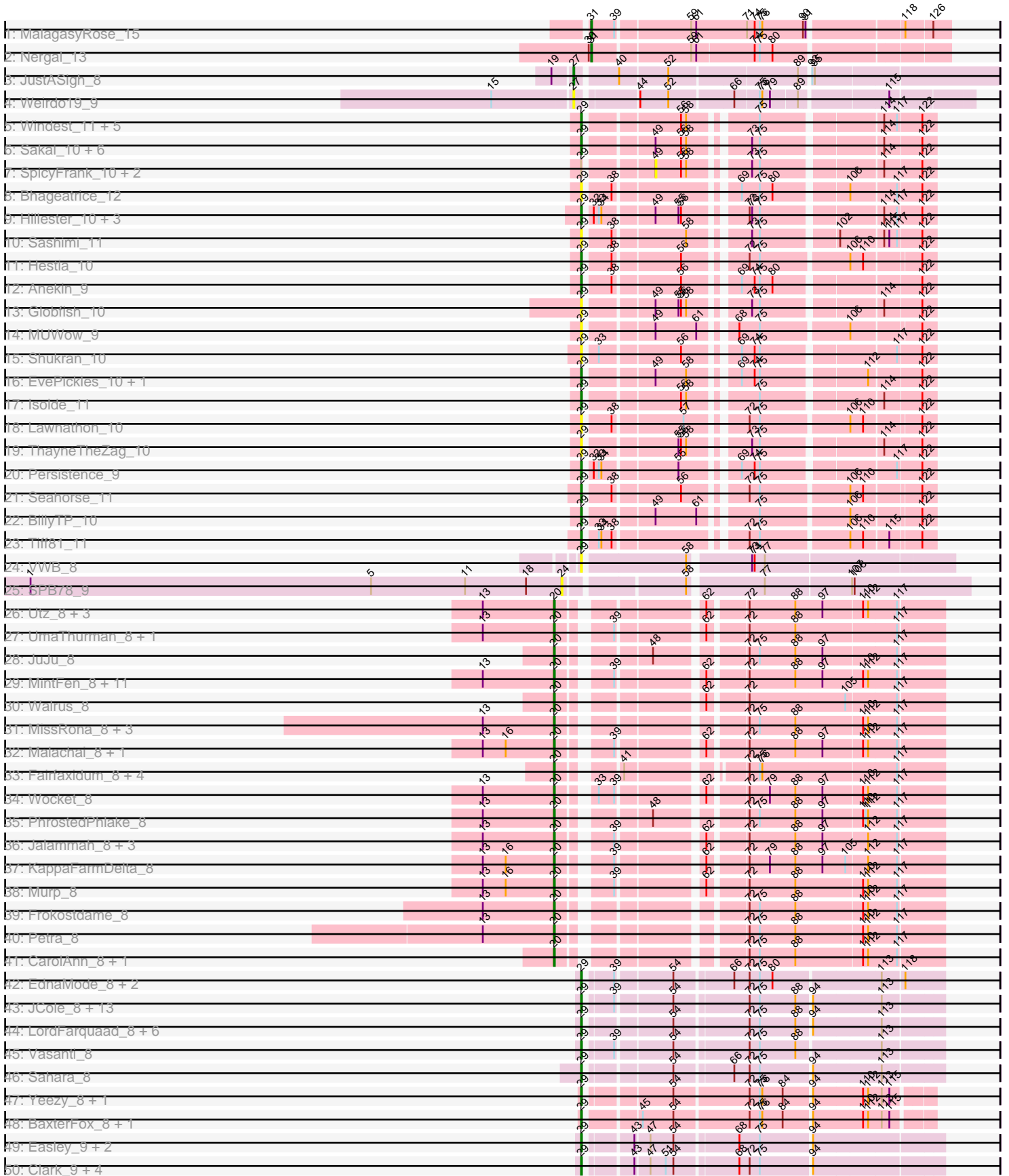
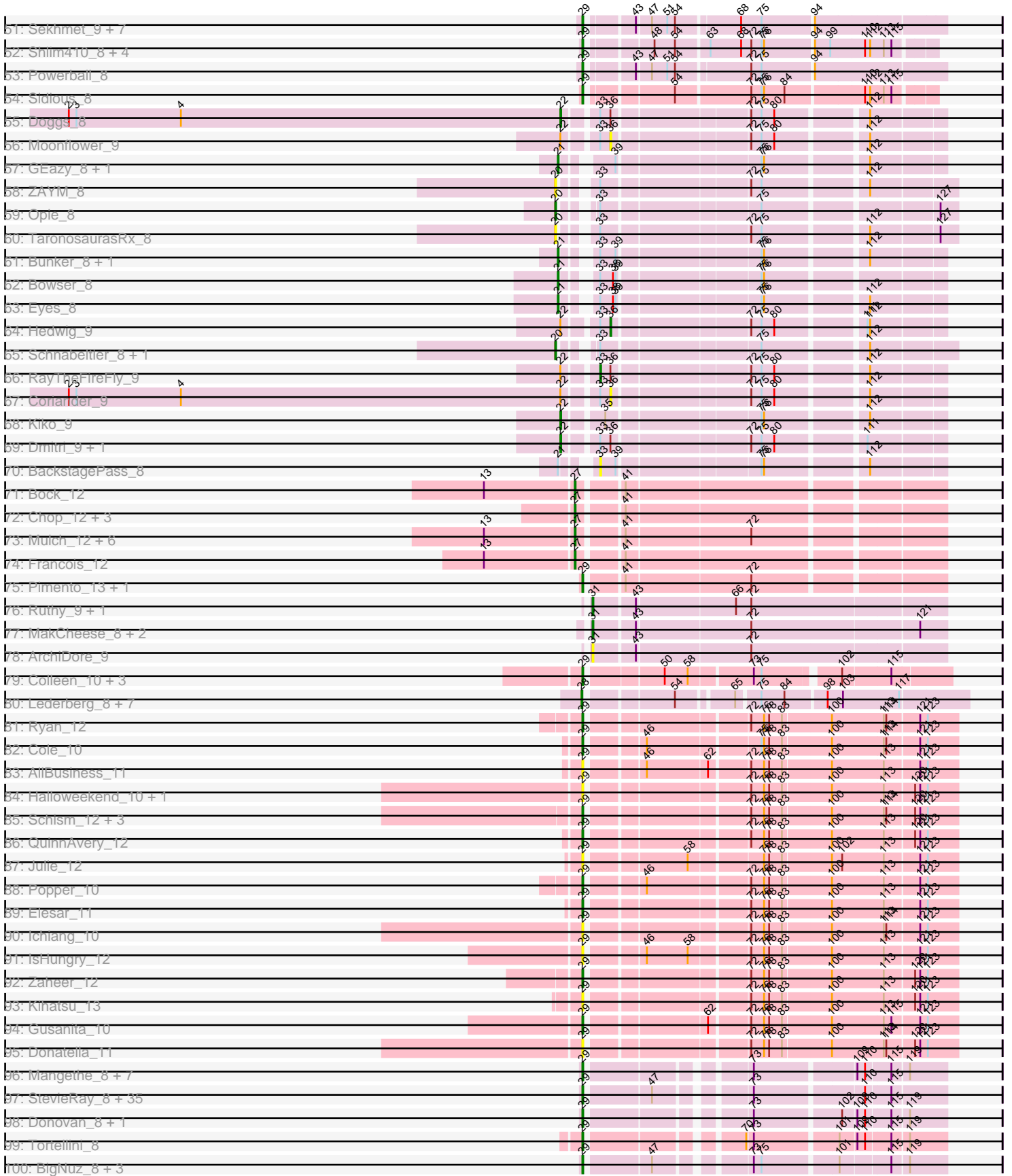


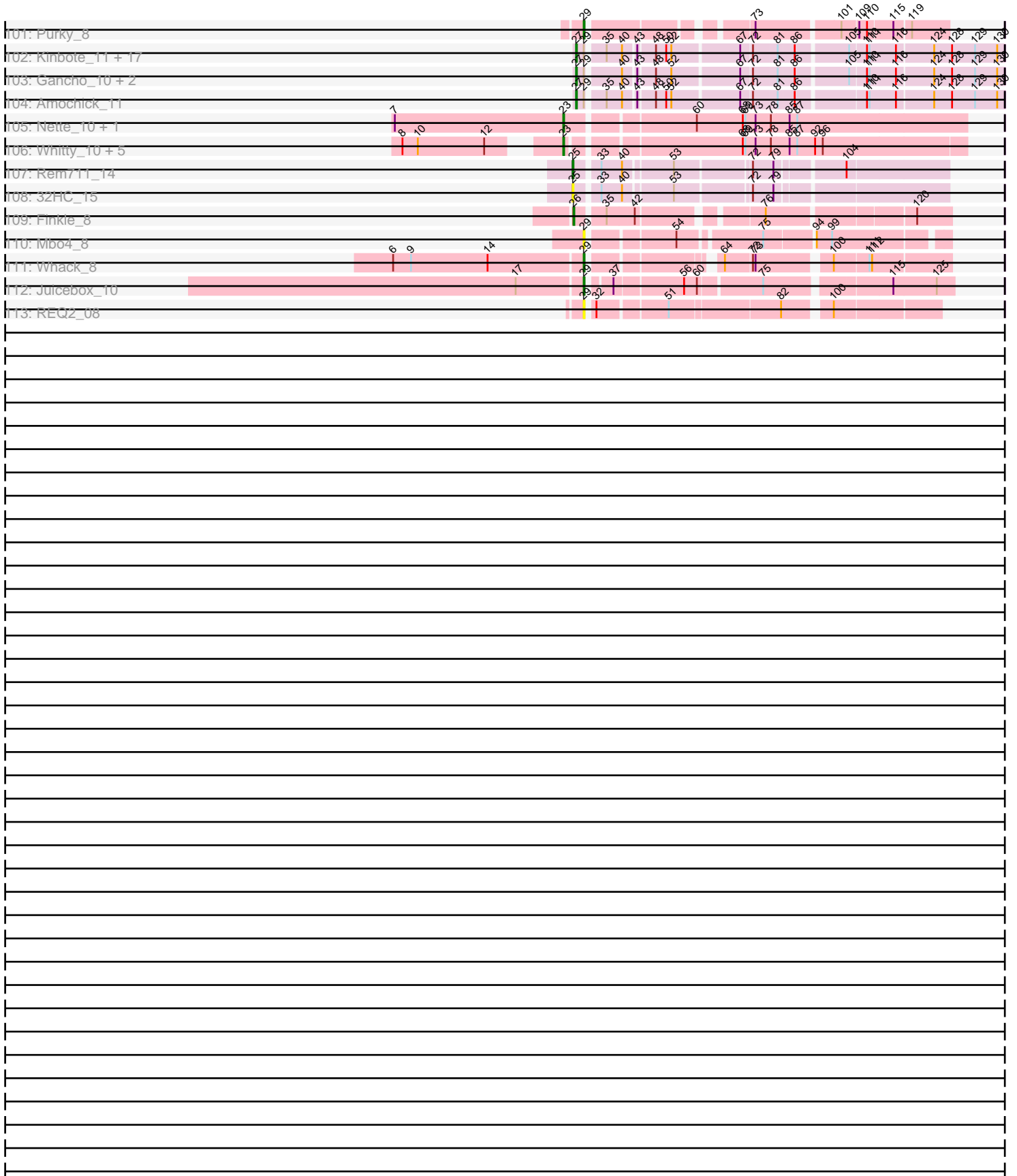
Pham 224226



Pham 224226



Pham 224226



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 224226 Report

This analysis was run 03/28/25 on database version 593.

WARNING: Pham size does not match number of genes in report. Either unphamerated genes have been added (by you) or starterator has removed genes due to invalid start codon.

Pham number 224226 has 299 members, 54 are drafts.

Phages represented in each track:

- Track 1 : MalagasyRose_15
- Track 2 : Nergal_13
- Track 3 : JustASigh_8
- Track 4 : Weirido19_9
- Track 5 : Windest_11, AdaS_10, Auxilium_10, CookieBear_10, Raphaella_10, JellyBread_10
- Track 6 : Sakai_10, Aikyam_10, MaterMagnus_10, Phrank15_9, Gorpy_10, BenchScraper_10, Richie_10
- Track 7 : SpicyFrank_10, YoungHarleezy_10, Vopal_11
- Track 8 : Bhageatrice_12
- Track 9 : Hillester_10, MidnightRain_10, BlueShadow_10, RadFad_10
- Track 10 : Sashimi_11
- Track 11 : Hestia_10
- Track 12 : Anekin_9
- Track 13 : Globfish_10
- Track 14 : MUWow_9
- Track 15 : Shukran_10
- Track 16 : EvePickles_10, Faja_10
- Track 17 : Isolde_11
- Track 18 : Lawnathon_10
- Track 19 : ThayneTheZag_10
- Track 20 : Persistence_9
- Track 21 : Seahorse_11
- Track 22 : BillyTP_10
- Track 23 : Tiff81_11
- Track 24 : VWB_8
- Track 25 : SPB78_9
- Track 26 : Utz_8, Lysidious_8, Wisp_8, BlingBling_8
- Track 27 : UmaThurman_8, Samba_8
- Track 28 : JuJu_8
- Track 29 : MintFen_8, Delian_8, Guacamole_8, CaptainKirk2_8, Pipp_8, Melba_8, Mellie_8, Barco_8, ZiggyZoo_8, Zarbodnamra_8, Obliviate_8, JasperJr_8
- Track 30 : Walrus_8

- Track 31 : MissRona_8, Azula_8, Blueberry_8, Gambino_8
- Track 32 : Malachai_8, Begonia_8
- Track 33 : Fairfaxidum_8, PrincePatrick_8, William_8, PCoral7_8, Toast_8
- Track 34 : Wocket_8
- Track 35 : PhrostedPhlake_8
- Track 36 : Jalammah_8, Archis_8, Fenry_8, Hitter_8
- Track 37 : KappaFarmDelta_8
- Track 38 : Murp_8
- Track 39 : Frokostdame_8
- Track 40 : Petra_8
- Track 41 : CarolAnn_8, Blino_8
- Track 42 : EdnaMode_8, Nettuno_8, Lamberg_8
- Track 43 : JCole_8, Clap_8, Cynthia_8, GemG_8, Denise_8, Whiteclaw_8, TuertoX_8, Gizermo_8, Ebert_8, Sproutie_8, FroggyToad_8, Savage_8, Haley23_8, Mocha12_8
- Track 44 : LordFarquaad_8, Yeet412_8, Attis_8, SoilAssassin_8, Bjanes7_8, Matteo_8, Pickett_8
- Track 45 : Vasanti_8
- Track 46 : Sahara_8
- Track 47 : Yeezy_8, PantheRoc_8
- Track 48 : BaxterFox_8, Ohgeesy_8
- Track 49 : Easley_9, Beenie_9, MichaelScott_9
- Track 50 : Clark_9, Dorito_8, Annalisa_9, DobbysSock_8, PhriskyACE_8
- Track 51 : Sekhmet_9, Oregano_9, Suerte_8, Dolores_9, Samman98_9, WinkNick_9, Thimann_9, Invectra_9
- Track 52 : Shlim410_8, Hortense_8, Adora_8, Howe_8, Twinkle_8
- Track 53 : Powerball_8
- Track 54 : Sidious_8
- Track 55 : Doggs_8
- Track 56 : Moonflower_9
- Track 57 : GEazy_8, HannahD_8
- Track 58 : ZAYM_8
- Track 59 : Opie_8
- Track 60 : TaronosaurusRx_8
- Track 61 : Bunker_8, BBQValindra_8
- Track 62 : Bowser_8
- Track 63 : Eyes_8
- Track 64 : Hedwig_9
- Track 65 : Schnabeltier_8, MagicMan_8
- Track 66 : RayTheFireFly_9
- Track 67 : Coriander_9
- Track 68 : Kiko_9
- Track 69 : Dmitri_9, DirtyBoi_9
- Track 70 : BackstagePass_8
- Track 71 : Bock_12
- Track 72 : Chop_12, Ayotoya_12, GrandSlam_12, Hamood_12
- Track 73 : Mulch_12, Parada_12, WheatThin_12, Nadeem_12, BetterKatz_12, Brylie_12, NancyRae_12
- Track 74 : Francois_12
- Track 75 : Pimento_13, DelRio_13
- Track 76 : Ruthy_9, DumpsterDude_9
- Track 77 : MakCheese_8, Zodiariah_8, Malibo_8
- Track 78 : ArchiDore_9

- Track 79 : Colleen_10, Poushou_10, TouchMeNot_10, Arianna_10
- Track 80 : Lederberg_8, Bran_8, SamW_8, StAB_8, Stiles_8, Dina_8, Troy_8, Adelaide_8
- Track 81 : Ryan_12
- Track 82 : Cole_10
- Track 83 : AllBusiness_11
- Track 84 : Halloweekend_10, Lenoxika_12
- Track 85 : Schism_12, GoodLuckBabe_12, Nandita_12, Guinevere_12
- Track 86 : QuinnAvery_12
- Track 87 : Julie_12
- Track 88 : Popper_10
- Track 89 : Elesar_11
- Track 90 : Ichiang_10
- Track 91 : IsHungry_12
- Track 92 : Zaheer_12
- Track 93 : Kihatsu_13
- Track 94 : Gusanita_10
- Track 95 : Donatella_11
- Track 96 : Mangethe_8, Langerak_8, Majeke_8, Techage_8, Arib1_8, Phegasus_8, Juniormint_8, Jebeks_8
- Track 97 : StevieRay_8, Glaske_8, Brusacoram_8, Dynamo_8, Venti_8, Shipwreck_8, Atcoo_8, Bunnies_8, KilKor_8, Camster_8, Polkaroo_8, Phalm_8, Jung_8, Bartholomew_8, Pygmy_8, FirstPlacePfu_8, Étoile_8, Necropolis_8, HUHilltop_8, Phineas_8, Xavia_8, Bhagsy_8, GreaseLightnin_8, Fishburne_8, StressBall_8, Malithi_8, CactusJack_8, Zilizebeth_8, Thespis_8, Bogie_8, Gavriela_8, Willsammy_8, Kari_8, Ksquared_8, Vidya_8, Megiddo_8
- Track 98 : Donovan_8, Sonah_8
- Track 99 : Tortellini_8
- Track 100 : BigNuz_8, ThulaThula_8, Nazo_8, Phayonce_8
- Track 101 : Purky_8
- Track 102 : Kinbote_11, Ein37_11, HH92_11, Luna22_11, Ubuntu_11, Evanesce_11, DeepSoil15_11, Dewey_11, Amymech_11, Webster2_11, Giles_11, Wishmaker_11, Luke_11, Hail_11, LilHazelNut_11, OBUpride_11, Forge_11, Hadrien_11
- Track 103 : Gancho_10, Daegal_12, Gravallia_11
- Track 104 : Amochick_11
- Track 105 : Nette_10, Mendokysei_9
- Track 106 : Whitty_10, Bernal13_10, RonRayGun_10, ZenTime222_10, Nairb_10, Ibrahim_10
- Track 107 : Rem711_14
- Track 108 : 32HC_15
- Track 109 : Finkle_8
- Track 110 : Mbo4_8
- Track 111 : Whack_8
- Track 112 : Juicebox_10
- Track 113 : REQ2_08

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

The start number called the most often in the published annotations is 29, it was called in 130 of the 245 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- AdaS_10, Adora_8, Aikyam_10, AllBusiness_11, Anekin_9, Annalisa_9, Arianna_10, Arib1_8, Atcoo_8, Attis_8, Auxilium_10, Bartholomew_8, BaxterFox_8, Beenie_9, BenchScraper_10, Bhageatrice_12, Bhagsy_8, BigNuz_8, BillyTP_10, Bjaner7_8, BlueShadow_10, Bogie_8, Brusacoram_8, Bunnies_8, CactusJack_8, Camster_8, Clap_8, Clark_9, Cole_10, Colleen_10, CookieBear_10, Cynthia_8, DelRio_13, Denise_8, DobbysSock_8, Dolores_9, Donatella_11, Donovan_8, Dorito_8, Dynamo_8, Easley_9, Ebert_8, EdnaMode_8, Elesar_11, Etoile_8, EvePickles_10, Faja_10, FirstPlacePfu_8, Fishburne_8, FroggyToad_8, Gavriela_8, GemG_8, Gizermo_8, Glaske_8, Globfish_10, GoodLuckBabe_12, Gorpy_10, GreaseLightnin_8, Guinevere_12, Gusanita_10, HUHilltop_8, Haley23_8, Halloweekend_10, Hestia_10, Hillester_10, Hortense_8, Howe_8, Ichiang_10, Invectra_9, IsHungry_12, Isolde_11, JCole_8, Jebeks_8, JellyBread_10, Juicebox_10, Julie_12, Jung_8, Juniormint_8, Kari_8, Kihatsu_13, KilKor_8, Ksquared_8, Lamberg_8, Langerak_8, Lawnathon_10, Lenoxika_12, LordFarquaad_8, MUWow_9, Majeke_8, Malithi_8, Mangethe_8, MaterMagnus_10, Matteo_8, Mbo4_8, Megiddo_8, MichaelScott_9, MidnightRain_10, Mocha12_8, Nandita_12, Nazo_8, Necropolis_8, Nettuno_8, Ohgeesy_8, Oregano_9, PantheRoc_8, Persistence_9, Phalm_8, Phayonce_8, Phegasus_8, Phineas_8, Phrank15_9, PhriskyACE_8, Pickett_8, Pimento_13, Polkaroo_8, Popper_10, Poushou_10, Powerball_8, Purky_8, Pygmy_8, QuinnAvery_12, REQ2_08, RadFad_10, Raphaella_10, Richie_10, Ryan_12, Sahara_8, Sakai_10, Samman98_9, Sashimi_11, Savage_8, Schism_12, Seahorse_11, Sekhmet_9, Shipwreck_8, Shlim410_8, Shukran_10, Sidious_8, SoilAssassin_8, Sonah_8, Sproutie_8, StevieRay_8, StressBall_8, Suerte_8, Techage_8, ThayneTheZag_10, Thespis_8, Thimann_9, ThulaThula_8, Tiff81_11, Tortellini_8, TouchMeNot_10, TuertoX_8, Twinkle_8, VWB_8, Vasanti_8, Venti_8, Vidya_8, Whack_8, Whiteclaw_8, Willsammy_8, Windest_11, WinkNick_9, Xavia_8, Yeet412_8, Yeezy_8, Zaheer_12, Zilizebeth_8,

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

- Amochick_11, Amymech_11, Daegal_12, DeepSoil15_11, Dewey_11, Ein37_11, Evanesce_11, Forge_11, Gancho_10, Giles_11, Gravaillia_11, HH92_11, Hadrien_11, Hail_11, Kinbote_11, LilHazelNut_11, Luke_11, Luna22_11, OBUpride_11, SpicyFrank_10, Ubuntu_11, Vopal_11, Webster2_11, Wishmaker_11, YoungHarleezy_10,

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

- 32HC_15, Adelaide_8, ArchiDore_9, Archis_8, Ayotoya_12, Azula_8, BBQValindra_8, BackstagePass_8, Barco_8, Begonia_8, Bernal13_10, BetterKatz_12, BlingBling_8, Blino_8, Blueberry_8, Bock_12, Bowser_8, Bran_8, Brylie_12, Bunker_8, CaptainKirk2_8, CarolAnn_8, Chop_12, Coriander_9, Delian_8, Dina_8, DirtyBoi_9, Dmitri_9, Doggs_8, DumpsterDude_9, Eyes_8, Fairfaxidum_8, Ferry_8, Finkle_8, Francois_12, Frokostdame_8, GEazy_8, Gambino_8, GrandSlam_12, Guacamole_8, Hamood_12, HannahD_8, Hedwig_9, Hitter_8, Ibrahim_10, Jalammah_8, JasperJr_8, JuJu_8, JustASigh_8, KappaFarmDelta_8, Kiko_9, Lederberg_8, Lysidious_8, MagicMan_8, MakCheese_8, Malachai_8, MalagasyRose_15, Malibo_8, Melba_8, Mellie_8, Mendokysei_9, MintFen_8, MissRona_8, Moonflower_9, Mulch_12, Murp_8, Nadeem_12, Nairb_10, NancyRae_12, Nergal_13, Nette_10, Obliviate_8, Opie_8, PCoral7_8, Parada_12,

Petra_8, PhrostedPhlake_8, Pipp_8, PrincePatrick_8, RayTheFireFly_9, Rem711_14, RonRayGun_10, Ruthy_9, SPB78_9, SamW_8, Samba_8, Schnabeltier_8, StAB_8, Stiles_8, TaronosaurusRx_8, Toast_8, Troy_8, UmaThurman_8, Utz_8, Walrus_8, Weirido19_9, WheatThin_12, Whitty_10, William_8, Wisp_8, Wocket_8, ZAYM_8, Zarbodnamra_8, ZenTime222_10, ZiggyZoo_8, Zodiariah_8,

Summary by start number:

Start 20:

- Found in 48 of 299 (16.1%) of genes in pham
- Manual Annotations of this start: 45 of 245
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Archis_8 (CV), Azula_8 (CV), Barco_8 (CV), Begonia_8 (CV), BlingBling_8 (CV), Blino_8 (CV), Blueberry_8 (CV), CaptainKirk2_8 (CV), CarolAnn_8 (CV), Delian_8 (CV), Fairfaxidum_8 (CV), Fenry_8 (CV), Frokostdame_8 (CV), Gambino_8 (CV), Guacamole_8 (CV), Hitter_8 (CV), Jalammah_8 (CV), JasperJr_8 (CV), JuJu_8 (CV), KappaFarmDelta_8 (CV), Lysidious_8 (CV), MagicMan_8 (DB), Malachai_8 (CV), Melba_8 (CV), Mellie_8 (CV), MintFen_8 (CV), MissRona_8 (CV), Murp_8 (CV), Obliviate_8 (CV), Opie_8 (DB), PCoral7_8 (CV), Petra_8 (CV), PhrostedPhlake_8 (CV), Pipp_8 (CV), PrincePatrick_8 (CV), Samba_8 (CV), Schnabeltier_8 (DB), TaronosaurusRx_8 (DB), Toast_8 (CV), UmaThurman_8 (CV), Utz_8 (CV), Walrus_8 (CV), William_8 (CV), Wisp_8 (CV), Wocket_8 (CV), ZAYM_8 (DB), Zarbodnamra_8 (CV), ZiggyZoo_8 (CV),

Start 21:

- Found in 7 of 299 (2.3%) of genes in pham
- Manual Annotations of this start: 6 of 245
- Called 85.7% of time when present
- Phage (with cluster) where this start called: BBQValindra_8 (DB), Bowser_8 (DB), Bunker_8 (DB), Eyes_8 (DB), GEazy_8 (DB), HannahD_8 (DB),

Start 22:

- Found in 8 of 299 (2.7%) of genes in pham
- Manual Annotations of this start: 4 of 245
- Called 50.0% of time when present
- Phage (with cluster) where this start called: DirtyBoi_9 (DB), Dmitri_9 (DB), Doggs_8 (DB), Kiko_9 (DB),

Start 23:

- Found in 8 of 299 (2.7%) of genes in pham
- Manual Annotations of this start: 7 of 245
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Bernal13_10 (T), Ibrahim_10 (T), Mendokysei_9 (T), Nairb_10 (T), Nette_10 (T), RonRayGun_10 (T), Whitty_10 (T), ZenTime222_10 (T),

Start 24:

- Found in 1 of 299 (0.3%) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: SPB78_9 (BA),

Start 25:

- Found in 2 of 299 (0.7%) of genes in pham
- Manual Annotations of this start: 1 of 245
- Called 100.0% of time when present
- Phage (with cluster) where this start called: 32HC_15 (Z), Rem711_14 (Z),

Start 26:

- Found in 1 of 299 (0.3%) of genes in pham
- Manual Annotations of this start: 1 of 245
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Finkle_8 (singleton),

Start 27:

- Found in 37 of 299 (12.4%) of genes in pham
- Manual Annotations of this start: 36 of 245
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Amochick_11 (Q), Amymech_11 (Q), Ayotoya_12 (DI), BetterKatz_12 (DI), Bock_12 (DI), Brylie_12 (DI), Chop_12 (DI), Daegal_12 (Q), DeepSoil15_11 (Q), Dewey_11 (Q), Ein37_11 (Q), Evanesce_11 (Q), Forge_11 (Q), Francois_12 (DI), Gancho_10 (Q), Giles_11 (Q), GrandSlam_12 (DI), Gravaillia_11 (Q), HH92_11 (Q), Hadrien_11 (Q), Hail_11 (Q), Hamood_12 (DI), JustASigh_8 (AH), Kinbote_11 (Q), LilHazelNut_11 (Q), Luke_11 (Q), Luna22_11 (Q), Mulch_12 (DI), Nadeem_12 (DI), NancyRae_12 (DI), OBUpride_11 (Q), Parada_12 (DI), Ubuntu_11 (Q), Webster2_11 (Q), Weirido19_9 (AH), WheatThin_12 (DI), Wishmaker_11 (Q),

Start 28:

- Found in 8 of 299 (2.7%) of genes in pham
- Manual Annotations of this start: 8 of 245
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Adelaide_8 (EP), Bran_8 (EP), Dina_8 (EP), Lederberg_8 (EP), SamW_8 (EP), StAB_8 (EP), Stiles_8 (EP), Troy_8 (EP),

Start 29:

- Found in 193 of 299 (64.5%) of genes in pham
- Manual Annotations of this start: 130 of 245
- Called 87.0% of time when present
- Phage (with cluster) where this start called: AdaS_10 (AY), Adora_8 (CZ4), Aikyam_10 (AY), AllBusiness_11 (FF), Anekin_9 (AY), Annalisa_9 (CZ4), Arianna_10 (EO), Arib1_8 (P1), Atcoo_8 (P1), Attis_8 (CZ2), Auxilium_10 (AY), Bartholomew_8 (P1), BaxterFox_8 (CZ3), Beenie_9 (CZ4), BenchScraper_10 (AY), Bhageatrice_12 (AY), Bhagsy_8 (P1), BigNuz_8 (P4), BillyTP_10 (AY), Bjaner7_8 (CZ2), BlueShadow_10 (AY), Bogie_8 (P1), Brusacoram_8 (P1), Bunnies_8 (P1), CactusJack_8 (P1), Camster_8 (P1), Clap_8 (CZ2), Clark_9 (CZ4), Cole_10 (FF), Colleen_10 (EO), CookieBear_10 (AY), Cynthia_8 (CZ2), DelRio_13 (DI), Denise_8 (CZ5), DobbysSock_8 (CZ4), Dolores_9 (CZ4), Donatella_11 (FF), Donovan_8 (P1), Dorito_8 (CZ4), Dynamo_8 (P1), Easley_9 (CZ4), Ebert_8 (CZ2), EdnaMode_8 (CZ2), Elesar_11 (FF), Etoile_8 (P1), EvePickles_10 (AY), Faja_10 (AY), FirstPlacePfu_8 (P1), Fishburne_8 (P1), FroggyToad_8 (CZ2), Gavriela_8 (P1), GemG_8 (CZ2), Gizermo_8 (CZ2), Glaske_8 (P1), Globfish_10 (AY), GoodLuckBabe_12 (FF), Gorpy_10 (AY), GreaseLightnin_8 (P1), Guinevere_12 (FF), Gusanita_10 (FF), HUHilltop_8 (P1), Haley23_8 (CZ2), Halloween_10 (FF), Hestia_10 (AY), Hillester_10 (AY), Hortense_8 (CZ4), Howe_8 (CZ4), Ichiang_10 (FF), Invectra_9 (CZ4), IsHungry_12 (FF), Isolde_11 (AY), JCole_8 (CZ2), Jebeks_8

(P1), JellyBread_10 (AY), Juicebox_10 (singleton), Julie_12 (FF), Jung_8 (P1), Juniormint_8 (P1), Kari_8 (P1), Kihatsu_13 (FF), KilKor_8 (P1), Ksquared_8 (P1), Lamberg_8 (CZ2), Langerak_8 (P1), Lawnathon_10 (AY), Lenoxika_12 (FF), LordFarquaad_8 (CZ2), MUWow_9 (AY), Majeke_8 (P1), Malithi_8 (P1), Mangethe_8 (P1), MaterMagnus_10 (AY), Matteo_8 (CZ2), Mbo4_8 (singleton), Megiddo_8 (P1), MichaelScott_9 (CZ4), MidnightRain_10 (AY), Mocha12_8 (CZ2), Nandita_12 (FF), Nazo_8 (P4), Necropolis_8 (P1), Nettuno_8 (CZ2), Ohgeesy_8 (CZ), Oregano_9 (CZ4), PantheRoc_8 (CZ3), Persistence_9 (AY), Phalm_8 (P1), Phayonce_8 (P5), Phegasus_8 (P1), Phineas_8 (P1), Phrank15_9 (AY), PhriskyACE_8 (CZ4), Pickett_8 (CZ2), Pimento_13 (DI), Polkaroo_8 (P1), Popper_10 (FF), Poushou_10 (EO), Powerball_8 (CZ4), Purky_8 (P6), Pygmy_8 (P1), QuinnAvery_12 (FF), REQ2_08 (singleton), RadFad_10 (AY), Raphaella_10 (AY), Richie_10 (AY), Ryan_12 (FF), Sahara_8 (CZ2), Sakai_10 (AY), Samman98_9 (CZ4), Sashimi_11 (AY), Savage_8 (CZ2), Schism_12 (FF), Seahorse_11 (AY), Sekhmet_9 (CZ4), Shipwreck_8 (P1), Shlim410_8 (CZ4), Shukran_10 (AY), Sidious_8 (CZ7), SoilAssassin_8 (CZ2), Sonah_8 (P1), Sproutie_8 (CZ2), StevieRay_8 (P1), StressBall_8 (P1), Suerte_8 (CZ4), Techage_8 (P1), ThayneTheZag_10 (AY), Thespi_8 (P1), Thimann_9 (CZ4), ThulaThula_8 (P5), Tiff81_11 (AY), Tortellini_8 (P2), TouchMeNot_10 (EO), TuertoX_8 (CZ2), Twinkle_8 (CZ4), VWB_8 (BA), Vasanti_8 (CZ2), Venti_8 (P1), Vidya_8 (P1), Whack_8 (singleton), Whiteclaw_8 (CZ2), Willsammy_8 (P1), Windest_11 (AY), WinkNick_9 (CZ4), Xavia_8 (P3), Yeet412_8 (CZ2), Yeezy_8 (CZ3), Zaheer_12 (FF), Zilizebeth_8 (P1),

Start 31:

- Found in 8 of 299 (2.7%) of genes in pham
- Manual Annotations of this start: 5 of 245
- Called 100.0% of time when present
- Phage (with cluster) where this start called: ArchiDore_9 (DW), DumpsterDude_9 (DW), MakCheese_8 (DW), MalagasyRose_15 (AG), Malibo_8 (DW), Nergal_13 (AG), Ruthy_9 (DW), Zodiariah_8 (DW),

Start 33:

- Found in 27 of 299 (9.0%) of genes in pham
- Manual Annotations of this start: 1 of 245
- Called 7.4% of time when present
- Phage (with cluster) where this start called: BackstagePass_8 (DB), RayTheFireFly_9 (DB),

Start 36:

- Found in 7 of 299 (2.3%) of genes in pham
- Manual Annotations of this start: 1 of 245
- Called 42.9% of time when present
- Phage (with cluster) where this start called: Coriander_9 (DB), Hedwig_9 (DB), Moonflower_9 (DB),

Start 49:

- Found in 19 of 299 (6.4%) of genes in pham
- No Manual Annotations of this start.
- Called 15.8% of time when present
- Phage (with cluster) where this start called: SpicyFrank_10 (AY), Vopal_11 (AY), YoungHarleezy_10 (AY),

Summary by clusters:

There are 27 clusters represented in this pham: singleton, BA, DI, CZ2, CZ3, DB, CZ7, CZ4, CZ5, FF, DW, P4, CV, P2, P3, EO, P1, P6, AG, P5, AH, Q, CZ, T, AY, Z, EP,

Info for manual annotations of cluster AG:

- Start number 31 was manually annotated 2 times for cluster AG.

Info for manual annotations of cluster AH:

- Start number 27 was manually annotated 1 time for cluster AH.

Info for manual annotations of cluster AY:

- Start number 29 was manually annotated 18 times for cluster AY.

Info for manual annotations of cluster CV:

- Start number 20 was manually annotated 42 times for cluster CV.

Info for manual annotations of cluster CZ:

- Start number 29 was manually annotated 1 time for cluster CZ.

Info for manual annotations of cluster CZ2:

- Start number 29 was manually annotated 23 times for cluster CZ2.

Info for manual annotations of cluster CZ3:

- Start number 29 was manually annotated 3 times for cluster CZ3.

Info for manual annotations of cluster CZ4:

- Start number 29 was manually annotated 20 times for cluster CZ4.

Info for manual annotations of cluster CZ5:

- Start number 29 was manually annotated 1 time for cluster CZ5.

Info for manual annotations of cluster CZ7:

- Start number 29 was manually annotated 1 time for cluster CZ7.

Info for manual annotations of cluster DB:

- Start number 20 was manually annotated 3 times for cluster DB.
- Start number 21 was manually annotated 6 times for cluster DB.
- Start number 22 was manually annotated 4 times for cluster DB.
- Start number 33 was manually annotated 1 time for cluster DB.
- Start number 36 was manually annotated 1 time for cluster DB.

Info for manual annotations of cluster DI:

- Start number 27 was manually annotated 13 times for cluster DI.
- Start number 29 was manually annotated 2 times for cluster DI.

Info for manual annotations of cluster DW:

- Start number 31 was manually annotated 3 times for cluster DW.

Info for manual annotations of cluster EO:

- Start number 29 was manually annotated 4 times for cluster EO.

Info for manual annotations of cluster EP:

- Start number 28 was manually annotated 8 times for cluster EP.

Info for manual annotations of cluster FF:

- Start number 29 was manually annotated 8 times for cluster FF.

Info for manual annotations of cluster P1:

- Start number 29 was manually annotated 40 times for cluster P1.

Info for manual annotations of cluster P2:

- Start number 29 was manually annotated 1 time for cluster P2.

Info for manual annotations of cluster P3:

- Start number 29 was manually annotated 1 time for cluster P3.

Info for manual annotations of cluster P4:

- Start number 29 was manually annotated 2 times for cluster P4.

Info for manual annotations of cluster P5:

- Start number 29 was manually annotated 2 times for cluster P5.

Info for manual annotations of cluster P6:

- Start number 29 was manually annotated 1 time for cluster P6.

Info for manual annotations of cluster Q:

- Start number 27 was manually annotated 22 times for cluster Q.

Info for manual annotations of cluster T:

- Start number 23 was manually annotated 7 times for cluster T.

Info for manual annotations of cluster Z:

- Start number 25 was manually annotated 1 time for cluster Z.

Gene Information:

Gene: 32HC_15 Start: 9730, Stop: 10119, Start Num: 25

Candidate Starts for 32HC_15:

(Start: 25 @9730 has 1 MA's), (Start: 33 @9754 has 1 MA's), (40, 9778), (53, 9829), (72, 9910), (79, 9934),

Gene: AdaS_10 Start: 7295, Stop: 7651, Start Num: 29

Candidate Starts for AdaS_10:

(Start: 29 @7295 has 130 MA's), (56, 7394), (58, 7400), (75, 7466), (114, 7595), (117, 7610), (122, 7637),

Gene: Adelaide_8 Start: 6455, Stop: 6859, Start Num: 28

Candidate Starts for Adelaide_8:

(Start: 28 @6455 has 8 MA's), (54, 6545), (65, 6602), (75, 6626), (84, 6653), (98, 6698), (103, 6716), (117, 6782),

Gene: Adora_8 Start: 6280, Stop: 6651, Start Num: 29

Candidate Starts for Adora_8:

(Start: 29 @6280 has 130 MA's), (48, 6343), (54, 6367), (63, 6403), (68, 6439), (72, 6451), (75, 6463), (76, 6466), (94, 6520), (99, 6538), (110, 6577), (112, 6583), (113, 6598), (115, 6607),

Gene: Aikyam_10 Start: 7296, Stop: 7652, Start Num: 29

Candidate Starts for Aikyam_10:

(Start: 29 @7296 has 130 MA's), (49, 7365), (56, 7395), (58, 7401), (73, 7458), (75, 7467), (114, 7596), (122, 7638),

Gene: AllBusiness_11 Start: 7831, Stop: 8232, Start Num: 29

Candidate Starts for AllBusiness_11:

(Start: 29 @7831 has 130 MA's), (46, 7888), (62, 7957), (72, 7999), (76, 8014), (78, 8020), (83, 8035), (100, 8089), (113, 8149), (121, 8188), (123, 8197),

Gene: Amochick_11 Start: 7977, Stop: 8429, Start Num: 27

Candidate Starts for Amochick_11:

(Start: 27 @7977 has 36 MA's), (Start: 29 @7986 has 130 MA's), (35, 8004), (40, 8022), (43, 8034), (48, 8052), (50, 8064), (52, 8070), (67, 8145), (72, 8157), (81, 8184), (86, 8202), (110, 8277), (111, 8280), (116, 8310), (124, 8349), (128, 8370), (129, 8397), (130, 8421),

Gene: Amymech_11 Start: 7983, Stop: 8435, Start Num: 27

Candidate Starts for Amymech_11:

(Start: 27 @7983 has 36 MA's), (Start: 29 @7992 has 130 MA's), (35, 8010), (40, 8028), (43, 8040), (48, 8058), (50, 8070), (52, 8076), (67, 8151), (72, 8163), (81, 8190), (86, 8208), (105, 8265), (110, 8283), (111, 8286), (116, 8316), (124, 8355), (128, 8376), (129, 8403), (130, 8427),

Gene: Anekin_9 Start: 7408, Stop: 7764, Start Num: 29

Candidate Starts for Anekin_9:

(Start: 29 @7408 has 130 MA's), (38, 7435), (56, 7507), (69, 7558), (74, 7573), (75, 7579), (80, 7594), (122, 7750),

Gene: Annalisa_9 Start: 6598, Stop: 6981, Start Num: 29

Candidate Starts for Annalisa_9:

(Start: 29 @6598 has 130 MA's), (43, 6643), (47, 6658), (51, 6676), (54, 6685), (68, 6754), (72, 6766), (75, 6778), (94, 6835),

Gene: ArchiDore_9 Start: 6962, Stop: 7354, Start Num: 31

Candidate Starts for ArchiDore_9:

(Start: 31 @6962 has 5 MA's), (43, 7007), (72, 7136),

Gene: Archis_8 Start: 6567, Stop: 6959, Start Num: 20

Candidate Starts for Archis_8:

(13, 6483), (Start: 20 @6567 has 45 MA's), (39, 6615), (62, 6702), (72, 6741), (88, 6795), (97, 6825), (112, 6876), (117, 6909),

Gene: Arianna_10 Start: 8239, Stop: 8625, Start Num: 29

Candidate Starts for Arianna_10:

(Start: 29 @8239 has 130 MA's), (50, 8320), (58, 8347), (73, 8416), (75, 8425), (102, 8506), (115, 8560),

Gene: Arib1_8 Start: 6594, Stop: 6956, Start Num: 29

Candidate Starts for Arib1_8:

(Start: 29 @6594 has 130 MA's), (73, 6753), (109, 6861), (110, 6870), (115, 6897), (119, 6915),

Gene: Atcoo_8 Start: 6580, Stop: 6942, Start Num: 29

Candidate Starts for Atcoo_8:

(Start: 29 @6580 has 130 MA's), (47, 6649), (73, 6739), (110, 6856), (115, 6883),

Gene: Attis_8 Start: 6128, Stop: 6511, Start Num: 29

Candidate Starts for Attis_8:

(Start: 29 @6128 has 130 MA's), (54, 6215), (72, 6296), (75, 6308), (88, 6350), (94, 6365), (113, 6443),

Gene: Auxilium_10 Start: 7295, Stop: 7651, Start Num: 29

Candidate Starts for Auxilium_10:

(Start: 29 @7295 has 130 MA's), (56, 7394), (58, 7400), (75, 7466), (114, 7595), (117, 7610), (122, 7637),

Gene: Ayotoya_12 Start: 8519, Stop: 8911, Start Num: 27

Candidate Starts for Ayotoya_12:

(Start: 27 @8519 has 36 MA's), (41, 8564),

Gene: Azula_8 Start: 6443, Stop: 6835, Start Num: 20

Candidate Starts for Azula_8:

(13, 6359), (Start: 20 @6443 has 45 MA's), (72, 6617), (75, 6629), (88, 6671), (110, 6746), (112, 6752), (117, 6785),

Gene: BBQValindra_8 Start: 6485, Stop: 6868, Start Num: 21

Candidate Starts for BBQValindra_8:

(Start: 21 @6485 has 6 MA's), (Start: 33 @6506 has 1 MA's), (39, 6524), (75, 6677), (76, 6680), (112, 6788),

Gene: BackstagePass_8 Start: 6483, Stop: 6845, Start Num: 33

Candidate Starts for BackstagePass_8:

(Start: 21 @6462 has 6 MA's), (Start: 33 @6483 has 1 MA's), (39, 6501), (75, 6654), (76, 6657), (112, 6765),

Gene: Barco_8 Start: 6567, Stop: 6959, Start Num: 20

Candidate Starts for Barco_8:

(13, 6483), (Start: 20 @6567 has 45 MA's), (39, 6615), (62, 6702), (72, 6741), (88, 6795), (97, 6825), (110, 6870), (112, 6876), (117, 6909),

Gene: Bartholomew_8 Start: 6592, Stop: 6954, Start Num: 29

Candidate Starts for Bartholomew_8:

(Start: 29 @6592 has 130 MA's), (47, 6661), (73, 6751), (110, 6868), (115, 6895),

Gene: BaxterFox_8 Start: 6274, Stop: 6648, Start Num: 29

Candidate Starts for BaxterFox_8:

(Start: 29 @6274 has 130 MA's), (45, 6328), (54, 6364), (72, 6448), (75, 6460), (76, 6463), (84, 6487), (94, 6517), (110, 6574), (112, 6580), (113, 6595), (115, 6604),

Gene: Beenie_9 Start: 6592, Stop: 6975, Start Num: 29

Candidate Starts for Beenie_9:

(Start: 29 @6592 has 130 MA's), (43, 6637), (47, 6652), (54, 6679), (68, 6748), (75, 6772), (94, 6829),

Gene: Begonia_8 Start: 6570, Stop: 6962, Start Num: 20

Candidate Starts for Begonia_8:

(13, 6486), (16, 6513), (Start: 20 @6570 has 45 MA's), (39, 6618), (62, 6705), (72, 6744), (88, 6798), (97, 6828), (110, 6873), (112, 6879), (117, 6912),

Gene: BenchScraper_10 Start: 7310, Stop: 7666, Start Num: 29

Candidate Starts for BenchScraper_10:

(Start: 29 @7310 has 130 MA's), (49, 7379), (56, 7409), (58, 7415), (73, 7472), (75, 7481), (114, 7610), (122, 7652),

Gene: Bernal13_10 Start: 8271, Stop: 8714, Start Num: 23

Candidate Starts for Bernal13_10:

(8, 8115), (10, 8133), (12, 8211), (Start: 23 @8271 has 7 MA's), (68, 8457), (69, 8460), (73, 8472), (78, 8490), (85, 8511), (87, 8520), (92, 8541), (96, 8550),

Gene: BetterKatz_12 Start: 8487, Stop: 8879, Start Num: 27

Candidate Starts for BetterKatz_12:

(13, 8385), (Start: 27 @8487 has 36 MA's), (41, 8532), (72, 8673),

Gene: Bhageatrice_12 Start: 8505, Stop: 8861, Start Num: 29

Candidate Starts for Bhageatrice_12:

(Start: 29 @8505 has 130 MA's), (38, 8532), (69, 8655), (75, 8676), (80, 8691), (106, 8769), (117, 8820), (122, 8847),

Gene: Bhagsy_8 Start: 6583, Stop: 6945, Start Num: 29

Candidate Starts for Bhagsy_8:

(Start: 29 @6583 has 130 MA's), (47, 6652), (73, 6742), (110, 6859), (115, 6886),

Gene: BigNuz_8 Start: 6561, Stop: 6923, Start Num: 29

Candidate Starts for BigNuz_8:

(Start: 29 @6561 has 130 MA's), (47, 6630), (73, 6720), (75, 6729), (101, 6810), (115, 6864), (119, 6882),

Gene: BillyTP_10 Start: 7295, Stop: 7654, Start Num: 29

Candidate Starts for BillyTP_10:

(Start: 29 @7295 has 130 MA's), (49, 7364), (61, 7412), (75, 7466), (106, 7565), (122, 7640),

Gene: Bjaner7_8 Start: 6128, Stop: 6511, Start Num: 29

Candidate Starts for Bjaner7_8:

(Start: 29 @6128 has 130 MA's), (54, 6215), (72, 6296), (75, 6308), (88, 6350), (94, 6365), (113, 6443),

Gene: BlingBling_8 Start: 6567, Stop: 6959, Start Num: 20

Candidate Starts for BlingBling_8:

(13, 6483), (Start: 20 @6567 has 45 MA's), (62, 6702), (72, 6741), (88, 6795), (97, 6825), (110, 6870), (112, 6876), (117, 6909),

Gene: Blino_8 Start: 6467, Stop: 6859, Start Num: 20

Candidate Starts for Blino_8:

(Start: 20 @6467 has 45 MA's), (72, 6641), (75, 6653), (88, 6695), (110, 6770), (112, 6776), (117, 6809),

Gene: BlueShadow_10 Start: 7292, Stop: 7648, Start Num: 29

Candidate Starts for BlueShadow_10:

(Start: 29 @7292 has 130 MA's), (32, 7298), (Start: 33 @7304 has 1 MA's), (34, 7307), (49, 7361), (55, 7388), (56, 7391), (72, 7451), (73, 7454), (75, 7463), (114, 7592), (117, 7607), (122, 7634),

Gene: Blueberry_8 Start: 6443, Stop: 6835, Start Num: 20

Candidate Starts for Blueberry_8:

(13, 6359), (Start: 20 @6443 has 45 MA's), (72, 6617), (75, 6629), (88, 6671), (110, 6746), (112, 6752), (117, 6785),

Gene: Bock_12 Start: 8237, Stop: 8629, Start Num: 27

Candidate Starts for Bock_12:

(13, 8135), (Start: 27 @8237 has 36 MA's), (41, 8282),

Gene: Bogie_8 Start: 6580, Stop: 6942, Start Num: 29

Candidate Starts for Bogie_8:

(Start: 29 @6580 has 130 MA's), (47, 6649), (73, 6739), (110, 6856), (115, 6883),

Gene: Bowser_8 Start: 6483, Stop: 6866, Start Num: 21

Candidate Starts for Bowser_8:

(Start: 21 @6483 has 6 MA's), (Start: 33 @6504 has 1 MA's), (38, 6519), (39, 6522), (75, 6675), (76, 6678),

Gene: Bran_8 Start: 6460, Stop: 6864, Start Num: 28

Candidate Starts for Bran_8:

(Start: 28 @6460 has 8 MA's), (54, 6550), (65, 6607), (75, 6631), (84, 6658), (98, 6703), (103, 6721), (117, 6787),

Gene: Brusacoram_8 Start: 6579, Stop: 6941, Start Num: 29

Candidate Starts for Brusacoram_8:

(Start: 29 @6579 has 130 MA's), (47, 6648), (73, 6738), (110, 6855), (115, 6882),

Gene: Brylie_12 Start: 8234, Stop: 8626, Start Num: 27

Candidate Starts for Brylie_12:

(13, 8132), (Start: 27 @8234 has 36 MA's), (41, 8279), (72, 8420),

Gene: Bunker_8 Start: 6485, Stop: 6868, Start Num: 21

Candidate Starts for Bunker_8:

(Start: 21 @6485 has 6 MA's), (Start: 33 @6506 has 1 MA's), (39, 6524), (75, 6677), (76, 6680), (112, 6788),

Gene: Bunnies_8 Start: 6592, Stop: 6954, Start Num: 29

Candidate Starts for Bunnies_8:

(Start: 29 @6592 has 130 MA's), (47, 6661), (73, 6751), (110, 6868), (115, 6895),

Gene: CactusJack_8 Start: 6579, Stop: 6941, Start Num: 29

Candidate Starts for CactusJack_8:

(Start: 29 @6579 has 130 MA's), (47, 6648), (73, 6738), (110, 6855), (115, 6882),

Gene: Camster_8 Start: 6592, Stop: 6954, Start Num: 29

Candidate Starts for Camster_8:

(Start: 29 @6592 has 130 MA's), (47, 6661), (73, 6751), (110, 6868), (115, 6895),

Gene: CaptainKirk2_8 Start: 6567, Stop: 6959, Start Num: 20

Candidate Starts for CaptainKirk2_8:

(13, 6483), (Start: 20 @6567 has 45 MA's), (39, 6615), (62, 6702), (72, 6741), (88, 6795), (97, 6825), (110, 6870), (112, 6876), (117, 6909),

Gene: CarolAnn_8 Start: 6466, Stop: 6858, Start Num: 20

Candidate Starts for CarolAnn_8:

(Start: 20 @6466 has 45 MA's), (72, 6640), (75, 6652), (88, 6694), (110, 6769), (112, 6775), (117, 6808),

Gene: Chop_12 Start: 8267, Stop: 8659, Start Num: 27

Candidate Starts for Chop_12:

(Start: 27 @8267 has 36 MA's), (41, 8312),

Gene: Clap_8 Start: 6128, Stop: 6511, Start Num: 29

Candidate Starts for Clap_8:

(Start: 29 @6128 has 130 MA's), (39, 6155), (54, 6215), (72, 6296), (75, 6308), (88, 6350), (94, 6365), (113, 6443),

Gene: Clark_9 Start: 6598, Stop: 6981, Start Num: 29

Candidate Starts for Clark_9:

(Start: 29 @6598 has 130 MA's), (43, 6643), (47, 6658), (51, 6676), (54, 6685), (68, 6754), (72, 6766), (75, 6778), (94, 6835),

Gene: Cole_10 Start: 7439, Stop: 7840, Start Num: 29

Candidate Starts for Cole_10:

(Start: 29 @7439 has 130 MA's), (46, 7496), (75, 7619), (76, 7622), (78, 7628), (83, 7643), (100, 7697), (113, 7757), (114, 7760), (121, 7796), (123, 7805),

Gene: Colleen_10 Start: 8239, Stop: 8625, Start Num: 29

Candidate Starts for Colleen_10:

(Start: 29 @8239 has 130 MA's), (50, 8320), (58, 8347), (73, 8416), (75, 8425), (102, 8506), (115, 8560),

Gene: CookieBear_10 Start: 7295, Stop: 7651, Start Num: 29

Candidate Starts for CookieBear_10:

(Start: 29 @7295 has 130 MA's), (56, 7394), (58, 7400), (75, 7466), (114, 7595), (117, 7610), (122, 7637),

Gene: Coriander_9 Start: 6915, Stop: 7265, Start Num: 36

Candidate Starts for Coriander_9:

(2, 6291), (3, 6300), (4, 6423), (Start: 22 @6870 has 4 MA's), (Start: 33 @6903 has 1 MA's), (Start: 36 @6915 has 1 MA's), (72, 7062), (75, 7074), (80, 7089), (112, 7185),

Gene: Cynthia_8 Start: 6128, Stop: 6511, Start Num: 29

Candidate Starts for Cynthia_8:

(Start: 29 @6128 has 130 MA's), (39, 6155), (54, 6215), (72, 6296), (75, 6308), (88, 6350), (94, 6365), (113, 6443),

Gene: Daegal_12 Start: 8274, Stop: 8726, Start Num: 27

Candidate Starts for Daegal_12:

(Start: 27 @8274 has 36 MA's), (Start: 29 @8283 has 130 MA's), (40, 8319), (43, 8331), (48, 8349), (52, 8367), (67, 8442), (72, 8454), (81, 8481), (86, 8499), (105, 8556), (110, 8574), (111, 8577), (116, 8607), (124, 8646), (128, 8667), (129, 8694), (130, 8718),

Gene: DeepSoil15_11 Start: 7983, Stop: 8435, Start Num: 27

Candidate Starts for DeepSoil15_11:

(Start: 27 @7983 has 36 MA's), (Start: 29 @7992 has 130 MA's), (35, 8010), (40, 8028), (43, 8040), (48, 8058), (50, 8070), (52, 8076), (67, 8151), (72, 8163), (81, 8190), (86, 8208), (105, 8265), (110, 8283), (111, 8286), (116, 8316), (124, 8355), (128, 8376), (129, 8403), (130, 8427),

Gene: DelRio_13 Start: 8753, Stop: 9136, Start Num: 29

Candidate Starts for DelRio_13:

(Start: 29 @8753 has 130 MA's), (41, 8789), (72, 8930),

Gene: Delian_8 Start: 6567, Stop: 6959, Start Num: 20

Candidate Starts for Delian_8:

(13, 6483), (Start: 20 @6567 has 45 MA's), (39, 6615), (62, 6702), (72, 6741), (88, 6795), (97, 6825), (110, 6870), (112, 6876), (117, 6909),

Gene: Denise_8 Start: 6137, Stop: 6520, Start Num: 29

Candidate Starts for Denise_8:

(Start: 29 @6137 has 130 MA's), (39, 6164), (54, 6224), (72, 6305), (75, 6317), (88, 6359), (94, 6374), (113, 6452),

Gene: Dewey_11 Start: 7983, Stop: 8435, Start Num: 27

Candidate Starts for Dewey_11:

(Start: 27 @7983 has 36 MA's), (Start: 29 @7992 has 130 MA's), (35, 8010), (40, 8028), (43, 8040), (48, 8058), (50, 8070), (52, 8076), (67, 8151), (72, 8163), (81, 8190), (86, 8208), (105, 8265), (110, 8283), (111, 8286), (116, 8316), (124, 8355), (128, 8376), (129, 8403), (130, 8427),

Gene: Dina_8 Start: 6443, Stop: 6847, Start Num: 28

Candidate Starts for Dina_8:

(Start: 28 @6443 has 8 MA's), (54, 6533), (65, 6590), (75, 6614), (84, 6641), (98, 6686), (103, 6704), (117, 6770),

Gene: DirtyBoi_9 Start: 6843, Stop: 7238, Start Num: 22

Candidate Starts for DirtyBoi_9:

(Start: 22 @6843 has 4 MA's), (Start: 33 @6876 has 1 MA's), (Start: 36 @6888 has 1 MA's), (72, 7035), (75, 7047), (80, 7062), (111, 7155),

Gene: Dmitri_9 Start: 6852, Stop: 7247, Start Num: 22

Candidate Starts for Dmitri_9:

(Start: 22 @6852 has 4 MA's), (Start: 33 @6885 has 1 MA's), (Start: 36 @6897 has 1 MA's), (72, 7044), (75, 7056), (80, 7071), (111, 7164),

Gene: DobbysSock_8 Start: 6090, Stop: 6473, Start Num: 29

Candidate Starts for DobbysSock_8:

(Start: 29 @6090 has 130 MA's), (43, 6135), (47, 6150), (51, 6168), (54, 6177), (68, 6246), (72, 6258), (75, 6270), (94, 6327),

Gene: Doggs_8 Start: 6567, Stop: 6962, Start Num: 22

Candidate Starts for Doggs_8:

(2, 5988), (3, 5997), (4, 6120), (Start: 22 @6567 has 4 MA's), (Start: 33 @6600 has 1 MA's), (Start: 36 @6612 has 1 MA's), (72, 6759), (75, 6771), (80, 6786), (112, 6882),

Gene: Dolores_9 Start: 6592, Stop: 6975, Start Num: 29

Candidate Starts for Dolores_9:

(Start: 29 @6592 has 130 MA's), (43, 6637), (47, 6652), (51, 6670), (54, 6679), (68, 6748), (75, 6772), (94, 6829),

Gene: Donatella_11 Start: 7906, Stop: 8307, Start Num: 29

Candidate Starts for Donatella_11:

(Start: 29 @7906 has 130 MA's), (72, 8074), (76, 8089), (78, 8095), (83, 8110), (100, 8164), (113, 8224), (114, 8227), (120, 8257), (121, 8263), (123, 8272),

Gene: Donovan_8 Start: 6594, Stop: 6956, Start Num: 29

Candidate Starts for Donovan_8:

(Start: 29 @6594 has 130 MA's), (73, 6753), (102, 6846), (109, 6861), (110, 6870), (115, 6897), (119, 6915),

Gene: Dorito_8 Start: 6096, Stop: 6479, Start Num: 29

Candidate Starts for Dorito_8:

(Start: 29 @6096 has 130 MA's), (43, 6141), (47, 6156), (51, 6174), (54, 6183), (68, 6252), (72, 6264), (75, 6276), (94, 6333),

Gene: DumpsterDude_9 Start: 6975, Stop: 7367, Start Num: 31

Candidate Starts for DumpsterDude_9:

(Start: 31 @6975 has 5 MA's), (43, 7020), (66, 7131), (72, 7149),

Gene: Dynamo_8 Start: 6592, Stop: 6954, Start Num: 29

Candidate Starts for Dynamo_8:

(Start: 29 @6592 has 130 MA's), (47, 6661), (73, 6751), (110, 6868), (115, 6895),

Gene: Easley_9 Start: 6592, Stop: 6975, Start Num: 29

Candidate Starts for Easley_9:

(Start: 29 @6592 has 130 MA's), (43, 6637), (47, 6652), (54, 6679), (68, 6748), (75, 6772), (94, 6829),

Gene: Ebert_8 Start: 6128, Stop: 6511, Start Num: 29

Candidate Starts for Ebert_8:

(Start: 29 @6128 has 130 MA's), (39, 6155), (54, 6215), (72, 6296), (75, 6308), (88, 6350), (94, 6365), (113, 6443),

Gene: EdnaMode_8 Start: 6128, Stop: 6511, Start Num: 29

Candidate Starts for EdnaMode_8:

(Start: 29 @6128 has 130 MA's), (39, 6155), (54, 6215), (66, 6278), (72, 6296), (75, 6308), (80, 6323), (113, 6443), (118, 6467),

Gene: Ein37_11 Start: 7983, Stop: 8435, Start Num: 27

Candidate Starts for Ein37_11:

(Start: 27 @7983 has 36 MA's), (Start: 29 @7992 has 130 MA's), (35, 8010), (40, 8028), (43, 8040), (48, 8058), (50, 8070), (52, 8076), (67, 8151), (72, 8163), (81, 8190), (86, 8208), (105, 8265), (110, 8283), (111, 8286), (116, 8316), (124, 8355), (128, 8376), (129, 8403), (130, 8427),

Gene: Elesar_11 Start: 7829, Stop: 8230, Start Num: 29

Candidate Starts for Elesar_11:

(Start: 29 @7829 has 130 MA's), (72, 7997), (76, 8012), (78, 8018), (83, 8033), (100, 8087), (113, 8147), (121, 8186), (123, 8195),

Gene: Etoile_8 Start: 6592, Stop: 6954, Start Num: 29

Candidate Starts for Etoile_8:

(Start: 29 @6592 has 130 MA's), (47, 6661), (73, 6751), (110, 6868), (115, 6895),

Gene: Evanesce_11 Start: 7983, Stop: 8435, Start Num: 27

Candidate Starts for Evanesce_11:

(Start: 27 @7983 has 36 MA's), (Start: 29 @7992 has 130 MA's), (35, 8010), (40, 8028), (43, 8040), (48, 8058), (50, 8070), (52, 8076), (67, 8151), (72, 8163), (81, 8190), (86, 8208), (105, 8265), (110, 8283), (111, 8286), (116, 8316), (124, 8355), (128, 8376), (129, 8403), (130, 8427),

Gene: EvePickles_10 Start: 7351, Stop: 7707, Start Num: 29

Candidate Starts for EvePickles_10:

(Start: 29 @7351 has 130 MA's), (49, 7420), (58, 7456), (69, 7501), (74, 7516), (75, 7522), (112, 7636), (122, 7693),

Gene: Eyes_8 Start: 6492, Stop: 6875, Start Num: 21

Candidate Starts for Eyes_8:

(Start: 21 @6492 has 6 MA's), (Start: 33 @6513 has 1 MA's), (38, 6528), (39, 6531), (75, 6684), (76, 6687), (112, 6795),

Gene: Fairfaxidum_8 Start: 6551, Stop: 6937, Start Num: 20

Candidate Starts for Fairfaxidum_8:

(Start: 20 @6551 has 45 MA's), (41, 6605), (72, 6719), (75, 6731), (76, 6734), (117, 6887),

Gene: Faja_10 Start: 7295, Stop: 7651, Start Num: 29

Candidate Starts for Faja_10:

(Start: 29 @7295 has 130 MA's), (49, 7364), (58, 7400), (69, 7445), (74, 7460), (75, 7466), (112, 7580), (122, 7637),

Gene: Fenry_8 Start: 6576, Stop: 6968, Start Num: 20

Candidate Starts for Fenry_8:

(13, 6492), (Start: 20 @6576 has 45 MA's), (39, 6624), (62, 6711), (72, 6750), (88, 6804), (97, 6834), (112, 6885), (117, 6918),

Gene: Finkle_8 Start: 6251, Stop: 6634, Start Num: 26

Candidate Starts for Finkle_8:

(Start: 26 @6251 has 1 MA's), (35, 6281), (42, 6311), (76, 6437), (120, 6596),

Gene: FirstPlacePfu_8 Start: 6592, Stop: 6954, Start Num: 29

Candidate Starts for FirstPlacePfu_8:

(Start: 29 @6592 has 130 MA's), (47, 6661), (73, 6751), (110, 6868), (115, 6895),

Gene: Fishburne_8 Start: 6592, Stop: 6954, Start Num: 29

Candidate Starts for Fishburne_8:

(Start: 29 @6592 has 130 MA's), (47, 6661), (73, 6751), (110, 6868), (115, 6895),

Gene: Forge_11 Start: 7983, Stop: 8435, Start Num: 27

Candidate Starts for Forge_11:

(Start: 27 @7983 has 36 MA's), (Start: 29 @7992 has 130 MA's), (35, 8010), (40, 8028), (43, 8040), (48, 8058), (50, 8070), (52, 8076), (67, 8151), (72, 8163), (81, 8190), (86, 8208), (105, 8265), (110, 8283), (111, 8286), (116, 8316), (124, 8355), (128, 8376), (129, 8403), (130, 8427),

Gene: Francois_12 Start: 8248, Stop: 8640, Start Num: 27

Candidate Starts for Francois_12:

(13, 8146), (Start: 27 @8248 has 36 MA's), (41, 8293),

Gene: FroggyToad_8 Start: 6129, Stop: 6512, Start Num: 29

Candidate Starts for FroggyToad_8:

(Start: 29 @6129 has 130 MA's), (39, 6156), (54, 6216), (72, 6297), (75, 6309), (88, 6351), (94, 6366), (113, 6444),

Gene: Frokostdame_8 Start: 6562, Stop: 6954, Start Num: 20

Candidate Starts for Frokostdame_8:

(13, 6478), (Start: 20 @6562 has 45 MA's), (72, 6736), (75, 6748), (88, 6790), (110, 6865), (112, 6871), (117, 6904),

Gene: GEazy_8 Start: 6494, Stop: 6877, Start Num: 21

Candidate Starts for GEazy_8:

(Start: 21 @6494 has 6 MA's), (39, 6533), (75, 6686), (76, 6689), (112, 6797),

Gene: Gambino_8 Start: 6443, Stop: 6835, Start Num: 20

Candidate Starts for Gambino_8:

(13, 6359), (Start: 20 @6443 has 45 MA's), (72, 6617), (75, 6629), (88, 6671), (110, 6746), (112, 6752), (117, 6785),

Gene: Gancho_10 Start: 7683, Stop: 8135, Start Num: 27

Candidate Starts for Gancho_10:

(Start: 27 @7683 has 36 MA's), (Start: 29 @7692 has 130 MA's), (40, 7728), (43, 7740), (48, 7758), (52, 7776), (67, 7851), (72, 7863), (81, 7890), (86, 7908), (105, 7965), (110, 7983), (111, 7986), (116, 8016), (124, 8055), (128, 8076), (129, 8103), (130, 8127),

Gene: Gavriela_8 Start: 6579, Stop: 6941, Start Num: 29

Candidate Starts for Gavriela_8:

(Start: 29 @6579 has 130 MA's), (47, 6648), (73, 6738), (110, 6855), (115, 6882),

Gene: GemG_8 Start: 6128, Stop: 6511, Start Num: 29

Candidate Starts for GemG_8:

(Start: 29 @6128 has 130 MA's), (39, 6155), (54, 6215), (72, 6296), (75, 6308), (88, 6350), (94, 6365), (113, 6443),

Gene: Giles_11 Start: 7983, Stop: 8435, Start Num: 27

Candidate Starts for Giles_11:

(Start: 27 @7983 has 36 MA's), (Start: 29 @7992 has 130 MA's), (35, 8010), (40, 8028), (43, 8040), (48, 8058), (50, 8070), (52, 8076), (67, 8151), (72, 8163), (81, 8190), (86, 8208), (105, 8265), (110, 8283), (111, 8286), (116, 8316), (124, 8355), (128, 8376), (129, 8403), (130, 8427),

Gene: Gizermo_8 Start: 6128, Stop: 6511, Start Num: 29

Candidate Starts for Gizermo_8:

(Start: 29 @6128 has 130 MA's), (39, 6155), (54, 6215), (72, 6296), (75, 6308), (88, 6350), (94, 6365), (113, 6443),

Gene: Glaske_8 Start: 6579, Stop: 6941, Start Num: 29

Candidate Starts for Glaske_8:

(Start: 29 @6579 has 130 MA's), (47, 6648), (73, 6738), (110, 6855), (115, 6882),

Gene: Globfish_10 Start: 7340, Stop: 7696, Start Num: 29

Candidate Starts for Globfish_10:

(Start: 29 @7340 has 130 MA's), (49, 7409), (55, 7436), (56, 7439), (58, 7445), (73, 7502), (75, 7511), (114, 7640), (122, 7682),

Gene: GoodLuckBabe_12 Start: 7734, Stop: 8135, Start Num: 29

Candidate Starts for GoodLuckBabe_12:

(Start: 29 @7734 has 130 MA's), (72, 7902), (76, 7917), (78, 7923), (83, 7938), (100, 7992), (113, 8052), (114, 8055), (120, 8085), (121, 8091), (123, 8100),

Gene: Gorpy_10 Start: 7304, Stop: 7660, Start Num: 29

Candidate Starts for Gorpy_10:

(Start: 29 @7304 has 130 MA's), (49, 7373), (56, 7403), (58, 7409), (73, 7466), (75, 7475), (114, 7604), (122, 7646),

Gene: GrandSlam_12 Start: 8267, Stop: 8659, Start Num: 27

Candidate Starts for GrandSlam_12:

(Start: 27 @8267 has 36 MA's), (41, 8312),

Gene: Gravaillia_11 Start: 7716, Stop: 8168, Start Num: 27

Candidate Starts for Gravaillia_11:

(Start: 27 @7716 has 36 MA's), (Start: 29 @7725 has 130 MA's), (40, 7761), (43, 7773), (48, 7791), (52, 7809), (67, 7884), (72, 7896), (81, 7923), (86, 7941), (105, 7998), (110, 8016), (111, 8019), (116, 8049), (124, 8088), (128, 8109), (129, 8136), (130, 8160),

Gene: GreaseLightnin_8 Start: 6592, Stop: 6954, Start Num: 29

Candidate Starts for GreaseLightnin_8:

(Start: 29 @6592 has 130 MA's), (47, 6661), (73, 6751), (110, 6868), (115, 6895),

Gene: Guacamole_8 Start: 6571, Stop: 6963, Start Num: 20

Candidate Starts for Guacamole_8:

(13, 6487), (Start: 20 @6571 has 45 MA's), (39, 6619), (62, 6706), (72, 6745), (88, 6799), (97, 6829), (110, 6874), (112, 6880), (117, 6913),

Gene: Guinevere_12 Start: 7765, Stop: 8166, Start Num: 29

Candidate Starts for Guinevere_12:

(Start: 29 @7765 has 130 MA's), (72, 7933), (76, 7948), (78, 7954), (83, 7969), (100, 8023), (113, 8083), (114, 8086), (120, 8116), (121, 8122), (123, 8131),

Gene: Gusanita_10 Start: 7653, Stop: 8054, Start Num: 29

Candidate Starts for Gusanita_10:

(Start: 29 @7653 has 130 MA's), (62, 7779), (72, 7821), (76, 7836), (78, 7842), (83, 7857), (100, 7911), (113, 7971), (115, 7980), (121, 8010), (123, 8019),

Gene: HH92_11 Start: 7983, Stop: 8435, Start Num: 27

Candidate Starts for HH92_11:

(Start: 27 @7983 has 36 MA's), (Start: 29 @7992 has 130 MA's), (35, 8010), (40, 8028), (43, 8040), (48, 8058), (50, 8070), (52, 8076), (67, 8151), (72, 8163), (81, 8190), (86, 8208), (105, 8265), (110, 8283), (111, 8286), (116, 8316), (124, 8355), (128, 8376), (129, 8403), (130, 8427),

Gene: HUHilltop_8 Start: 6592, Stop: 6954, Start Num: 29

Candidate Starts for HUHilltop_8:

(Start: 29 @6592 has 130 MA's), (47, 6661), (73, 6751), (110, 6868), (115, 6895),

Gene: Hadrien_11 Start: 7983, Stop: 8435, Start Num: 27

Candidate Starts for Hadrien_11:

(Start: 27 @7983 has 36 MA's), (Start: 29 @7992 has 130 MA's), (35, 8010), (40, 8028), (43, 8040), (48, 8058), (50, 8070), (52, 8076), (67, 8151), (72, 8163), (81, 8190), (86, 8208), (105, 8265), (110,

8283), (111, 8286), (116, 8316), (124, 8355), (128, 8376), (129, 8403), (130, 8427),

Gene: Hail_11 Start: 7983, Stop: 8435, Start Num: 27

Candidate Starts for Hail_11:

(Start: 27 @7983 has 36 MA's), (Start: 29 @7992 has 130 MA's), (35, 8010), (40, 8028), (43, 8040), (48, 8058), (50, 8070), (52, 8076), (67, 8151), (72, 8163), (81, 8190), (86, 8208), (105, 8265), (110, 8283), (111, 8286), (116, 8316), (124, 8355), (128, 8376), (129, 8403), (130, 8427),

Gene: Haley23_8 Start: 6128, Stop: 6511, Start Num: 29

Candidate Starts for Haley23_8:

(Start: 29 @6128 has 130 MA's), (39, 6155), (54, 6215), (72, 6296), (75, 6308), (88, 6350), (94, 6365), (113, 6443),

Gene: Halloweekend_10 Start: 7406, Stop: 7807, Start Num: 29

Candidate Starts for Halloweekend_10:

(Start: 29 @7406 has 130 MA's), (72, 7574), (76, 7589), (78, 7595), (83, 7610), (100, 7664), (113, 7724), (120, 7757), (121, 7763), (123, 7772),

Gene: Hamood_12 Start: 8267, Stop: 8659, Start Num: 27

Candidate Starts for Hamood_12:

(Start: 27 @8267 has 36 MA's), (41, 8312),

Gene: HannahD_8 Start: 6494, Stop: 6877, Start Num: 21

Candidate Starts for HannahD_8:

(Start: 21 @6494 has 6 MA's), (39, 6533), (75, 6686), (76, 6689), (112, 6797),

Gene: Hedwig_9 Start: 6888, Stop: 7238, Start Num: 36

Candidate Starts for Hedwig_9:

(Start: 22 @6843 has 4 MA's), (Start: 33 @6876 has 1 MA's), (Start: 36 @6888 has 1 MA's), (72, 7035), (75, 7047), (80, 7062), (111, 7155), (112, 7158),

Gene: Hestia_10 Start: 7405, Stop: 7764, Start Num: 29

Candidate Starts for Hestia_10:

(Start: 29 @7405 has 130 MA's), (38, 7432), (56, 7504), (72, 7564), (75, 7576), (106, 7675), (110, 7690), (122, 7750),

Gene: Hillester_10 Start: 7292, Stop: 7648, Start Num: 29

Candidate Starts for Hillester_10:

(Start: 29 @7292 has 130 MA's), (32, 7298), (Start: 33 @7304 has 1 MA's), (34, 7307), (49, 7361), (55, 7388), (56, 7391), (72, 7451), (73, 7454), (75, 7463), (114, 7592), (117, 7607), (122, 7634),

Gene: Hitter_8 Start: 6567, Stop: 6959, Start Num: 20

Candidate Starts for Hitter_8:

(13, 6483), (Start: 20 @6567 has 45 MA's), (39, 6615), (62, 6702), (72, 6741), (88, 6795), (97, 6825), (112, 6876), (117, 6909),

Gene: Hortense_8 Start: 6280, Stop: 6651, Start Num: 29

Candidate Starts for Hortense_8:

(Start: 29 @6280 has 130 MA's), (48, 6343), (54, 6367), (63, 6403), (68, 6439), (72, 6451), (75, 6463), (76, 6466), (94, 6520), (99, 6538), (110, 6577), (112, 6583), (113, 6598), (115, 6607),

Gene: Howe_8 Start: 6280, Stop: 6651, Start Num: 29

Candidate Starts for Howe_8:

(Start: 29 @6280 has 130 MA's), (48, 6343), (54, 6367), (63, 6403), (68, 6439), (72, 6451), (75, 6463), (76, 6466), (94, 6520), (99, 6538), (110, 6577), (112, 6583), (113, 6598), (115, 6607),

Gene: Ibrahim_10 Start: 8271, Stop: 8714, Start Num: 23

Candidate Starts for Ibrahim_10:

(8, 8115), (10, 8133), (12, 8211), (Start: 23 @8271 has 7 MA's), (68, 8457), (69, 8460), (73, 8472), (78, 8490), (85, 8511), (87, 8520), (92, 8541), (96, 8550),

Gene: Ichiang_10 Start: 7421, Stop: 7822, Start Num: 29

Candidate Starts for Ichiang_10:

(Start: 29 @7421 has 130 MA's), (72, 7589), (76, 7604), (78, 7610), (83, 7625), (100, 7679), (113, 7739), (114, 7742), (121, 7778), (123, 7787),

Gene: Invectra_9 Start: 6592, Stop: 6975, Start Num: 29

Candidate Starts for Invectra_9:

(Start: 29 @6592 has 130 MA's), (43, 6637), (47, 6652), (51, 6670), (54, 6679), (68, 6748), (75, 6772), (94, 6829),

Gene: IsHungry_12 Start: 7727, Stop: 8128, Start Num: 29

Candidate Starts for IsHungry_12:

(Start: 29 @7727 has 130 MA's), (46, 7784), (58, 7832), (72, 7895), (76, 7910), (78, 7916), (83, 7931), (100, 7985), (113, 8045), (121, 8084), (123, 8093),

Gene: Isolde_11 Start: 7366, Stop: 7722, Start Num: 29

Candidate Starts for Isolde_11:

(Start: 29 @7366 has 130 MA's), (56, 7465), (58, 7471), (75, 7537), (114, 7666), (122, 7708),

Gene: JCole_8 Start: 6128, Stop: 6511, Start Num: 29

Candidate Starts for JCole_8:

(Start: 29 @6128 has 130 MA's), (39, 6155), (54, 6215), (72, 6296), (75, 6308), (88, 6350), (94, 6365), (113, 6443),

Gene: Jalammah_8 Start: 6567, Stop: 6959, Start Num: 20

Candidate Starts for Jalammah_8:

(13, 6483), (Start: 20 @6567 has 45 MA's), (39, 6615), (62, 6702), (72, 6741), (88, 6795), (97, 6825), (112, 6876), (117, 6909),

Gene: JasperJr_8 Start: 6571, Stop: 6963, Start Num: 20

Candidate Starts for JasperJr_8:

(13, 6487), (Start: 20 @6571 has 45 MA's), (39, 6619), (62, 6706), (72, 6745), (88, 6799), (97, 6829), (110, 6874), (112, 6880), (117, 6913),

Gene: Jebeks_8 Start: 6594, Stop: 6956, Start Num: 29

Candidate Starts for Jebeks_8:

(Start: 29 @6594 has 130 MA's), (73, 6753), (109, 6861), (110, 6870), (115, 6897), (119, 6915),

Gene: JellyBread_10 Start: 7288, Stop: 7644, Start Num: 29

Candidate Starts for JellyBread_10:

(Start: 29 @7288 has 130 MA's), (56, 7387), (58, 7393), (75, 7459), (114, 7588), (117, 7603), (122, 7630),

Gene: JuJu_8 Start: 6492, Stop: 6884, Start Num: 20

Candidate Starts for JuJu_8:

(Start: 20 @6492 has 45 MA's), (48, 6576), (72, 6666), (75, 6678), (88, 6720), (97, 6750), (117, 6834),

Gene: Juicebox_10 Start: 7876, Stop: 8259, Start Num: 29

Candidate Starts for Juicebox_10:

(17, 7804), (Start: 29 @7876 has 130 MA's), (37, 7897), (56, 7972), (60, 7987), (75, 8056), (115, 8191), (125, 8239),

Gene: Julie_12 Start: 7990, Stop: 8391, Start Num: 29

Candidate Starts for Julie_12:

(Start: 29 @7990 has 130 MA's), (58, 8095), (76, 8173), (78, 8179), (83, 8194), (100, 8248), (102, 8260), (113, 8308), (121, 8347), (123, 8356),

Gene: Jung_8 Start: 6579, Stop: 6941, Start Num: 29

Candidate Starts for Jung_8:

(Start: 29 @6579 has 130 MA's), (47, 6648), (73, 6738), (110, 6855), (115, 6882),

Gene: Juniormint_8 Start: 6597, Stop: 6959, Start Num: 29

Candidate Starts for Juniormint_8:

(Start: 29 @6597 has 130 MA's), (73, 6756), (109, 6864), (110, 6873), (115, 6900), (119, 6918),

Gene: JustASigh_8 Start: 7097, Stop: 7558, Start Num: 27

Candidate Starts for JustASigh_8:

(19, 7076), (Start: 27 @7097 has 36 MA's), (40, 7142), (52, 7196), (89, 7340), (93, 7349), (95, 7352),

Gene: KappaFarmDelta_8 Start: 6605, Stop: 6997, Start Num: 20

Candidate Starts for KappaFarmDelta_8:

(13, 6521), (16, 6548), (Start: 20 @6605 has 45 MA's), (39, 6653), (62, 6740), (72, 6779), (79, 6803), (88, 6833), (97, 6863), (105, 6890), (112, 6914), (117, 6947),

Gene: Kari_8 Start: 6592, Stop: 6954, Start Num: 29

Candidate Starts for Kari_8:

(Start: 29 @6592 has 130 MA's), (47, 6661), (73, 6751), (110, 6868), (115, 6895),

Gene: Kihatsu_13 Start: 8087, Stop: 8488, Start Num: 29

Candidate Starts for Kihatsu_13:

(Start: 29 @8087 has 130 MA's), (72, 8255), (76, 8270), (78, 8276), (83, 8291), (100, 8345), (113, 8405), (120, 8438), (121, 8444), (123, 8453),

Gene: Kiko_9 Start: 6686, Stop: 7078, Start Num: 22

Candidate Starts for Kiko_9:

(Start: 22 @6686 has 4 MA's), (35, 6722), (75, 6887), (76, 6890), (112, 6998),

Gene: KilKor_8 Start: 6579, Stop: 6941, Start Num: 29

Candidate Starts for KilKor_8:

(Start: 29 @6579 has 130 MA's), (47, 6648), (73, 6738), (110, 6855), (115, 6882),

Gene: Kinbote_11 Start: 7983, Stop: 8435, Start Num: 27

Candidate Starts for Kinbote_11:

(Start: 27 @7983 has 36 MA's), (Start: 29 @7992 has 130 MA's), (35, 8010), (40, 8028), (43, 8040), (48, 8058), (50, 8070), (52, 8076), (67, 8151), (72, 8163), (81, 8190), (86, 8208), (105, 8265), (110, 8283), (111, 8286), (116, 8316), (124, 8355), (128, 8376), (129, 8403), (130, 8427),

Gene: Ksquared_8 Start: 6592, Stop: 6954, Start Num: 29

Candidate Starts for Ksquared_8:

(Start: 29 @6592 has 130 MA's), (47, 6661), (73, 6751), (110, 6868), (115, 6895),

Gene: Lamberg_8 Start: 6128, Stop: 6511, Start Num: 29

Candidate Starts for Lamberg_8:

(Start: 29 @6128 has 130 MA's), (39, 6155), (54, 6215), (66, 6278), (72, 6296), (75, 6308), (80, 6323), (113, 6443), (118, 6467),

Gene: Langerak_8 Start: 6594, Stop: 6956, Start Num: 29

Candidate Starts for Langerak_8:

(Start: 29 @6594 has 130 MA's), (73, 6753), (109, 6861), (110, 6870), (115, 6897), (119, 6915),

Gene: Lawnathon_10 Start: 7413, Stop: 7772, Start Num: 29

Candidate Starts for Lawnathon_10:

(Start: 29 @7413 has 130 MA's), (38, 7440), (57, 7515), (72, 7572), (75, 7584), (106, 7683), (110, 7698), (122, 7758),

Gene: Lederberg_8 Start: 6443, Stop: 6847, Start Num: 28

Candidate Starts for Lederberg_8:

(Start: 28 @6443 has 8 MA's), (54, 6533), (65, 6590), (75, 6614), (84, 6641), (98, 6686), (103, 6704), (117, 6770),

Gene: Lenoxika_12 Start: 7767, Stop: 8168, Start Num: 29

Candidate Starts for Lenoxika_12:

(Start: 29 @7767 has 130 MA's), (72, 7935), (76, 7950), (78, 7956), (83, 7971), (100, 8025), (113, 8085), (120, 8118), (121, 8124), (123, 8133),

Gene: LilHazelnut_11 Start: 7983, Stop: 8435, Start Num: 27

Candidate Starts for LilHazelnut_11:

(Start: 27 @7983 has 36 MA's), (Start: 29 @7992 has 130 MA's), (35, 8010), (40, 8028), (43, 8040), (48, 8058), (50, 8070), (52, 8076), (67, 8151), (72, 8163), (81, 8190), (86, 8208), (105, 8265), (110, 8283), (111, 8286), (116, 8316), (124, 8355), (128, 8376), (129, 8403), (130, 8427),

Gene: LordFarquaad_8 Start: 6128, Stop: 6511, Start Num: 29

Candidate Starts for LordFarquaad_8:

(Start: 29 @6128 has 130 MA's), (54, 6215), (72, 6296), (75, 6308), (88, 6350), (94, 6365), (113, 6443),

Gene: Luke_11 Start: 7983, Stop: 8435, Start Num: 27

Candidate Starts for Luke_11:

(Start: 27 @7983 has 36 MA's), (Start: 29 @7992 has 130 MA's), (35, 8010), (40, 8028), (43, 8040), (48, 8058), (50, 8070), (52, 8076), (67, 8151), (72, 8163), (81, 8190), (86, 8208), (105, 8265), (110, 8283), (111, 8286), (116, 8316), (124, 8355), (128, 8376), (129, 8403), (130, 8427),

Gene: Luna22_11 Start: 7983, Stop: 8435, Start Num: 27

Candidate Starts for Luna22_11:

(Start: 27 @7983 has 36 MA's), (Start: 29 @7992 has 130 MA's), (35, 8010), (40, 8028), (43, 8040), (48, 8058), (50, 8070), (52, 8076), (67, 8151), (72, 8163), (81, 8190), (86, 8208), (105, 8265), (110, 8283), (111, 8286), (116, 8316), (124, 8355), (128, 8376), (129, 8403), (130, 8427),

Gene: Lysidious_8 Start: 6567, Stop: 6959, Start Num: 20

Candidate Starts for Lysidious_8:

(13, 6483), (Start: 20 @6567 has 45 MA's), (62, 6702), (72, 6741), (88, 6795), (97, 6825), (110, 6870), (112, 6876), (117, 6909),

Gene: MUWow_9 Start: 7382, Stop: 7741, Start Num: 29

Candidate Starts for MUWow_9:

(Start: 29 @7382 has 130 MA's), (49, 7451), (61, 7499), (68, 7529), (75, 7553), (106, 7652), (122, 7727),

Gene: MagicMan_8 Start: 6823, Stop: 7218, Start Num: 20

Candidate Starts for MagicMan_8:

(Start: 20 @6823 has 45 MA's), (Start: 33 @6844 has 1 MA's), (75, 7015), (112, 7126),

Gene: Majeke_8 Start: 6594, Stop: 6956, Start Num: 29

Candidate Starts for Majeke_8:

(Start: 29 @6594 has 130 MA's), (73, 6753), (109, 6861), (110, 6870), (115, 6897), (119, 6915),

Gene: MakCheese_8 Start: 6782, Stop: 7174, Start Num: 31

Candidate Starts for MakCheese_8:

(Start: 31 @6782 has 5 MA's), (43, 6827), (72, 6956), (121, 7145),

Gene: Malachai_8 Start: 6570, Stop: 6962, Start Num: 20

Candidate Starts for Malachai_8:

(13, 6486), (16, 6513), (Start: 20 @6570 has 45 MA's), (39, 6618), (62, 6705), (72, 6744), (88, 6798), (97, 6828), (110, 6873), (112, 6879), (117, 6912),

Gene: MalagasyRose_15 Start: 9283, Stop: 9678, Start Num: 31

Candidate Starts for MalagasyRose_15:

(Start: 31 @9283 has 5 MA's), (39, 9310), (59, 9391), (61, 9397), (71, 9457), (74, 9466), (75, 9472), (76, 9475), (90, 9523), (91, 9526), (118, 9628), (126, 9658),

Gene: Malibo_8 Start: 6765, Stop: 7157, Start Num: 31

Candidate Starts for Malibo_8:

(Start: 31 @6765 has 5 MA's), (43, 6810), (72, 6939), (121, 7128),

Gene: Malithi_8 Start: 6592, Stop: 6954, Start Num: 29

Candidate Starts for Malithi_8:

(Start: 29 @6592 has 130 MA's), (47, 6661), (73, 6751), (110, 6868), (115, 6895),

Gene: Mangethe_8 Start: 6594, Stop: 6956, Start Num: 29

Candidate Starts for Mangethe_8:

(Start: 29 @6594 has 130 MA's), (73, 6753), (109, 6861), (110, 6870), (115, 6897), (119, 6915),

Gene: MaterMagnus_10 Start: 7296, Stop: 7652, Start Num: 29

Candidate Starts for MaterMagnus_10:

(Start: 29 @7296 has 130 MA's), (49, 7365), (56, 7395), (58, 7401), (73, 7458), (75, 7467), (114, 7596), (122, 7638),

Gene: Matteo_8 Start: 6128, Stop: 6511, Start Num: 29

Candidate Starts for Matteo_8:

(Start: 29 @6128 has 130 MA's), (54, 6215), (72, 6296), (75, 6308), (88, 6350), (94, 6365), (113, 6443),

Gene: Mbo4_8 Start: 6815, Stop: 7189, Start Num: 29

Candidate Starts for Mbo4_8:

(Start: 29 @6815 has 130 MA's), (54, 6905), (75, 6992), (94, 7046), (99, 7064),

Gene: Megiddo_8 Start: 6579, Stop: 6941, Start Num: 29

Candidate Starts for Megiddo_8:

(Start: 29 @6579 has 130 MA's), (47, 6648), (73, 6738), (110, 6855), (115, 6882),

Gene: Melba_8 Start: 6567, Stop: 6959, Start Num: 20

Candidate Starts for Melba_8:

(13, 6483), (Start: 20 @6567 has 45 MA's), (39, 6615), (62, 6702), (72, 6741), (88, 6795), (97, 6825), (110, 6870), (112, 6876), (117, 6909),

Gene: Mellie_8 Start: 6567, Stop: 6959, Start Num: 20

Candidate Starts for Mellie_8:

(13, 6483), (Start: 20 @6567 has 45 MA's), (39, 6615), (62, 6702), (72, 6741), (88, 6795), (97, 6825), (110, 6870), (112, 6876), (117, 6909),

Gene: Mendokysei_9 Start: 8237, Stop: 8689, Start Num: 23

Candidate Starts for Mendokysei_9:

(7, 8039), (Start: 23 @8237 has 7 MA's), (60, 8375), (68, 8429), (69, 8432), (73, 8444), (78, 8462), (85, 8483), (87, 8492),

Gene: MichaelScott_9 Start: 6592, Stop: 6975, Start Num: 29

Candidate Starts for MichaelScott_9:

(Start: 29 @6592 has 130 MA's), (43, 6637), (47, 6652), (54, 6679), (68, 6748), (75, 6772), (94, 6829),

Gene: MidnightRain_10 Start: 7292, Stop: 7648, Start Num: 29

Candidate Starts for MidnightRain_10:

(Start: 29 @7292 has 130 MA's), (32, 7298), (Start: 33 @7304 has 1 MA's), (34, 7307), (49, 7361), (55, 7388), (56, 7391), (72, 7451), (73, 7454), (75, 7463), (114, 7592), (117, 7607), (122, 7634),

Gene: MintFen_8 Start: 6567, Stop: 6959, Start Num: 20

Candidate Starts for MintFen_8:

(13, 6483), (Start: 20 @6567 has 45 MA's), (39, 6615), (62, 6702), (72, 6741), (88, 6795), (97, 6825), (110, 6870), (112, 6876), (117, 6909),

Gene: MissRona_8 Start: 6443, Stop: 6835, Start Num: 20

Candidate Starts for MissRona_8:

(13, 6359), (Start: 20 @6443 has 45 MA's), (72, 6617), (75, 6629), (88, 6671), (110, 6746), (112, 6752), (117, 6785),

Gene: Mocha12_8 Start: 6128, Stop: 6511, Start Num: 29

Candidate Starts for Mocha12_8:

(Start: 29 @6128 has 130 MA's), (39, 6155), (54, 6215), (72, 6296), (75, 6308), (88, 6350), (94, 6365), (113, 6443),

Gene: Moonflower_9 Start: 6920, Stop: 7270, Start Num: 36

Candidate Starts for Moonflower_9:

(Start: 22 @6875 has 4 MA's), (Start: 33 @6908 has 1 MA's), (Start: 36 @6920 has 1 MA's), (72, 7067), (75, 7079), (80, 7094), (112, 7190),

Gene: Mulch_12 Start: 8234, Stop: 8626, Start Num: 27

Candidate Starts for Mulch_12:

(13, 8132), (Start: 27 @8234 has 36 MA's), (41, 8279), (72, 8420),

Gene: Murp_8 Start: 6608, Stop: 7000, Start Num: 20

Candidate Starts for Murp_8:

(13, 6524), (16, 6551), (Start: 20 @6608 has 45 MA's), (39, 6656), (62, 6743), (72, 6782), (88, 6836), (110, 6911), (112, 6917), (117, 6950),

Gene: Nadeem_12 Start: 8234, Stop: 8626, Start Num: 27

Candidate Starts for Nadeem_12:

(13, 8132), (Start: 27 @8234 has 36 MA's), (41, 8279), (72, 8420),

Gene: Nairb_10 Start: 8271, Stop: 8714, Start Num: 23

Candidate Starts for Nairb_10:

(8, 8115), (10, 8133), (12, 8211), (Start: 23 @8271 has 7 MA's), (68, 8457), (69, 8460), (73, 8472), (78, 8490), (85, 8511), (87, 8520), (92, 8541), (96, 8550),

Gene: NancyRae_12 Start: 8234, Stop: 8626, Start Num: 27

Candidate Starts for NancyRae_12:

(13, 8132), (Start: 27 @8234 has 36 MA's), (41, 8279), (72, 8420),

Gene: Nandita_12 Start: 7765, Stop: 8166, Start Num: 29

Candidate Starts for Nandita_12:

(Start: 29 @7765 has 130 MA's), (72, 7933), (76, 7948), (78, 7954), (83, 7969), (100, 8023), (113, 8083), (114, 8086), (120, 8116), (121, 8122), (123, 8131),

Gene: Nazo_8 Start: 6561, Stop: 6923, Start Num: 29

Candidate Starts for Nazo_8:

(Start: 29 @6561 has 130 MA's), (47, 6630), (73, 6720), (75, 6729), (101, 6810), (115, 6864), (119, 6882),

Gene: Necropolis_8 Start: 6592, Stop: 6954, Start Num: 29

Candidate Starts for Necropolis_8:

(Start: 29 @6592 has 130 MA's), (47, 6661), (73, 6751), (110, 6868), (115, 6895),

Gene: Nergal_13 Start: 9749, Stop: 10141, Start Num: 31

Candidate Starts for Nergal_13:

(30, 9746), (Start: 31 @9749 has 5 MA's), (59, 9857), (61, 9863), (74, 9929), (75, 9935), (80, 9950),

Gene: Nette_10 Start: 8246, Stop: 8698, Start Num: 23

Candidate Starts for Nette_10:

(7, 8048), (Start: 23 @8246 has 7 MA's), (60, 8384), (68, 8438), (69, 8441), (73, 8453), (78, 8471), (85, 8492), (87, 8501),

Gene: Nettuno_8 Start: 6128, Stop: 6511, Start Num: 29

Candidate Starts for Nettuno_8:

(Start: 29 @6128 has 130 MA's), (39, 6155), (54, 6215), (66, 6278), (72, 6296), (75, 6308), (80, 6323), (113, 6443), (118, 6467),

Gene: OBUpride_11 Start: 7977, Stop: 8429, Start Num: 27

Candidate Starts for OBUpride_11:

(Start: 27 @7977 has 36 MA's), (Start: 29 @7986 has 130 MA's), (35, 8004), (40, 8022), (43, 8034), (48, 8052), (50, 8064), (52, 8070), (67, 8145), (72, 8157), (81, 8184), (86, 8202), (105, 8259), (110, 8277), (111, 8280), (116, 8310), (124, 8349), (128, 8370), (129, 8397), (130, 8421),

Gene: Obliviate_8 Start: 6591, Stop: 6983, Start Num: 20

Candidate Starts for Obliviate_8:

(13, 6507), (Start: 20 @6591 has 45 MA's), (39, 6639), (62, 6726), (72, 6765), (88, 6819), (97, 6849), (110, 6894), (112, 6900), (117, 6933),

Gene: Ohgeesy_8 Start: 6274, Stop: 6648, Start Num: 29

Candidate Starts for Ohgeesy_8:

(Start: 29 @6274 has 130 MA's), (45, 6328), (54, 6364), (72, 6448), (75, 6460), (76, 6463), (84, 6487), (94, 6517), (110, 6574), (112, 6580), (113, 6595), (115, 6604),

Gene: Opie_8 Start: 6838, Stop: 7233, Start Num: 20

Candidate Starts for Opie_8:

(Start: 20 @6838 has 45 MA's), (Start: 33 @6859 has 1 MA's), (75, 7030), (127, 7213),

Gene: Oregano_9 Start: 6263, Stop: 6646, Start Num: 29

Candidate Starts for Oregano_9:

(Start: 29 @6263 has 130 MA's), (43, 6308), (47, 6323), (51, 6341), (54, 6350), (68, 6419), (75, 6443), (94, 6500),

Gene: PCoral7_8 Start: 6551, Stop: 6937, Start Num: 20

Candidate Starts for PCoral7_8:

(Start: 20 @6551 has 45 MA's), (41, 6605), (72, 6719), (75, 6731), (76, 6734), (117, 6887),

Gene: PantheRoc_8 Start: 6274, Stop: 6648, Start Num: 29

Candidate Starts for PantheRoc_8:

(Start: 29 @6274 has 130 MA's), (54, 6364), (72, 6448), (75, 6460), (76, 6463), (84, 6487), (94, 6517), (110, 6574), (112, 6580), (113, 6595), (115, 6604),

Gene: Parada_12 Start: 8234, Stop: 8626, Start Num: 27

Candidate Starts for Parada_12:

(13, 8132), (Start: 27 @8234 has 36 MA's), (41, 8279), (72, 8420),

Gene: Persistence_9 Start: 7363, Stop: 7719, Start Num: 29

Candidate Starts for Persistence_9:

(Start: 29 @7363 has 130 MA's), (32, 7369), (Start: 33 @7375 has 1 MA's), (34, 7378), (55, 7459), (69, 7513), (74, 7528), (75, 7534), (117, 7678), (122, 7705),

Gene: Petra_8 Start: 6473, Stop: 6865, Start Num: 20

Candidate Starts for Petra_8:

(13, 6389), (Start: 20 @6473 has 45 MA's), (72, 6647), (75, 6659), (88, 6701), (110, 6776), (112, 6782), (117, 6815),

Gene: Phalm_8 Start: 6579, Stop: 6941, Start Num: 29

Candidate Starts for Phalm_8:

(Start: 29 @6579 has 130 MA's), (47, 6648), (73, 6738), (110, 6855), (115, 6882),

Gene: Phayonce_8 Start: 6581, Stop: 6943, Start Num: 29

Candidate Starts for Phayonce_8:

(Start: 29 @6581 has 130 MA's), (47, 6650), (73, 6740), (75, 6749), (101, 6830), (115, 6884), (119, 6902),

Gene: Phegasus_8 Start: 6594, Stop: 6956, Start Num: 29

Candidate Starts for Phegasus_8:

(Start: 29 @6594 has 130 MA's), (73, 6753), (109, 6861), (110, 6870), (115, 6897), (119, 6915),

Gene: Phineas_8 Start: 6580, Stop: 6942, Start Num: 29
Candidate Starts for Phineas_8:
(Start: 29 @6580 has 130 MA's), (47, 6649), (73, 6739), (110, 6856), (115, 6883),

Gene: Phrank15_9 Start: 7448, Stop: 7804, Start Num: 29
Candidate Starts for Phrank15_9:
(Start: 29 @7448 has 130 MA's), (49, 7517), (56, 7547), (58, 7553), (73, 7610), (75, 7619), (114, 7748),
(122, 7790),

Gene: PhriskyACE_8 Start: 6096, Stop: 6479, Start Num: 29
Candidate Starts for PhriskyACE_8:
(Start: 29 @6096 has 130 MA's), (43, 6141), (47, 6156), (51, 6174), (54, 6183), (68, 6252), (72, 6264),
(75, 6276), (94, 6333),

Gene: PhrostedPhlake_8 Start: 6648, Stop: 7040, Start Num: 20
Candidate Starts for PhrostedPhlake_8:
(13, 6564), (Start: 20 @6648 has 45 MA's), (48, 6732), (72, 6822), (75, 6834), (88, 6876), (97, 6906),
(110, 6951), (111, 6954), (112, 6957), (117, 6990),

Gene: Pickett_8 Start: 6128, Stop: 6511, Start Num: 29
Candidate Starts for Pickett_8:
(Start: 29 @6128 has 130 MA's), (54, 6215), (72, 6296), (75, 6308), (88, 6350), (94, 6365), (113, 6443),

Gene: Pimento_13 Start: 8447, Stop: 8830, Start Num: 29
Candidate Starts for Pimento_13:
(Start: 29 @8447 has 130 MA's), (41, 8483), (72, 8624),

Gene: Pipp_8 Start: 6591, Stop: 6983, Start Num: 20
Candidate Starts for Pipp_8:
(13, 6507), (Start: 20 @6591 has 45 MA's), (39, 6639), (62, 6726), (72, 6765), (88, 6819), (97, 6849),
(110, 6894), (112, 6900), (117, 6933),

Gene: Polkaroo_8 Start: 6592, Stop: 6954, Start Num: 29
Candidate Starts for Polkaroo_8:
(Start: 29 @6592 has 130 MA's), (47, 6661), (73, 6751), (110, 6868), (115, 6895),

Gene: Popper_10 Start: 7293, Stop: 7694, Start Num: 29
Candidate Starts for Popper_10:
(Start: 29 @7293 has 130 MA's), (46, 7350), (72, 7461), (76, 7476), (78, 7482), (83, 7497), (100, 7551),
(113, 7611), (121, 7650), (123, 7659),

Gene: Poushou_10 Start: 8239, Stop: 8625, Start Num: 29
Candidate Starts for Poushou_10:
(Start: 29 @8239 has 130 MA's), (50, 8320), (58, 8347), (73, 8416), (75, 8425), (102, 8506), (115,
8560),

Gene: Powerball_8 Start: 6096, Stop: 6479, Start Num: 29
Candidate Starts for Powerball_8:
(Start: 29 @6096 has 130 MA's), (43, 6141), (47, 6156), (51, 6174), (54, 6183), (72, 6264), (75, 6276),
(94, 6333),

Gene: PrincePatrick_8 Start: 6552, Stop: 6938, Start Num: 20
Candidate Starts for PrincePatrick_8:

(Start: 20 @6552 has 45 MA's), (41, 6606), (72, 6720), (75, 6732), (76, 6735), (117, 6888),

Gene: Purky_8 Start: 6597, Stop: 6959, Start Num: 29

Candidate Starts for Purky_8:

(Start: 29 @6597 has 130 MA's), (73, 6756), (101, 6846), (109, 6864), (110, 6873), (115, 6900), (119, 6918),

Gene: Pygmy_8 Start: 6580, Stop: 6942, Start Num: 29

Candidate Starts for Pygmy_8:

(Start: 29 @6580 has 130 MA's), (47, 6649), (73, 6739), (110, 6856), (115, 6883),

Gene: QuinnAvery_12 Start: 7780, Stop: 8181, Start Num: 29

Candidate Starts for QuinnAvery_12:

(Start: 29 @7780 has 130 MA's), (72, 7948), (76, 7963), (78, 7969), (83, 7984), (100, 8038), (113, 8098), (120, 8131), (121, 8137), (123, 8146),

Gene: REQ2_08 Start: 6272, Stop: 6640, Start Num: 29

Candidate Starts for REQ2_08:

(Start: 29 @6272 has 130 MA's), (32, 6278), (51, 6353), (82, 6476), (100, 6524),

Gene: RadFad_10 Start: 7292, Stop: 7648, Start Num: 29

Candidate Starts for RadFad_10:

(Start: 29 @7292 has 130 MA's), (32, 7298), (Start: 33 @7304 has 1 MA's), (34, 7307), (49, 7361), (55, 7388), (56, 7391), (72, 7451), (73, 7454), (75, 7463), (114, 7592), (117, 7607), (122, 7634),

Gene: Raphaella_10 Start: 7295, Stop: 7651, Start Num: 29

Candidate Starts for Raphaella_10:

(Start: 29 @7295 has 130 MA's), (56, 7394), (58, 7400), (75, 7466), (114, 7595), (117, 7610), (122, 7637),

Gene: RayTheFireFly_9 Start: 6909, Stop: 7271, Start Num: 33

Candidate Starts for RayTheFireFly_9:

(Start: 22 @6876 has 4 MA's), (Start: 33 @6909 has 1 MA's), (Start: 36 @6921 has 1 MA's), (72, 7068), (75, 7080), (80, 7095), (112, 7191),

Gene: Rem711_14 Start: 9778, Stop: 10167, Start Num: 25

Candidate Starts for Rem711_14:

(Start: 25 @9778 has 1 MA's), (Start: 33 @9802 has 1 MA's), (40, 9826), (53, 9877), (72, 9958), (79, 9982), (104, 10054),

Gene: Richie_10 Start: 7310, Stop: 7666, Start Num: 29

Candidate Starts for Richie_10:

(Start: 29 @7310 has 130 MA's), (49, 7379), (56, 7409), (58, 7415), (73, 7472), (75, 7481), (114, 7610), (122, 7652),

Gene: RonRayGun_10 Start: 8271, Stop: 8714, Start Num: 23

Candidate Starts for RonRayGun_10:

(8, 8115), (10, 8133), (12, 8211), (Start: 23 @8271 has 7 MA's), (68, 8457), (69, 8460), (73, 8472), (78, 8490), (85, 8511), (87, 8520), (92, 8541), (96, 8550),

Gene: Ruthy_9 Start: 7046, Stop: 7438, Start Num: 31

Candidate Starts for Ruthy_9:

(Start: 31 @7046 has 5 MA's), (43, 7091), (66, 7202), (72, 7220),

Gene: Ryan_12 Start: 7911, Stop: 8312, Start Num: 29

Candidate Starts for Ryan_12:

(Start: 29 @7911 has 130 MA's), (72, 8079), (76, 8094), (78, 8100), (83, 8115), (100, 8169), (113, 8229), (114, 8232), (121, 8268), (123, 8277),

Gene: SPB78_9 Start: 6952, Stop: 7395, Start Num: 24

Candidate Starts for SPB78_9:

(1, 6325), (5, 6727), (11, 6838), (18, 6910), (24, 6952), (58, 7078), (77, 7159), (107, 7258), (108, 7261),

Gene: Sahara_8 Start: 6144, Stop: 6527, Start Num: 29

Candidate Starts for Sahara_8:

(Start: 29 @6144 has 130 MA's), (54, 6231), (66, 6294), (72, 6312), (75, 6324), (94, 6381), (113, 6459),

Gene: Sakai_10 Start: 7304, Stop: 7660, Start Num: 29

Candidate Starts for Sakai_10:

(Start: 29 @7304 has 130 MA's), (49, 7373), (56, 7403), (58, 7409), (73, 7466), (75, 7475), (114, 7604), (122, 7646),

Gene: SamW_8 Start: 6443, Stop: 6847, Start Num: 28

Candidate Starts for SamW_8:

(Start: 28 @6443 has 8 MA's), (54, 6533), (65, 6590), (75, 6614), (84, 6641), (98, 6686), (103, 6704), (117, 6770),

Gene: Samba_8 Start: 6568, Stop: 6960, Start Num: 20

Candidate Starts for Samba_8:

(13, 6484), (Start: 20 @6568 has 45 MA's), (39, 6616), (62, 6703), (72, 6742), (88, 6796), (117, 6910),

Gene: Samman98_9 Start: 6592, Stop: 6975, Start Num: 29

Candidate Starts for Samman98_9:

(Start: 29 @6592 has 130 MA's), (43, 6637), (47, 6652), (51, 6670), (54, 6679), (68, 6748), (75, 6772), (94, 6829),

Gene: Sashimi_11 Start: 7410, Stop: 7766, Start Num: 29

Candidate Starts for Sashimi_11:

(Start: 29 @7410 has 130 MA's), (38, 7437), (58, 7515), (73, 7572), (75, 7581), (102, 7662), (114, 7710), (115, 7716), (117, 7725), (122, 7752),

Gene: Savage_8 Start: 6128, Stop: 6511, Start Num: 29

Candidate Starts for Savage_8:

(Start: 29 @6128 has 130 MA's), (39, 6155), (54, 6215), (72, 6296), (75, 6308), (88, 6350), (94, 6365), (113, 6443),

Gene: Schism_12 Start: 7765, Stop: 8166, Start Num: 29

Candidate Starts for Schism_12:

(Start: 29 @7765 has 130 MA's), (72, 7933), (76, 7948), (78, 7954), (83, 7969), (100, 8023), (113, 8083), (114, 8086), (120, 8116), (121, 8122), (123, 8131),

Gene: Schnabeltier_8 Start: 6824, Stop: 7219, Start Num: 20

Candidate Starts for Schnabeltier_8:

(Start: 20 @6824 has 45 MA's), (Start: 33 @6845 has 1 MA's), (75, 7016), (112, 7127),

Gene: Seahorse_11 Start: 7514, Stop: 7873, Start Num: 29

Candidate Starts for Seahorse_11:

(Start: 29 @7514 has 130 MA's), (38, 7541), (56, 7613), (72, 7673), (75, 7685), (106, 7784), (110, 7799), (122, 7859),

Gene: Sekhmet_9 Start: 6592, Stop: 6975, Start Num: 29

Candidate Starts for Sekhmet_9:

(Start: 29 @6592 has 130 MA's), (43, 6637), (47, 6652), (51, 6670), (54, 6679), (68, 6748), (75, 6772), (94, 6829),

Gene: Shipwreck_8 Start: 6580, Stop: 6942, Start Num: 29

Candidate Starts for Shipwreck_8:

(Start: 29 @6580 has 130 MA's), (47, 6649), (73, 6739), (110, 6856), (115, 6883),

Gene: Shlim410_8 Start: 6280, Stop: 6651, Start Num: 29

Candidate Starts for Shlim410_8:

(Start: 29 @6280 has 130 MA's), (48, 6343), (54, 6367), (63, 6403), (68, 6439), (72, 6451), (75, 6463), (76, 6466), (94, 6520), (99, 6538), (110, 6577), (112, 6583), (113, 6598), (115, 6607),

Gene: Shukran_10 Start: 7247, Stop: 7603, Start Num: 29

Candidate Starts for Shukran_10:

(Start: 29 @7247 has 130 MA's), (Start: 33 @7259 has 1 MA's), (56, 7346), (69, 7397), (74, 7412), (75, 7418), (117, 7562), (122, 7589),

Gene: Sidious_8 Start: 6277, Stop: 6648, Start Num: 29

Candidate Starts for Sidious_8:

(Start: 29 @6277 has 130 MA's), (54, 6364), (72, 6448), (75, 6460), (76, 6463), (84, 6487), (110, 6574), (112, 6580), (113, 6595), (115, 6604),

Gene: SoilAssassin_8 Start: 6128, Stop: 6511, Start Num: 29

Candidate Starts for SoilAssassin_8:

(Start: 29 @6128 has 130 MA's), (54, 6215), (72, 6296), (75, 6308), (88, 6350), (94, 6365), (113, 6443),

Gene: Sonah_8 Start: 6594, Stop: 6956, Start Num: 29

Candidate Starts for Sonah_8:

(Start: 29 @6594 has 130 MA's), (73, 6753), (102, 6846), (109, 6861), (110, 6870), (115, 6897), (119, 6915),

Gene: SpicyFrank_10 Start: 7427, Stop: 7714, Start Num: 49

Candidate Starts for SpicyFrank_10:

(Start: 29 @7358 has 130 MA's), (49, 7427), (56, 7457), (58, 7463), (73, 7520), (75, 7529), (114, 7658), (122, 7700),

Gene: Sproutie_8 Start: 6128, Stop: 6511, Start Num: 29

Candidate Starts for Sproutie_8:

(Start: 29 @6128 has 130 MA's), (39, 6155), (54, 6215), (72, 6296), (75, 6308), (88, 6350), (94, 6365), (113, 6443),

Gene: StAB_8 Start: 6448, Stop: 6852, Start Num: 28

Candidate Starts for StAB_8:

(Start: 28 @6448 has 8 MA's), (54, 6538), (65, 6595), (75, 6619), (84, 6646), (98, 6691), (103, 6709), (117, 6775),

Gene: StevieRay_8 Start: 6583, Stop: 6945, Start Num: 29

Candidate Starts for StevieRay_8:

(Start: 29 @6583 has 130 MA's), (47, 6652), (73, 6742), (110, 6859), (115, 6886),

Gene: Stiles_8 Start: 6442, Stop: 6846, Start Num: 28

Candidate Starts for Stiles_8:

(Start: 28 @6442 has 8 MA's), (54, 6532), (65, 6589), (75, 6613), (84, 6640), (98, 6685), (103, 6703), (117, 6769),

Gene: StressBall_8 Start: 6579, Stop: 6941, Start Num: 29

Candidate Starts for StressBall_8:

(Start: 29 @6579 has 130 MA's), (47, 6648), (73, 6738), (110, 6855), (115, 6882),

Gene: Suerte_8 Start: 6090, Stop: 6473, Start Num: 29

Candidate Starts for Suerte_8:

(Start: 29 @6090 has 130 MA's), (43, 6135), (47, 6150), (51, 6168), (54, 6177), (68, 6246), (75, 6270), (94, 6327),

Gene: TaronosaurusRx_8 Start: 6834, Stop: 7232, Start Num: 20

Candidate Starts for TaronosaurusRx_8:

(Start: 20 @6834 has 45 MA's), (Start: 33 @6858 has 1 MA's), (72, 7017), (75, 7029), (112, 7140), (127, 7212),

Gene: Techage_8 Start: 6597, Stop: 6959, Start Num: 29

Candidate Starts for Techage_8:

(Start: 29 @6597 has 130 MA's), (73, 6756), (109, 6864), (110, 6873), (115, 6900), (119, 6918),

Gene: ThayneTheZag_10 Start: 7332, Stop: 7688, Start Num: 29

Candidate Starts for ThayneTheZag_10:

(Start: 29 @7332 has 130 MA's), (55, 7428), (56, 7431), (58, 7437), (73, 7494), (75, 7503), (114, 7632), (122, 7674),

Gene: Thespis_8 Start: 6579, Stop: 6941, Start Num: 29

Candidate Starts for Thespis_8:

(Start: 29 @6579 has 130 MA's), (47, 6648), (73, 6738), (110, 6855), (115, 6882),

Gene: Thimann_9 Start: 6592, Stop: 6975, Start Num: 29

Candidate Starts for Thimann_9:

(Start: 29 @6592 has 130 MA's), (43, 6637), (47, 6652), (51, 6670), (54, 6679), (68, 6748), (75, 6772), (94, 6829),

Gene: ThulaThula_8 Start: 6626, Stop: 6988, Start Num: 29

Candidate Starts for ThulaThula_8:

(Start: 29 @6626 has 130 MA's), (47, 6695), (73, 6785), (75, 6794), (101, 6875), (115, 6929), (119, 6947),

Gene: Tiff81_11 Start: 7472, Stop: 7831, Start Num: 29

Candidate Starts for Tiff81_11:

(Start: 29 @7472 has 130 MA's), (Start: 33 @7484 has 1 MA's), (34, 7487), (38, 7499), (72, 7631), (75, 7643), (106, 7742), (110, 7757), (115, 7784), (122, 7817),

Gene: Toast_8 Start: 6551, Stop: 6937, Start Num: 20

Candidate Starts for Toast_8:

(Start: 20 @6551 has 45 MA's), (41, 6605), (72, 6719), (75, 6731), (76, 6734), (117, 6887),

Gene: Tortellini_8 Start: 6539, Stop: 6901, Start Num: 29

Candidate Starts for Tortellini_8:

(Start: 29 @6539 has 130 MA's), (70, 6692), (73, 6698), (101, 6788), (109, 6806), (110, 6815), (115, 6842), (119, 6860),

Gene: TouchMeNot_10 Start: 8239, Stop: 8625, Start Num: 29

Candidate Starts for TouchMeNot_10:

(Start: 29 @8239 has 130 MA's), (50, 8320), (58, 8347), (73, 8416), (75, 8425), (102, 8506), (115, 8560),

Gene: Troy_8 Start: 6443, Stop: 6847, Start Num: 28

Candidate Starts for Troy_8:

(Start: 28 @6443 has 8 MA's), (54, 6533), (65, 6590), (75, 6614), (84, 6641), (98, 6686), (103, 6704), (117, 6770),

Gene: TuertoX_8 Start: 6128, Stop: 6511, Start Num: 29

Candidate Starts for TuertoX_8:

(Start: 29 @6128 has 130 MA's), (39, 6155), (54, 6215), (72, 6296), (75, 6308), (88, 6350), (94, 6365), (113, 6443),

Gene: Twinkle_8 Start: 6280, Stop: 6651, Start Num: 29

Candidate Starts for Twinkle_8:

(Start: 29 @6280 has 130 MA's), (48, 6343), (54, 6367), (63, 6403), (68, 6439), (72, 6451), (75, 6463), (76, 6466), (94, 6520), (99, 6538), (110, 6577), (112, 6583), (113, 6598), (115, 6607),

Gene: Ubuntu_11 Start: 7983, Stop: 8435, Start Num: 27

Candidate Starts for Ubuntu_11:

(Start: 27 @7983 has 36 MA's), (Start: 29 @7992 has 130 MA's), (35, 8010), (40, 8028), (43, 8040), (48, 8058), (50, 8070), (52, 8076), (67, 8151), (72, 8163), (81, 8190), (86, 8208), (105, 8265), (110, 8283), (111, 8286), (116, 8316), (124, 8355), (128, 8376), (129, 8403), (130, 8427),

Gene: UmaThurman_8 Start: 6567, Stop: 6959, Start Num: 20

Candidate Starts for UmaThurman_8:

(13, 6483), (Start: 20 @6567 has 45 MA's), (39, 6615), (62, 6702), (72, 6741), (88, 6795), (117, 6909),

Gene: Utz_8 Start: 6567, Stop: 6959, Start Num: 20

Candidate Starts for Utz_8:

(13, 6483), (Start: 20 @6567 has 45 MA's), (62, 6702), (72, 6741), (88, 6795), (97, 6825), (110, 6870), (112, 6876), (117, 6909),

Gene: VWB_8 Start: 7039, Stop: 7449, Start Num: 29

Candidate Starts for VWB_8:

(Start: 29 @7039 has 130 MA's), (58, 7153), (73, 7219), (74, 7222), (77, 7234),

Gene: Vasanti_8 Start: 6132, Stop: 6515, Start Num: 29

Candidate Starts for Vasanti_8:

(Start: 29 @6132 has 130 MA's), (39, 6159), (54, 6219), (72, 6300), (75, 6312), (88, 6354), (113, 6447),

Gene: Venti_8 Start: 6592, Stop: 6954, Start Num: 29

Candidate Starts for Venti_8:

(Start: 29 @6592 has 130 MA's), (47, 6661), (73, 6751), (110, 6868), (115, 6895),

Gene: Vidya_8 Start: 6592, Stop: 6954, Start Num: 29
Candidate Starts for Vidya_8:
(Start: 29 @6592 has 130 MA's), (47, 6661), (73, 6751), (110, 6868), (115, 6895),

Gene: Vopal_11 Start: 7436, Stop: 7723, Start Num: 49
Candidate Starts for Vopal_11:
(Start: 29 @7367 has 130 MA's), (49, 7436), (56, 7466), (58, 7472), (73, 7529), (75, 7538), (114, 7667),
(122, 7709),

Gene: Walrus_8 Start: 6479, Stop: 6871, Start Num: 20
Candidate Starts for Walrus_8:
(Start: 20 @6479 has 45 MA's), (62, 6614), (72, 6653), (105, 6764), (117, 6821),

Gene: Webster2_11 Start: 7983, Stop: 8435, Start Num: 27
Candidate Starts for Webster2_11:
(Start: 27 @7983 has 36 MA's), (Start: 29 @7992 has 130 MA's), (35, 8010), (40, 8028), (43, 8040),
(48, 8058), (50, 8070), (52, 8076), (67, 8151), (72, 8163), (81, 8190), (86, 8208), (105, 8265), (110,
8283), (111, 8286), (116, 8316), (124, 8355), (128, 8376), (129, 8403), (130, 8427),

Gene: Weirido19_9 Start: 6915, Stop: 7337, Start Num: 27
Candidate Starts for Weirido19_9:
(15, 6825), (Start: 27 @6915 has 36 MA's), (44, 6978), (52, 7011), (66, 7083), (75, 7110), (76, 7113),
(79, 7122), (89, 7152), (115, 7248),

Gene: Whack_8 Start: 6270, Stop: 6635, Start Num: 29
Candidate Starts for Whack_8:
(6, 6051), (9, 6072), (14, 6162), (Start: 29 @6270 has 130 MA's), (64, 6396), (72, 6426), (73, 6429),
(100, 6507), (111, 6546), (112, 6549),

Gene: WheatThin_12 Start: 8234, Stop: 8626, Start Num: 27
Candidate Starts for WheatThin_12:
(13, 8132), (Start: 27 @8234 has 36 MA's), (41, 8279), (72, 8420),

Gene: Whiteclaw_8 Start: 6128, Stop: 6511, Start Num: 29
Candidate Starts for Whiteclaw_8:
(Start: 29 @6128 has 130 MA's), (39, 6155), (54, 6215), (72, 6296), (75, 6308), (88, 6350), (94, 6365),
(113, 6443),

Gene: Whitty_10 Start: 8271, Stop: 8714, Start Num: 23
Candidate Starts for Whitty_10:
(8, 8115), (10, 8133), (12, 8211), (Start: 23 @8271 has 7 MA's), (68, 8457), (69, 8460), (73, 8472), (78,
8490), (85, 8511), (87, 8520), (92, 8541), (96, 8550),

Gene: William_8 Start: 6566, Stop: 6952, Start Num: 20
Candidate Starts for William_8:
(Start: 20 @6566 has 45 MA's), (41, 6620), (72, 6734), (75, 6746), (76, 6749), (117, 6902),

Gene: Willsammy_8 Start: 6582, Stop: 6944, Start Num: 29
Candidate Starts for Willsammy_8:
(Start: 29 @6582 has 130 MA's), (47, 6651), (73, 6741), (110, 6858), (115, 6885),

Gene: Windest_11 Start: 7352, Stop: 7708, Start Num: 29
Candidate Starts for Windest_11:

(Start: 29 @7352 has 130 MA's), (56, 7451), (58, 7457), (75, 7523), (114, 7652), (117, 7667), (122, 7694),

Gene: WinkNick_9 Start: 6592, Stop: 6975, Start Num: 29

Candidate Starts for WinkNick_9:

(Start: 29 @6592 has 130 MA's), (43, 6637), (47, 6652), (51, 6670), (54, 6679), (68, 6748), (75, 6772), (94, 6829),

Gene: Wishmaker_11 Start: 7983, Stop: 8435, Start Num: 27

Candidate Starts for Wishmaker_11:

(Start: 27 @7983 has 36 MA's), (Start: 29 @7992 has 130 MA's), (35, 8010), (40, 8028), (43, 8040), (48, 8058), (50, 8070), (52, 8076), (67, 8151), (72, 8163), (81, 8190), (86, 8208), (105, 8265), (110, 8283), (111, 8286), (116, 8316), (124, 8355), (128, 8376), (129, 8403), (130, 8427),

Gene: Wisp_8 Start: 6567, Stop: 6959, Start Num: 20

Candidate Starts for Wisp_8:

(13, 6483), (Start: 20 @6567 has 45 MA's), (62, 6702), (72, 6741), (88, 6795), (97, 6825), (110, 6870), (112, 6876), (117, 6909),

Gene: Wocket_8 Start: 6632, Stop: 7024, Start Num: 20

Candidate Starts for Wocket_8:

(13, 6548), (Start: 20 @6632 has 45 MA's), (Start: 33 @6662 has 1 MA's), (39, 6680), (62, 6767), (72, 6806), (79, 6830), (88, 6860), (97, 6890), (110, 6935), (112, 6941), (117, 6974),

Gene: Xavia_8 Start: 6594, Stop: 6956, Start Num: 29

Candidate Starts for Xavia_8:

(Start: 29 @6594 has 130 MA's), (47, 6663), (73, 6753), (110, 6870), (115, 6897),

Gene: Yeet412_8 Start: 6128, Stop: 6511, Start Num: 29

Candidate Starts for Yeet412_8:

(Start: 29 @6128 has 130 MA's), (54, 6215), (72, 6296), (75, 6308), (88, 6350), (94, 6365), (113, 6443),

Gene: Yeezy_8 Start: 6274, Stop: 6645, Start Num: 29

Candidate Starts for Yeezy_8:

(Start: 29 @6274 has 130 MA's), (54, 6361), (72, 6445), (75, 6457), (76, 6460), (84, 6484), (94, 6514), (110, 6571), (112, 6577), (113, 6592), (115, 6601),

Gene: YoungHarleezy_10 Start: 7377, Stop: 7664, Start Num: 49

Candidate Starts for YoungHarleezy_10:

(Start: 29 @7308 has 130 MA's), (49, 7377), (56, 7407), (58, 7413), (73, 7470), (75, 7479), (114, 7608), (122, 7650),

Gene: ZAYM_8 Start: 6827, Stop: 7225, Start Num: 20

Candidate Starts for ZAYM_8:

(Start: 20 @6827 has 45 MA's), (Start: 33 @6851 has 1 MA's), (72, 7010), (75, 7022), (112, 7133),

Gene: Zaheer_12 Start: 8000, Stop: 8401, Start Num: 29

Candidate Starts for Zaheer_12:

(Start: 29 @8000 has 130 MA's), (72, 8168), (76, 8183), (78, 8189), (83, 8204), (100, 8258), (113, 8318), (120, 8351), (121, 8357), (123, 8366),

Gene: Zarbodnamra_8 Start: 6566, Stop: 6958, Start Num: 20

Candidate Starts for Zarbodnamra_8:

(13, 6482), (Start: 20 @6566 has 45 MA's), (39, 6614), (62, 6701), (72, 6740), (88, 6794), (97, 6824), (110, 6869), (112, 6875), (117, 6908),

Gene: ZenTime222_10 Start: 8271, Stop: 8714, Start Num: 23

Candidate Starts for ZenTime222_10:

(8, 8115), (10, 8133), (12, 8211), (Start: 23 @8271 has 7 MA's), (68, 8457), (69, 8460), (73, 8472), (78, 8490), (85, 8511), (87, 8520), (92, 8541), (96, 8550),

Gene: ZiggyZoo_8 Start: 6591, Stop: 6983, Start Num: 20

Candidate Starts for ZiggyZoo_8:

(13, 6507), (Start: 20 @6591 has 45 MA's), (39, 6639), (62, 6726), (72, 6765), (88, 6819), (97, 6849), (110, 6894), (112, 6900), (117, 6933),

Gene: Zilizebeth_8 Start: 6592, Stop: 6954, Start Num: 29

Candidate Starts for Zilizebeth_8:

(Start: 29 @6592 has 130 MA's), (47, 6661), (73, 6751), (110, 6868), (115, 6895),

Gene: Zodiariah_8 Start: 6772, Stop: 7164, Start Num: 31

Candidate Starts for Zodiariah_8:

(Start: 31 @6772 has 5 MA's), (43, 6817), (72, 6946), (121, 7135),