



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 304780 Report

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

Pham number 304780 has 145 members, 13 are drafts.

Phages represented in each track:

- Track 1 : Adnama_19, Lilpickle_16, Petra64142_18, DoctorDiddles_18, BigBubba_17, Palpatine_17, FireRed_17, IHOP_17, GoldenSpark_19, ChotaBhai_17, Bruin_17, Kanye_19, Holt_19, Thresher_18, Paperbeatsrock_19, Hopey_18, Greep_18, Rakim_19, HanKaySha_18, Lilizi_19, Willez_17, MISSy_17, Terminus_17, AmericanBeauty_19, Easy2Say_18, Quallification_19, Filch_18, Bench_19, Balomoji_17, RiverMonster_17, Dusk_17, StellaBean_18, Becksu_17, Pharsalus_18, Gator_16, Thimble_18, Mindy_18, Porky_16, CrystalP_18, Maxxinista_18, Tomaszewski_17, Stark_18, 244_18, Manda_18, Myrale_18, Hoonter_19, Mosby_17, Cjw1_17, BugsBunny_15, Ukulele_17, Pat3_17, Icee_17, Harella_16, Misfit_17, MPhalcon_17, Marshmallow_18, FairyPath_18, TBrady12_19, BaboJay_17, ShamWow_18, Goku_18, ChosenOne_16, YassJohnny_18, Moldemort_18, Rimmer_17, Cookies_18, Teaspoon_17, Sotrice96_18, Miniwave_18, Simpliphy_18, Czyszczonek_18, Buck_17, Kostya_18, NelitzaMV_18, Pumpkin_18, Cactus_19, Command613_19, Eureka_18, SophKB_18, Highbury_18, Liveloughbron_17, Phaja_17, Henry_18, Stank_19, Bask21_17, TeardropMSU_17, ABCat_17, Wiggin_19, Argent26_19, GooberAzure_19, Xandras_19, Nimrod_17, Emmina_17, Youngblood_17, SirDuracell_17, ShereKhan_19, Goldilocks_19, Tuco_18, Elph10_18, DrDrey_18, BilboSwaggins_18, Sassay_17, NonchalantPear_17, Toto_18, Elite2014_16, Contagion_17, StolenFromERC_19, Murica_16, Policronamos_17, Murphy_17, Brewer_17, OrionPax_18, Inca_17, Asriel_17, Barbarian_17, Lilac_19, Traaww1_16, PhatBacter_17, StormChicken_18, Phrux_17, PaddyBaddy_18, Gemini_19, Flypotenuse_16, Daikon_16, Bogg_18, Dumbo_17, TeamEdward_18, FoghornLeghorn_17, MollyToe_18, JeTaime_19, Tarkin_19, Ptowny_17, Phaux_16, Glexan_16, xkcd_18, NoSleep_18, Gage_19, Amao_18, BadStone_17, Saints25_18, Kimchi_19, HuffyPuff_16, Nala_17
- Track 2 : MadamMonkfish_17
- Track 3 : Budgie_20

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

The start number called the most often in the published annotations is 5, it was called in 132 of the 132 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- 244_18, ABCat_17, Adnama_19, Amao_18, AmericanBeauty_19, Argent26_19, Asriel_17, BaboJay_17, BadStone_17, Balomoji_17, Barbarian_17, Bask21_17, Becksu_17, Bench_19, BigBubba_17, BilboSwaggins_18, Bogg_18, Brewer_17, Bruin_17, Buck_17, Budgie_20, BugsBunny_15, Cactus_19, ChosenOne_16, ChotaBhai_17, Cjw1_17, Command613_19, Contagion_17, Cookies_18, CrystalP_18, Czyszczone1_18, Daikon_16, DoctorDiddles_18, DrDrey_18, Dumbo_17, Dusk_17, Easy2Say_18, Elite2014_16, Elph10_18, Emmina_17, Eureka_18, FairyPath_18, Filch_18, FireRed_17, Flypotenuse_16, FoghornLeghorn_17, Gage_19, Gator_16, Gemini_19, Glexan_16, Goku_18, GoldenSpark_19, Goldilocks_19, GooberAzure_19, Greep_18, HanKaySha_18, Harella_16, Henry_18, Highbury_18, Holt_19, Hoonter_19, Hopey_18, HufflyPuff_16, IHOP_17, Icee_17, Inca_17, JeTaime_19, Kanye_19, Kimchi_19, Kostya_18, Lilac_19, Lilizi_19, Lilpickle_16, Liveloughbron_17, MISSy_17, MPhalcon_17, MadamMonkfish_17, Manda_18, Marshmallow_18, Maxxinsta_18, Mindy_18, Miniwave_18, Misfit_17, Moldemort_18, MollyToe_18, Mosby_17, Murica_16, Murphy_17, Myrale_18, Nala_17, NelitzaMV_18, Nimrod_17, NoSleep_18, NonchalantPear_17, OrionPax_18, PaddyBaddy_18, Palpatine_17, Paperbeatsrock_19, Pat3_17, Petra64142_18, Phaja_17, Pharsalus_18, PhatBacter_17, Phaux_16, Phrux_17, Policronamos_17, Porky_16, Ptowny_17, Pumpkin_18, Quallification_19, Rakim_19, Rimmer_17, RiverMonster_17, Saints25_18, Sassay_17, ShamWow_18, ShereKhan_19, Simpliphy_18, SirDuracell_17, SophKB_18, Sotrice96_18, Stank_19, Stark_18, StellaBean_18, StolenFromERC_19, StormChicken_18, TBrady12_19, Tarkin_19, TeamEdward_18, TeardropMSU_17, Teaspoon_17, Terminus_17, Thimble_18, Thresher_18, Tomaszewski_17, Toto_18, Traaww1_16, Tuco_18, Ukulele_17, Wiggin_19, Willez_17, Xandras_19, YassJohnny_18, Youngblood_17, xkcd_18,

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

-

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

-

Summary by start number:

Start 5:

- Found in 145 of 145 (100.0%) of genes in pham
- Manual Annotations of this start: 132 of 132
- Called 100.0% of time when present
- Phage (with cluster) where this start called: 244_18 (E), ABCat_17 (E), Adnama_19 (E), Amao_18 (E), AmericanBeauty_19 (E), Argent26_19 (E), Asriel_17 (E), BaboJay_17 (E), BadStone_17 (E), Balomoji_17 (E), Barbarian_17 (E), Bask21_17 (E), Becksu_17 (E), Bench_19 (E), BigBubba_17 (E), BilboSwaggins_18 (E), Bogg_18 (E), Brewer_17 (E), Bruin_17 (E), Buck_17 (E), Budgie_20 (E), BugsBunny_15 (E), Cactus_19 (E), ChosenOne_16 (E), ChotaBhai_17 (E), Cjw1_17 (E), Command613_19 (E), Contagion_17 (E), Cookies_18 (E), CrystalP_18 (E), Czyszczone1_18 (E), Daikon_16 (E), DoctorDiddles_18 (E), DrDrey_18 (E), Dumbo_17 (E), Dusk_17 (E), Easy2Say_18 (E), Elite2014_16 (E), Elph10_18 (E), Emmina_17 (E), Eureka_18 (E), FairyPath_18 (E), Filch_18 (E), FireRed_17 (E), Flypotenuse_16 (E), FoghornLeghorn_17 (E), Gage_19 (E), Gator_16 (E), Gemini_19 (E), Glexan_16 (E), Goku_18 (E), GoldenSpark_19 (E), Goldilocks_19 (E), GooberAzure_19 (E), Greep_18 (E), HanKaySha_18 (E), Harella_16 (E), Henry_18 (E), Highbury_18 (E), Holt_19 (E), Hoonter_19 (E), Hopey_18 (E), HufflyPuff_16 (E),

IHOP_17 (E), Icee_17 (E), Inca_17 (E), JeTaime_19 (E), Kanye_19 (E), Kimchi_19 (E), Kostya_18 (E), Lilac_19 (E), Lilizi_19 (E), Lilpickle_16 (E), Liveloughbron_17 (E), MISSy_17 (E), MPhalcon_17 (E), MadamMonkfish_17 (E), Manda_18 (E), Marshmallow_18 (E), Maxxinista_18 (E), Mindy_18 (E), Miniwave_18 (E), Misfit_17 (E), Moldemort_18 (E), MollyToe_18 (E), Mosby_17 (E), Murica_16 (E), Murphy_17 (E), Myrale_18 (E), Nala_17 (E), NelitzaMV_18 (E), Nimrod_17 (E), NoSleep_18 (E), NonchalantPear_17 (E), OrionPax_18 (E), PaddyBaddy_18 (E), Palpatine_17 (E), Paperbeatsrock_19 (E), Pat3_17 (E), Petra64142_18 (E), Phaja_17 (E), Pharsalus_18 (E), PhatBacter_17 (E), Phaux_16 (E), Phrux_17 (E), Policronamos_17 (E), Porky_16 (E), Ptowny_17 (E), Pumpkin_18 (E), Quallification_19 (E), Rakim_19 (E), Rimmer_17 (E), RiverMonster_17 (E), Saints25_18 (E), Sassay_17 (E), ShamWow_18 (E), ShereKhan_19 (E), Simpliphy_18 (E), SirDuracell_17 (E), SophKB_18 (E), Sotrice96_18 (E), Stank_19 (E), Stark_18 (E), StellaBean_18 (E), StolenFromERC_19 (E), StormChicken_18 (E), TBrady12_19 (E), Tarkin_19 (E), TeamEdward_18 (E), TeardropMSU_17 (E), Teaspoon_17 (E), Terminus_17 (E), Thimble_18 (E), Thresher_18 (E), Tomaszewski_17 (E), Toto_18 (E), Traaww1_16 (E), Tuco_18 (E), Ukulele_17 (E), Wiggin_19 (E), Willez_17 (E), Xandras_19 (E), YassJohnny_18 (E), Youngblood_17 (E), xkcd_18 (E),

Summary by clusters:

There is one cluster represented in this pham: E

Info for manual annotations of cluster E:

•Start number 5 was manually annotated 132 times for cluster E.

Gene Information:

Gene: 244_18 Start: 10172, Stop: 10576, Start Num: 5

Candidate Starts for 244_18:

(1, 10139), (3, 10160), (Start: 5 @10172 has 132 MA's), (6, 10343), (7, 10355), (8, 10412), (9, 10481), (10, 10562), (11, 10571),

Gene: ABCat_17 Start: 10947, Stop: 11351, Start Num: 5

Candidate Starts for ABCat_17:

(1, 10914), (3, 10935), (Start: 5 @10947 has 132 MA's), (6, 11118), (7, 11130), (8, 11187), (9, 11256), (10, 11337), (11, 11346),

Gene: Adnama_19 Start: 10404, Stop: 10808, Start Num: 5

Candidate Starts for Adnama_19:

(1, 10371), (3, 10392), (Start: 5 @10404 has 132 MA's), (6, 10575), (7, 10587), (8, 10644), (9, 10713), (10, 10794), (11, 10803),

Gene: Amao_18 Start: 10152, Stop: 10556, Start Num: 5

Candidate Starts for Amao_18:

(1, 10119), (3, 10140), (Start: 5 @10152 has 132 MA's), (6, 10323), (7, 10335), (8, 10392), (9, 10461), (10, 10542), (11, 10551),

Gene: AmericanBeauty_19 Start: 10401, Stop: 10805, Start Num: 5

Candidate Starts for AmericanBeauty_19:

(1, 10368), (3, 10389), (Start: 5 @10401 has 132 MA's), (6, 10572), (7, 10584), (8, 10641), (9, 10710), (10, 10791), (11, 10800),

Gene: Argent26_19 Start: 10404, Stop: 10808, Start Num: 5

Candidate Starts for Argent26_19:

(1, 10371), (3, 10392), (Start: 5 @10404 has 132 MA's), (6, 10575), (7, 10587), (8, 10644), (9, 10713), (10, 10794), (11, 10803),

Gene: Asriel_17 Start: 9819, Stop: 10223, Start Num: 5

Candidate Starts for Asriel_17:

(1, 9786), (3, 9807), (Start: 5 @9819 has 132 MA's), (6, 9990), (7, 10002), (8, 10059), (9, 10128), (10, 10209), (11, 10218),

Gene: BaboJay_17 Start: 10483, Stop: 10887, Start Num: 5

Candidate Starts for BaboJay_17:

(1, 10450), (3, 10471), (Start: 5 @10483 has 132 MA's), (6, 10654), (7, 10666), (8, 10723), (9, 10792), (10, 10873), (11, 10882),

Gene: BadStone_17 Start: 10947, Stop: 11351, Start Num: 5

Candidate Starts for BadStone_17:

(1, 10914), (3, 10935), (Start: 5 @10947 has 132 MA's), (6, 11118), (7, 11130), (8, 11187), (9, 11256), (10, 11337), (11, 11346),

Gene: Balomoji_17 Start: 10681, Stop: 11085, Start Num: 5

Candidate Starts for Balomoji_17:

(1, 10648), (3, 10669), (Start: 5 @10681 has 132 MA's), (6, 10852), (7, 10864), (8, 10921), (9, 10990), (10, 11071), (11, 11080),

Gene: Barbarian_17 Start: 9819, Stop: 10223, Start Num: 5

Candidate Starts for Barbarian_17:

(1, 9786), (3, 9807), (Start: 5 @9819 has 132 MA's), (6, 9990), (7, 10002), (8, 10059), (9, 10128), (10, 10209), (11, 10218),

Gene: Bask21_17 Start: 9614, Stop: 10018, Start Num: 5

Candidate Starts for Bask21_17:

(1, 9581), (3, 9602), (Start: 5 @9614 has 132 MA's), (6, 9785), (7, 9797), (8, 9854), (9, 9923), (10, 10004), (11, 10013),

Gene: Becksu_17 Start: 10591, Stop: 10995, Start Num: 5

Candidate Starts for Becksu_17:

(1, 10558), (3, 10579), (Start: 5 @10591 has 132 MA's), (6, 10762), (7, 10774), (8, 10831), (9, 10900), (10, 10981), (11, 10990),

Gene: Bench_19 Start: 10277, Stop: 10681, Start Num: 5

Candidate Starts for Bench_19:

(1, 10244), (3, 10265), (Start: 5 @10277 has 132 MA's), (6, 10448), (7, 10460), (8, 10517), (9, 10586), (10, 10667), (11, 10676),

Gene: BigBubba_17 Start: 9660, Stop: 10064, Start Num: 5

Candidate Starts for BigBubba_17:

(1, 9627), (3, 9648), (Start: 5 @9660 has 132 MA's), (6, 9831), (7, 9843), (8, 9900), (9, 9969), (10, 10050), (11, 10059),

Gene: BilboSwaggins_18 Start: 10948, Stop: 11352, Start Num: 5

Candidate Starts for BilboSwaggins_18:

(1, 10915), (3, 10936), (Start: 5 @10948 has 132 MA's), (6, 11119), (7, 11131), (8, 11188), (9, 11257), (10, 11338), (11, 11347),

Gene: Bogg_18 Start: 9833, Stop: 10237, Start Num: 5

Candidate Starts for Bogg_18:

(1, 9800), (3, 9821), (Start: 5 @9833 has 132 MA's), (6, 10004), (7, 10016), (8, 10073), (9, 10142), (10, 10223), (11, 10232),

Gene: Brewer_17 Start: 10659, Stop: 11063, Start Num: 5

Candidate Starts for Brewer_17:

(1, 10626), (3, 10647), (Start: 5 @10659 has 132 MA's), (6, 10830), (7, 10842), (8, 10899), (9, 10968), (10, 11049), (11, 11058),

Gene: Bruin_17 Start: 10455, Stop: 10859, Start Num: 5

Candidate Starts for Bruin_17:

(1, 10422), (3, 10443), (Start: 5 @10455 has 132 MA's), (6, 10626), (7, 10638), (8, 10695), (9, 10764), (10, 10845), (11, 10854),

Gene: Buck_17 Start: 10904, Stop: 11308, Start Num: 5

Candidate Starts for Buck_17:

(1, 10871), (3, 10892), (Start: 5 @10904 has 132 MA's), (6, 11075), (7, 11087), (8, 11144), (9, 11213), (10, 11294), (11, 11303),

Gene: Budgie_20 Start: 10335, Stop: 10742, Start Num: 5

Candidate Starts for Budgie_20:

(2, 10314), (4, 10326), (Start: 5 @10335 has 132 MA's), (6, 10509), (7, 10521), (8, 10578), (9, 10647), (10, 10728), (11, 10737),

Gene: BugsBunny_15 Start: 10021, Stop: 10425, Start Num: 5

Candidate Starts for BugsBunny_15:

(1, 9988), (3, 10009), (Start: 5 @10021 has 132 MA's), (6, 10192), (7, 10204), (8, 10261), (9, 10330), (10, 10411), (11, 10420),

Gene: Cactus_19 Start: 10160, Stop: 10564, Start Num: 5

Candidate Starts for Cactus_19:

(1, 10127), (3, 10148), (Start: 5 @10160 has 132 MA's), (6, 10331), (7, 10343), (8, 10400), (9, 10469), (10, 10550), (11, 10559),

Gene: ChosenOne_16 Start: 9624, Stop: 10028, Start Num: 5

Candidate Starts for ChosenOne_16:

(1, 9591), (3, 9612), (Start: 5 @9624 has 132 MA's), (6, 9795), (7, 9807), (8, 9864), (9, 9933), (10, 10014), (11, 10023),

Gene: ChotaBhai_17 Start: 9660, Stop: 10064, Start Num: 5

Candidate Starts for ChotaBhai_17:

(1, 9627), (3, 9648), (Start: 5 @9660 has 132 MA's), (6, 9831), (7, 9843), (8, 9900), (9, 9969), (10, 10050), (11, 10059),

Gene: Cjw1_17 Start: 11174, Stop: 11578, Start Num: 5

Candidate Starts for Cjw1_17:

(1, 11141), (3, 11162), (Start: 5 @11174 has 132 MA's), (6, 11345), (7, 11357), (8, 11414), (9, 11483), (10, 11564), (11, 11573),

Gene: Command613_19 Start: 11216, Stop: 11620, Start Num: 5

Candidate Starts for Command613_19:

(1, 11183), (3, 11204), (Start: 5 @11216 has 132 MA's), (6, 11387), (7, 11399), (8, 11456), (9, 11525), (10, 11606), (11, 11615),

Gene: Contagion_17 Start: 10455, Stop: 10859, Start Num: 5

Candidate Starts for Contagion_17:

(1, 10422), (3, 10443), (Start: 5 @10455 has 132 MA's), (6, 10626), (7, 10638), (8, 10695), (9, 10764), (10, 10845), (11, 10854),

Gene: Cookies_18 Start: 10820, Stop: 11224, Start Num: 5

Candidate Starts for Cookies_18:

(1, 10787), (3, 10808), (Start: 5 @10820 has 132 MA's), (6, 10991), (7, 11003), (8, 11060), (9, 11129), (10, 11210), (11, 11219),

Gene: CrystalP_18 Start: 10948, Stop: 11352, Start Num: 5

Candidate Starts for CrystalP_18:

(1, 10915), (3, 10936), (Start: 5 @10948 has 132 MA's), (6, 11119), (7, 11131), (8, 11188), (9, 11257), (10, 11338), (11, 11347),

Gene: Czyszczone1_18 Start: 10159, Stop: 10563, Start Num: 5

Candidate Starts for Czyszczone1_18:

(1, 10126), (3, 10147), (Start: 5 @10159 has 132 MA's), (6, 10330), (7, 10342), (8, 10399), (9, 10468), (10, 10549), (11, 10558),

Gene: Daikon_16 Start: 10682, Stop: 11086, Start Num: 5

Candidate Starts for Daikon_16:

(1, 10649), (3, 10670), (Start: 5 @10682 has 132 MA's), (6, 10853), (7, 10865), (8, 10922), (9, 10991), (10, 11072), (11, 11081),

Gene: DoctorDiddles_18 Start: 10113, Stop: 10517, Start Num: 5

Candidate Starts for DoctorDiddles_18:

(1, 10080), (3, 10101), (Start: 5 @10113 has 132 MA's), (6, 10284), (7, 10296), (8, 10353), (9, 10422), (10, 10503), (11, 10512),

Gene: DrDrey_18 Start: 10900, Stop: 11304, Start Num: 5

Candidate Starts for DrDrey_18:

(1, 10867), (3, 10888), (Start: 5 @10900 has 132 MA's), (6, 11071), (7, 11083), (8, 11140), (9, 11209), (10, 11290), (11, 11299),

Gene: Dumbo_17 Start: 9881, Stop: 10285, Start Num: 5

Candidate Starts for Dumbo_17:

(1, 9848), (3, 9869), (Start: 5 @9881 has 132 MA's), (6, 10052), (7, 10064), (8, 10121), (9, 10190), (10, 10271), (11, 10280),

Gene: Dusk_17 Start: 10607, Stop: 11011, Start Num: 5

Candidate Starts for Dusk_17:

(1, 10574), (3, 10595), (Start: 5 @10607 has 132 MA's), (6, 10778), (7, 10790), (8, 10847), (9, 10916), (10, 10997), (11, 11006),

Gene: Easy2Say_18 Start: 11147, Stop: 11551, Start Num: 5

Candidate Starts for Easy2Say_18:

(1, 11114), (3, 11135), (Start: 5 @11147 has 132 MA's), (6, 11318), (7, 11330), (8, 11387), (9, 11456), (10, 11537), (11, 11546),

Gene: Elite2014_16 Start: 9624, Stop: 10028, Start Num: 5

Candidate Starts for Elite2014_16:

(1, 9591), (3, 9612), (Start: 5 @9624 has 132 MA's), (6, 9795), (7, 9807), (8, 9864), (9, 9933), (10, 10014), (11, 10023),

Gene: Elph10_18 Start: 9884, Stop: 10288, Start Num: 5

Candidate Starts for Elph10_18:

(1, 9851), (3, 9872), (Start: 5 @9884 has 132 MA's), (6, 10055), (7, 10067), (8, 10124), (9, 10193), (10, 10274), (11, 10283),

Gene: Emmina_17 Start: 9729, Stop: 10133, Start Num: 5

Candidate Starts for Emmina_17:

(1, 9696), (3, 9717), (Start: 5 @9729 has 132 MA's), (6, 9900), (7, 9912), (8, 9969), (9, 10038), (10, 10119), (11, 10128),

Gene: Eureka_18 Start: 10927, Stop: 11331, Start Num: 5

Candidate Starts for Eureka_18:

(1, 10894), (3, 10915), (Start: 5 @10927 has 132 MA's), (6, 11098), (7, 11110), (8, 11167), (9, 11236), (10, 11317), (11, 11326),

Gene: FairyPath_18 Start: 11145, Stop: 11549, Start Num: 5

Candidate Starts for FairyPath_18:

(1, 11112), (3, 11133), (Start: 5 @11145 has 132 MA's), (6, 11316), (7, 11328), (8, 11385), (9, 11454), (10, 11535), (11, 11544),

Gene: Filch_18 Start: 10169, Stop: 10573, Start Num: 5

Candidate Starts for Filch_18:

(1, 10136), (3, 10157), (Start: 5 @10169 has 132 MA's), (6, 10340), (7, 10352), (8, 10409), (9, 10478), (10, 10559), (11, 10568),

Gene: FireRed_17 Start: 10457, Stop: 10861, Start Num: 5

Candidate Starts for FireRed_17:

(1, 10424), (3, 10445), (Start: 5 @10457 has 132 MA's), (6, 10628), (7, 10640), (8, 10697), (9, 10766), (10, 10847), (11, 10856),

Gene: Flypotenuse_16 Start: 10564, Stop: 10968, Start Num: 5

Candidate Starts for Flypotenuse_16:

(1, 10531), (3, 10552), (Start: 5 @10564 has 132 MA's), (6, 10735), (7, 10747), (8, 10804), (9, 10873), (10, 10954), (11, 10963),

Gene: FoghornLeghorn_17 Start: 10452, Stop: 10856, Start Num: 5

Candidate Starts for FoghornLeghorn_17:

(1, 10419), (3, 10440), (Start: 5 @10452 has 132 MA's), (6, 10623), (7, 10635), (8, 10692), (9, 10761), (10, 10842), (11, 10851),

Gene: Gage_19 Start: 10404, Stop: 10808, Start Num: 5

Candidate Starts for Gage_19:

(1, 10371), (3, 10392), (Start: 5 @10404 has 132 MA's), (6, 10575), (7, 10587), (8, 10644), (9, 10713), (10, 10794), (11, 10803),

Gene: Gator_16 Start: 10563, Stop: 10967, Start Num: 5

Candidate Starts for Gator_16:

(1, 10530), (3, 10551), (Start: 5 @10563 has 132 MA's), (6, 10734), (7, 10746), (8, 10803), (9, 10872), (10, 10953), (11, 10962),

Gene: Gemini_19 Start: 10404, Stop: 10808, Start Num: 5

Candidate Starts for Gemini_19:

(1, 10371), (3, 10392), (Start: 5 @10404 has 132 MA's), (6, 10575), (7, 10587), (8, 10644), (9, 10713), (10, 10794), (11, 10803),

Gene: Glexan_16 Start: 10564, Stop: 10968, Start Num: 5

Candidate Starts for Glexan_16:

(1, 10531), (3, 10552), (Start: 5 @10564 has 132 MA's), (6, 10735), (7, 10747), (8, 10804), (9, 10873), (10, 10954), (11, 10963),

Gene: Goku_18 Start: 10656, Stop: 11060, Start Num: 5

Candidate Starts for Goku_18:

(1, 10623), (3, 10644), (Start: 5 @10656 has 132 MA's), (6, 10827), (7, 10839), (8, 10896), (9, 10965), (10, 11046), (11, 11055),

Gene: GoldenSpark_19 Start: 10404, Stop: 10808, Start Num: 5

Candidate Starts for GoldenSpark_19:

(1, 10371), (3, 10392), (Start: 5 @10404 has 132 MA's), (6, 10575), (7, 10587), (8, 10644), (9, 10713), (10, 10794), (11, 10803),

Gene: Goldilocks_19 Start: 10358, Stop: 10762, Start Num: 5

Candidate Starts for Goldilocks_19:

(1, 10325), (3, 10346), (Start: 5 @10358 has 132 MA's), (6, 10529), (7, 10541), (8, 10598), (9, 10667), (10, 10748), (11, 10757),

Gene: GooberAzure_19 Start: 10404, Stop: 10808, Start Num: 5

Candidate Starts for GooberAzure_19:

(1, 10371), (3, 10392), (Start: 5 @10404 has 132 MA's), (6, 10575), (7, 10587), (8, 10644), (9, 10713), (10, 10794), (11, 10803),

Gene: Greep_18 Start: 10734, Stop: 11138, Start Num: 5

Candidate Starts for Greep_18:

(1, 10701), (3, 10722), (Start: 5 @10734 has 132 MA's), (6, 10905), (7, 10917), (8, 10974), (9, 11043), (10, 11124), (11, 11133),

Gene: HanKaySha_18 Start: 10159, Stop: 10563, Start Num: 5

Candidate Starts for HanKaySha_18:

(1, 10126), (3, 10147), (Start: 5 @10159 has 132 MA's), (6, 10330), (7, 10342), (8, 10399), (9, 10468), (10, 10549), (11, 10558),

Gene: Harella_16 Start: 10564, Stop: 10968, Start Num: 5

Candidate Starts for Harella_16:

(1, 10531), (3, 10552), (Start: 5 @10564 has 132 MA's), (6, 10735), (7, 10747), (8, 10804), (9, 10873), (10, 10954), (11, 10963),

Gene: Henry_18 Start: 10947, Stop: 11351, Start Num: 5

Candidate Starts for Henry_18:

(1, 10914), (3, 10935), (Start: 5 @10947 has 132 MA's), (6, 11118), (7, 11130), (8, 11187), (9, 11256), (10, 11337), (11, 11346),

Gene: Highbury_18 Start: 10078, Stop: 10482, Start Num: 5

Candidate Starts for Highbury_18:

(1, 10045), (3, 10066), (Start: 5 @10078 has 132 MA's), (6, 10249), (7, 10261), (8, 10318), (9, 10387), (10, 10468), (11, 10477),

Gene: Holt_19 Start: 10231, Stop: 10635, Start Num: 5

Candidate Starts for Holt_19:

(1, 10198), (3, 10219), (Start: 5 @10231 has 132 MA's), (6, 10402), (7, 10414), (8, 10471), (9, 10540), (10, 10621), (11, 10630),

Gene: Hoonter_19 Start: 10404, Stop: 10808, Start Num: 5

Candidate Starts for Hoonter_19:

(1, 10371), (3, 10392), (Start: 5 @10404 has 132 MA's), (6, 10575), (7, 10587), (8, 10644), (9, 10713), (10, 10794), (11, 10803),

Gene: Hopecy_18 Start: 10169, Stop: 10573, Start Num: 5

Candidate Starts for Hopecy_18:

(1, 10136), (3, 10157), (Start: 5 @10169 has 132 MA's), (6, 10340), (7, 10352), (8, 10409), (9, 10478), (10, 10559), (11, 10568),

Gene: HufflyPuff_16 Start: 10413, Stop: 10817, Start Num: 5

Candidate Starts for HufflyPuff_16:

(1, 10380), (3, 10401), (Start: 5 @10413 has 132 MA's), (6, 10584), (7, 10596), (8, 10653), (9, 10722), (10, 10803), (11, 10812),

Gene: IHOP_17 Start: 10607, Stop: 11011, Start Num: 5

Candidate Starts for IHOP_17:

(1, 10574), (3, 10595), (Start: 5 @10607 has 132 MA's), (6, 10778), (7, 10790), (8, 10847), (9, 10916), (10, 10997), (11, 11006),

Gene: Icee_17 Start: 10607, Stop: 11011, Start Num: 5

Candidate Starts for Icee_17:

(1, 10574), (3, 10595), (Start: 5 @10607 has 132 MA's), (6, 10778), (7, 10790), (8, 10847), (9, 10916), (10, 10997), (11, 11006),

Gene: Inca_17 Start: 9627, Stop: 10031, Start Num: 5

Candidate Starts for Inca_17:

(1, 9594), (3, 9615), (Start: 5 @9627 has 132 MA's), (6, 9798), (7, 9810), (8, 9867), (9, 9936), (10, 10017), (11, 10026),

Gene: JeTaime_19 Start: 11209, Stop: 11613, Start Num: 5

Candidate Starts for JeTaime_19:

(1, 11176), (3, 11197), (Start: 5 @11209 has 132 MA's), (6, 11380), (7, 11392), (8, 11449), (9, 11518), (10, 11599), (11, 11608),

Gene: Kanye_19 Start: 11397, Stop: 11801, Start Num: 5

Candidate Starts for Kanye_19:

(1, 11364), (3, 11385), (Start: 5 @11397 has 132 MA's), (6, 11568), (7, 11580), (8, 11637), (9, 11706), (10, 11787), (11, 11796),

Gene: Kimchi_19 Start: 10404, Stop: 10808, Start Num: 5

Candidate Starts for Kimchi_19:

(1, 10371), (3, 10392), (Start: 5 @10404 has 132 MA's), (6, 10575), (7, 10587), (8, 10644), (9, 10713), (10, 10794), (11, 10803),

Gene: Kostya_18 Start: 10947, Stop: 11351, Start Num: 5

Candidate Starts for Kostya_18:

(1, 10914), (3, 10935), (Start: 5 @10947 has 132 MA's), (6, 11118), (7, 11130), (8, 11187), (9, 11256), (10, 11337), (11, 11346),

Gene: Lilac_19 Start: 9905, Stop: 10309, Start Num: 5

Candidate Starts for Lilac_19:

(1, 9872), (3, 9893), (Start: 5 @9905 has 132 MA's), (6, 10076), (7, 10088), (8, 10145), (9, 10214), (10, 10295), (11, 10304),

Gene: Lilizi_19 Start: 10116, Stop: 10520, Start Num: 5

Candidate Starts for Lilizi_19:

(1, 10083), (3, 10104), (Start: 5 @10116 has 132 MA's), (6, 10287), (7, 10299), (8, 10356), (9, 10425), (10, 10506), (11, 10515),

Gene: Lilpickle_16 Start: 9624, Stop: 10028, Start Num: 5

Candidate Starts for Lilpickle_16:

(1, 9591), (3, 9612), (Start: 5 @9624 has 132 MA's), (6, 9795), (7, 9807), (8, 9864), (9, 9933), (10, 10014), (11, 10023),

Gene: Liveloughbron_17 Start: 10545, Stop: 10949, Start Num: 5

Candidate Starts for Liveloughbron_17:

(1, 10512), (3, 10533), (Start: 5 @10545 has 132 MA's), (6, 10716), (7, 10728), (8, 10785), (9, 10854), (10, 10935), (11, 10944),

Gene: MISSy_17 Start: 10457, Stop: 10861, Start Num: 5

Candidate Starts for MISSy_17:

(1, 10424), (3, 10445), (Start: 5 @10457 has 132 MA's), (6, 10628), (7, 10640), (8, 10697), (9, 10766), (10, 10847), (11, 10856),

Gene: MPhalcon_17 Start: 10457, Stop: 10861, Start Num: 5

Candidate Starts for MPhalcon_17:

(1, 10424), (3, 10445), (Start: 5 @10457 has 132 MA's), (6, 10628), (7, 10640), (8, 10697), (9, 10766), (10, 10847), (11, 10856),

Gene: MadamMonkfish_17 Start: 9835, Stop: 10239, Start Num: 5

Candidate Starts for MadamMonkfish_17:

(1, 9802), (3, 9823), (Start: 5 @9835 has 132 MA's), (6, 10006), (8, 10075), (9, 10144), (10, 10225), (11, 10234),

Gene: Manda_18 Start: 10917, Stop: 11321, Start Num: 5

Candidate Starts for Manda_18:

(1, 10884), (3, 10905), (Start: 5 @10917 has 132 MA's), (6, 11088), (7, 11100), (8, 11157), (9, 11226), (10, 11307), (11, 11316),

Gene: Marshmallow_18 Start: 10947, Stop: 11351, Start Num: 5

Candidate Starts for Marshmallow_18:

(1, 10914), (3, 10935), (Start: 5 @10947 has 132 MA's), (6, 11118), (7, 11130), (8, 11187), (9, 11256), (10, 11337), (11, 11346),

Gene: Maxxinista_18 Start: 9884, Stop: 10288, Start Num: 5

Candidate Starts for Maxxinista_18:

(1, 9851), (3, 9872), (Start: 5 @9884 has 132 MA's), (6, 10055), (7, 10067), (8, 10124), (9, 10193), (10, 10274), (11, 10283),

Gene: Mindy_18 Start: 10726, Stop: 11130, Start Num: 5

Candidate Starts for Mindy_18:

(1, 10693), (3, 10714), (Start: 5 @10726 has 132 MA's), (6, 10897), (7, 10909), (8, 10966), (9, 11035), (10, 11116), (11, 11125),

Gene: Miniwave_18 Start: 11145, Stop: 11549, Start Num: 5

Candidate Starts for Miniwave_18:

(1, 11112), (3, 11133), (Start: 5 @11145 has 132 MA's), (6, 11316), (7, 11328), (8, 11385), (9, 11454), (10, 11535), (11, 11544),

Gene: Misfit_17 Start: 10501, Stop: 10905, Start Num: 5

Candidate Starts for Misfit_17:

(1, 10468), (3, 10489), (Start: 5 @10501 has 132 MA's), (6, 10672), (7, 10684), (8, 10741), (9, 10810), (10, 10891), (11, 10900),

Gene: Moldemort_18 Start: 10159, Stop: 10563, Start Num: 5

Candidate Starts for Moldemort_18:

(1, 10126), (3, 10147), (Start: 5 @10159 has 132 MA's), (6, 10330), (7, 10342), (8, 10399), (9, 10468), (10, 10549), (11, 10558),

Gene: MollyToe_18 Start: 11119, Stop: 11523, Start Num: 5

Candidate Starts for MollyToe_18:

(1, 11086), (3, 11107), (Start: 5 @11119 has 132 MA's), (6, 11290), (7, 11302), (8, 11359), (9, 11428), (10, 11509), (11, 11518),

Gene: Mosby_17 Start: 10455, Stop: 10859, Start Num: 5

Candidate Starts for Mosby_17:

(1, 10422), (3, 10443), (Start: 5 @10455 has 132 MA's), (6, 10626), (7, 10638), (8, 10695), (9, 10764), (10, 10845), (11, 10854),

Gene: Murica_16 Start: 10413, Stop: 10817, Start Num: 5

Candidate Starts for Murica_16:

(1, 10380), (3, 10401), (Start: 5 @10413 has 132 MA's), (6, 10584), (7, 10596), (8, 10653), (9, 10722), (10, 10803), (11, 10812),

Gene: Murphy_17 Start: 9876, Stop: 10280, Start Num: 5

Candidate Starts for Murphy_17:

(1, 9843), (3, 9864), (Start: 5 @9876 has 132 MA's), (6, 10047), (7, 10059), (8, 10116), (9, 10185), (10, 10266), (11, 10275),

Gene: Myrale_18 Start: 10818, Stop: 11222, Start Num: 5

Candidate Starts for Myrale_18:

(1, 10785), (3, 10806), (Start: 5 @10818 has 132 MA's), (6, 10989), (7, 11001), (8, 11058), (9, 11127), (10, 11208), (11, 11217),

Gene: Nala_17 Start: 10455, Stop: 10859, Start Num: 5

Candidate Starts for Nala_17:

(1, 10422), (3, 10443), (Start: 5 @10455 has 132 MA's), (6, 10626), (7, 10638), (8, 10695), (9, 10764), (10, 10845), (11, 10854),

Gene: NelitzaMV_18 Start: 11017, Stop: 11421, Start Num: 5

Candidate Starts for NelitzaMV_18:

(1, 10984), (3, 11005), (Start: 5 @11017 has 132 MA's), (6, 11188), (7, 11200), (8, 11257), (9, 11326), (10, 11407), (11, 11416),

Gene: Nimrod_17 Start: 10656, Stop: 11060, Start Num: 5

Candidate Starts for Nimrod_17:

(1, 10623), (3, 10644), (Start: 5 @10656 has 132 MA's), (6, 10827), (7, 10839), (8, 10896), (9, 10965), (10, 11046), (11, 11055),

Gene: NoSleep_18 Start: 10156, Stop: 10560, Start Num: 5

Candidate Starts for NoSleep_18:

(1, 10123), (3, 10144), (Start: 5 @10156 has 132 MA's), (6, 10327), (7, 10339), (8, 10396), (9, 10465), (10, 10546), (11, 10555),

Gene: NonchalantPear_17 Start: 10109, Stop: 10513, Start Num: 5

Candidate Starts for NonchalantPear_17:

(1, 10076), (3, 10097), (Start: 5 @10109 has 132 MA's), (6, 10280), (7, 10292), (8, 10349), (9, 10418), (10, 10499), (11, 10508),

Gene: OrionPax_18 Start: 10159, Stop: 10563, Start Num: 5

Candidate Starts for OrionPax_18:

(1, 10126), (3, 10147), (Start: 5 @10159 has 132 MA's), (6, 10330), (7, 10342), (8, 10399), (9, 10468), (10, 10549), (11, 10558),

Gene: PaddyBaddy_18 Start: 10169, Stop: 10573, Start Num: 5

Candidate Starts for PaddyBaddy_18:

(1, 10136), (3, 10157), (Start: 5 @10169 has 132 MA's), (6, 10340), (7, 10352), (8, 10409), (9, 10478), (10, 10559), (11, 10568),

Gene: Palpatine_17 Start: 10452, Stop: 10856, Start Num: 5

Candidate Starts for Palpatine_17:

(1, 10419), (3, 10440), (Start: 5 @10452 has 132 MA's), (6, 10623), (7, 10635), (8, 10692), (9, 10761), (10, 10842), (11, 10851),

Gene: Paperbeatsrock_19 Start: 11391, Stop: 11795, Start Num: 5

Candidate Starts for Paperbeatsrock_19:

(1, 11358), (3, 11379), (Start: 5 @11391 has 132 MA's), (6, 11562), (7, 11574), (8, 11631), (9, 11700), (10, 11781), (11, 11790),

Gene: Pat3_17 Start: 9659, Stop: 10063, Start Num: 5

Candidate Starts for Pat3_17:

(1, 9626), (3, 9647), (Start: 5 @9659 has 132 MA's), (6, 9830), (7, 9842), (8, 9899), (9, 9968), (10, 10049), (11, 10058),

Gene: Petra64142_18 Start: 10872, Stop: 11276, Start Num: 5

Candidate Starts for Petra64142_18:

(1, 10839), (3, 10860), (Start: 5 @10872 has 132 MA's), (6, 11043), (7, 11055), (8, 11112), (9, 11181), (10, 11262), (11, 11271),

Gene: Phaja_17 Start: 10607, Stop: 11011, Start Num: 5

Candidate Starts for Phaja_17:

(1, 10574), (3, 10595), (Start: 5 @10607 has 132 MA's), (6, 10778), (7, 10790), (8, 10847), (9, 10916), (10, 10997), (11, 11006),

Gene: Pharsalus_18 Start: 11191, Stop: 11595, Start Num: 5

Candidate Starts for Pharsalus_18:

(1, 11158), (3, 11179), (Start: 5 @11191 has 132 MA's), (6, 11362), (7, 11374), (8, 11431), (9, 11500), (10, 11581), (11, 11590),

Gene: PhatBacter_17 Start: 10457, Stop: 10861, Start Num: 5

Candidate Starts for PhatBacter_17:

(1, 10424), (3, 10445), (Start: 5 @10457 has 132 MA's), (6, 10628), (7, 10640), (8, 10697), (9, 10766), (10, 10847), (11, 10856),

Gene: Phaux_16 Start: 10455, Stop: 10859, Start Num: 5

Candidate Starts for Phaux_16:

(1, 10422), (3, 10443), (Start: 5 @10455 has 132 MA's), (6, 10626), (7, 10638), (8, 10695), (9, 10764), (10, 10845), (11, 10854),

Gene: Phrux_17 Start: 10155, Stop: 10559, Start Num: 5

Candidate Starts for Phrux_17:

(1, 10122), (3, 10143), (Start: 5 @10155 has 132 MA's), (6, 10326), (7, 10338), (8, 10395), (9, 10464), (10, 10545), (11, 10554),

Gene: Policronamos_17 Start: 10457, Stop: 10861, Start Num: 5

Candidate Starts for Policronamos_17:

(1, 10424), (3, 10445), (Start: 5 @10457 has 132 MA's), (6, 10628), (7, 10640), (8, 10697), (9, 10766), (10, 10847), (11, 10856),

Gene: Porky_16 Start: 9729, Stop: 10133, Start Num: 5

Candidate Starts for Porky_16:

(1, 9696), (3, 9717), (Start: 5 @9729 has 132 MA's), (6, 9900), (7, 9912), (8, 9969), (9, 10038), (10, 10119), (11, 10128),

Gene: Ptowny_17 Start: 9796, Stop: 10200, Start Num: 5

Candidate Starts for Ptowny_17:

(1, 9763), (3, 9784), (Start: 5 @9796 has 132 MA's), (6, 9967), (7, 9979), (8, 10036), (9, 10105), (10, 10186), (11, 10195),

Gene: Pumpkin_18 Start: 9972, Stop: 10376, Start Num: 5

Candidate Starts for Pumpkin_18:

(1, 9939), (3, 9960), (Start: 5 @9972 has 132 MA's), (6, 10143), (7, 10155), (8, 10212), (9, 10281), (10, 10362), (11, 10371),

Gene: Quallification_19 Start: 11154, Stop: 11558, Start Num: 5

Candidate Starts for Quallification_19:

(1, 11121), (3, 11142), (Start: 5 @11154 has 132 MA's), (6, 11325), (7, 11337), (8, 11394), (9, 11463), (10, 11544), (11, 11553),

Gene: Rakim_19 Start: 11061, Stop: 11465, Start Num: 5

Candidate Starts for Rakim_19:

(1, 11028), (3, 11049), (Start: 5 @11061 has 132 MA's), (6, 11232), (7, 11244), (8, 11301), (9, 11370), (10, 11451), (11, 11460),

Gene: Rimmer_17 Start: 10514, Stop: 10918, Start Num: 5

Candidate Starts for Rimmer_17:

(1, 10481), (3, 10502), (Start: 5 @10514 has 132 MA's), (6, 10685), (7, 10697), (8, 10754), (9, 10823), (10, 10904), (11, 10913),

Gene: RiverMonster_17 Start: 10169, Stop: 10573, Start Num: 5

Candidate Starts for RiverMonster_17:

(1, 10136), (3, 10157), (Start: 5 @10169 has 132 MA's), (6, 10340), (7, 10352), (8, 10409), (9, 10478), (10, 10559), (11, 10568),

Gene: Saints25_18 Start: 10078, Stop: 10482, Start Num: 5

Candidate Starts for Saints25_18:

(1, 10045), (3, 10066), (Start: 5 @10078 has 132 MA's), (6, 10249), (7, 10261), (8, 10318), (9, 10387), (10, 10468), (11, 10477),

Gene: Sassay_17 Start: 10455, Stop: 10859, Start Num: 5

Candidate Starts for Sassay_17:

(1, 10422), (3, 10443), (Start: 5 @10455 has 132 MA's), (6, 10626), (7, 10638), (8, 10695), (9, 10764), (10, 10845), (11, 10854),

Gene: ShamWow_18 Start: 10948, Stop: 11352, Start Num: 5

Candidate Starts for ShamWow_18:

(1, 10915), (3, 10936), (Start: 5 @10948 has 132 MA's), (6, 11119), (7, 11131), (8, 11188), (9, 11257), (10, 11338), (11, 11347),

Gene: ShereKhan_19 Start: 11397, Stop: 11801, Start Num: 5

Candidate Starts for ShereKhan_19:

(1, 11364), (3, 11385), (Start: 5 @11397 has 132 MA's), (6, 11568), (7, 11580), (8, 11637), (9, 11706), (10, 11787), (11, 11796),

Gene: Simpliphy_18 Start: 10159, Stop: 10563, Start Num: 5

Candidate Starts for Simpliphy_18:

(1, 10126), (3, 10147), (Start: 5 @10159 has 132 MA's), (6, 10330), (7, 10342), (8, 10399), (9, 10468), (10, 10549), (11, 10558),

Gene: SirDuracell_17 Start: 9614, Stop: 10018, Start Num: 5

Candidate Starts for SirDuracell_17:

(1, 9581), (3, 9602), (Start: 5 @9614 has 132 MA's), (6, 9785), (7, 9797), (8, 9854), (9, 9923), (10, 10004), (11, 10013),

Gene: SophKB_18 Start: 10947, Stop: 11351, Start Num: 5

Candidate Starts for SophKB_18:

(1, 10914), (3, 10935), (Start: 5 @10947 has 132 MA's), (6, 11118), (7, 11130), (8, 11187), (9, 11256), (10, 11337), (11, 11346),

Gene: Sotrice96_18 Start: 10903, Stop: 11307, Start Num: 5

Candidate Starts for Sotrice96_18:

(1, 10870), (3, 10891), (Start: 5 @10903 has 132 MA's), (6, 11074), (7, 11086), (8, 11143), (9, 11212), (10, 11293), (11, 11302),

Gene: Stank_19 Start: 10404, Stop: 10808, Start Num: 5

Candidate Starts for Stank_19:

(1, 10371), (3, 10392), (Start: 5 @10404 has 132 MA's), (6, 10575), (7, 10587), (8, 10644), (9, 10713), (10, 10794), (11, 10803),

Gene: Stark_18 Start: 10172, Stop: 10576, Start Num: 5

Candidate Starts for Stark_18:

(1, 10139), (3, 10160), (Start: 5 @10172 has 132 MA's), (6, 10343), (7, 10355), (8, 10412), (9, 10481), (10, 10562), (11, 10571),

Gene: StellaBean_18 Start: 10947, Stop: 11351, Start Num: 5

Candidate Starts for StellaBean_18:

(1, 10914), (3, 10935), (Start: 5 @10947 has 132 MA's), (6, 11118), (7, 11130), (8, 11187), (9, 11256), (10, 11337), (11, 11346),

Gene: StolenFromERC_19 Start: 10404, Stop: 10808, Start Num: 5

Candidate Starts for StolenFromERC_19:

(1, 10371), (3, 10392), (Start: 5 @10404 has 132 MA's), (6, 10575), (7, 10587), (8, 10644), (9, 10713), (10, 10794), (11, 10803),

Gene: StormChicken_18 Start: 11122, Stop: 11526, Start Num: 5

Candidate Starts for StormChicken_18:

(1, 11089), (3, 11110), (Start: 5 @11122 has 132 MA's), (6, 11293), (7, 11305), (8, 11362), (9, 11431), (10, 11512), (11, 11521),

Gene: TBrady12_19 Start: 10401, Stop: 10805, Start Num: 5

Candidate Starts for TBrady12_19:

(1, 10368), (3, 10389), (Start: 5 @10401 has 132 MA's), (6, 10572), (7, 10584), (8, 10641), (9, 10710), (10, 10791), (11, 10800),

Gene: Tarkin_19 Start: 11400, Stop: 11804, Start Num: 5

Candidate Starts for Tarkin_19:

(1, 11367), (3, 11388), (Start: 5 @11400 has 132 MA's), (6, 11571), (7, 11583), (8, 11640), (9, 11709), (10, 11790), (11, 11799),

Gene: TeamEdward_18 Start: 11119, Stop: 11523, Start Num: 5

Candidate Starts for TeamEdward_18:

(1, 11086), (3, 11107), (Start: 5 @11119 has 132 MA's), (6, 11290), (7, 11302), (8, 11359), (9, 11428), (10, 11509), (11, 11518),

Gene: TeardropMSU_17 Start: 10855, Stop: 11259, Start Num: 5

Candidate Starts for TeardropMSU_17:

(1, 10822), (3, 10843), (Start: 5 @10855 has 132 MA's), (6, 11026), (7, 11038), (8, 11095), (9, 11164), (10, 11245), (11, 11254),

Gene: Teaspoon_17 Start: 9854, Stop: 10258, Start Num: 5

Candidate Starts for Teaspoon_17:

(1, 9821), (3, 9842), (Start: 5 @9854 has 132 MA's), (6, 10025), (7, 10037), (8, 10094), (9, 10163), (10, 10244), (11, 10253),

Gene: Terminus_17 Start: 10501, Stop: 10905, Start Num: 5

Candidate Starts for Terminus_17:

(1, 10468), (3, 10489), (Start: 5 @10501 has 132 MA's), (6, 10672), (7, 10684), (8, 10741), (9, 10810), (10, 10891), (11, 10900),

Gene: Thimble_18 Start: 9904, Stop: 10308, Start Num: 5

Candidate Starts for Thimble_18:

(1, 9871), (3, 9892), (Start: 5 @9904 has 132 MA's), (6, 10075), (7, 10087), (8, 10144), (9, 10213), (10, 10294), (11, 10303),

Gene: Thresher_18 Start: 11162, Stop: 11566, Start Num: 5

Candidate Starts for Thresher_18:

(1, 11129), (3, 11150), (Start: 5 @11162 has 132 MA's), (6, 11333), (7, 11345), (8, 11402), (9, 11471), (10, 11552), (11, 11561),

Gene: Tomaszewski_17 Start: 10548, Stop: 10952, Start Num: 5

Candidate Starts for Tomaszewski_17:

(1, 10515), (3, 10536), (Start: 5 @10548 has 132 MA's), (6, 10719), (7, 10731), (8, 10788), (9, 10857), (10, 10938), (11, 10947),

Gene: Toto_18 Start: 10948, Stop: 11352, Start Num: 5

Candidate Starts for Toto_18:

(1, 10915), (3, 10936), (Start: 5 @10948 has 132 MA's), (6, 11119), (7, 11131), (8, 11188), (9, 11257), (10, 11338), (11, 11347),

Gene: Traaww1_16 Start: 10593, Stop: 10997, Start Num: 5

Candidate Starts for Traaww1_16:

(1, 10560), (3, 10581), (Start: 5 @10593 has 132 MA's), (6, 10764), (7, 10776), (8, 10833), (9, 10902), (10, 10983), (11, 10992),

Gene: Tuco_18 Start: 10947, Stop: 11351, Start Num: 5

Candidate Starts for Tuco_18:

(1, 10914), (3, 10935), (Start: 5 @10947 has 132 MA's), (6, 11118), (7, 11130), (8, 11187), (9, 11256), (10, 11337), (11, 11346),

Gene: Ukulele_17 Start: 10172, Stop: 10576, Start Num: 5

Candidate Starts for Ukulele_17:

(1, 10139), (3, 10160), (Start: 5 @10172 has 132 MA's), (6, 10343), (7, 10355), (8, 10412), (9, 10481), (10, 10562), (11, 10571),

Gene: Wiggin_19 Start: 10404, Stop: 10808, Start Num: 5

Candidate Starts for Wiggin_19:

(1, 10371), (3, 10392), (Start: 5 @10404 has 132 MA's), (6, 10575), (7, 10587), (8, 10644), (9, 10713), (10, 10794), (11, 10803),

Gene: Willez_17 Start: 10455, Stop: 10859, Start Num: 5

Candidate Starts for Willez_17:

(1, 10422), (3, 10443), (Start: 5 @10455 has 132 MA's), (6, 10626), (7, 10638), (8, 10695), (9, 10764), (10, 10845), (11, 10854),

Gene: Xandras_19 Start: 10404, Stop: 10808, Start Num: 5

Candidate Starts for Xandras_19:

(1, 10371), (3, 10392), (Start: 5 @10404 has 132 MA's), (6, 10575), (7, 10587), (8, 10644), (9, 10713), (10, 10794), (11, 10803),

Gene: YassJohnny_18 Start: 10947, Stop: 11351, Start Num: 5

Candidate Starts for YassJohnny_18:

(1, 10914), (3, 10935), (Start: 5 @10947 has 132 MA's), (6, 11118), (7, 11130), (8, 11187), (9, 11256), (10, 11337), (11, 11346),

Gene: Youngblood_17 Start: 10582, Stop: 10986, Start Num: 5

Candidate Starts for Youngblood_17:

(1, 10549), (3, 10570), (Start: 5 @10582 has 132 MA's), (6, 10753), (7, 10765), (8, 10822), (9, 10891), (10, 10972), (11, 10981),

Gene: xkcd_18 Start: 10607, Stop: 11011, Start Num: 5

Candidate Starts for xkcd_18:

(1, 10574), (3, 10595), (Start: 5 @10607 has 132 MA's), (6, 10778), (7, 10790), (8, 10847), (9, 10916), (10, 10997), (11, 11006),