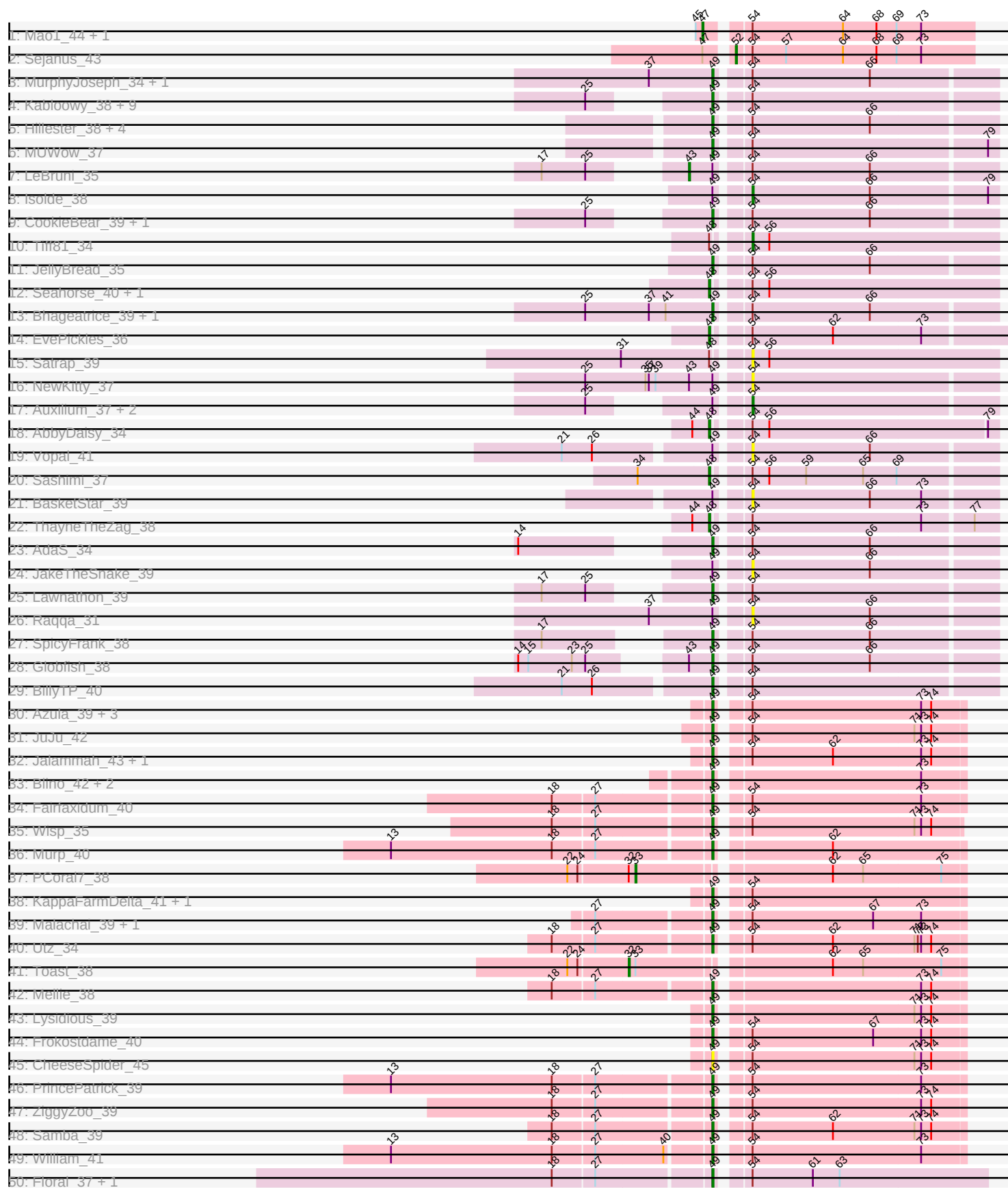
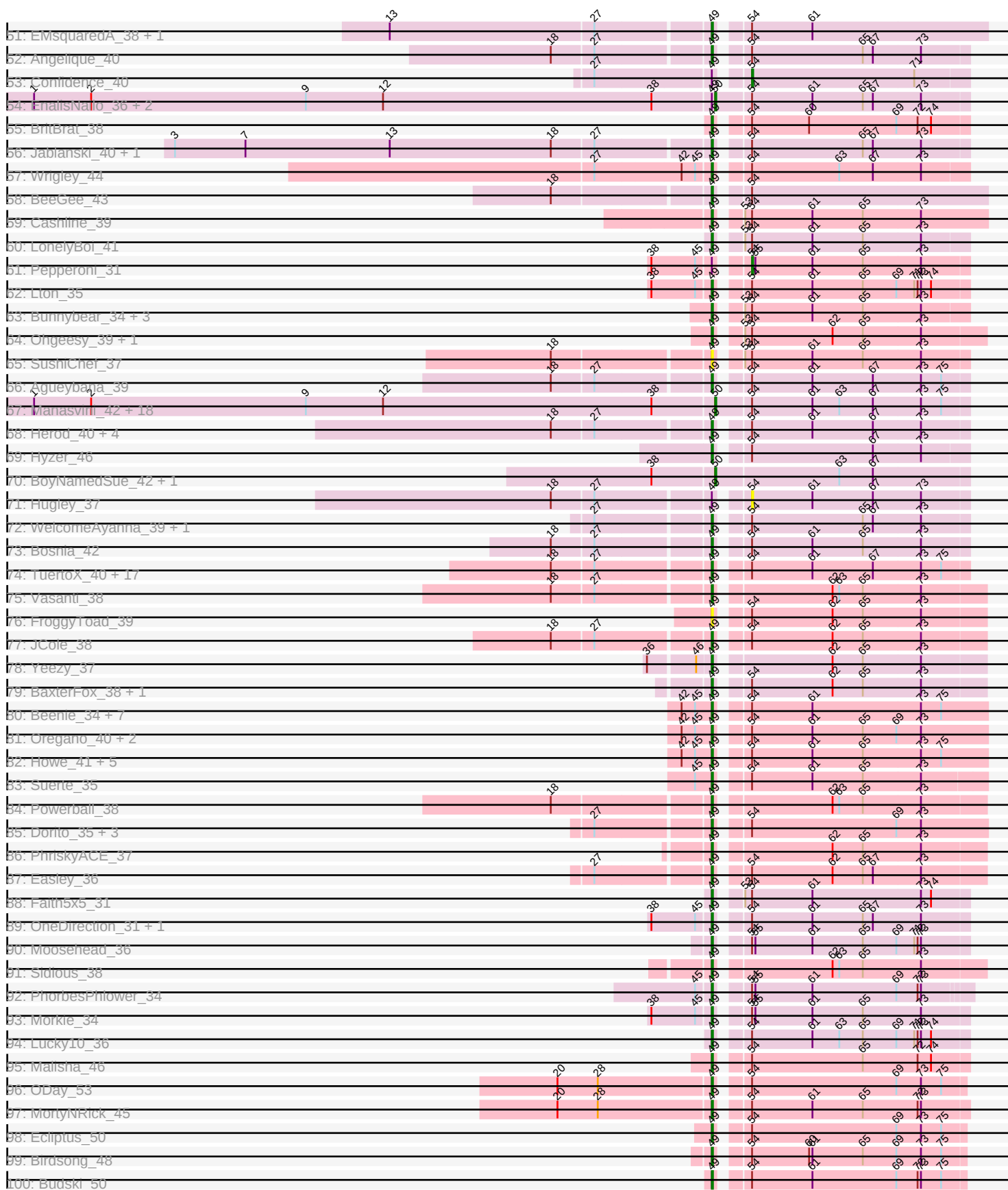
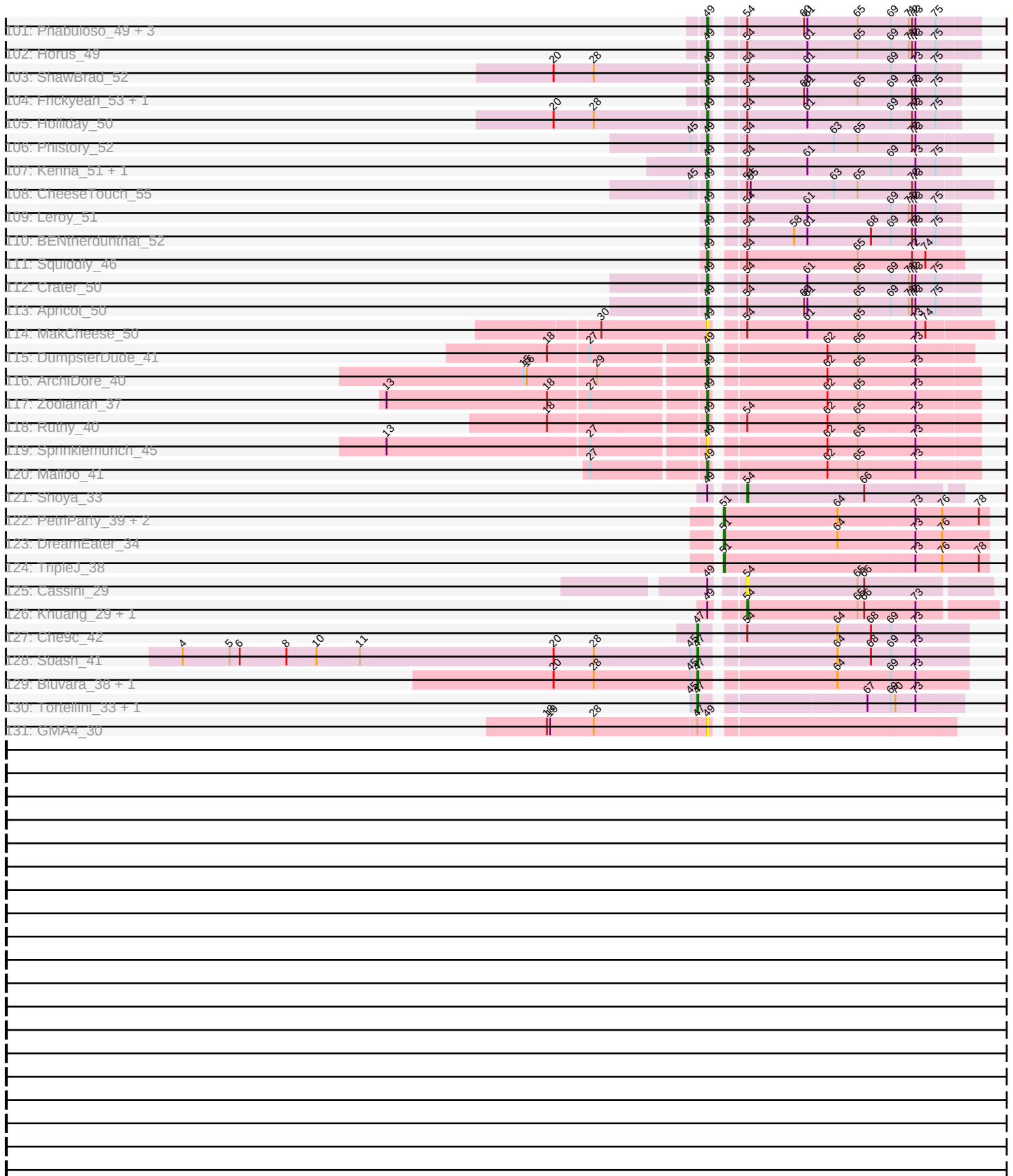


Pham 330460



Pham 330460





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 330460 Report

This analysis was run 09/05/26 on database version 662.

Pham number 330460 has 238 members, 27 are drafts.

Phages represented in each track:

- Track 1 : Mao1_44, JohnLord_46
- Track 2 : Sejanus_43
- Track 3 : MurphyJoseph_34, Anekin_36
- Track 4 : Kabloowy_38, Gorpy_40, BenchScraper_38, MaterMagnus_39, Richie_39, Aikyam_36, Sakai_39, Raphaella_39, YoungHarleezy_39, Sporco_38
- Track 5 : Hillester_38, RadFad_38, Phrank15_37, Windest_38, SonDevVon_38
- Track 6 : MUWow_37
- Track 7 : LeBruni_35
- Track 8 : Isolde_38
- Track 9 : CookieBear_39, MidnightRain_41
- Track 10 : Tiff81_34
- Track 11 : JellyBread_35
- Track 12 : Seahorse_40, Crescenzo_36
- Track 13 : Bhageatrice_39, DarwinJr_40
- Track 14 : EvePickles_36
- Track 15 : Satrap_39
- Track 16 : NewKitty_37
- Track 17 : Auxilium_37, Mapleville_37, Faja_38
- Track 18 : AbbyDaisy_34
- Track 19 : Vopal_41
- Track 20 : Sashimi_37
- Track 21 : BasketStar_39
- Track 22 : ThayneTheZag_38
- Track 23 : AdaS_34
- Track 24 : JakeTheSnake_39
- Track 25 : Lawnathon_39
- Track 26 : Raqqa_31
- Track 27 : SpicyFrank_38
- Track 28 : Globfish_38
- Track 29 : BillyTP_40
- Track 30 : Azula_39, MissRona_39, Blueberry_38, Gambino_41
- Track 31 : JuJu_42
- Track 32 : Jalammah_43, Fenry_38
- Track 33 : Blino_42, CarolAnn_41, Soilmate_43
- Track 34 : Fairfaxidum_40
- Track 35 : Wisp_35
- Track 36 : Murp_40

- Track 37 : PCoral7_38
- Track 38 : KappaFarmDelta_41, Wocket_40
- Track 39 : Malachai_39, Begonia_39
- Track 40 : Utz_34
- Track 41 : Toast_38
- Track 42 : Mellie_38
- Track 43 : Lysidious_39
- Track 44 : Frokostdame_40
- Track 45 : CheeseSpider_45
- Track 46 : PrincePatrick_39
- Track 47 : ZiggyZoo_39
- Track 48 : Samba_39
- Track 49 : William_41
- Track 50 : Floral_37, Pollux_39
- Track 51 : EMSquaredA_38, Marteena_37
- Track 52 : Angelique_40
- Track 53 : Confidence_40
- Track 54 : EnalisNailo_36, Bradissa_37, Lilas_39
- Track 55 : BritBrat_38
- Track 56 : Jablanski_40, Pytheas_40
- Track 57 : Wrigley_44
- Track 58 : BeeGee_43
- Track 59 : Cashline_39
- Track 60 : LonelyBoi_41
- Track 61 : Pepperoni_31
- Track 62 : Lton_35
- Track 63 : Bunnybear_34, Posh_43, Madavieve_37, Maridalia_42
- Track 64 : Ohgeesy_39, Madeline_36
- Track 65 : SushiChef_37
- Track 66 : Agueybana_39
- Track 67 : Manasvini_42, Polly_39, Dillpickles_46, LordFarquaad_39, Eudoria_42, EdnaMode_36, Pickett_35, SoilAssassin_37, Kita_43, Attis_37, Antonio_42, Trumpet_42, Bialota_40, Zameen_42, Yeet412_37, Zirinka_39, Suscepit_42, Tayonia_42, Neobush_42
- Track 68 : Herod_40, Eviarto_40, BatStarr_40, Nymphadora_40, TimTam_40
- Track 69 : Hyzer_46
- Track 70 : BoyNamedSue_42, AlumE_42
- Track 71 : Hugley_37
- Track 72 : WelcomeAyanna_39, ThankyouJordi_39
- Track 73 : Bosnia_42
- Track 74 : TuertoX_40, Ebert_42, Jalleen_39, Savage_40, Lamberg_36, Sahara_39, GemG_40, Whiteclaw_40, Cynthia_40, Sproutie_40, Yinzer_39, Clap_40, Haley23_40, Gizermo_40, Matteo_33, Mocha12_40, Nettuno_36, Bjanes7_37
- Track 75 : Vasanti_38
- Track 76 : FroggyToad_39
- Track 77 : JCole_38
- Track 78 : Yeezy_37
- Track 79 : BaxterFox_38, PantheRoc_38
- Track 80 : Beenie_34, Rizz_41, Dolores_41, Invecra_42, MichaelScott_41, Clark_40, WinkNick_42, Samman98_41
- Track 81 : Oregano_40, Annalisa_37, Tuti_34
- Track 82 : Howe_41, Adora_38, Sekhmet_41, Hortense_41, Twinkle_40, Shlim410_39

- Track 83 : Suerte_35
- Track 84 : Powerball_38
- Track 85 : Dorito_35, Thimann_37, DobbysSock_32, Mcklovin_37
- Track 86 : PhriskyACE_37
- Track 87 : Easley_36
- Track 88 : Faith5x5_31
- Track 89 : OneDirection_31, InLimbo_36
- Track 90 : Moosehead_36
- Track 91 : Sidious_38
- Track 92 : PhorbesPhlower_34
- Track 93 : Morkie_34
- Track 94 : Lucky10_36
- Track 95 : Malisha_46
- Track 96 : ODay_53
- Track 97 : MortyNRick_45
- Track 98 : Ecliptus_50
- Track 99 : Birdsong_48
- Track 100 : Budski_50
- Track 101 : Phabuloso_49, BotCity_50, Kamaru_45, LitninMcQueen_44
- Track 102 : Horus_49
- Track 103 : ShawBrad_52
- Track 104 : Frickyeh_53, Asapag_48
- Track 105 : Holliday_50
- Track 106 : Phistory_52
- Track 107 : Kenna_51, Lutum_52
- Track 108 : CheeseTouch_55
- Track 109 : Leroy_51
- Track 110 : BENtherdunthat_52
- Track 111 : Squiddly_46
- Track 112 : Crater_50
- Track 113 : Apricot_50
- Track 114 : MakCheese_50
- Track 115 : DumpsterDude_41
- Track 116 : ArchiDore_40
- Track 117 : Zodiariah_37
- Track 118 : Ruthy_40
- Track 119 : Sprinklemunch_45
- Track 120 : Malibo_41
- Track 121 : Shoya_33
- Track 122 : PetriParty_39, Kukla_37, GUPitcher_34
- Track 123 : DreamEater_34
- Track 124 : TripleJ_38
- Track 125 : Cassini_29
- Track 126 : Khuang_29, Altostratus_28
- Track 127 : Che9c_42
- Track 128 : Sbash_41
- Track 129 : Bluvara_38, Stuck_45
- Track 130 : Tortellini_33, Xavia_35
- Track 131 : GMA4_30

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

The start number called the most often in the published annotations is 49, it was called in 158 of the 211 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- AdaS_34, Adora_38, Agueybana_39, Aikyam_36, Anekin_36, Angelique_40, Annalisa_37, Apricot_50, ArchiDore_40, Asapag_48, Azula_39, BENtherdunthat_52, BatStarr_40, BaxterFox_38, BeeGee_43, Beenie_34, Begonia_39, BenchScraper_38, Bhageatrice_39, BillyTP_40, Birdsong_48, Bjaness7_37, Blino_42, Blueberry_38, Bosnia_42, BotCity_50, BritBrat_38, Budski_50, Bunnybear_34, CarolAnn_41, Cashline_39, CheeseSpider_45, CheeseTouch_55, Clap_40, Clark_40, CookieBear_39, Crater_50, Cynthia_40, DarwinJr_40, DobbysSock_32, Dolores_41, Dorito_35, DumpsterDude_41, EMSquaredA_38, Easley_36, Ebert_42, Ecliptus_50, Eviarto_40, Fairfaxidum_40, Faith5x5_31, Fenry_38, Floral_37, Frickyeah_53, FroggyToad_39, Frokostdame_40, GMA4_30, Gambino_41, GemG_40, Gizermo_40, Globfish_38, Gorpy_40, Haley23_40, Herod_40, Hillester_38, Holliday_50, Hortense_41, Horus_49, Howe_41, Hyzer_46, InLimbo_36, Invectra_42, JCole_38, Jablanski_40, Jalammah_43, Jalleen_39, JellyBread_35, JuJu_42, Kabloowy_38, Kamaru_45, KappaFarmDelta_41, Kenna_51, Lamberg_36, Lawnathon_39, Leroy_51, LitninMcQueen_44, LonelyBoi_41, Lton_35, Lucky10_36, Lutum_52, Lysidious_39, MUWow_37, Madavieve_37, Madeline_36, MakCheese_50, Malachai_39, Malibo_41, Malisha_46, Maridalia_42, Marteena_37, MaterMagnus_39, Matteo_33, Mcklovin_37, Mellie_38, MichaelScott_41, MidnightRain_41, MissRona_39, Mocha12_40, Moosehead_36, Morkie_34, MortyNRick_45, Murp_40, MurphyJoseph_34, Nettuno_36, Nymphadora_40, ODay_53, Ohgeesy_39, OneDirection_31, Oregano_40, PantheRoc_38, Phabuloso_49, Phistory_52, PhorbesPhlower_34, Phrank15_37, PhriskyACE_37, Pollux_39, Posh_43, Powerball_38, PrincePatrick_39, Pytheas_40, RadFad_38, Raphaella_39, Richie_39, Rizz_41, Ruthy_40, Sahara_39, Sakai_39, Samba_39, Samman98_41, Savage_40, Sekhmet_41, ShawBrad_52, Shlim410_39, Sidious_38, Soilmate_43, SonDevVon_38, SpicyFrank_38, Sporco_38, Sprinklemunch_45, Sproutie_40, Squiddly_46, Suerte_35, SushiChef_37, ThankyouJordi_39, Thimann_37, TimTam_40, TuertoX_40, Tuti_34, Twinkle_40, Utz_34, Vasanti_38, WelcomeAyanna_39, Whiteclaw_40, William_41, Windest_38, WinkNick_42, Wisp_35, Wocket_40, Wrigley_44, Yeezy_37, Yinzer_39, YoungHarleezy_39, ZiggyZoo_39, Zodiariah_37,

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

- Altostratus_28, Auxilium_37, BasketStar_39, Bradissa_37, Cassini_29, Confidence_40, EnalisNaïlo_36, Faja_38, Hugley_37, Isolde_38, JakeTheSnake_39, Khuang_29, LeBruni_35, Lilas_39, Mapleville_37, NewKitty_37, Pepperoni_31, Raqqa_31, Shoya_33, Vopla_41,

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

- AbbyDaisy_34, AlumE_42, Antonio_42, Attis_37, Bialota_40, Bluvara_38, BoyNamedSue_42, Che9c_42, Crescenzo_36, Dillpickles_46, DreamEater_34, EdnaMode_36, Eudoria_42, EvePickles_36, GUPitcher_34, JohnLord_46, Kita_43, Kukla_37, LordFarquaad_39, Manasvini_42, Mao1_44, Neobush_42, PCoral7_38, PetriParty_39, Pickett_35, Polly_39, Sashimi_37, Satrap_39, Sbash_41, Seahorse_40, Sejanus_43, SoilAssassin_37, Stuck_45, Suscepit_42, Tayonia_42, ThayneTheZag_38, Tiff81_34, Toast_38, Tortellini_33, TripleJ_38, Trumpet_42, Xavia_35, Yeet412_37, Zameen_42, Zirinka_39,

Summary by start number:

Start 32:

- Found in 2 of 238 (0.8%) of genes in pham
- Manual Annotations of this start: 1 of 211
- Called 50.0% of time when present
- Phage (with cluster) where this start called: Toast_38 (CV),

Start 33:

- Found in 2 of 238 (0.8%) of genes in pham
- Manual Annotations of this start: 1 of 211
- Called 50.0% of time when present
- Phage (with cluster) where this start called: PCoral7_38 (CV),

Start 43:

- Found in 3 of 238 (1.3%) of genes in pham
- Manual Annotations of this start: 1 of 211
- Called 33.3% of time when present
- Phage (with cluster) where this start called: LeBruni_35 (AY),

Start 47:

- Found in 10 of 238 (4.2%) of genes in pham
- Manual Annotations of this start: 6 of 211
- Called 80.0% of time when present
- Phage (with cluster) where this start called: Bluvara_38 (I3), Che9c_42 (I2), JohnLord_46 (AD), Mao1_44 (AD), Sbash_41 (I2), Stuck_45 (I2), Tortellini_33 (P2), Xavia_35 (P3),

Start 48:

- Found in 8 of 238 (3.4%) of genes in pham
- Manual Annotations of this start: 6 of 211
- Called 75.0% of time when present
- Phage (with cluster) where this start called: AbbyDaisy_34 (AY), Crescenzo_36 (AY), EvePickles_36 (AY), Sashimi_37 (AY), Seahorse_40 (AY), ThayneTheZag_38 (AY),

Start 49:

- Found in 193 of 238 (81.1%) of genes in pham
- Manual Annotations of this start: 158 of 211
- Called 89.6% of time when present
- Phage (with cluster) where this start called: AdaS_34 (AY), Adora_38 (CZ4), Agueybana_39 (CZ1), Aikyam_36 (AY), Anekin_36 (AY), Angelique_40 (CY1), Annalisa_37 (CZ4), Apricot_50 (DN3), ArchiDore_40 (DW), Asapag_48 (DN1), Azula_39 (CV), BENtherdunthat_52 (DN1), BatStarr_40 (CZ1), BaxterFox_38 (CZ3), BeeGee_43 (CY5), Beenie_34 (CZ4), Begonia_39 (CV), BenchScraper_38 (AY), Bhageatrice_39 (AY), BillyTP_40 (AY), Birdsong_48 (DN), Bjanes7_37 (CZ2), Blino_42 (CV), Blueberry_38 (CV), Bosnia_42 (CZ1), BotCity_50 (DN), BritBrat_38 (CY2), Budski_50 (DN), Bunnybear_34 (CZ), CarolAnn_41 (CV), Cashline_39 (CY6), CheeseSpider_45 (CV), CheeseTouch_55 (DN1), Clap_40 (CZ2), Clark_40 (CZ4), CookieBear_39 (AY), Crater_50 (DN3), Cynthia_40 (CZ2), DarwinJr_40 (AY), DobbysSock_32 (CZ4), Dolores_41 (CZ4), Dorito_35 (CZ4), DumpsterDude_41 (DW), EMSquaredA_38 (CY1), Easley_36 (CZ4), Ebert_42 (CZ2), Ecliptus_50 (DN), Eviarto_40 (CZ1), Fairfaxidum_40 (CV), Faith5x5_31 (CZ6), Fenry_38 (CV),

Floral_37 (CY1), Frickyeah_53 (DN1), FroggyToad_39 (CZ2), Frokostdame_40 (CV), GMA4_30 (singleton), Gambino_41 (CV), GemG_40 (CZ2), Gizermo_40 (CZ2), Globfish_38 (AY), Gorpy_40 (AY), Haley23_40 (CZ2), Herod_40 (CZ1), Hillester_38 (AY), Holliday_50 (DN1), Hortense_41 (CZ4), Horus_49 (DN1), Howe_41 (CZ4), Hyzer_46 (CZ1), InLimbo_36 (DH), Invectra_42 (CZ4), JCole_38 (CZ2), Jablanski_40 (CY3), Jalammah_43 (CV), Jalleen_39 (CZ2), JellyBread_35 (AY), JuJu_42 (CV), Kabloowy_38 (AY), Kamaru_45 (DN1), KappaFarmDelta_41 (CV), Kenna_51 (DN1), Lamberg_36 (CZ2), Lawnathon_39 (AY), Leroy_51 (DN1), LitninMcQueen_44 (DN1), LonelyBoi_41 (CY7), Lton_35 (CZ), Lucky10_36 (DH), Lutum_52 (DN1), Lysidious_39 (CV), MUWow_37 (AY), Madavieve_37 (CZ1), Madeline_36 (CZ1), MakCheese_50 (DW), Malachai_39 (CV), Malibo_41 (DW), Malisha_46 (DN), Maridalia_42 (CZ1), Marteen_37 (CY1), MaterMagnus_39 (AY), Matteo_33 (CZ2), Mcklovin_37 (CZ4), Mellie_38 (CV), MichaelScott_41 (CZ4), MidnightRain_41 (AY), MissRona_39 (CV), Mocha12_40 (CZ2), Moosehead_36 (CZ6), Morkie_34 (DH), MortyNRick_45 (DN), Murp_40 (CV), MurphyJoseph_34 (AY), Nettuno_36 (CZ2), Nymphadora_40 (CZ1), ODay_53 (DN), Ohgeesy_39 (CZ), OneDirection_31 (CZ6), Oregano_40 (CZ4), PantheRoc_38 (CZ3), Phabuloso_49 (DN1), Phistory_52 (DN1), PhorbesPhlower_34 (DH), Phrank15_37 (AY), PhriskyACE_37 (CZ4), Pollux_39 (CY1), Posh_43 (CY4), Powerball_38 (CZ4), PrincePatrick_39 (CV), Pytheas_40 (CY3), RadFad_38 (AY), Raphaella_39 (AY), Richie_39 (AY), Rizz_41 (CZ4), Ruthy_40 (DW), Sahara_39 (CZ2), Sakai_39 (AY), Samba_39 (CV), Samman98_41 (CZ4), Savage_40 (CZ2), Sekhmet_41 (CZ4), ShawBrad_52 (DN1), Shlim410_39 (CZ4), Sidious_38 (CZ7), Soilmate_43 (CV), SonDevVon_38 (AY), SpicyFrank_38 (AY), Sporco_38 (AY), Sprinklemunch_45 (DW), Sproutie_40 (CZ2), Squiddly_46 (DN2), Suerte_35 (CZ4), SushiChef_37 (CZ), ThankyouJordi_39 (CZ1), Thimann_37 (CZ4), TimTam_40 (CZ1), TuertoX_40 (CZ2), Tuti_34 (CZ4), Twinkle_40 (CZ4), Utz_34 (CV), Vasanti_38 (CZ2), WelcomeAyanna_39 (CZ1), Whiteclaw_40 (CZ2), William_41 (CV), Windest_38 (AY), WinkNick_42 (CZ4), Wisp_35 (CV), Wocket_40 (CV), Wrigley_44 (CY4), Yeezy_37 (CZ3), Yinzer_39 (CZ2), YoungHarleezy_39 (AY), ZiggyZoo_39 (CV), Zodiariah_37 (DW),

Start 50:

- Found in 24 of 238 (10.1%) of genes in pham
- Manual Annotations of this start: 23 of 211
- Called 100.0% of time when present
- Phage (with cluster) where this start called: AlumE_42 (CZ1), Antonio_42 (CZ1), Attis_37 (CZ2), Bialota_40 (CZ1), BoyNamedSue_42 (CZ1), Bradissa_37 (CY1), Dillpickles_46 (CZ1), EdnaMode_36 (CZ2), EnalisNailo_36 (CY1), Eudoria_42 (CZ1), Kita_43 (CZ1), Lilas_39 (CY1), LordFarquaad_39 (CZ2), Manasvini_42 (CZ1), Neobush_42 (CZ1), Pickett_35 (CZ2), Polly_39 (CZ1), SoilAssassin_37 (CZ2), Suscepit_42 (CZ1), Tayonia_42 (CZ1), Trumpet_42 (CZ1), Yeet412_37 (CZ2), Zameen_42 (CZ1), Zirinka_39 (CZ1),

Start 51:

- Found in 5 of 238 (2.1%) of genes in pham
- Manual Annotations of this start: 4 of 211
- Called 100.0% of time when present
- Phage (with cluster) where this start called: DreamEater_34 (FJ), GUPitcher_34 (FJ), Kukla_37 (FJ), PetriParty_39 (FJ), TripleJ_38 (FJ),

Start 52:

- Found in 1 of 238 (0.4%) of genes in pham
- Manual Annotations of this start: 1 of 211

- Called 100.0% of time when present
- Phage (with cluster) where this start called: Sejanus_43 (AD),

Start 54:

- Found in 207 of 238 (87.0%) of genes in pham
- Manual Annotations of this start: 10 of 211
- Called 8.7% of time when present
- Phage (with cluster) where this start called: Altostratus_28 (FS), Auxilium_37 (AY), BasketStar_39 (AY), Cassini_29 (FN), Confidence_40 (CY1), Faja_38 (AY), Hugley_37 (CZ1), Isolde_38 (AY), JakeTheSnake_39 (AY), Khuang_29 (FS), Mapleville_37 (AY), NewKitty_37 (AY), Pepperoni_31 (CZ), Raqqa_31 (AY), Satrap_39 (AY), Shoya_33 (FB), Tiff81_34 (AY), Vopal_41 (AY),

Summary by clusters:

There are 32 clusters represented in this pham: DN, P2, singleton, FS, DH, P3, CZ2, CZ3, CZ1, CZ6, CZ7, CZ4, FB, DW, FJ, FN, CY6, I3, I2, DN1, DN3, DN2, CY3, CY2, CY1, CY7, AD, CY5, CY4, CZ, AY, CV,

Info for manual annotations of cluster AD:

- Start number 47 was manually annotated 1 time for cluster AD.
- Start number 52 was manually annotated 1 time for cluster AD.

Info for manual annotations of cluster AY:

- Start number 43 was manually annotated 1 time for cluster AY.
- Start number 48 was manually annotated 6 times for cluster AY.
- Start number 49 was manually annotated 26 times for cluster AY.
- Start number 54 was manually annotated 5 times for cluster AY.

Info for manual annotations of cluster CV:

- Start number 32 was manually annotated 1 time for cluster CV.
- Start number 33 was manually annotated 1 time for cluster CV.
- Start number 49 was manually annotated 24 times for cluster CV.

Info for manual annotations of cluster CY1:

- Start number 49 was manually annotated 5 times for cluster CY1.
- Start number 50 was manually annotated 3 times for cluster CY1.
- Start number 54 was manually annotated 1 time for cluster CY1.

Info for manual annotations of cluster CY2:

- Start number 49 was manually annotated 1 time for cluster CY2.

Info for manual annotations of cluster CY3:

- Start number 49 was manually annotated 2 times for cluster CY3.

Info for manual annotations of cluster CY4:

- Start number 49 was manually annotated 2 times for cluster CY4.

Info for manual annotations of cluster CY5:

- Start number 49 was manually annotated 1 time for cluster CY5.

Info for manual annotations of cluster CY6:

- Start number 49 was manually annotated 1 time for cluster CY6.

Info for manual annotations of cluster CY7:

- Start number 49 was manually annotated 1 time for cluster CY7.

Info for manual annotations of cluster CZ:

- Start number 49 was manually annotated 3 times for cluster CZ.
- Start number 54 was manually annotated 1 time for cluster CZ.

Info for manual annotations of cluster CZ1:

- Start number 49 was manually annotated 12 times for cluster CZ1.
- Start number 50 was manually annotated 14 times for cluster CZ1.

Info for manual annotations of cluster CZ2:

- Start number 49 was manually annotated 18 times for cluster CZ2.
- Start number 50 was manually annotated 6 times for cluster CZ2.

Info for manual annotations of cluster CZ3:

- Start number 49 was manually annotated 3 times for cluster CZ3.

Info for manual annotations of cluster CZ4:

- Start number 49 was manually annotated 24 times for cluster CZ4.

Info for manual annotations of cluster CZ6:

- Start number 49 was manually annotated 3 times for cluster CZ6.

Info for manual annotations of cluster CZ7:

- Start number 49 was manually annotated 1 time for cluster CZ7.

Info for manual annotations of cluster DH:

- Start number 49 was manually annotated 3 times for cluster DH.

Info for manual annotations of cluster DN:

- Start number 49 was manually annotated 7 times for cluster DN.

Info for manual annotations of cluster DN1:

- Start number 49 was manually annotated 13 times for cluster DN1.

Info for manual annotations of cluster DN2:

- Start number 49 was manually annotated 1 time for cluster DN2.

Info for manual annotations of cluster DN3:

- Start number 49 was manually annotated 2 times for cluster DN3.

Info for manual annotations of cluster DW:

- Start number 49 was manually annotated 5 times for cluster DW.

Info for manual annotations of cluster FB:

- Start number 54 was manually annotated 1 time for cluster FB.

Info for manual annotations of cluster FJ:

- Start number 51 was manually annotated 4 times for cluster FJ.

Info for manual annotations of cluster FS:

- Start number 54 was manually annotated 2 times for cluster FS.

Info for manual annotations of cluster I2:

- Start number 47 was manually annotated 3 times for cluster I2.

Info for manual annotations of cluster P2:

- Start number 47 was manually annotated 1 time for cluster P2.

Info for manual annotations of cluster P3:

- Start number 47 was manually annotated 1 time for cluster P3.

Gene Information:

Gene: AbbyDaisy_34 Start: 26031, Stop: 25792, Start Num: 48

Candidate Starts for AbbyDaisy_34:

(44, 26046), (Start: 48 @26031 has 6 MA's), (Start: 54 @26007 has 10 MA's), (56, 25992), (79, 25800),

Gene: AdaS_34 Start: 24505, Stop: 24269, Start Num: 49

Candidate Starts for AdaS_34:

(14, 24634), (Start: 49 @24505 has 158 MA's), (Start: 54 @24481 has 10 MA's), (66, 24376),

Gene: Adora_38 Start: 32529, Stop: 32299, Start Num: 49

Candidate Starts for Adora_38:

(42, 32556), (45, 32544), (Start: 49 @32529 has 158 MA's), (Start: 54 @32508 has 10 MA's), (61, 32454), (65, 32409), (73, 32358), (75, 32340),

Gene: Agueybana_39 Start: 31672, Stop: 31460, Start Num: 49

Candidate Starts for Agueybana_39:

(18, 31804), (27, 31768), (Start: 49 @31672 has 158 MA's), (Start: 54 @31651 has 10 MA's), (61, 31597), (67, 31543), (73, 31501), (75, 31483),

Gene: Aikyam_36 Start: 24436, Stop: 24200, Start Num: 49

Candidate Starts for Aikyam_36:

(25, 24505), (Start: 49 @24436 has 158 MA's), (Start: 54 @24412 has 10 MA's),

Gene: Altostratus_28 Start: 22209, Stop: 21991, Start Num: 54

Candidate Starts for Altostratus_28:

(Start: 49 @22233 has 158 MA's), (Start: 54 @22209 has 10 MA's), (65, 22110), (66, 22104), (73, 22059),

Gene: AlumE_42 Start: 33458, Stop: 33237, Start Num: 50

Candidate Starts for AlumE_42:

(38, 33512), (Start: 50 @33458 has 23 MA's), (63, 33350), (67, 33320),

Gene: Anekin_36 Start: 25783, Stop: 25547, Start Num: 49

Candidate Starts for Anekin_36:

(37, 25840), (Start: 49 @25783 has 158 MA's), (Start: 54 @25759 has 10 MA's), (66, 25654),

Gene: Angelique_40 Start: 32245, Stop: 32033, Start Num: 49

Candidate Starts for Angelique_40:

(18, 32377), (27, 32341), (Start: 49 @32245 has 158 MA's), (Start: 54 @32224 has 10 MA's), (65, 32125), (67, 32116), (73, 32074),

Gene: Annalisa_37 Start: 29886, Stop: 29656, Start Num: 49

Candidate Starts for Annalisa_37:

(42, 29913), (45, 29901), (Start: 49 @29886 has 158 MA's), (Start: 54 @29865 has 10 MA's), (61, 29811), (65, 29766), (69, 29736), (73, 29715),

Gene: Antonio_42 Start: 32731, Stop: 32510, Start Num: 50

Candidate Starts for Antonio_42:

(1, 33337), (2, 33286), (9, 33094), (12, 33025), (38, 32785), (Start: 50 @32731 has 23 MA's), (Start: 54 @32701 has 10 MA's), (61, 32647), (63, 32623), (67, 32593), (73, 32551), (75, 32533),

Gene: Apricot_50 Start: 33448, Stop: 33221, Start Num: 49

Candidate Starts for Apricot_50:

(Start: 49 @33448 has 158 MA's), (Start: 54 @33427 has 10 MA's), (60, 33376), (61, 33373), (65, 33328), (69, 33298), (71, 33283), (72, 33280), (73, 33277), (75, 33259),

Gene: ArchiDore_40 Start: 34485, Stop: 34258, Start Num: 49

Candidate Starts for ArchiDore_40:

(15, 34641), (16, 34638), (29, 34578), (Start: 49 @34485 has 158 MA's), (62, 34392), (65, 34365), (73, 34314),

Gene: Asapag_48 Start: 33812, Stop: 33603, Start Num: 49

Candidate Starts for Asapag_48:

(Start: 49 @33812 has 158 MA's), (Start: 54 @33791 has 10 MA's), (60, 33740), (61, 33737), (65, 33692), (69, 33662), (72, 33644), (73, 33641), (75, 33623),

Gene: Attis_37 Start: 29864, Stop: 29643, Start Num: 50

Candidate Starts for Attis_37:

(1, 30470), (2, 30419), (9, 30227), (12, 30158), (38, 29918), (Start: 50 @29864 has 23 MA's), (Start: 54 @29834 has 10 MA's), (61, 29780), (63, 29756), (67, 29726), (73, 29684), (75, 29666),

Gene: Auxilium_37 Start: 24114, Stop: 23902, Start Num: 54

Candidate Starts for Auxilium_37:

(25, 24207), (Start: 49 @24138 has 158 MA's), (Start: 54 @24114 has 10 MA's),

Gene: Azula_39 Start: 31977, Stop: 31768, Start Num: 49

Candidate Starts for Azula_39:

(Start: 49 @31977 has 158 MA's), (Start: 54 @31956 has 10 MA's), (73, 31806), (74, 31797),

Gene: BENtherdunthat_52 Start: 33823, Stop: 33614, Start Num: 49

Candidate Starts for BENtherdunthat_52:

(Start: 49 @33823 has 158 MA's), (Start: 54 @33802 has 10 MA's), (58, 33760), (61, 33748), (68, 33691), (69, 33673), (72, 33655), (73, 33652), (75, 33634),

Gene: BasketStar_39 Start: 26475, Stop: 26263, Start Num: 54

Candidate Starts for BasketStar_39:

(Start: 49 @26499 has 158 MA's), (Start: 54 @26475 has 10 MA's), (66, 26370), (73, 26325),

Gene: BatStarr_40 Start: 33303, Stop: 33091, Start Num: 49

Candidate Starts for BatStarr_40:

(18, 33435), (27, 33399), (Start: 49 @33303 has 158 MA's), (Start: 54 @33282 has 10 MA's), (61, 33228), (67, 33174), (73, 33132),

Gene: BaxterFox_38 Start: 31620, Stop: 31393, Start Num: 49

Candidate Starts for BaxterFox_38:

(Start: 49 @31620 has 158 MA's), (Start: 54 @31599 has 10 MA's), (62, 31527), (65, 31500), (73, 31449),

Gene: BeeGee_43 Start: 33143, Stop: 32913, Start Num: 49

Candidate Starts for BeeGee_43:

(18, 33275), (Start: 49 @33143 has 158 MA's), (Start: 54 @33122 has 10 MA's),

Gene: Beenie_34 Start: 30514, Stop: 30284, Start Num: 49

Candidate Starts for Beenie_34:

(42, 30541), (45, 30529), (Start: 49 @30514 has 158 MA's), (Start: 54 @30493 has 10 MA's), (61, 30439), (73, 30343), (75, 30325),

Gene: Begonia_39 Start: 33474, Stop: 33265, Start Num: 49

Candidate Starts for Begonia_39:

(27, 33570), (Start: 49 @33474 has 158 MA's), (Start: 54 @33453 has 10 MA's), (67, 33345), (73, 33303),

Gene: BenchScraper_38 Start: 26096, Stop: 25860, Start Num: 49

Candidate Starts for BenchScraper_38:

(25, 26165), (Start: 49 @26096 has 158 MA's), (Start: 54 @26072 has 10 MA's),

Gene: Bhageatrice_39 Start: 27925, Stop: 27689, Start Num: 49

Candidate Starts for Bhageatrice_39:

(25, 28039), (37, 27982), (41, 27967), (Start: 49 @27925 has 158 MA's), (Start: 54 @27901 has 10 MA's), (66, 27796),

Gene: Bialota_40 Start: 33483, Stop: 33262, Start Num: 50

Candidate Starts for Bialota_40:

(1, 34089), (2, 34038), (9, 33846), (12, 33777), (38, 33537), (Start: 50 @33483 has 23 MA's), (Start: 54 @33453 has 10 MA's), (61, 33399), (63, 33375), (67, 33345), (73, 33303), (75, 33285),

Gene: BillyTP_40 Start: 27334, Stop: 27098, Start Num: 49

Candidate Starts for BillyTP_40:

(21, 27457), (26, 27430), (Start: 49 @27334 has 158 MA's), (Start: 54 @27310 has 10 MA's),

Gene: Birdsong_48 Start: 34033, Stop: 33824, Start Num: 49

Candidate Starts for Birdsong_48:

(Start: 49 @34033 has 158 MA's), (Start: 54 @34012 has 10 MA's), (60, 33961), (61, 33958), (65, 33913), (69, 33883), (73, 33862), (75, 33844),

Gene: Bjaner7_37 Start: 29854, Stop: 29642, Start Num: 49

Candidate Starts for Bjaner7_37:

(18, 29986), (27, 29950), (Start: 49 @29854 has 158 MA's), (Start: 54 @29833 has 10 MA's), (61, 29779), (67, 29725), (73, 29683), (75, 29665),

Gene: Blino_42 Start: 34979, Stop: 34770, Start Num: 49

Candidate Starts for Blino_42:

(Start: 49 @34979 has 158 MA's), (73, 34808),

Gene: Blueberry_38 Start: 31977, Stop: 31768, Start Num: 49

Candidate Starts for Blueberry_38:

(Start: 49 @31977 has 158 MA's), (Start: 54 @31956 has 10 MA's), (73, 31806), (74, 31797),

Gene: Bluvara_38 Start: 32098, Stop: 31871, Start Num: 47

Candidate Starts for Bluvara_38:

(20, 32227), (28, 32191), (45, 32104), (Start: 47 @32098 has 6 MA's), (64, 31987), (69, 31939), (73, 31918),

Gene: Bosnia_42 Start: 35233, Stop: 35021, Start Num: 49

Candidate Starts for Bosnia_42:

(18, 35365), (27, 35329), (Start: 49 @35233 has 158 MA's), (Start: 54 @35212 has 10 MA's), (61, 35158), (65, 35113), (73, 35062),

Gene: BotCity_50 Start: 33836, Stop: 33609, Start Num: 49

Candidate Starts for BotCity_50:

(Start: 49 @33836 has 158 MA's), (Start: 54 @33815 has 10 MA's), (60, 33764), (61, 33761), (65, 33716), (69, 33686), (71, 33671), (72, 33668), (73, 33665), (75, 33647),

Gene: BoyNamedSue_42 Start: 33458, Stop: 33237, Start Num: 50

Candidate Starts for BoyNamedSue_42:

(38, 33512), (Start: 50 @33458 has 23 MA's), (63, 33350), (67, 33320),

Gene: Bradissa_37 Start: 32769, Stop: 32548, Start Num: 50

Candidate Starts for Bradissa_37:

(1, 33375), (2, 33324), (9, 33132), (12, 33063), (38, 32823), (Start: 49 @32772 has 158 MA's), (Start: 50 @32769 has 23 MA's), (Start: 54 @32739 has 10 MA's), (61, 32685), (65, 32640), (67, 32631), (73, 32589),

Gene: BritBrat_38 Start: 33111, Stop: 32899, Start Num: 49

Candidate Starts for BritBrat_38:

(Start: 49 @33111 has 158 MA's), (Start: 54 @33090 has 10 MA's), (60, 33039), (69, 32961), (72, 32943), (74, 32931),

Gene: Budski_50 Start: 34714, Stop: 34505, Start Num: 49

Candidate Starts for Budski_50:

(Start: 49 @34714 has 158 MA's), (Start: 54 @34693 has 10 MA's), (61, 34639), (69, 34564), (72, 34546), (73, 34543), (75, 34525),

Gene: Bunnybear_34 Start: 30987, Stop: 30775, Start Num: 49

Candidate Starts for Bunnybear_34:

(Start: 49 @30987 has 158 MA's), (53, 30972), (Start: 54 @30966 has 10 MA's), (61, 30912), (65, 30867), (73, 30816),

Gene: CarolAnn_41 Start: 34978, Stop: 34769, Start Num: 49

Candidate Starts for CarolAnn_41:

(Start: 49 @34978 has 158 MA's), (73, 34807),

Gene: Cashline_39 Start: 33424, Stop: 33194, Start Num: 49

Candidate Starts for Cashline_39:

(Start: 49 @33424 has 158 MA's), (53, 33409), (Start: 54 @33403 has 10 MA's), (61, 33349), (65, 33304), (73, 33253),

Gene: Cassini_29 Start: 23499, Stop: 23287, Start Num: 54

Candidate Starts for Cassini_29:

(Start: 49 @23523 has 158 MA's), (Start: 54 @23499 has 10 MA's), (65, 23400), (66, 23394),

Gene: Che9c_42 Start: 33770, Stop: 33543, Start Num: 47

Candidate Starts for Che9c_42:

(Start: 47 @33770 has 6 MA's), (Start: 54 @33740 has 10 MA's), (64, 33659), (68, 33629), (69, 33611), (73, 33590),

Gene: CheeseSpider_45 Start: 31765, Stop: 31556, Start Num: 49

Candidate Starts for CheeseSpider_45:

(Start: 49 @31765 has 158 MA's), (Start: 54 @31744 has 10 MA's), (71, 31600), (73, 31594), (74, 31585),

Gene: CheeseTouch_55 Start: 32186, Stop: 31950, Start Num: 49

Candidate Starts for CheeseTouch_55:

(45, 32198), (Start: 49 @32186 has 158 MA's), (Start: 54 @32165 has 10 MA's), (55, 32162), (63, 32087), (65, 32066), (72, 32018), (73, 32015),

Gene: Clap_40 Start: 30033, Stop: 29821, Start Num: 49

Candidate Starts for Clap_40:

(18, 30165), (27, 30129), (Start: 49 @30033 has 158 MA's), (Start: 54 @30012 has 10 MA's), (61, 29958), (67, 29904), (73, 29862), (75, 29844),

Gene: Clark_40 Start: 30331, Stop: 30101, Start Num: 49

Candidate Starts for Clark_40:

(42, 30358), (45, 30346), (Start: 49 @30331 has 158 MA's), (Start: 54 @30310 has 10 MA's), (61, 30256), (73, 30160), (75, 30142),

Gene: Confidence_40 Start: 31228, Stop: 31037, Start Num: 54

Candidate Starts for Confidence_40:

(27, 31348), (Start: 49 @31249 has 158 MA's), (Start: 54 @31228 has 10 MA's), (71, 31084),

Gene: CookieBear_39 Start: 26598, Stop: 26362, Start Num: 49

Candidate Starts for CookieBear_39:

(25, 26667), (Start: 49 @26598 has 158 MA's), (Start: 54 @26574 has 10 MA's), (66, 26469),

Gene: Crater_50 Start: 33843, Stop: 33616, Start Num: 49

Candidate Starts for Crater_50:

(Start: 49 @33843 has 158 MA's), (Start: 54 @33822 has 10 MA's), (61, 33768), (65, 33723), (69, 33693), (71, 33678), (72, 33675), (73, 33672), (75, 33654),

Gene: Crescenzo_36 Start: 26520, Stop: 26278, Start Num: 48

Candidate Starts for Crescenzo_36:

(Start: 48 @26520 has 6 MA's), (Start: 54 @26496 has 10 MA's), (56, 26481),

Gene: Cynthia_40 Start: 30033, Stop: 29821, Start Num: 49

Candidate Starts for Cynthia_40:

(18, 30165), (27, 30129), (Start: 49 @30033 has 158 MA's), (Start: 54 @30012 has 10 MA's), (61, 29958), (67, 29904), (73, 29862), (75, 29844),

Gene: DarwinJr_40 Start: 27495, Stop: 27259, Start Num: 49

Candidate Starts for DarwinJr_40:

(25, 27609), (37, 27552), (41, 27537), (Start: 49 @27495 has 158 MA's), (Start: 54 @27471 has 10 MA's), (66, 27366),

Gene: Dillpickles_46 Start: 32775, Stop: 32554, Start Num: 50

Candidate Starts for Dillpickles_46:

(1, 33381), (2, 33330), (9, 33138), (12, 33069), (38, 32829), (Start: 50 @32775 has 23 MA's), (Start: 54 @32745 has 10 MA's), (61, 32691), (63, 32667), (67, 32637), (73, 32595), (75, 32577),

Gene: DobbysSock_32 Start: 28836, Stop: 28606, Start Num: 49

Candidate Starts for DobbysSock_32:

(27, 28932), (Start: 49 @28836 has 158 MA's), (Start: 54 @28815 has 10 MA's), (69, 28686), (73, 28665),

Gene: Dolores_41 Start: 31203, Stop: 30973, Start Num: 49

Candidate Starts for Dolores_41:

(42, 31230), (45, 31218), (Start: 49 @31203 has 158 MA's), (Start: 54 @31182 has 10 MA's), (61, 31128), (73, 31032), (75, 31014),

Gene: Dorito_35 Start: 28480, Stop: 28250, Start Num: 49

Candidate Starts for Dorito_35:

(27, 28576), (Start: 49 @28480 has 158 MA's), (Start: 54 @28459 has 10 MA's), (69, 28330), (73, 28309),

Gene: DreamEater_34 Start: 28772, Stop: 28536, Start Num: 51

Candidate Starts for DreamEater_34:

(Start: 51 @28772 has 4 MA's), (64, 28670), (73, 28601), (76, 28577),

Gene: DumpsterDude_41 Start: 35398, Stop: 35177, Start Num: 49

Candidate Starts for DumpsterDude_41:

(18, 35530), (27, 35494), (Start: 49 @35398 has 158 MA's), (62, 35305), (65, 35278), (73, 35227),

Gene: EMSquaredA_38 Start: 31344, Stop: 31114, Start Num: 49

Candidate Starts for EMSquaredA_38:

(13, 31620), (27, 31440), (Start: 49 @31344 has 158 MA's), (Start: 54 @31323 has 10 MA's), (61, 31269),

Gene: Easley_36 Start: 28611, Stop: 28384, Start Num: 49

Candidate Starts for Easley_36:

(27, 28707), (Start: 49 @28611 has 158 MA's), (Start: 54 @28590 has 10 MA's), (62, 28518), (65, 28491), (67, 28482), (73, 28440),

Gene: Ebert_42 Start: 29957, Stop: 29745, Start Num: 49

Candidate Starts for Ebert_42:

(18, 30089), (27, 30053), (Start: 49 @29957 has 158 MA's), (Start: 54 @29936 has 10 MA's), (61, 29882), (67, 29828), (73, 29786), (75, 29768),

Gene: Ecliptus_50 Start: 34943, Stop: 34734, Start Num: 49

Candidate Starts for Ecliptus_50:

(Start: 49 @34943 has 158 MA's), (Start: 54 @34922 has 10 MA's), (69, 34793), (73, 34772), (75, 34754),

Gene: EdnaMode_36 Start: 28552, Stop: 28331, Start Num: 50

Candidate Starts for EdnaMode_36:

(1, 29158), (2, 29107), (9, 28915), (12, 28846), (38, 28606), (Start: 50 @28552 has 23 MA's), (Start: 54 @28522 has 10 MA's), (61, 28468), (63, 28444), (67, 28414), (73, 28372), (75, 28354),

Gene: EnalisNailo_36 Start: 32303, Stop: 32082, Start Num: 50

Candidate Starts for EnalisNailo_36:

(1, 32909), (2, 32858), (9, 32666), (12, 32597), (38, 32357), (Start: 49 @32306 has 158 MA's), (Start: 50 @32303 has 23 MA's), (Start: 54 @32273 has 10 MA's), (61, 32219), (65, 32174), (67, 32165), (73, 32123),

Gene: Eudoria_42 Start: 32731, Stop: 32510, Start Num: 50

Candidate Starts for Eudoria_42:

(1, 33337), (2, 33286), (9, 33094), (12, 33025), (38, 32785), (Start: 50 @32731 has 23 MA's), (Start: 54 @32701 has 10 MA's), (61, 32647), (63, 32623), (67, 32593), (73, 32551), (75, 32533),

Gene: EvePickles_36 Start: 27264, Stop: 27016, Start Num: 48

Candidate Starts for EvePickles_36:

(Start: 48 @27264 has 6 MA's), (Start: 54 @27240 has 10 MA's), (62, 27168), (73, 27090),

Gene: Eviarto_40 Start: 33279, Stop: 33067, Start Num: 49

Candidate Starts for Eviarto_40:

(18, 33411), (27, 33375), (Start: 49 @33279 has 158 MA's), (Start: 54 @33258 has 10 MA's), (61, 33204), (67, 33150), (73, 33108),

Gene: Fairfaxidum_40 Start: 32373, Stop: 32164, Start Num: 49

Candidate Starts for Fairfaxidum_40:

(18, 32505), (27, 32469), (Start: 49 @32373 has 158 MA's), (Start: 54 @32352 has 10 MA's), (73, 32202),

Gene: Faith5x5_31 Start: 26354, Stop: 26142, Start Num: 49

Candidate Starts for Faith5x5_31:

(Start: 49 @26354 has 158 MA's), (53, 26339), (Start: 54 @26333 has 10 MA's), (61, 26279), (73, 26183), (74, 26174),

Gene: Faja_38 Start: 27848, Stop: 27636, Start Num: 54

Candidate Starts for Faja_38:

(25, 27941), (Start: 49 @27872 has 158 MA's), (Start: 54 @27848 has 10 MA's),

Gene: Fenry_38 Start: 32364, Stop: 32155, Start Num: 49

Candidate Starts for Fenry_38:

(Start: 49 @32364 has 158 MA's), (Start: 54 @32343 has 10 MA's), (62, 32271), (73, 32193), (74, 32184),

Gene: Floral_37 Start: 33417, Stop: 33187, Start Num: 49

Candidate Starts for Floral_37:

(18, 33549), (27, 33513), (Start: 49 @33417 has 158 MA's), (Start: 54 @33396 has 10 MA's), (61, 33342), (63, 33318),

Gene: Frickyeh_53 Start: 33287, Stop: 33078, Start Num: 49

Candidate Starts for Frickyeh_53:

(Start: 49 @33287 has 158 MA's), (Start: 54 @33266 has 10 MA's), (60, 33215), (61, 33212), (65, 33167), (69, 33137), (72, 33119), (73, 33116), (75, 33098),

Gene: FroggyToad_39 Start: 30322, Stop: 30095, Start Num: 49
Candidate Starts for FroggyToad_39:
(Start: 49 @30322 has 158 MA's), (Start: 54 @30301 has 10 MA's), (62, 30229), (65, 30202), (73, 30151),

Gene: Frokostdame_40 Start: 32300, Stop: 32091, Start Num: 49
Candidate Starts for Frokostdame_40:
(Start: 49 @32300 has 158 MA's), (Start: 54 @32279 has 10 MA's), (67, 32171), (73, 32129), (74, 32120),

Gene: GMA4_30 Start: 26648, Stop: 26442, Start Num: 49
Candidate Starts for GMA4_30:
(18, 26789), (19, 26786), (28, 26747), (Start: 47 @26657 has 6 MA's), (Start: 49 @26648 has 158 MA's),

Gene: GUPitcher_34 Start: 29003, Stop: 28767, Start Num: 51
Candidate Starts for GUPitcher_34:
(Start: 51 @29003 has 4 MA's), (64, 28901), (73, 28832), (76, 28808), (78, 28775),

Gene: Gambino_41 Start: 31977, Stop: 31768, Start Num: 49
Candidate Starts for Gambino_41:
(Start: 49 @31977 has 158 MA's), (Start: 54 @31956 has 10 MA's), (73, 31806), (74, 31797),

Gene: GemG_40 Start: 30033, Stop: 29821, Start Num: 49
Candidate Starts for GemG_40:
(18, 30165), (27, 30129), (Start: 49 @30033 has 158 MA's), (Start: 54 @30012 has 10 MA's), (61, 29958), (67, 29904), (73, 29862), (75, 29844),

Gene: Gizermo_40 Start: 30033, Stop: 29821, Start Num: 49
Candidate Starts for Gizermo_40:
(18, 30165), (27, 30129), (Start: 49 @30033 has 158 MA's), (Start: 54 @30012 has 10 MA's), (61, 29958), (67, 29904), (73, 29862), (75, 29844),

Gene: Globfish_38 Start: 26321, Stop: 26085, Start Num: 49
Candidate Starts for Globfish_38:
(14, 26456), (15, 26447), (23, 26408), (25, 26396), (Start: 43 @26342 has 1 MA's), (Start: 49 @26321 has 158 MA's), (Start: 54 @26297 has 10 MA's), (66, 26192),

Gene: Gorpy_40 Start: 27830, Stop: 27594, Start Num: 49
Candidate Starts for Gorpy_40:
(25, 27899), (Start: 49 @27830 has 158 MA's), (Start: 54 @27806 has 10 MA's),

Gene: Haley23_40 Start: 30033, Stop: 29821, Start Num: 49
Candidate Starts for Haley23_40:
(18, 30165), (27, 30129), (Start: 49 @30033 has 158 MA's), (Start: 54 @30012 has 10 MA's), (61, 29958), (67, 29904), (73, 29862), (75, 29844),

Gene: Herod_40 Start: 33303, Stop: 33091, Start Num: 49
Candidate Starts for Herod_40:
(18, 33435), (27, 33399), (Start: 49 @33303 has 158 MA's), (Start: 54 @33282 has 10 MA's), (61, 33228), (67, 33174), (73, 33132),

Gene: Hillester_38 Start: 26084, Stop: 25848, Start Num: 49

Candidate Starts for Hillester_38:

(Start: 49 @26084 has 158 MA's), (Start: 54 @26060 has 10 MA's), (66, 25955),

Gene: Holliday_50 Start: 34054, Stop: 33845, Start Num: 49

Candidate Starts for Holliday_50:

(20, 34189), (28, 34153), (Start: 49 @34054 has 158 MA's), (Start: 54 @34033 has 10 MA's), (61, 33979), (69, 33904), (72, 33886), (73, 33883), (75, 33865),

Gene: Hortense_41 Start: 33884, Stop: 33654, Start Num: 49

Candidate Starts for Hortense_41:

(42, 33911), (45, 33899), (Start: 49 @33884 has 158 MA's), (Start: 54 @33863 has 10 MA's), (61, 33809), (65, 33764), (73, 33713), (75, 33695),

Gene: Horus_49 Start: 34441, Stop: 34214, Start Num: 49

Candidate Starts for Horus_49:

(Start: 49 @34441 has 158 MA's), (Start: 54 @34420 has 10 MA's), (61, 34366), (65, 34321), (69, 34291), (71, 34276), (72, 34273), (73, 34270), (75, 34252),

Gene: Howe_41 Start: 33884, Stop: 33654, Start Num: 49

Candidate Starts for Howe_41:

(42, 33911), (45, 33899), (Start: 49 @33884 has 158 MA's), (Start: 54 @33863 has 10 MA's), (61, 33809), (65, 33764), (73, 33713), (75, 33695),

Gene: Hugley_37 Start: 33281, Stop: 33090, Start Num: 54

Candidate Starts for Hugley_37:

(18, 33434), (27, 33398), (Start: 49 @33302 has 158 MA's), (Start: 54 @33281 has 10 MA's), (61, 33227), (67, 33173), (73, 33131),

Gene: Hyzer_46 Start: 35588, Stop: 35376, Start Num: 49

Candidate Starts for Hyzer_46:

(Start: 49 @35588 has 158 MA's), (Start: 54 @35567 has 10 MA's), (67, 35459), (73, 35417),

Gene: InLimbo_36 Start: 27911, Stop: 27699, Start Num: 49

Candidate Starts for InLimbo_36:

(38, 27962), (45, 27923), (Start: 49 @27911 has 158 MA's), (Start: 54 @27890 has 10 MA's), (61, 27836), (65, 27791), (67, 27782), (73, 27740),

Gene: Invecetra_42 Start: 31905, Stop: 31675, Start Num: 49

Candidate Starts for Invecetra_42:

(42, 31932), (45, 31920), (Start: 49 @31905 has 158 MA's), (Start: 54 @31884 has 10 MA's), (61, 31830), (73, 31734), (75, 31716),

Gene: Isolde_38 Start: 25826, Stop: 25614, Start Num: 54

Candidate Starts for Isolde_38:

(Start: 49 @25850 has 158 MA's), (Start: 54 @25826 has 10 MA's), (66, 25721), (79, 25622),

Gene: JCole_38 Start: 29301, Stop: 29074, Start Num: 49

Candidate Starts for JCole_38:

(18, 29433), (27, 29397), (Start: 49 @29301 has 158 MA's), (Start: 54 @29280 has 10 MA's), (62, 29208), (65, 29181), (73, 29130),

Gene: Jablanski_40 Start: 32602, Stop: 32390, Start Num: 49

Candidate Starts for Jablanski_40:

(3, 33070), (7, 33007), (13, 32878), (18, 32734), (27, 32698), (Start: 49 @32602 has 158 MA's), (Start: 54 @32581 has 10 MA's), (65, 32482), (67, 32473), (73, 32431),

Gene: JakeTheSnake_39 Start: 26721, Stop: 26509, Start Num: 54

Candidate Starts for JakeTheSnake_39:

(Start: 49 @26745 has 158 MA's), (Start: 54 @26721 has 10 MA's), (66, 26616),

Gene: Jalammah_43 Start: 33677, Stop: 33468, Start Num: 49

Candidate Starts for Jalammah_43:

(Start: 49 @33677 has 158 MA's), (Start: 54 @33656 has 10 MA's), (62, 33584), (73, 33506), (74, 33497),

Gene: Jalleen_39 Start: 29672, Stop: 29460, Start Num: 49

Candidate Starts for Jalleen_39:

(18, 29804), (27, 29768), (Start: 49 @29672 has 158 MA's), (Start: 54 @29651 has 10 MA's), (61, 29597), (67, 29543), (73, 29501), (75, 29483),

Gene: JellyBread_35 Start: 25035, Stop: 24799, Start Num: 49

Candidate Starts for JellyBread_35:

(Start: 49 @25035 has 158 MA's), (Start: 54 @25011 has 10 MA's), (66, 24906),

Gene: JohnLord_46 Start: 41302, Stop: 41075, Start Num: 47

Candidate Starts for JohnLord_46:

(45, 41308), (Start: 47 @41302 has 6 MA's), (Start: 54 @41272 has 10 MA's), (64, 41191), (68, 41161), (69, 41143), (73, 41122),

Gene: JuJu_42 Start: 32805, Stop: 32596, Start Num: 49

Candidate Starts for JuJu_42:

(Start: 49 @32805 has 158 MA's), (Start: 54 @32784 has 10 MA's), (71, 32640), (73, 32634), (74, 32625),

Gene: Kabloowy_38 Start: 26778, Stop: 26542, Start Num: 49

Candidate Starts for Kabloowy_38:

(25, 26847), (Start: 49 @26778 has 158 MA's), (Start: 54 @26754 has 10 MA's),

Gene: Kamaru_45 Start: 32833, Stop: 32606, Start Num: 49

Candidate Starts for Kamaru_45:

(Start: 49 @32833 has 158 MA's), (Start: 54 @32812 has 10 MA's), (60, 32761), (61, 32758), (65, 32713), (69, 32683), (71, 32668), (72, 32665), (73, 32662), (75, 32644),

Gene: KappaFarmDelta_41 Start: 31304, Stop: 31095, Start Num: 49

Candidate Starts for KappaFarmDelta_41:

(Start: 49 @31304 has 158 MA's), (Start: 54 @31283 has 10 MA's),

Gene: Kenna_51 Start: 34567, Stop: 34358, Start Num: 49

Candidate Starts for Kenna_51:

(Start: 49 @34567 has 158 MA's), (Start: 54 @34546 has 10 MA's), (61, 34492), (69, 34417), (73, 34396), (75, 34378),

Gene: Khuang_29 Start: 22977, Stop: 22759, Start Num: 54

Candidate Starts for Khuang_29:

(Start: 49 @23001 has 158 MA's), (Start: 54 @22977 has 10 MA's), (65, 22878), (66, 22872), (73, 22827),

Gene: Kita_43 Start: 32740, Stop: 32519, Start Num: 50

Candidate Starts for Kita_43:

(1, 33346), (2, 33295), (9, 33103), (12, 33034), (38, 32794), (Start: 50 @32740 has 23 MA's), (Start: 54 @32710 has 10 MA's), (61, 32656), (63, 32632), (67, 32602), (73, 32560), (75, 32542),

Gene: Kukla_37 Start: 28491, Stop: 28255, Start Num: 51

Candidate Starts for Kukla_37:

(Start: 51 @28491 has 4 MA's), (64, 28389), (73, 28320), (76, 28296), (78, 28263),

Gene: Lamberg_36 Start: 28542, Stop: 28330, Start Num: 49

Candidate Starts for Lamberg_36:

(18, 28674), (27, 28638), (Start: 49 @28542 has 158 MA's), (Start: 54 @28521 has 10 MA's), (61, 28467), (67, 28413), (73, 28371), (75, 28353),

Gene: Lawnathon_39 Start: 26452, Stop: 26216, Start Num: 49

Candidate Starts for Lawnathon_39:

(17, 26560), (25, 26521), (Start: 49 @26452 has 158 MA's), (Start: 54 @26428 has 10 MA's),

Gene: LeBruni_35 Start: 25857, Stop: 25600, Start Num: 43

Candidate Starts for LeBruni_35:

(17, 25944), (25, 25905), (Start: 43 @25857 has 1 MA's), (Start: 49 @25836 has 158 MA's), (Start: 54 @25812 has 10 MA's), (66, 25707),

Gene: Leroy_51 Start: 34725, Stop: 34516, Start Num: 49

Candidate Starts for Leroy_51:

(Start: 49 @34725 has 158 MA's), (Start: 54 @34704 has 10 MA's), (61, 34650), (69, 34575), (71, 34560), (72, 34557), (73, 34554), (75, 34536),

Gene: Lilas_39 Start: 34014, Stop: 33793, Start Num: 50

Candidate Starts for Lilas_39:

(1, 34620), (2, 34569), (9, 34377), (12, 34308), (38, 34068), (Start: 49 @34017 has 158 MA's), (Start: 50 @34014 has 23 MA's), (Start: 54 @33984 has 10 MA's), (61, 33930), (65, 33885), (67, 33876), (73, 33834),

Gene: LitninMcQueen_44 Start: 32582, Stop: 32355, Start Num: 49

Candidate Starts for LitninMcQueen_44:

(Start: 49 @32582 has 158 MA's), (Start: 54 @32561 has 10 MA's), (60, 32510), (61, 32507), (65, 32462), (69, 32432), (71, 32417), (72, 32414), (73, 32411), (75, 32393),

Gene: LonelyBoi_41 Start: 34681, Stop: 34469, Start Num: 49

Candidate Starts for LonelyBoi_41:

(Start: 49 @34681 has 158 MA's), (53, 34666), (Start: 54 @34660 has 10 MA's), (61, 34606), (65, 34561), (73, 34510),

Gene: LordFarquaad_39 Start: 29845, Stop: 29624, Start Num: 50

Candidate Starts for LordFarquaad_39:

(1, 30451), (2, 30400), (9, 30208), (12, 30139), (38, 29899), (Start: 50 @29845 has 23 MA's), (Start: 54 @29815 has 10 MA's), (61, 29761), (63, 29737), (67, 29707), (73, 29665), (75, 29647),

Gene: Lton_35 Start: 26508, Stop: 26296, Start Num: 49

Candidate Starts for Lton_35:

(38, 26559), (45, 26520), (Start: 49 @26508 has 158 MA's), (Start: 54 @26487 has 10 MA's), (61, 26433), (65, 26388), (69, 26358), (71, 26343), (72, 26340), (73, 26337), (74, 26328),

Gene: Lucky10_36 Start: 29523, Stop: 29311, Start Num: 49

Candidate Starts for Lucky10_36:

(Start: 49 @29523 has 158 MA's), (Start: 54 @29502 has 10 MA's), (61, 29448), (63, 29424), (65, 29403), (69, 29373), (71, 29358), (72, 29355), (73, 29352), (74, 29343),

Gene: Lutum_52 Start: 34567, Stop: 34358, Start Num: 49

Candidate Starts for Lutum_52:

(Start: 49 @34567 has 158 MA's), (Start: 54 @34546 has 10 MA's), (61, 34492), (69, 34417), (73, 34396), (75, 34378),

Gene: Lysidious_39 Start: 32394, Stop: 32185, Start Num: 49

Candidate Starts for Lysidious_39:

(Start: 49 @32394 has 158 MA's), (71, 32229), (73, 32223), (74, 32214),

Gene: MUWow_37 Start: 26106, Stop: 25870, Start Num: 49

Candidate Starts for MUWow_37:

(Start: 49 @26106 has 158 MA's), (Start: 54 @26082 has 10 MA's), (79, 25878),

Gene: Madavieve_37 Start: 32401, Stop: 32189, Start Num: 49

Candidate Starts for Madavieve_37:

(Start: 49 @32401 has 158 MA's), (53, 32386), (Start: 54 @32380 has 10 MA's), (61, 32326), (65, 32281), (73, 32230),

Gene: Madeline_36 Start: 31782, Stop: 31555, Start Num: 49

Candidate Starts for Madeline_36:

(Start: 49 @31782 has 158 MA's), (53, 31767), (Start: 54 @31761 has 10 MA's), (62, 31689), (65, 31662), (73, 31611),

Gene: MakCheese_50 Start: 36547, Stop: 36308, Start Num: 49

Candidate Starts for MakCheese_50:

(30, 36640), (Start: 49 @36547 has 158 MA's), (Start: 54 @36526 has 10 MA's), (61, 36472), (65, 36427), (73, 36376), (74, 36367),

Gene: Malachai_39 Start: 33474, Stop: 33265, Start Num: 49

Candidate Starts for Malachai_39:

(27, 33570), (Start: 49 @33474 has 158 MA's), (Start: 54 @33453 has 10 MA's), (67, 33345), (73, 33303),

Gene: Malibo_41 Start: 33015, Stop: 32788, Start Num: 49

Candidate Starts for Malibo_41:

(27, 33111), (Start: 49 @33015 has 158 MA's), (62, 32922), (65, 32895), (73, 32844),

Gene: Malisha_46 Start: 33324, Stop: 33112, Start Num: 49

Candidate Starts for Malisha_46:

(Start: 49 @33324 has 158 MA's), (Start: 54 @33303 has 10 MA's), (65, 33204), (72, 33156), (74, 33144),

Gene: Manasvini_42 Start: 32732, Stop: 32511, Start Num: 50

Candidate Starts for Manasvini_42:

(1, 33338), (2, 33287), (9, 33095), (12, 33026), (38, 32786), (Start: 50 @32732 has 23 MA's), (Start: 54 @32702 has 10 MA's), (61, 32648), (63, 32624), (67, 32594), (73, 32552), (75, 32534),

Gene: Mao1_44 Start: 40305, Stop: 40078, Start Num: 47

Candidate Starts for Mao1_44:

(45, 40311), (Start: 47 @40305 has 6 MA's), (Start: 54 @40275 has 10 MA's), (64, 40194), (68, 40164), (69, 40146), (73, 40125),

Gene: Mapleville_37 Start: 26507, Stop: 26295, Start Num: 54

Candidate Starts for Mapleville_37:

(25, 26600), (Start: 49 @26531 has 158 MA's), (Start: 54 @26507 has 10 MA's),

Gene: Maridalia_42 Start: 32733, Stop: 32521, Start Num: 49

Candidate Starts for Maridalia_42:

(Start: 49 @32733 has 158 MA's), (53, 32718), (Start: 54 @32712 has 10 MA's), (61, 32658), (65, 32613), (73, 32562),

Gene: Marteena_37 Start: 31344, Stop: 31114, Start Num: 49

Candidate Starts for Marteena_37:

(13, 31620), (27, 31440), (Start: 49 @31344 has 158 MA's), (Start: 54 @31323 has 10 MA's), (61, 31269),

Gene: MaterMagnus_39 Start: 26608, Stop: 26372, Start Num: 49

Candidate Starts for MaterMagnus_39:

(25, 26677), (Start: 49 @26608 has 158 MA's), (Start: 54 @26584 has 10 MA's),

Gene: Matteo_33 Start: 27584, Stop: 27372, Start Num: 49

Candidate Starts for Matteo_33:

(18, 27716), (27, 27680), (Start: 49 @27584 has 158 MA's), (Start: 54 @27563 has 10 MA's), (61, 27509), (67, 27455), (73, 27413), (75, 27395),

Gene: Mcklovin_37 Start: 35252, Stop: 35022, Start Num: 49

Candidate Starts for Mcklovin_37:

(27, 35348), (Start: 49 @35252 has 158 MA's), (Start: 54 @35231 has 10 MA's), (69, 35102), (73, 35081),

Gene: Mellie_38 Start: 31190, Stop: 30981, Start Num: 49

Candidate Starts for Mellie_38:

(18, 31322), (27, 31286), (Start: 49 @31190 has 158 MA's), (73, 31019), (74, 31010),

Gene: MichaelScott_41 Start: 31807, Stop: 31577, Start Num: 49

Candidate Starts for MichaelScott_41:

(42, 31834), (45, 31822), (Start: 49 @31807 has 158 MA's), (Start: 54 @31786 has 10 MA's), (61, 31732), (73, 31636), (75, 31618),

Gene: MidnightRain_41 Start: 27394, Stop: 27158, Start Num: 49

Candidate Starts for MidnightRain_41:

(25, 27463), (Start: 49 @27394 has 158 MA's), (Start: 54 @27370 has 10 MA's), (66, 27265),

Gene: MissRona_39 Start: 31978, Stop: 31769, Start Num: 49

Candidate Starts for MissRona_39:

(Start: 49 @31978 has 158 MA's), (Start: 54 @31957 has 10 MA's), (73, 31807), (74, 31798),

Gene: Mocha12_40 Start: 30033, Stop: 29821, Start Num: 49

Candidate Starts for Mocha12_40:

(18, 30165), (27, 30129), (Start: 49 @30033 has 158 MA's), (Start: 54 @30012 has 10 MA's), (61, 29958), (67, 29904), (73, 29862), (75, 29844),

Gene: Moosehead_36 Start: 26645, Stop: 26433, Start Num: 49

Candidate Starts for Moosehead_36:

(Start: 49 @26645 has 158 MA's), (Start: 54 @26624 has 10 MA's), (55, 26621), (61, 26570), (65, 26525), (69, 26495), (71, 26480), (72, 26477), (73, 26474),

Gene: Morkie_34 Start: 27463, Stop: 27251, Start Num: 49

Candidate Starts for Morkie_34:

(38, 27514), (45, 27475), (Start: 49 @27463 has 158 MA's), (Start: 54 @27442 has 10 MA's), (55, 27439), (61, 27388), (65, 27343), (73, 27292),

Gene: MortyNRick_45 Start: 34723, Stop: 34511, Start Num: 49

Candidate Starts for MortyNRick_45:

(20, 34858), (28, 34822), (Start: 49 @34723 has 158 MA's), (Start: 54 @34702 has 10 MA's), (61, 34648), (65, 34603), (72, 34555), (73, 34552),

Gene: Murp_40 Start: 33776, Stop: 33567, Start Num: 49

Candidate Starts for Murp_40:

(13, 34052), (18, 33908), (27, 33872), (Start: 49 @33776 has 158 MA's), (62, 33683),

Gene: MurphyJoseph_34 Start: 25336, Stop: 25100, Start Num: 49

Candidate Starts for MurphyJoseph_34:

(37, 25393), (Start: 49 @25336 has 158 MA's), (Start: 54 @25312 has 10 MA's), (66, 25207),

Gene: Neobush_42 Start: 32725, Stop: 32504, Start Num: 50

Candidate Starts for Neobush_42:

(1, 33331), (2, 33280), (9, 33088), (12, 33019), (38, 32779), (Start: 50 @32725 has 23 MA's), (Start: 54 @32695 has 10 MA's), (61, 32641), (63, 32617), (67, 32587), (73, 32545), (75, 32527),

Gene: Nettuno_36 Start: 28542, Stop: 28330, Start Num: 49

Candidate Starts for Nettuno_36:

(18, 28674), (27, 28638), (Start: 49 @28542 has 158 MA's), (Start: 54 @28521 has 10 MA's), (61, 28467), (67, 28413), (73, 28371), (75, 28353),

Gene: NewKitty_37 Start: 25662, Stop: 25450, Start Num: 54

Candidate Starts for NewKitty_37:

(25, 25800), (35, 25746), (37, 25743), (39, 25737), (Start: 43 @25707 has 1 MA's), (Start: 49 @25686 has 158 MA's), (Start: 54 @25662 has 10 MA's),

Gene: Nymphadora_40 Start: 33303, Stop: 33091, Start Num: 49

Candidate Starts for Nymphadora_40:

(18, 33435), (27, 33399), (Start: 49 @33303 has 158 MA's), (Start: 54 @33282 has 10 MA's), (61, 33228), (67, 33174), (73, 33132),

Gene: ODay_53 Start: 35209, Stop: 35000, Start Num: 49

Candidate Starts for ODay_53:

(20, 35344), (28, 35308), (Start: 49 @35209 has 158 MA's), (Start: 54 @35188 has 10 MA's), (69, 35059), (73, 35038), (75, 35020),

Gene: Ohgeesy_39 Start: 32577, Stop: 32350, Start Num: 49

Candidate Starts for Ohgeesy_39:

(Start: 49 @32577 has 158 MA's), (53, 32562), (Start: 54 @32556 has 10 MA's), (62, 32484), (65, 32457), (73, 32406),

Gene: OneDirection_31 Start: 26085, Stop: 25873, Start Num: 49

Candidate Starts for OneDirection_31:

(38, 26136), (45, 26097), (Start: 49 @26085 has 158 MA's), (Start: 54 @26064 has 10 MA's), (61, 26010), (65, 25965), (67, 25956), (73, 25914),

Gene: Oregano_40 Start: 30519, Stop: 30289, Start Num: 49

Candidate Starts for Oregano_40:

(42, 30546), (45, 30534), (Start: 49 @30519 has 158 MA's), (Start: 54 @30498 has 10 MA's), (61, 30444), (65, 30399), (69, 30369), (73, 30348),

Gene: PCoral7_38 Start: 32016, Stop: 31744, Start Num: 33

Candidate Starts for PCoral7_38:

(22, 32073), (24, 32064), (Start: 32 @32022 has 1 MA's), (Start: 33 @32016 has 1 MA's), (62, 31860), (65, 31833), (75, 31764),

Gene: PantheRoc_38 Start: 30595, Stop: 30368, Start Num: 49

Candidate Starts for PantheRoc_38:

(Start: 49 @30595 has 158 MA's), (Start: 54 @30574 has 10 MA's), (62, 30502), (65, 30475), (73, 30424),

Gene: Pepperoni_31 Start: 27209, Stop: 27018, Start Num: 54

Candidate Starts for Pepperoni_31:

(38, 27281), (45, 27242), (Start: 49 @27230 has 158 MA's), (Start: 54 @27209 has 10 MA's), (55, 27206), (61, 27155), (65, 27110), (73, 27059),

Gene: PetriParty_39 Start: 28728, Stop: 28492, Start Num: 51

Candidate Starts for PetriParty_39:

(Start: 51 @28728 has 4 MA's), (64, 28626), (73, 28557), (76, 28533), (78, 28500),

Gene: Phabuloso_49 Start: 33667, Stop: 33440, Start Num: 49

Candidate Starts for Phabuloso_49:

(Start: 49 @33667 has 158 MA's), (Start: 54 @33646 has 10 MA's), (60, 33595), (61, 33592), (65, 33547), (69, 33517), (71, 33502), (72, 33499), (73, 33496), (75, 33478),

Gene: Phistory_52 Start: 34395, Stop: 34159, Start Num: 49

Candidate Starts for Phistory_52:

(45, 34407), (Start: 49 @34395 has 158 MA's), (Start: 54 @34374 has 10 MA's), (63, 34296), (65, 34275), (72, 34227), (73, 34224),

Gene: PhorbesPhlower_34 Start: 26891, Stop: 26679, Start Num: 49

Candidate Starts for PhorbesPhlower_34:

(45, 26903), (Start: 49 @26891 has 158 MA's), (Start: 54 @26870 has 10 MA's), (55, 26867), (61, 26816), (69, 26741), (72, 26723), (73, 26720),

Gene: Phrank15_37 Start: 25445, Stop: 25209, Start Num: 49

Candidate Starts for Phrank15_37:

(Start: 49 @25445 has 158 MA's), (Start: 54 @25421 has 10 MA's), (66, 25316),

Gene: PhriskyACE_37 Start: 31215, Stop: 30988, Start Num: 49
Candidate Starts for PhriskyACE_37:
(Start: 49 @31215 has 158 MA's), (62, 31122), (65, 31095), (73, 31044),

Gene: Pickett_35 Start: 27028, Stop: 26807, Start Num: 50
Candidate Starts for Pickett_35:
(1, 27634), (2, 27583), (9, 27391), (12, 27322), (38, 27082), (Start: 50 @27028 has 23 MA's), (Start: 54 @26998 has 10 MA's), (61, 26944), (63, 26920), (67, 26890), (73, 26848), (75, 26830),

Gene: Pollux_39 Start: 33417, Stop: 33187, Start Num: 49
Candidate Starts for Pollux_39:
(18, 33549), (27, 33513), (Start: 49 @33417 has 158 MA's), (Start: 54 @33396 has 10 MA's), (61, 33342), (63, 33318),

Gene: Polly_39 Start: 32174, Stop: 31953, Start Num: 50
Candidate Starts for Polly_39:
(1, 32780), (2, 32729), (9, 32537), (12, 32468), (38, 32228), (Start: 50 @32174 has 23 MA's), (Start: 54 @32144 has 10 MA's), (61, 32090), (63, 32066), (67, 32036), (73, 31994), (75, 31976),

Gene: Posh_43 Start: 34266, Stop: 34054, Start Num: 49
Candidate Starts for Posh_43:
(Start: 49 @34266 has 158 MA's), (53, 34251), (Start: 54 @34245 has 10 MA's), (61, 34191), (65, 34146), (73, 34095),

Gene: Powerball_38 Start: 30804, Stop: 30577, Start Num: 49
Candidate Starts for Powerball_38:
(18, 30936), (Start: 49 @30804 has 158 MA's), (62, 30711), (63, 30705), (65, 30684), (73, 30633),

Gene: PrincePatrick_39 Start: 30997, Stop: 30788, Start Num: 49
Candidate Starts for PrincePatrick_39:
(13, 31273), (18, 31129), (27, 31093), (Start: 49 @30997 has 158 MA's), (Start: 54 @30976 has 10 MA's), (73, 30826),

Gene: Pytheas_40 Start: 32601, Stop: 32389, Start Num: 49
Candidate Starts for Pytheas_40:
(3, 33069), (7, 33006), (13, 32877), (18, 32733), (27, 32697), (Start: 49 @32601 has 158 MA's), (Start: 54 @32580 has 10 MA's), (65, 32481), (67, 32472), (73, 32430),

Gene: RadFad_38 Start: 26084, Stop: 25848, Start Num: 49
Candidate Starts for RadFad_38:
(Start: 49 @26084 has 158 MA's), (Start: 54 @26060 has 10 MA's), (66, 25955),

Gene: Raphaella_39 Start: 26532, Stop: 26296, Start Num: 49
Candidate Starts for Raphaella_39:
(25, 26601), (Start: 49 @26532 has 158 MA's), (Start: 54 @26508 has 10 MA's),

Gene: Raqqa_31 Start: 23602, Stop: 23390, Start Num: 54
Candidate Starts for Raqqa_31:
(37, 23683), (Start: 49 @23626 has 158 MA's), (Start: 54 @23602 has 10 MA's), (66, 23497),

Gene: Richie_39 Start: 26613, Stop: 26377, Start Num: 49
Candidate Starts for Richie_39:
(25, 26682), (Start: 49 @26613 has 158 MA's), (Start: 54 @26589 has 10 MA's),

Gene: Rizz_41 Start: 31117, Stop: 30887, Start Num: 49

Candidate Starts for Rizz_41:

(42, 31144), (45, 31132), (Start: 49 @31117 has 158 MA's), (Start: 54 @31096 has 10 MA's), (61, 31042), (73, 30946), (75, 30928),

Gene: Ruthy_40 Start: 33383, Stop: 33156, Start Num: 49

Candidate Starts for Ruthy_40:

(18, 33515), (Start: 49 @33383 has 158 MA's), (Start: 54 @33362 has 10 MA's), (62, 33290), (65, 33263), (73, 33212),

Gene: Sahara_39 Start: 29780, Stop: 29568, Start Num: 49

Candidate Starts for Sahara_39:

(18, 29912), (27, 29876), (Start: 49 @29780 has 158 MA's), (Start: 54 @29759 has 10 MA's), (61, 29705), (67, 29651), (73, 29609), (75, 29591),

Gene: Sakai_39 Start: 26541, Stop: 26305, Start Num: 49

Candidate Starts for Sakai_39:

(25, 26610), (Start: 49 @26541 has 158 MA's), (Start: 54 @26517 has 10 MA's),

Gene: Samba_39 Start: 33583, Stop: 33374, Start Num: 49

Candidate Starts for Samba_39:

(18, 33715), (27, 33679), (Start: 49 @33583 has 158 MA's), (Start: 54 @33562 has 10 MA's), (62, 33490), (71, 33418), (73, 33412), (74, 33403),

Gene: Samman98_41 Start: 30434, Stop: 30204, Start Num: 49

Candidate Starts for Samman98_41:

(42, 30461), (45, 30449), (Start: 49 @30434 has 158 MA's), (Start: 54 @30413 has 10 MA's), (61, 30359), (73, 30263), (75, 30245),

Gene: Sashimi_37 Start: 27401, Stop: 27165, Start Num: 48

Candidate Starts for Sashimi_37:

(34, 27464), (Start: 48 @27401 has 6 MA's), (Start: 54 @27377 has 10 MA's), (56, 27362), (59, 27329), (65, 27278), (69, 27248),

Gene: Satrap_39 Start: 26525, Stop: 26307, Start Num: 54

Candidate Starts for Satrap_39:

(31, 26627), (Start: 48 @26549 has 6 MA's), (Start: 54 @26525 has 10 MA's), (56, 26510),

Gene: Savage_40 Start: 30033, Stop: 29821, Start Num: 49

Candidate Starts for Savage_40:

(18, 30165), (27, 30129), (Start: 49 @30033 has 158 MA's), (Start: 54 @30012 has 10 MA's), (61, 29958), (67, 29904), (73, 29862), (75, 29844),

Gene: Sbash_41 Start: 34682, Stop: 34455, Start Num: 47

Candidate Starts for Sbash_41:

(4, 35144), (5, 35102), (6, 35093), (8, 35051), (10, 35024), (11, 34985), (20, 34811), (28, 34775), (45, 34688), (Start: 47 @34682 has 6 MA's), (64, 34571), (68, 34541), (69, 34523), (73, 34502),

Gene: Seahorse_40 Start: 28057, Stop: 27815, Start Num: 48

Candidate Starts for Seahorse_40:

(Start: 48 @28057 has 6 MA's), (Start: 54 @28033 has 10 MA's), (56, 28018),

Gene: Sejanus_43 Start: 40694, Stop: 40485, Start Num: 52

Candidate Starts for Sejanus_43:

(Start: 47 @40712 has 6 MA's), (Start: 52 @40694 has 1 MA's), (Start: 54 @40682 has 10 MA's), (57, 40652), (64, 40601), (68, 40571), (69, 40553), (73, 40532),

Gene: Sekhmet_41 Start: 31334, Stop: 31104, Start Num: 49

Candidate Starts for Sekhmet_41:

(42, 31361), (45, 31349), (Start: 49 @31334 has 158 MA's), (Start: 54 @31313 has 10 MA's), (61, 31259), (65, 31214), (73, 31163), (75, 31145),

Gene: ShawBrad_52 Start: 33594, Stop: 33385, Start Num: 49

Candidate Starts for ShawBrad_52:

(20, 33729), (28, 33693), (Start: 49 @33594 has 158 MA's), (Start: 54 @33573 has 10 MA's), (61, 33519), (69, 33444), (73, 33423), (75, 33405),

Gene: Shlim410_39 Start: 33884, Stop: 33654, Start Num: 49

Candidate Starts for Shlim410_39:

(42, 33911), (45, 33899), (Start: 49 @33884 has 158 MA's), (Start: 54 @33863 has 10 MA's), (61, 33809), (65, 33764), (73, 33713), (75, 33695),

Gene: Shoya_33 Start: 23256, Stop: 23068, Start Num: 54

Candidate Starts for Shoya_33:

(Start: 49 @23280 has 158 MA's), (Start: 54 @23256 has 10 MA's), (66, 23151),

Gene: Sidious_38 Start: 32012, Stop: 31785, Start Num: 49

Candidate Starts for Sidious_38:

(Start: 49 @32012 has 158 MA's), (62, 31919), (63, 31913), (65, 31892), (73, 31841),

Gene: SoilAssassin_37 Start: 29863, Stop: 29642, Start Num: 50

Candidate Starts for SoilAssassin_37:

(1, 30469), (2, 30418), (9, 30226), (12, 30157), (38, 29917), (Start: 50 @29863 has 23 MA's), (Start: 54 @29833 has 10 MA's), (61, 29779), (63, 29755), (67, 29725), (73, 29683), (75, 29665),

Gene: Soilmate_43 Start: 34978, Stop: 34769, Start Num: 49

Candidate Starts for Soilmate_43:

(Start: 49 @34978 has 158 MA's), (73, 34807),

Gene: SonDevVon_38 Start: 26429, Stop: 26193, Start Num: 49

Candidate Starts for SonDevVon_38:

(Start: 49 @26429 has 158 MA's), (Start: 54 @26405 has 10 MA's), (66, 26300),

Gene: SpicyFrank_38 Start: 26316, Stop: 26080, Start Num: 49

Candidate Starts for SpicyFrank_38:

(17, 26424), (Start: 49 @26316 has 158 MA's), (Start: 54 @26292 has 10 MA's), (66, 26187),

Gene: Sporco_38 Start: 26589, Stop: 26353, Start Num: 49

Candidate Starts for Sporco_38:

(25, 26658), (Start: 49 @26589 has 158 MA's), (Start: 54 @26565 has 10 MA's),

Gene: Sprinklemunch_45 Start: 34223, Stop: 33996, Start Num: 49

Candidate Starts for Sprinklemunch_45:

(13, 34499), (27, 34319), (Start: 49 @34223 has 158 MA's), (62, 34130), (65, 34103), (73, 34052),

Gene: Sproutie_40 Start: 30033, Stop: 29821, Start Num: 49

Candidate Starts for Sproutie_40:

(18, 30165), (27, 30129), (Start: 49 @30033 has 158 MA's), (Start: 54 @30012 has 10 MA's), (61, 29958), (67, 29904), (73, 29862), (75, 29844),

Gene: Squiddly_46 Start: 34356, Stop: 34144, Start Num: 49

Candidate Starts for Squiddly_46:

(Start: 49 @34356 has 158 MA's), (Start: 54 @34335 has 10 MA's), (65, 34236), (72, 34188), (74, 34176),

Gene: Stuck_45 Start: 36951, Stop: 36724, Start Num: 47

Candidate Starts for Stuck_45:

(20, 37080), (28, 37044), (45, 36957), (Start: 47 @36951 has 6 MA's), (64, 36840), (69, 36792), (73, 36771),

Gene: Suerte_35 Start: 29805, Stop: 29578, Start Num: 49

Candidate Starts for Suerte_35:

(45, 29820), (Start: 49 @29805 has 158 MA's), (Start: 54 @29784 has 10 MA's), (61, 29730), (65, 29685), (73, 29634),

Gene: Suscepit_42 Start: 32732, Stop: 32511, Start Num: 50

Candidate Starts for Suscepit_42:

(1, 33338), (2, 33287), (9, 33095), (12, 33026), (38, 32786), (Start: 50 @32732 has 23 MA's), (Start: 54 @32702 has 10 MA's), (61, 32648), (63, 32624), (67, 32594), (73, 32552), (75, 32534),

Gene: SushiChef_37 Start: 31502, Stop: 31290, Start Num: 49

Candidate Starts for SushiChef_37:

(18, 31634), (Start: 49 @31502 has 158 MA's), (53, 31487), (Start: 54 @31481 has 10 MA's), (61, 31427), (65, 31382), (73, 31331),

Gene: Tayonia_42 Start: 32731, Stop: 32510, Start Num: 50

Candidate Starts for Tayonia_42:

(1, 33337), (2, 33286), (9, 33094), (12, 33025), (38, 32785), (Start: 50 @32731 has 23 MA's), (Start: 54 @32701 has 10 MA's), (61, 32647), (63, 32623), (67, 32593), (73, 32551), (75, 32533),

Gene: ThankyouJordi_39 Start: 32830, Stop: 32618, Start Num: 49

Candidate Starts for ThankyouJordi_39:

(27, 32926), (Start: 49 @32830 has 158 MA's), (Start: 54 @32809 has 10 MA's), (65, 32710), (67, 32701), (73, 32659),

Gene: ThayneTheZag_38 Start: 26235, Stop: 25999, Start Num: 48

Candidate Starts for ThayneTheZag_38:

(44, 26250), (Start: 48 @26235 has 6 MA's), (Start: 54 @26211 has 10 MA's), (73, 26061), (77, 26019),

Gene: Thimann_37 Start: 29362, Stop: 29132, Start Num: 49

Candidate Starts for Thimann_37:

(27, 29458), (Start: 49 @29362 has 158 MA's), (Start: 54 @29341 has 10 MA's), (69, 29212), (73, 29191),

Gene: Tiff81_34 Start: 23625, Stop: 23407, Start Num: 54

Candidate Starts for Tiff81_34:

(Start: 48 @23649 has 6 MA's), (Start: 54 @23625 has 10 MA's), (56, 23610),

Gene: TimTam_40 Start: 33303, Stop: 33091, Start Num: 49

Candidate Starts for TimTam_40:

(18, 33435), (27, 33399), (Start: 49 @33303 has 158 MA's), (Start: 54 @33282 has 10 MA's), (61, 33228), (67, 33174), (73, 33132),

Gene: Toast_38 Start: 32022, Stop: 31744, Start Num: 32

Candidate Starts for Toast_38:

(22, 32073), (24, 32064), (Start: 32 @32022 has 1 MA's), (Start: 33 @32016 has 1 MA's), (62, 31860), (65, 31833), (75, 31764),

Gene: Tortellini_33 Start: 31096, Stop: 30878, Start Num: 47

Candidate Starts for Tortellini_33:

(45, 31102), (Start: 47 @31096 has 6 MA's), (67, 30961), (69, 30940), (70, 30937), (73, 30919),

Gene: TripleJ_38 Start: 28332, Stop: 28096, Start Num: 51

Candidate Starts for TripleJ_38:

(Start: 51 @28332 has 4 MA's), (73, 28161), (76, 28137), (78, 28104),

Gene: Trumpet_42 Start: 32732, Stop: 32511, Start Num: 50

Candidate Starts for Trumpet_42:

(1, 33338), (2, 33287), (9, 33095), (12, 33026), (38, 32786), (Start: 50 @32732 has 23 MA's), (Start: 54 @32702 has 10 MA's), (61, 32648), (63, 32624), (67, 32594), (73, 32552), (75, 32534),

Gene: TuertoX_40 Start: 30033, Stop: 29821, Start Num: 49

Candidate Starts for TuertoX_40:

(18, 30165), (27, 30129), (Start: 49 @30033 has 158 MA's), (Start: 54 @30012 has 10 MA's), (61, 29958), (67, 29904), (73, 29862), (75, 29844),

Gene: Tuti_34 Start: 30911, Stop: 30681, Start Num: 49

Candidate Starts for Tuti_34:

(42, 30938), (45, 30926), (Start: 49 @30911 has 158 MA's), (Start: 54 @30890 has 10 MA's), (61, 30836), (65, 30791), (69, 30761), (73, 30740),

Gene: Twinkle_40 Start: 34943, Stop: 34713, Start Num: 49

Candidate Starts for Twinkle_40:

(42, 34970), (45, 34958), (Start: 49 @34943 has 158 MA's), (Start: 54 @34922 has 10 MA's), (61, 34868), (65, 34823), (73, 34772), (75, 34754),

Gene: Utz_34 Start: 32273, Stop: 32064, Start Num: 49

Candidate Starts for Utz_34:

(18, 32405), (27, 32369), (Start: 49 @32273 has 158 MA's), (Start: 54 @32252 has 10 MA's), (62, 32180), (71, 32108), (72, 32105), (73, 32102), (74, 32093),

Gene: Vasanti_38 Start: 29298, Stop: 29071, Start Num: 49

Candidate Starts for Vasanti_38:

(18, 29430), (27, 29394), (Start: 49 @29298 has 158 MA's), (62, 29205), (63, 29199), (65, 29178), (73, 29127),

Gene: Vopal_41 Start: 28879, Stop: 28667, Start Num: 54

Candidate Starts for Vopal_41:

(21, 29026), (26, 28999), (Start: 49 @28903 has 158 MA's), (Start: 54 @28879 has 10 MA's), (66, 28774),

Gene: WelcomeAyanna_39 Start: 32977, Stop: 32765, Start Num: 49

Candidate Starts for WelcomeAyanna_39:

(27, 33073), (Start: 49 @32977 has 158 MA's), (Start: 54 @32956 has 10 MA's), (65, 32857), (67, 32848), (73, 32806),

Gene: Whiteclaw_40 Start: 30033, Stop: 29821, Start Num: 49

Candidate Starts for Whiteclaw_40:

(18, 30165), (27, 30129), (Start: 49 @30033 has 158 MA's), (Start: 54 @30012 has 10 MA's), (61, 29958), (67, 29904), (73, 29862), (75, 29844),

Gene: William_41 Start: 32683, Stop: 32474, Start Num: 49

Candidate Starts for William_41:

(13, 32959), (18, 32815), (27, 32779), (40, 32719), (Start: 49 @32683 has 158 MA's), (Start: 54 @32662 has 10 MA's), (73, 32512),

Gene: Windest_38 Start: 24922, Stop: 24686, Start Num: 49

Candidate Starts for Windest_38:

(Start: 49 @24922 has 158 MA's), (Start: 54 @24898 has 10 MA's), (66, 24793),

Gene: WinkNick_42 Start: 31126, Stop: 30896, Start Num: 49

Candidate Starts for WinkNick_42:

(42, 31153), (45, 31141), (Start: 49 @31126 has 158 MA's), (Start: 54 @31105 has 10 MA's), (61, 31051), (73, 30955), (75, 30937),

Gene: Wisp_35 Start: 30713, Stop: 30507, Start Num: 49

Candidate Starts for Wisp_35:

(18, 30845), (27, 30809), (Start: 49 @30713 has 158 MA's), (Start: 54 @30692 has 10 MA's), (71, 30548), (73, 30542), (74, 30533),

Gene: Wocket_40 Start: 31469, Stop: 31260, Start Num: 49

Candidate Starts for Wocket_40:

(Start: 49 @31469 has 158 MA's), (Start: 54 @31448 has 10 MA's),

Gene: Wrigley_44 Start: 33213, Stop: 33001, Start Num: 49

Candidate Starts for Wrigley_44:

(27, 33312), (42, 33237), (45, 33225), (Start: 49 @33213 has 158 MA's), (Start: 54 @33192 has 10 MA's), (63, 33114), (67, 33084), (73, 33042),

Gene: Xavia_35 Start: 31783, Stop: 31565, Start Num: 47

Candidate Starts for Xavia_35:

(45, 31789), (Start: 47 @31783 has 6 MA's), (67, 31648), (69, 31627), (70, 31624), (73, 31606),

Gene: Yeet412_37 Start: 29864, Stop: 29643, Start Num: 50

Candidate Starts for Yeet412_37:

(1, 30470), (2, 30419), (9, 30227), (12, 30158), (38, 29918), (Start: 50 @29864 has 23 MA's), (Start: 54 @29834 has 10 MA's), (61, 29780), (63, 29756), (67, 29726), (73, 29684), (75, 29666),

Gene: Yeezy_37 Start: 30409, Stop: 30182, Start Num: 49

Candidate Starts for Yeezy_37:

(36, 30460), (46, 30421), (Start: 49 @30409 has 158 MA's), (62, 30316), (65, 30289), (73, 30238),

Gene: Yinzer_39 Start: 30033, Stop: 29821, Start Num: 49

Candidate Starts for Yinzer_39:

(18, 30165), (27, 30129), (Start: 49 @30033 has 158 MA's), (Start: 54 @30012 has 10 MA's), (61, 29958), (67, 29904), (73, 29862), (75, 29844),

Gene: YoungHarleezy_39 Start: 26611, Stop: 26375, Start Num: 49

Candidate Starts for YoungHarleezy_39:

(25, 26680), (Start: 49 @26611 has 158 MA's), (Start: 54 @26587 has 10 MA's),

Gene: Zameen_42 Start: 32731, Stop: 32510, Start Num: 50

Candidate Starts for Zameen_42:

(1, 33337), (2, 33286), (9, 33094), (12, 33025), (38, 32785), (Start: 50 @32731 has 23 MA's), (Start: 54 @32701 has 10 MA's), (61, 32647), (63, 32623), (67, 32593), (73, 32551), (75, 32533),

Gene: ZiggyZoo_39 Start: 31932, Stop: 31723, Start Num: 49

Candidate Starts for ZiggyZoo_39:

(18, 32064), (27, 32028), (Start: 49 @31932 has 158 MA's), (Start: 54 @31911 has 10 MA's), (73, 31761), (74, 31752),

Gene: Zirinka_39 Start: 33471, Stop: 33250, Start Num: 50

Candidate Starts for Zirinka_39:

(1, 34077), (2, 34026), (9, 33834), (12, 33765), (38, 33525), (Start: 50 @33471 has 23 MA's), (Start: 54 @33441 has 10 MA's), (61, 33387), (63, 33363), (67, 33333), (73, 33291), (75, 33273),

Gene: Zodiariah_37 Start: 33034, Stop: 32807, Start Num: 49

Candidate Starts for Zodiariah_37:

(13, 33310), (18, 33166), (27, 33130), (Start: 49 @33034 has 158 MA's), (62, 32941), (65, 32914), (73, 32863),