), (27, 2046), (29, 2157), (31, 2277), (32, 2289), (37, 2394), (40, 2580),

Gene: Oogway_4 Start: 2260, Stop: 3330, Start Num: 18

Candidate Starts for Oogway_4:

(Start: 17 @2242 has 3 MA's), (Start: 18 @2260 has 180 MA's), (20, 2323), (21, 2335), (22, 2392), (24, 2470), (26, 2608), (29, 2728), (31, 2848), (32, 2860), (40, 3151),

Gene: PSullivan_6 Start: 2748, Stop: 3818, Start Num: 18

Candidate Starts for PSullivan_6:

(Start: 18 @2748 has 180 MA's), (20, 2811), (21, 2823), (22, 2880), (24, 2958), (27, 3105), (29, 3216), (31, 3336), (32, 3348), (40, 3639),

Gene: PacerPaul_5 Start: 2519, Stop: 3607, Start Num: 17

Candidate Starts for PacerPaul_5:

(Start: 17 @2519 has 3 MA's), (Start: 18 @2537 has 180 MA's), (20, 2600), (21, 2612), (22, 2669), (24, 2747), (26, 2885), (29, 3005), (31, 3125), (32, 3137), (38, 3302), (40, 3428),

Gene: Papez_5 Start: 2355, Stop: 3425, Start Num: 18

Candidate Starts for Papez_5:

(4, 2115), (7, 2130), (9, 2157), (12, 2184), (14, 2250), (16, 2331), (Start: 17 @2337 has 3 MA's), (Start: 18 @2355 has 180 MA's), (20, 2418), (21, 2430), (22, 2487), (24, 2565), (26, 2703), (29, 2823), (31, 2943), (32, 2955), (38, 3120), (39, 3213), (40, 3246),

Gene: Paphu_4 Start: 1726, Stop: 2796, Start Num: 18

Candidate Starts for Paphu_4:

(Start: 18 @1726 has 180 MA's), (20, 1789), (21, 1801), (22, 1858), (24, 1936), (26, 2074), (29, 2194), (31, 2314), (32, 2326), (38, 2491), (39, 2584), (40, 2617),

Gene: Paraselene_4 Start: 2010, Stop: 3080, Start Num: 18

Candidate Starts for Paraselene_4:

(Start: 18 @2010 has 180 MA's), (20, 2073), (21, 2085), (22, 2142), (24, 2220), (26, 2358), (29, 2478), (31, 2598), (32, 2610), (38, 2775), (39, 2868), (40, 2901),

Gene: Pari_6 Start: 2500, Stop: 3570, Start Num: 18

Candidate Starts for Pari_6:

(Start: 18 @2500 has 180 MA's), (20, 2563), (21, 2575), (22, 2632), (24, 2710), (27, 2857), (29, 2968), (31, 3088), (32, 3100), (40, 3391),

Gene: Parliament_4 Start: 2207, Stop: 3277, Start Num: 18

Candidate Starts for Parliament_4:

(Start: 18 @2207 has 180 MA's), (20, 2270), (21, 2282), (22, 2339), (24, 2417), (26, 2555), (29, 2675), (31, 2795), (32, 2807), (40, 3098),

Gene: PascalRango_4 Start: 1883, Stop: 2953, Start Num: 18

Candidate Starts for PascalRango_4:

(Start: 15 @1856 has 3 MA's), (Start: 18 @1883 has 180 MA's), (20, 1946), (21, 1958), (22, 2015), (24, 2093), (27, 2240), (29, 2351), (31, 2471), (32, 2483), (40, 2774),

Gene: PattyP_6 Start: 2041, Stop: 3111, Start Num: 18

Candidate Starts for PattyP_6:

(Start: 18 @2041 has 180 MA's), (20, 2104), (21, 2116), (22, 2173), (24, 2251), (27, 2398), (29, 2509), (31, 2629), (32, 2641), (40, 2932),

Gene: Pelly_6 Start: 2680, Stop: 3750, Start Num: 18

Candidate Starts for Pelly_6:

(Start: 17 @2662 has 3 MA's), (Start: 18 @2680 has 180 MA's), (20, 2743), (21, 2755), (22, 2812), (24, 2890), (26, 3028), (28, 3043), (29, 3148), (31, 3268), (32, 3280), (38, 3445), (40, 3571),

Gene: Pepe_6 Start: 2703, Stop: 3773, Start Num: 18

Candidate Starts for Pepe_6:

(Start: 18 @2703 has 180 MA's), (20, 2766), (21, 2778), (22, 2835), (24, 2913), (26, 3051), (29, 3171), (31, 3291), (32, 3303), (38, 3468), (39, 3561), (40, 3594),

Gene: Perseus_6 Start: 2400, Stop: 3470, Start Num: 18

Candidate Starts for Perseus_6:

(Start: 18 @2400 has 180 MA's), (20, 2463), (21, 2475), (22, 2532), (24, 2610), (26, 2748), (29, 2868), (31, 2988), (32, 3000), (38, 3165), (39, 3258), (40, 3291),

Gene: Peterson_7 Start: 3535, Stop: 4605, Start Num: 18

Candidate Starts for Peterson_7:

(Start: 18 @3535 has 180 MA's), (20, 3598), (21, 3610), (22, 3667), (24, 3745), (26, 3883), (29, 4003), (31, 4123), (32, 4135), (38, 4300), (39, 4393), (40, 4426),

Gene: Petp2012_7 Start: 2208, Stop: 3278, Start Num: 18

Candidate Starts for Petp2012_7:

(Start: 18 @2208 has 180 MA's), (20, 2271), (21, 2283), (22, 2340), (24, 2418), (26, 2556), (29, 2676), (31, 2796), (32, 2808), (38, 2973), (40, 3099),

Gene: Petruccio_5 Start: 1949, Stop: 3019, Start Num: 18

Candidate Starts for Petruccio_5:

(Start: 17 @1931 has 3 MA's), (Start: 18 @1949 has 180 MA's), (20, 2012), (21, 2024), (22, 2081), (26, 2297), (29, 2417), (31, 2537), (32, 2549), (40, 2840),

Gene: PherrisBueller_6 Start: 2119, Stop: 3189, Start Num: 18

Candidate Starts for PherrisBueller_6:

(Start: 18 @2119 has 180 MA's), (20, 2182), (21, 2194), (22, 2251), (24, 2329), (29, 2587), (31, 2707), (32, 2719), (37, 2824), (40, 3010),

Gene: PhrostyMug_4 Start: 2104, Stop: 3174, Start Num: 18

Candidate Starts for PhrostyMug_4:

(Start: 18 @2104 has 180 MA's), (20, 2167), (21, 2179), (22, 2236), (24, 2314), (26, 2452), (29, 2572), (31, 2692), (32, 2704), (38, 2869), (39, 2962), (40, 2995),

Gene: PinkPlastic_3 Start: 1763, Stop: 2833, Start Num: 19

Candidate Starts for PinkPlastic_3:

(Start: 19 @1763 has 7 MA's), (20, 1826), (21, 1838), (22, 1895), (24, 1973), (26, 2111), (29, 2231), (31, 2351), (32, 2363), (39, 2621), (40, 2654),

Gene: Pinto_7 Start: 2390, Stop: 3460, Start Num: 18

Candidate Starts for Pinto_7:

(Start: 18 @2390 has 180 MA's), (20, 2453), (21, 2465), (22, 2522), (24, 2600), (26, 2738), (29, 2858), (31, 2978), (32, 2990), (38, 3155), (40, 3281),

Gene: Pippin_6 Start: 2089, Stop: 3159, Start Num: 18

Candidate Starts for Pippin_6:

(Start: 17 @2071 has 3 MA's), (Start: 18 @2089 has 180 MA's), (20, 2152), (21, 2164), (22, 2221), (24, 2299), (26, 2437), (29, 2557), (31, 2677), (32, 2689), (38, 2854), (40, 2980),

Gene: Pita2_7 Start: 2748, Stop: 3818, Start Num: 18

Candidate Starts for Pita2_7:

(Start: 18 @2748 has 180 MA's), (20, 2811), (21, 2823), (22, 2880), (24, 2958), (27, 3105), (29, 3216), (31, 3336), (32, 3348), (40, 3639),

Gene: QTRlifeCrisis_5 Start: 2165, Stop: 3235, Start Num: 18

Candidate Starts for QTRlifeCrisis_5:

(Start: 18 @2165 has 180 MA's), (20, 2228), (21, 2240), (22, 2297), (24, 2375), (26, 2513), (29, 2633), (31, 2753), (32, 2765), (39, 3023), (40, 3056),

Gene: Rajelicia_4 Start: 1878, Stop: 2948, Start Num: 19

Candidate Starts for Rajelicia_4:

(Start: 19 @1878 has 7 MA's), (20, 1941), (21, 1953), (22, 2010), (24, 2088), (26, 2226), (28, 2241), (29, 2346), (31, 2466), (32, 2478), (38, 2643), (39, 2736), (40, 2769),

Gene: Rhynn_5 Start: 2324, Stop: 3394, Start Num: 18

Candidate Starts for Rhynn_5:

(Start: 18 @2324 has 180 MA's), (20, 2387), (21, 2399), (22, 2456), (24, 2534), (29, 2792), (31, 2912), (32, 2924), (39, 3182), (40, 3215),

Gene: RidgeCB_5 Start: 1846, Stop: 2916, Start Num: 18

Candidate Starts for RidgeCB_5:

(Start: 18 @1846 has 180 MA's), (20, 1909), (21, 1921), (22, 1978), (24, 2056), (26, 2194), (29, 2314), (31, 2434), (32, 2446), (38, 2611), (40, 2737),

Gene: Ringer_4 Start: 2333, Stop: 3403, Start Num: 18

Candidate Starts for Ringer_4:

(Start: 17 @2315 has 3 MA's), (Start: 18 @2333 has 180 MA's), (20, 2396), (21, 2408), (22, 2465), (24, 2543), (26, 2681), (29, 2801), (31, 2921), (32, 2933), (37, 3038), (38, 3098), (40, 3224),

Gene: Rohr_6 Start: 2540, Stop: 3610, Start Num: 18

Candidate Starts for Rohr_6:

(Start: 18 @2540 has 180 MA's), (20, 2603), (21, 2615), (22, 2672), (24, 2750), (27, 2897), (29, 3008), (31, 3128), (32, 3140), (36, 3215), (39, 3398), (40, 3431),

Gene: Rubeus_5 Start: 1847, Stop: 2917, Start Num: 18

Candidate Starts for Rubeus_5:

(Start: 18 @1847 has 180 MA's), (20, 1910), (21, 1922), (22, 1979), (24, 2057), (26, 2195), (29, 2315), (31, 2435), (32, 2447), (38, 2612), (40, 2738),

Gene: Rufus_5 Start: 1904, Stop: 2974, Start Num: 18

Candidate Starts for Rufus_5:

(Start: 18 @1904 has 180 MA's), (20, 1967), (21, 1979), (22, 2036), (24, 2114), (27, 2261), (29, 2372), (31, 2492), (32, 2504), (37, 2609), (38, 2669), (40, 2795),

Gene: Ruotula_4 Start: 2465, Stop: 3535, Start Num: 18

Candidate Starts for Ruotula_4:

(Start: 18 @2465 has 180 MA's), (20, 2528), (21, 2540), (22, 2597), (24, 2675), (26, 2813), (28, 2828), (29, 2933), (32, 3065), (39, 3323), (40, 3356),

Gene: Rutherferd_6 Start: 2365, Stop: 3435, Start Num: 18

Candidate Starts for Rutherferd_6:

(Start: 17 @2347 has 3 MA's), (Start: 18 @2365 has 180 MA's), (20, 2428), (21, 2440), (22, 2497), (24, 2575), (26, 2713), (29, 2833), (31, 2953), (32, 2965), (38, 3130), (39, 3223), (40, 3256),

Gene: STLscum_6 Start: 2457, Stop: 3527, Start Num: 18

Candidate Starts for STLscum_6:

(Start: 18 @2457 has 180 MA's), (20, 2520), (21, 2532), (22, 2589), (24, 2667), (27, 2814), (29, 2925), (31, 3045), (32, 3057), (38, 3222), (39, 3315), (40, 3348),

Gene: Sagefire_6 Start: 2520, Stop: 3590, Start Num: 18

Candidate Starts for Sagefire_6:

(Start: 15 @2493 has 3 MA's), (Start: 18 @2520 has 180 MA's), (20, 2583), (21, 2595), (22, 2652), (24, 2730), (26, 2868), (29, 2988), (31, 3108), (32, 3120), (38, 3285), (40, 3411),

Gene: SarFire_5 Start: 2102, Stop: 3172, Start Num: 18

Candidate Starts for SarFire_5:

(Start: 18 @2102 has 180 MA's), (20, 2165), (21, 2177), (22, 2234), (26, 2450), (29, 2570), (31, 2690), (32, 2702), (39, 2960), (40, 2993),

Gene: Scowl_6 Start: 2785, Stop: 3855, Start Num: 18

Candidate Starts for Scowl_6:

(Start: 18 @2785 has 180 MA's), (20, 2848), (21, 2860), (22, 2917), (24, 2995), (26, 3133), (29, 3253), (31, 3373), (32, 3385), (38, 3550), (39, 3643), (40, 3676),

Gene: Seabiscuit_6 Start: 2000, Stop: 3070, Start Num: 18

Candidate Starts for Seabiscuit_6:

(Start: 18 @2000 has 180 MA's), (20, 2063), (21, 2075), (22, 2132), (24, 2210), (27, 2357), (29, 2468), (31, 2588), (32, 2600), (38, 2765), (39, 2858), (40, 2891),

Gene: Seanderson_6 Start: 2764, Stop: 3834, Start Num: 19

Candidate Starts for Seanderson_6:

(Start: 19 @2764 has 7 MA's), (20, 2827), (21, 2839), (22, 2896), (24, 2974), (26, 3112), (29, 3232), (31, 3352), (32, 3364), (39, 3622), (40, 3655),

Gene: Sibs6_6 Start: 2040, Stop: 3110, Start Num: 18

Candidate Starts for Sibs6_6:

(Start: 18 @2040 has 180 MA's), (20, 2103), (21, 2115), (22, 2172), (24, 2250), (26, 2388), (29, 2508), (31, 2628), (32, 2640), (38, 2805), (40, 2931),

Gene: SkiPole_6 Start: 2409, Stop: 3506, Start Num: 15

Candidate Starts for SkiPole_6:

(Start: 15 @2409 has 3 MA's), (Start: 18 @2436 has 180 MA's), (20, 2499), (21, 2511), (22, 2568), (24, 2646), (27, 2793), (29, 2904), (31, 3024), (32, 3036), (38, 3201), (39, 3294), (40, 3327),

Gene: Slagathor_5 Start: 1849, Stop: 2919, Start Num: 18

Candidate Starts for Slagathor_5:

(Start: 18 @1849 has 180 MA's), (20, 1912), (21, 1924), (22, 1981), (24, 2059), (26, 2197), (29, 2317), (30, 2422), (31, 2437), (32, 2449), (35, 2512), (40, 2740),

Gene: Smairt_6 Start: 2713, Stop: 3783, Start Num: 18

Candidate Starts for Smairt_6:

(Start: 17 @2695 has 3 MA's), (Start: 18 @2713 has 180 MA's), (20, 2776), (21, 2788), (22, 2845), (24, 2923), (26, 3061), (29, 3181), (31, 3301), (32, 3313), (33, 3334), (38, 3478), (40, 3604),

Gene: Smeagol_6 Start: 3028, Stop: 4098, Start Num: 18

Candidate Starts for Smeagol_6:

(Start: 18 @3028 has 180 MA's), (20, 3091), (21, 3103), (22, 3160), (24, 3238), (26, 3376), (28, 3391), (29, 3496), (31, 3616), (32, 3628), (38, 3793), (40, 3919),

Gene: Snazzy_3 Start: 1744, Stop: 2814, Start Num: 18

Candidate Starts for Snazzy_3:

(Start: 17 @1726 has 3 MA's), (Start: 18 @1744 has 180 MA's), (20, 1807), (21, 1819), (22, 1876), (24, 1954), (27, 2101), (29, 2212), (31, 2332), (32, 2344), (40, 2635),

Gene: Solon_4 Start: 1737, Stop: 2807, Start Num: 18

Candidate Starts for Solon_4:

(Start: 15 @1710 has 3 MA's), (Start: 18 @1737 has 180 MA's), (20, 1800), (21, 1812), (22, 1869), (24, 1947), (26, 2085), (29, 2205), (31, 2325), (32, 2337), (39, 2595), (40, 2628),

Gene: SpikeBT_5 Start: 2113, Stop: 3183, Start Num: 18

Candidate Starts for SpikeBT_5:

(Start: 18 @2113 has 180 MA's), (20, 2176), (21, 2188), (22, 2245), (24, 2323), (26, 2461), (29, 2581), (31, 2701), (32, 2713), (38, 2878), (39, 2971), (40, 3004),

Gene: Squee_4 Start: 1863, Stop: 2933, Start Num: 18

Candidate Starts for Squee_4:

(Start: 18 @1863 has 180 MA's), (20, 1926), (21, 1938), (22, 1995), (25, 2118), (26, 2211), (29, 2331), (31, 2451), (32, 2463), (37, 2568), (40, 2754),

Gene: StewieG_4 Start: 2112, Stop: 3182, Start Num: 18

Candidate Starts for StewieG_4:

(Start: 18 @2112 has 180 MA's), (20, 2175), (21, 2187), (22, 2244), (24, 2322), (26, 2460), (29, 2580), (31, 2700), (32, 2712), (38, 2877), (39, 2970), (40, 3003),

Gene: StrongArm_4 Start: 1955, Stop: 3025, Start Num: 18

Candidate Starts for StrongArm_4:

(Start: 18 @1955 has 180 MA's), (20, 2018), (21, 2030), (22, 2087), (24, 2165), (26, 2303), (29, 2423), (31, 2543), (32, 2555), (38, 2720), (40, 2846),

Gene: Sumter_4 Start: 1836, Stop: 2906, Start Num: 18

Candidate Starts for Sumter_4:

(Start: 18 @1836 has 180 MA's), (20, 1899), (21, 1911), (22, 1968), (24, 2046), (26, 2184), (29, 2304), (31, 2424), (32, 2436), (38, 2601), (40, 2727),

Gene: Sunshine924_4 Start: 1817, Stop: 2887, Start Num: 18

Candidate Starts for Sunshine924_4:

(Start: 17 @1799 has 3 MA's), (Start: 18 @1817 has 180 MA's), (20, 1880), (21, 1892), (22, 1949), (24, 2027), (26, 2165), (29, 2285), (31, 2405), (32, 2417), (38, 2582), (39, 2675), (40, 2708),

Gene: SwissCheese_5 Start: 2279, Stop: 3349, Start Num: 18

Candidate Starts for SwissCheese_5:

(Start: 18 @2279 has 180 MA's), (20, 2342), (21, 2354), (22, 2411), (24, 2489), (27, 2636), (29, 2747), (31, 2867), (32, 2879), (39, 3137), (40, 3170),

Gene: Switzer_5 Start: 1853, Stop: 2950, Start Num: 15

Candidate Starts for Switzer_5:

(Start: 15 @1853 has 3 MA's), (Start: 18 @1880 has 180 MA's), (20, 1943), (21, 1955), (22, 2012), (24, 2090), (27, 2237), (29, 2348), (31, 2468), (32, 2480), (38, 2645), (40, 2771),

Gene: Swole_7 Start: 2748, Stop: 3818, Start Num: 18

Candidate Starts for Swole_7:

(Start: 18 @2748 has 180 MA's), (20, 2811), (21, 2823), (22, 2880), (24, 2958), (27, 3105), (29, 3216), (31, 3336), (32, 3348), (40, 3639),

Gene: Target_6 Start: 2536, Stop: 3606, Start Num: 18

Candidate Starts for Target_6:

(Start: 18 @2536 has 180 MA's), (20, 2599), (21, 2611), (22, 2668), (26, 2884), (28, 2899), (29, 3004), (31, 3124), (32, 3136), (35, 3199), (37, 3241), (40, 3427),

Gene: Tasp14_6 Start: 2536, Stop: 3606, Start Num: 18

Candidate Starts for Tasp14_6:

(Start: 18 @2536 has 180 MA's), (20, 2599), (21, 2611), (22, 2668), (24, 2746), (27, 2893), (29, 3004), (31, 3124), (32, 3136), (40, 3427),

Gene: Teodoridan_3 Start: 1682, Stop: 2752, Start Num: 18

Candidate Starts for Teodoridan_3:

(Start: 18 @1682 has 180 MA's), (20, 1745), (21, 1757), (22, 1814), (24, 1892), (27, 2039), (29, 2150), (31, 2270), (32, 2282), (40, 2573),

Gene: TheloniousMonk_5 Start: 2164, Stop: 3234, Start Num: 18

Candidate Starts for TheloniousMonk_5:

(Start: 18 @2164 has 180 MA's), (20, 2227), (21, 2239), (22, 2296), (24, 2374), (26, 2512), (29, 2632), (31, 2752), (32, 2764), (39, 3022), (40, 3055),

Gene: Thor_5 Start: 2102, Stop: 3172, Start Num: 18

Candidate Starts for Thor_5:

(Start: 18 @2102 has 180 MA's), (20, 2165), (21, 2177), (22, 2234), (26, 2450), (29, 2570), (31, 2690), (32, 2702), (39, 2960), (40, 2993),

Gene: Topgun_5 Start: 2028, Stop: 3098, Start Num: 18

Candidate Starts for Topgun_5:

(Start: 18 @2028 has 180 MA's), (20, 2091), (21, 2103), (22, 2160), (24, 2238), (26, 2376), (29, 2496), (31, 2616), (32, 2628), (38, 2793), (39, 2886), (40, 2919),

Gene: Tote_7 Start: 2748, Stop: 3818, Start Num: 18

Candidate Starts for Tote_7:

(Start: 18 @2748 has 180 MA's), (20, 2811), (21, 2823), (22, 2880), (24, 2958), (27, 3105), (29, 3216), (31, 3336), (32, 3348), (40, 3639),

Gene: Traft412_7 Start: 2926, Stop: 3996, Start Num: 18

Candidate Starts for Traft412_7:

(Start: 18 @2926 has 180 MA's), (20, 2989), (21, 3001), (22, 3058), (24, 3136), (26, 3274), (29, 3394), (31, 3514), (32, 3526), (40, 3817),

Gene: Treddle_5 Start: 2143, Stop: 3240, Start Num: 15

Candidate Starts for Treddle_5:

(Start: 15 @2143 has 3 MA's), (Start: 18 @2170 has 180 MA's), (20, 2233), (21, 2245), (22, 2302), (24, 2380), (26, 2518), (29, 2638), (31, 2758), (32, 2770), (38, 2935), (40, 3061),

Gene: Tripl3t_6 Start: 2942, Stop: 4012, Start Num: 18

Candidate Starts for Tripl3t_6:

(Start: 18 @2942 has 180 MA's), (20, 3005), (21, 3017), (22, 3074), (24, 3152), (26, 3290), (29, 3410), (31, 3530), (32, 3542), (39, 3800), (40, 3833),

Gene: Trouble_5 Start: 2579, Stop: 3649, Start Num: 18

Candidate Starts for Trouble_5:

(Start: 18 @2579 has 180 MA's), (20, 2642), (21, 2654), (22, 2711), (24, 2789), (26, 2927), (29, 3047), (31, 3167), (32, 3179), (38, 3344), (39, 3437), (40, 3470),

Gene: Turj99_4 Start: 2014, Stop: 3084, Start Num: 18

Candidate Starts for Turj99_4:

(Start: 18 @2014 has 180 MA's), (20, 2077), (21, 2089), (22, 2146), (24, 2224), (26, 2362), (29, 2482), (31, 2602), (32, 2614), (38, 2779), (40, 2905),

Gene: TwoPeat_5 Start: 2541, Stop: 3611, Start Num: 18

Candidate Starts for TwoPeat_5:

(Start: 18 @2541 has 180 MA's), (20, 2604), (21, 2616), (22, 2673), (27, 2898), (29, 3009), (31, 3129), (32, 3141), (37, 3246), (40, 3432),

Gene: U2_4 Start: 1882, Stop: 2952, Start Num: 18

Candidate Starts for U2_4:

(Start: 15 @1855 has 3 MA's), (Start: 18 @1882 has 180 MA's), (20, 1945), (21, 1957), (22, 2014), (24, 2092), (27, 2239), (29, 2350), (31, 2470), (32, 2482), (38, 2647), (40, 2773),

Gene: Violet_4 Start: 1827, Stop: 2897, Start Num: 18

Candidate Starts for Violet_4:

(Start: 18 @1827 has 180 MA's), (20, 1890), (21, 1902), (22, 1959), (24, 2037), (26, 2175), (29, 2295), (31, 2415), (32, 2427), (38, 2592), (40, 2718),

Gene: Watermelon_7 Start: 3121, Stop: 4191, Start Num: 18

Candidate Starts for Watermelon_7:

(Start: 18 @3121 has 180 MA's), (20, 3184), (21, 3196), (22, 3253), (24, 3331), (26, 3469), (29, 3589), (31, 3709), (32, 3721), (38, 3886), (40, 4012),

Gene: Wheeler_5 Start: 2287, Stop: 3357, Start Num: 18

Candidate Starts for Wheeler_5:

(Start: 18 @2287 has 180 MA's), (20, 2350), (21, 2362), (22, 2419), (24, 2497), (26, 2635), (29, 2755), (32, 2887), (38, 3052), (39, 3145), (40, 3178),

Gene: Wilkins_5 Start: 2028, Stop: 3098, Start Num: 18

Candidate Starts for Wilkins_5:

(Start: 18 @2028 has 180 MA's), (20, 2091), (21, 2103), (22, 2160), (24, 2238), (26, 2376), (29, 2496), (31, 2616), (32, 2628), (38, 2793), (39, 2886), (40, 2919),

Gene: Zeeculate_4 Start: 2003, Stop: 3073, Start Num: 18

Candidate Starts for Zeeculate_4:

(Start: 18 @2003 has 180 MA's), (20, 2066), (21, 2078), (22, 2135), (24, 2213), (27, 2360), (29, 2471), (31, 2591), (32, 2603), (35, 2666), (40, 2894),

Gene: Zephyr_5 Start: 2134, Stop: 3204, Start Num: 18

Candidate Starts for Zephyr_5:

(Start: 18 @2134 has 180 MA's), (20, 2197), (21, 2209), (22, 2266), (24, 2344), (27, 2491), (29, 2602), (31, 2722), (32, 2734), (37, 2839), (40, 3025),

Gene: Zeuska_4 Start: 2058, Stop: 3128, Start Num: 18

Candidate Starts for Zeuska_4:

(Start: 18 @2058 has 180 MA's), (20, 2121), (21, 2133), (22, 2190), (24, 2268), (26, 2406), (28, 2421), (29, 2526), (31, 2646), (32, 2658), (38, 2823), (39, 2916), (40, 2949),