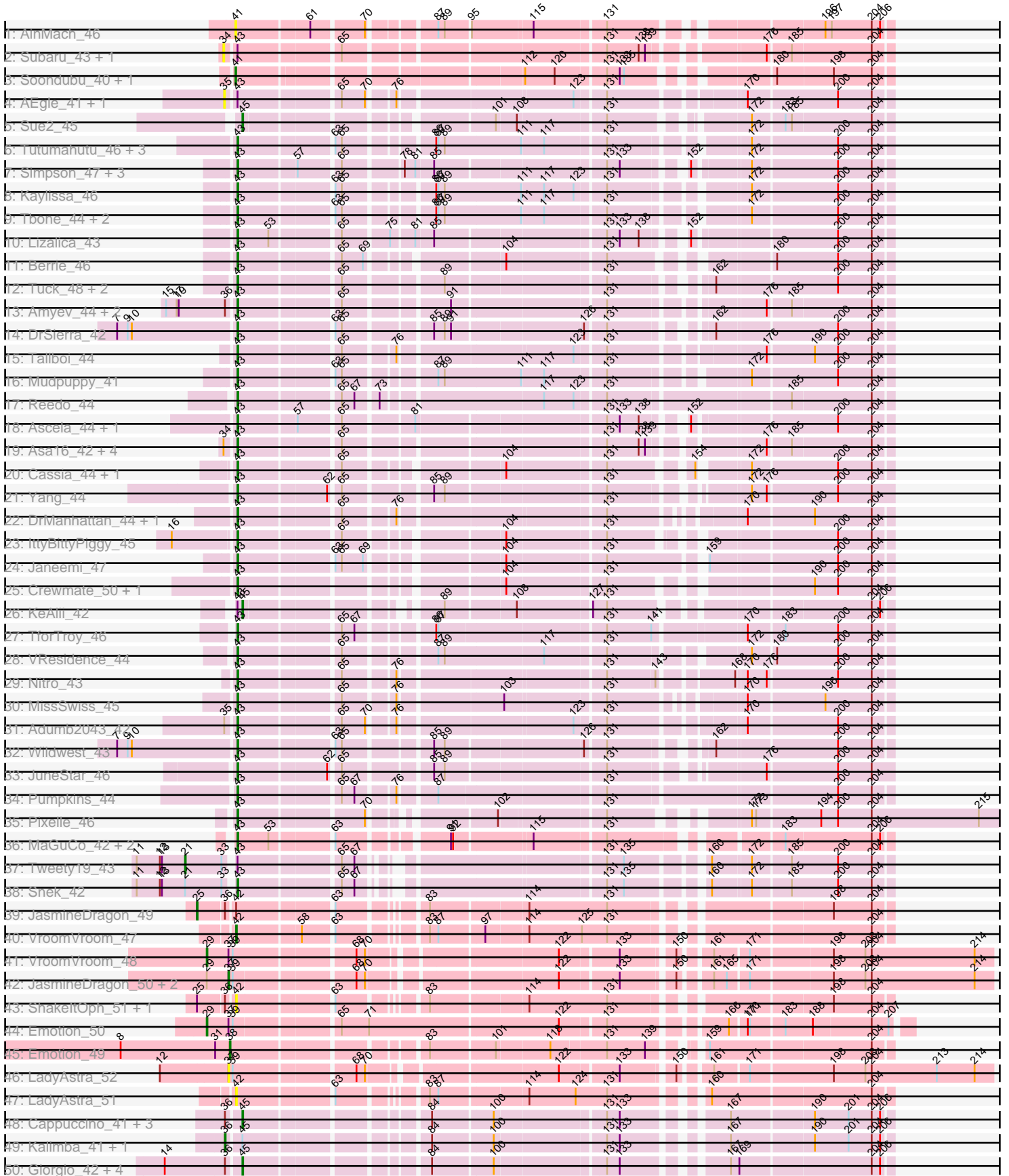
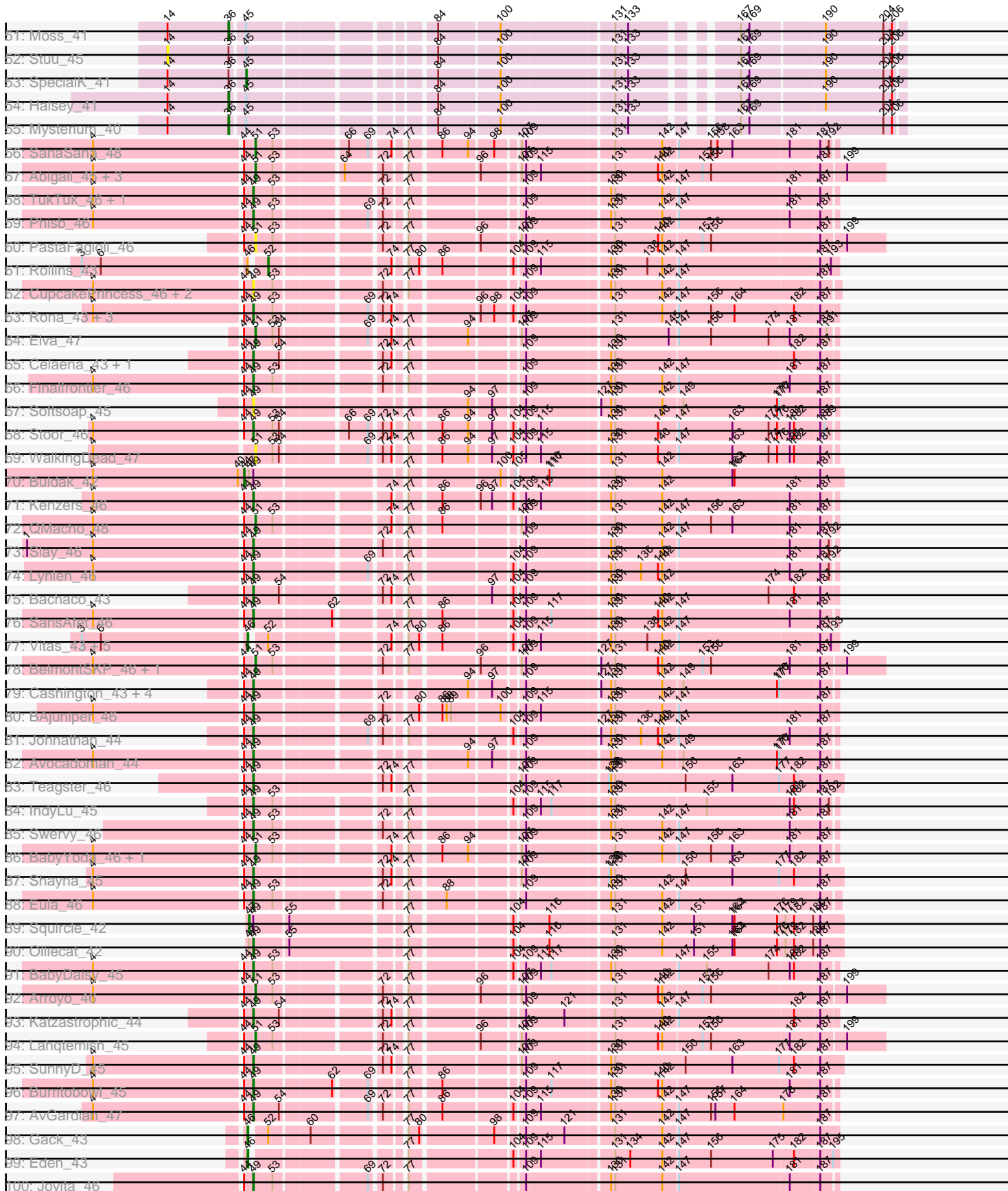


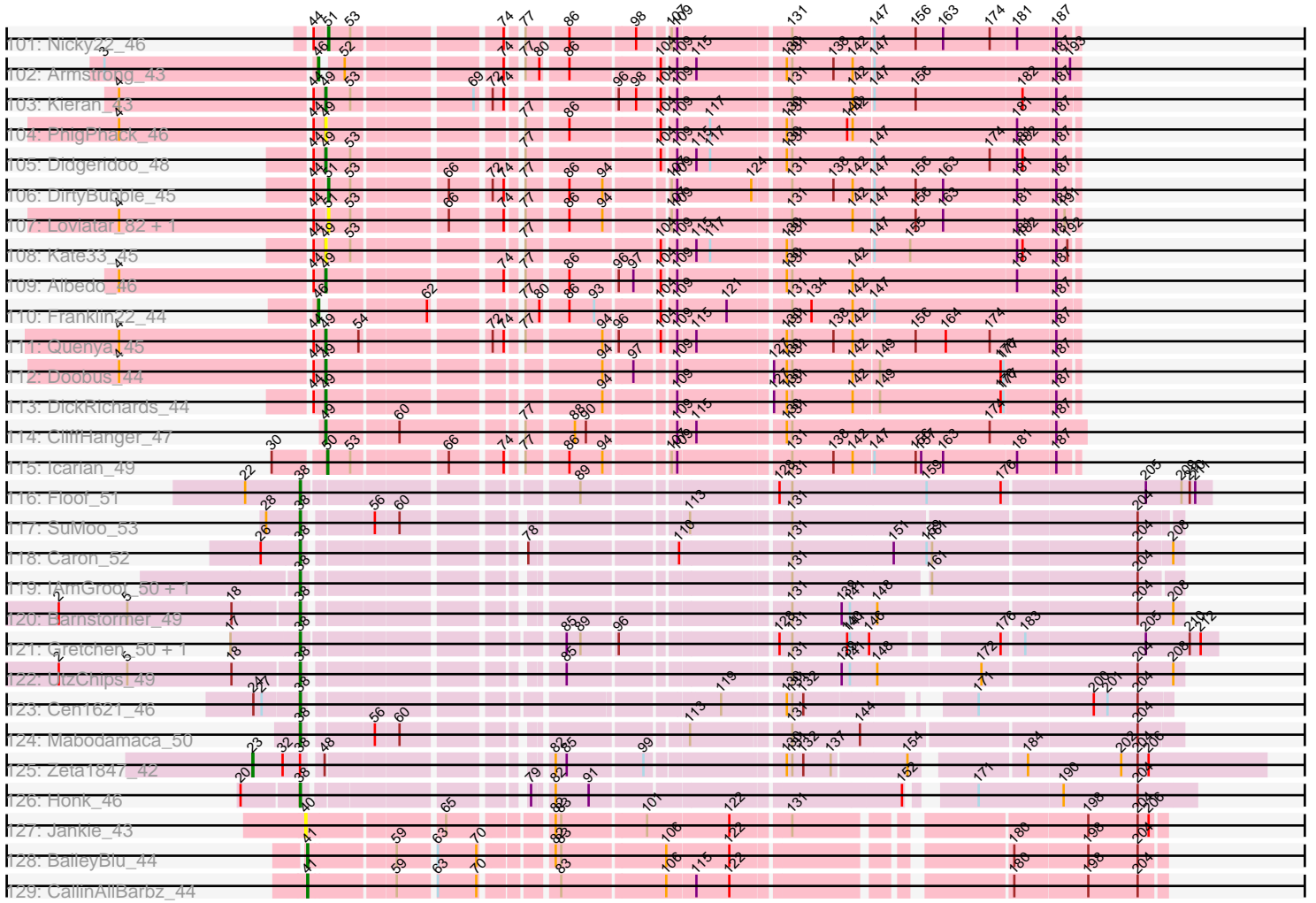
Pham 214014



Pham 214014



Pham 214014



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 214014 Report

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

Pham number 214014 has 189 members, 38 are drafts.

Phages represented in each track:

- Track 1 : AinMach_46
- Track 2 : Subaru_43, Jstan_44
- Track 3 : Soondubu_40, Exile_39
- Track 4 : AEgle_41, Turab_42
- Track 5 : Sue2_45
- Track 6 : Tutumahutu_46, Powerpuff_47, Lego_44, YesChef_45
- Track 7 : Simpson_47, Cyan_45, JohnDoe_45, Joemato_45
- Track 8 : Kaylissa_46
- Track 9 : Tbone_44, Warda_45, AGrandiflora_47
- Track 10 : Lizalica_43
- Track 11 : Berrie_46
- Track 12 : Tuck_48, Community_47, Phives_48
- Track 13 : Amyev_44, Pixelle_45, Tian_43
- Track 14 : DrSierra_42
- Track 15 : Tallboi_44
- Track 16 : Mudpuppy_41
- Track 17 : Reedo_44
- Track 18 : Ascela_44, Iter_44
- Track 19 : Asa16_42, Niobe_42, Eraser_42, London_42, Elezi_42
- Track 20 : Cassia_44, Shaffner_44
- Track 21 : Yang_44
- Track 22 : DrManhattan_44, Adolin_45
- Track 23 : IttyBittyPiggy_45
- Track 24 : Janeemi_47
- Track 25 : Crewmate_50, ObiToo_50
- Track 26 : KeAlii_42
- Track 27 : TforTroy_46
- Track 28 : VResidence_44
- Track 29 : Nitro_43
- Track 30 : MissSwiss_45
- Track 31 : Adumb2043_42
- Track 32 : Wildwest_43
- Track 33 : JuneStar_46
- Track 34 : Pumpkins_44
- Track 35 : Pixelle_46
- Track 36 : MaGuCo_42, Liebe_45, Maureen_45
- Track 37 : Tweety19_43

- Track 38 : Snek_42
- Track 39 : JasmineDragon_49
- Track 40 : VroomVroom_47
- Track 41 : VroomVroom_48
- Track 42 : JasmineDragon_50, ShakeltOph_52, MiniMommy_52
- Track 43 : ShakeltOph_51, MiniMommy_51
- Track 44 : Emotion_50
- Track 45 : Emotion_49
- Track 46 : LadyAstra_52
- Track 47 : LadyAstra_51
- Track 48 : Cappuccino_41, Gambol_42, Sooty_41, Sabourin_46
- Track 49 : Kalimba_41, Donkey_41
- Track 50 : Giorgio_42, Gumpizza_42, Ashes_41, RockScotty_43, Beaupre_44
- Track 51 : Moss_41
- Track 52 : Stuu_45
- Track 53 : SpecialK_41
- Track 54 : Halsey_41
- Track 55 : Mysterium_40
- Track 56 : SanaSana_48
- Track 57 : Abigail_45, LimaBean_45, Bengal_46, CroZenni_45
- Track 58 : TukTuk_46, SarBear_45
- Track 59 : Phisb_46
- Track 60 : PastaFagioli_46
- Track 61 : Rollins_43
- Track 62 : CupcakePrincess_46, Jabb_46, MsUbiquitous_46
- Track 63 : Rona_43, ChiliPepper_43, Dismas_43, Sharkboy_44
- Track 64 : Elva_47
- Track 65 : Celaena_43, FlameThrower_43
- Track 66 : Finalfrontier_46
- Track 67 : Softsoap_45
- Track 68 : Stoor_46
- Track 69 : WalkingDead_47
- Track 70 : Buldak_42
- Track 71 : Kenzers_46
- Track 72 : QMacho_48
- Track 73 : Slay_46
- Track 74 : Lynlen_46
- Track 75 : Bachaco_43
- Track 76 : SansAfet_46
- Track 77 : Vitas_43, Bernstein_43, Skylord_43, Brahms_43, Coltrane_43, Clayda5_44
- Track 78 : BelmontSKP_46, AnnaLie_46
- Track 79 : Cashington_43, Albright_43, BubbaBear_44, Milomuff_46, Solea_46
- Track 80 : BAjuniper_46
- Track 81 : Johnathan_44
- Track 82 : Avocadoman_44
- Track 83 : Teagster_46
- Track 84 : IndyLu_45
- Track 85 : Swervy_46
- Track 86 : BabyYoda_46, Stromboli_46
- Track 87 : Shayna_45
- Track 88 : Eula_46
- Track 89 : Squiracle_42

- Track 90 : Olliecat_42
- Track 91 : BabyDaisy_45
- Track 92 : Arroyo_46
- Track 93 : Katzastrophic_44
- Track 94 : Lahqtemish_45
- Track 95 : SunnyD_45
- Track 96 : Burritobowl_45
- Track 97 : AvGardian_47
- Track 98 : Gack_43
- Track 99 : Eden_43
- Track 100 : Jovita_46
- Track 101 : Nicky22_46
- Track 102 : Armstrong_43
- Track 103 : Kieran_43
- Track 104 : PhigPhack_46
- Track 105 : Didgeridoo_48
- Track 106 : DirtyBubble_45
- Track 107 : Loviatar_82, Akino08_83
- Track 108 : Kate33_45
- Track 109 : Albedo_46
- Track 110 : Franklin22_44
- Track 111 : Quenya_45
- Track 112 : Doobus_44
- Track 113 : DickRichards_44
- Track 114 : CliffHanger_47
- Track 115 : Icarian_49
- Track 116 : Floof_51
- Track 117 : SuMoo_53
- Track 118 : Caron_52
- Track 119 : IAmGroot_50, GardenState_50
- Track 120 : Barnstormer_49
- Track 121 : Gretchen_50, Percival_51
- Track 122 : UtzChips_49
- Track 123 : Cen1621_46
- Track 124 : Mabodamaca_50
- Track 125 : Zeta1847_42
- Track 126 : Honk_46
- Track 127 : Jankie_43
- Track 128 : BaileyBlu_44
- Track 129 : CallinAllBarbz_44

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

The start number called the most often in the published annotations is 43, it was called in 48 of the 151 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

• AGrandiflora_47, Adolin_45, Adumb2043_42, Amyev_44, Asa16_42, Ascela_44, Berrie_46, Cassia_44, Community_47, Crewmate_50, Cyan_45, DrManhattan_44, DrSierra_42, Elezi_42, Eraser_42, Iter_44, IttyBittyPiggy_45, Janeemi_47,

Joemato_45, JohnDoe_45, JuneStar_46, Kaylissa_46, Lego_44, Liebe_45, Lizalica_43, London_42, MaGuCo_42, Maureen_45, MissSwiss_45, Mudpuppy_41, Niobe_42, Nitro_43, ObiToo_50, Phives_48, Pixelle_45, Pixelle_46, Powerpuff_47, Pumpkins_44, Reedo_44, Shaffner_44, Simpson_47, Sneek_42, Tallboi_44, Tbone_44, TforTroy_46, Tian_43, Tuck_48, Tutumahutu_46, VResidence_44, Warda_45, Wildwest_43, Yang_44, YesChef_45,

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

- AEgle_41, Jstan_44, KeAlii_42, Subaru_43, Turab_42, Tweety19_43,

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

- Abigail_45, AinMach_46, Akino08_83, Albedo_46, Albright_43, AnnaLie_46, Armstrong_43, Arroyo_46, Ashes_41, AvGardian_47, Avocadoman_44, BAjuniper_46, BabyDaisy_45, BabyYoda_46, Bachaco_43, BaileyBlu_44, Barnstormer_49, Beaupre_44, BelmontSKP_46, Bengal_46, Bernstein_43, Brahms_43, BubbaBear_44, Buldak_42, Burritobowl_45, CallinAllBarbz_44, Cappuccino_41, Caron_52, Cashington_43, Celaena_43, Cen1621_46, ChiliPepper_43, Clayda5_44, CliffHanger_47, Coltrane_43, CroZenni_45, CupcakePrincess_46, DickRichards_44, Didgeridoo_48, DirtyBubble_45, Dismas_43, Donkey_41, Doobus_44, Eden_43, Elva_47, Emotion_49, Emotion_50, Eula_46, Exile_39, Finalfrontier_46, FlameThrower_43, Floof_51, Franklin22_44, Gack_43, Gambol_42, GardenState_50, Giorgio_42, Gretchen_50, Gumpizza_42, Halsey_41, Honk_46, IAmGroot_50, Icarian_49, IndyLu_45, Jabb_46, Jankie_43, JasmineDragon_49, JasmineDragon_50, Johnathan_44, Jovita_46, Kalimba_41, Kate33_45, Katzastrophic_44, Kenzers_46, Kieran_43, LadyAstra_51, LadyAstra_52, Lahqtemish_45, LimaBean_45, Loviatar_82, Lynlen_46, Mabodamaca_50, Milomuff_46, MiniMommy_51, MiniMommy_52, Moss_41, MsUbiquitous_46, Mysterium_40, Nicky22_46, Olliecat_42, PastaFagioli_46, Percival_51, PhigPhack_46, Phisb_46, QMacho_48, Quenya_45, RockScotty_43, Rollins_43, Rona_43, Sabourin_46, SanaSana_48, SansAfet_46, SarBear_45, ShakeltOph_51, ShakeltOph_52, Sharkboy_44, Shayna_45, Skylord_43, Slay_46, Softsoap_45, Solea_46, Soondubu_40, Sooty_41, SpecialK_41, Squircle_42, Stoor_46, Stromboli_46, Stuu_45, SuMoo_53, Sue2_45, SunnyD_45, Swervy_46, Teagster_46, TukTuk_46, UtzChips_49, Vitas_43, VroomVroom_47, VroomVroom_48, WalkingDead_47, Zeta1847_42,

Summary by start number:

Start 14:

- Found in 10 of 189 (5.3%) of genes in pham
- No Manual Annotations of this start.
- Called 10.0% of time when present
- Phage (with cluster) where this start called: Stuu_45 (AZ5),

Start 21:

- Found in 2 of 189 (1.1%) of genes in pham
- Manual Annotations of this start: 1 of 151
- Called 50.0% of time when present
- Phage (with cluster) where this start called: Tweety19_43 (AZ3),

Start 23:

- Found in 1 of 189 (0.5%) of genes in pham
- Manual Annotations of this start: 1 of 151

- Called 100.0% of time when present
- Phage (with cluster) where this start called: Zeta1847_42 (EH),

Start 25:

- Found in 3 of 189 (1.6%) of genes in pham
- Manual Annotations of this start: 1 of 151
- Called 33.3% of time when present
- Phage (with cluster) where this start called: JasmineDragon_49 (AZ4),

Start 29:

- Found in 5 of 189 (2.6%) of genes in pham
- Manual Annotations of this start: 2 of 151
- Called 40.0% of time when present
- Phage (with cluster) where this start called: Emotion_50 (AZ4), VroomVroom_48 (AZ4),

Start 34:

- Found in 7 of 189 (3.7%) of genes in pham
- No Manual Annotations of this start.
- Called 28.6% of time when present
- Phage (with cluster) where this start called: Jstan_44 (AZ1), Subaru_43 (AZ),

Start 35:

- Found in 3 of 189 (1.6%) of genes in pham
- No Manual Annotations of this start.
- Called 66.7% of time when present
- Phage (with cluster) where this start called: AEgle_41 (AZ1), Turab_42 (AZ1),

Start 36:

- Found in 22 of 189 (11.6%) of genes in pham
- Manual Annotations of this start: 5 of 151
- Called 22.7% of time when present
- Phage (with cluster) where this start called: Donkey_41 (AZ5), Halsey_41 (AZ5), Kalimba_41 (AZ5), Moss_41 (AZ5), Mysterium_40 (AZ5),

Start 37:

- Found in 6 of 189 (3.2%) of genes in pham
- Manual Annotations of this start: 1 of 151
- Called 66.7% of time when present
- Phage (with cluster) where this start called: JasmineDragon_50 (AZ4), LadyAstra_52 (AZ4), MiniMommy_52 (AZ4), ShakeltOph_52 (AZ4),

Start 38:

- Found in 14 of 189 (7.4%) of genes in pham
- Manual Annotations of this start: 13 of 151
- Called 92.9% of time when present
- Phage (with cluster) where this start called: Barnstormer_49 (EH), Caron_52 (EH), Cen1621_46 (EH), Emotion_49 (AZ4), Floof_51 (EH), GardenState_50 (EH), Gretchen_50 (EH), Honk_46 (EH), IAmGroot_50 (EH), Mabodamaca_50 (EH), Percival_51 (EH), SuMoo_53 (EH), UtzChips_49 (EH),

Start 40:

- Found in 2 of 189 (1.1%) of genes in pham

- No Manual Annotations of this start.
- Called 50.0% of time when present
- Phage (with cluster) where this start called: Jankie_43 (FP),

Start 41:

- Found in 5 of 189 (2.6%) of genes in pham
- Manual Annotations of this start: 3 of 151
- Called 100.0% of time when present
- Phage (with cluster) where this start called: AinMach_46 (AZ), BaileyBlu_44 (FP), CallinAllBarbz_44 (FP), Exile_39 (AZ), Soondubu_40 (AZ),

Start 42:

- Found in 5 of 189 (2.6%) of genes in pham
- Manual Annotations of this start: 1 of 151
- Called 80.0% of time when present
- Phage (with cluster) where this start called: LadyAstra_51 (AZ4), MiniMommy_51 (AZ4), ShakeltOph_51 (AZ4), VroomVroom_47 (AZ4),

Start 43:

- Found in 59 of 189 (31.2%) of genes in pham
- Manual Annotations of this start: 48 of 151
- Called 89.8% of time when present
- Phage (with cluster) where this start called: AGrandiflora_47 (AZ1), Adolin_45 (AZ1), Adumb2043_42 (AZ1), Amyev_44 (AZ1), Asa16_42 (AZ1), Ascela_44 (AZ1), Berrie_46 (AZ1), Cassia_44 (AZ1), Community_47 (AZ1), Crewmate_50 (AZ1), Cyan_45 (AZ1), DrManhattan_44 (AZ1), DrSierra_42 (AZ1), Elezi_42 (AZ1), Eraser_42 (AZ1), Iter_44 (AZ1), IttyBittyPiggy_45 (AZ1), Janeemi_47 (AZ1), Joemato_45 (AZ1), JohnDoe_45 (AZ1), JuneStar_46 (AZ1), Kaylissa_46 (AZ1), Lego_44 (AZ1), Liebe_45 (AZ2), Lizalica_43 (AZ1), London_42 (AZ1), MaGuCo_42 (AZ2), Maureen_45 (AZ2), MissSwiss_45 (AZ1), Mudpuppy_41 (AZ1), Niobe_42 (AZ1), Nitro_43 (AZ1), ObiToo_50 (AZ1), Phives_48 (AZ1), Pixelle_45 (AZ1), Pixelle_46 (AZ1), Powerpuff_47 (AZ1), Pumpkins_44 (AZ1), Reedo_44 (AZ1), Shaffner_44 (AZ1), Simpson_47 (AZ1), Snek_42 (AZ3), Tallboi_44 (AZ1), Tbone_44 (AZ1), TforTroy_46 (AZ1), Tian_43 (AZ1), Tuck_48 (AZ1), Tutumahutu_46 (AZ1), VResidence_44 (AZ1), Warda_45 (AZ1), Wildwest_43 (AZ1), Yang_44 (AZ1), YesChef_45 (AZ1),

Start 44:

- Found in 66 of 189 (34.9%) of genes in pham
- Manual Annotations of this start: 1 of 151
- Called 1.5% of time when present
- Phage (with cluster) where this start called: Buldak_42 (EB),

Start 45:

- Found in 18 of 189 (9.5%) of genes in pham
- Manual Annotations of this start: 7 of 151
- Called 66.7% of time when present
- Phage (with cluster) where this start called: Ashes_41 (AZ5), Beaupre_44 (AZ5), Cappuccino_41 (AZ5), Gambol_42 (AZ5), Giorgio_42 (AZ5), Gumpizza_42 (AZ5), KeAlii_42 (AZ1), RockScotty_43 (AZ5), Sabourin_46 (AZ5), Sooty_41 (AZ5), SpecialK_41 (AZ5), Sue2_45 (AZ1),

Start 46:

- Found in 11 of 189 (5.8%) of genes in pham
- Manual Annotations of this start: 10 of 151
- Called 90.9% of time when present
- Phage (with cluster) where this start called: Armstrong_43 (EB), Bernstein_43 (EB), Brahms_43 (EB), Clayda5_44 (EB), Coltrane_43 (EB), Eden_43 (EB), Franklin22_44 (EB), Gack_43 (EB), Skylord_43 (EB), Vitas_43 (EB),

Start 47:

- Found in 3 of 189 (1.6%) of genes in pham
- Manual Annotations of this start: 1 of 151
- Called 33.3% of time when present
- Phage (with cluster) where this start called: Squiracle_42 (EB),

Start 49:

- Found in 51 of 189 (27.0%) of genes in pham
- Manual Annotations of this start: 40 of 151
- Called 96.1% of time when present
- Phage (with cluster) where this start called: Albedo_46 (EB), Albright_43 (EB), AvGardian_47 (EB), Avocadoman_44 (EB), BAjuniper_46 (EB), BabyDaisy_45 (EB), Bachaco_43 (EB), BubbaBear_44 (EB), Burritobowl_45 (EB), Cashington_43 (EB), Celaena_43 (EB), ChiliPepper_43 (EB), CliffHanger_47 (EB), CupcakePrincess_46 (EB), DickRichards_44 (EB), Didgeridoo_48 (EB), Dismas_43 (EB), Doobus_44 (EB), Eula_46 (EB), Finalfrontier_46 (EB), FlameThrower_43 (EB), IndyLu_45 (EB), Jabb_46 (EB), Johnathan_44 (EB), Jovita_46 (EB), Kate33_45 (EB), Katzastrophic_44 (EB), Kenzers_46 (EB), Kieran_43 (EB), Lynlen_46 (EB), Milomuff_46 (EB), MsUbiquitous_46 (EB), Olliecat_42 (EB), PhigPhack_46 (EB), Phisb_46 (EB), Quenya_45 (EB), Rona_43 (EB), SansAfet_46 (EB), SarBear_45 (EB), Sharkboy_44 (EB), Shayna_45 (EB), Slay_46 (EB), Softsoap_45 (EB), Solea_46 (EB), Stoor_46 (EB), SunnyD_45 (EB), Swervy_46 (EB), Teagster_46 (EB), TukTuk_46 (EB),

Start 50:

- Found in 1 of 189 (0.5%) of genes in pham
- Manual Annotations of this start: 1 of 151
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Icarian_49 (EB),

Start 51:

- Found in 19 of 189 (10.1%) of genes in pham
- Manual Annotations of this start: 14 of 151
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Abigail_45 (EB), Akino08_83 (EB), AnnaLie_46 (EB), Arroyo_46 (EB), BabyYoda_46 (EB), BelmontSKP_46 (EB), Bengal_46 (EB), CroZenni_45 (EB), DirtyBubble_45 (EB), Elva_47 (EB), Lahqtemish_45 (EB), LimaBean_45 (EB), Loviatar_82 (EB), Nicky22_46 (EB), PastaFagioli_46 (EB), QMacho_48 (EB), SanaSana_48 (EB), Stromboli_46 (EB), WalkingDead_47 (EB),

Start 52:

- Found in 9 of 189 (4.8%) of genes in pham
- Manual Annotations of this start: 1 of 151
- Called 11.1% of time when present
- Phage (with cluster) where this start called: Rollins_43 (EB),

Summary by clusters:

There are 9 clusters represented in this pham: FP, AZ3, EH, EB, AZ1, AZ2, AZ, AZ4, AZ5,

Info for manual annotations of cluster AZ:

- Start number 41 was manually annotated 1 time for cluster AZ.

Info for manual annotations of cluster AZ1:

- Start number 43 was manually annotated 44 times for cluster AZ1.
- Start number 45 was manually annotated 2 times for cluster AZ1.

Info for manual annotations of cluster AZ2:

- Start number 43 was manually annotated 3 times for cluster AZ2.

Info for manual annotations of cluster AZ3:

- Start number 21 was manually annotated 1 time for cluster AZ3.
- Start number 43 was manually annotated 1 time for cluster AZ3.

Info for manual annotations of cluster AZ4:

- Start number 25 was manually annotated 1 time for cluster AZ4.
- Start number 29 was manually annotated 2 times for cluster AZ4.
- Start number 37 was manually annotated 1 time for cluster AZ4.
- Start number 38 was manually annotated 1 time for cluster AZ4.
- Start number 42 was manually annotated 1 time for cluster AZ4.

Info for manual annotations of cluster AZ5:

- Start number 36 was manually annotated 5 times for cluster AZ5.
- Start number 45 was manually annotated 5 times for cluster AZ5.

Info for manual annotations of cluster EB:

- Start number 44 was manually annotated 1 time for cluster EB.
- Start number 46 was manually annotated 10 times for cluster EB.
- Start number 47 was manually annotated 1 time for cluster EB.
- Start number 49 was manually annotated 40 times for cluster EB.
- Start number 50 was manually annotated 1 time for cluster EB.
- Start number 51 was manually annotated 14 times for cluster EB.
- Start number 52 was manually annotated 1 time for cluster EB.

Info for manual annotations of cluster EH:

- Start number 23 was manually annotated 1 time for cluster EH.
- Start number 38 was manually annotated 12 times for cluster EH.

Info for manual annotations of cluster FP:

- Start number 41 was manually annotated 2 times for cluster FP.

Gene Information:

Gene: AEgle_41 Start: 31604, Stop: 32437, Start Num: 35

Candidate Starts for AEgle_41:

(35, 31604), (Start: 43 @31616 has 48 MA's), (65, 31745), (70, 31778), (76, 31808), (123, 32036), (131, 32072), (170, 32240), (200, 32363), (204, 32411),

Gene: AGrandiflora_47 Start: 32890, Stop: 33708, Start Num: 43

Candidate Starts for AGrandiflora_47:

(Start: 43 @32890 has 48 MA's), (63, 33010), (65, 33019), (86, 33124), (87, 33127), (89, 33136), (111, 33244), (117, 33274), (131, 33352), (172, 33517), (200, 33634), (204, 33682),

Gene: Abigail_45 Start: 31658, Stop: 32443, Start Num: 51

Candidate Starts for Abigail_45:

(4, 31442), (Start: 44 @31646 has 1 MA's), (Start: 51 @31658 has 14 MA's), (53, 31682), (64, 31766), (72, 31811), (77, 31832), (96, 31919), (107, 31964), (109, 31970), (115, 31988), (131, 32081), (140, 32141), (142, 32147), (153, 32198), (156, 32210), (187, 32357), (199, 32390),

Gene: Adolin_45 Start: 31088, Stop: 31897, Start Num: 43

Candidate Starts for Adolin_45:

(Start: 43 @31088 has 48 MA's), (65, 31217), (76, 31280), (131, 31544), (170, 31700), (190, 31790), (204, 31871),

Gene: Adumb2043_42 Start: 31635, Stop: 32456, Start Num: 43

Candidate Starts for Adumb2043_42:

(35, 31623), (Start: 43 @31635 has 48 MA's), (65, 31764), (70, 31797), (76, 31827), (123, 32055), (131, 32091), (170, 32259), (200, 32382), (204, 32430),

Gene: AinMach_46 Start: 32886, Stop: 33686, Start Num: 41

Candidate Starts for AinMach_46:

(Start: 41 @32886 has 3 MA's), (61, 32982), (70, 33051), (87, 33126), (89, 33135), (95, 33168), (115, 33249), (131, 33342), (196, 33594), (197, 33603), (204, 33660), (206, 33672),

Gene: Akino08_83 Start: 33884, Stop: 34603, Start Num: 51

Candidate Starts for Akino08_83:

(4, 33668), (Start: 44 @33872 has 1 MA's), (Start: 51 @33884 has 14 MA's), (53, 33908), (66, 33998), (74, 34049), (77, 34058), (86, 34097), (94, 34133), (107, 34190), (109, 34196), (131, 34307), (142, 34373), (147, 34391), (156, 34436), (163, 34466), (181, 34544), (187, 34583), (191, 34592),

Gene: Albedo_46 Start: 32261, Stop: 32983, Start Num: 49

Candidate Starts for Albedo_46:

(4, 32045), (Start: 44 @32249 has 1 MA's), (Start: 49 @32261 has 40 MA's), (74, 32426), (77, 32435), (86, 32474), (96, 32522), (97, 32537), (104, 32561), (109, 32573), (130, 32678), (131, 32684), (142, 32750), (181, 32924), (187, 32963),

Gene: Albright_43 Start: 31191, Stop: 31910, Start Num: 49

Candidate Starts for Albright_43:

(Start: 44 @31179 has 1 MA's), (Start: 49 @31191 has 40 MA's), (94, 31440), (97, 31467), (109, 31503), (127, 31596), (130, 31608), (131, 31614), (142, 31680), (149, 31704), (176, 31836), (177, 31839), (187, 31890),

Gene: Amyev_44 Start: 33180, Stop: 33998, Start Num: 43

Candidate Starts for Amyev_44:

(15, 33087), (17, 33102), (19, 33105), (Start: 36 @33171 has 5 MA's), (Start: 43 @33180 has 48 MA's), (65, 33309), (91, 33441), (131, 33642), (176, 33831), (185, 33861), (204, 33972),

Gene: AnnaLie_46 Start: 32269, Stop: 33054, Start Num: 51

Candidate Starts for AnnaLie_46:

(4, 32053), (Start: 44 @32257 has 1 MA's), (Start: 51 @32269 has 14 MA's), (53, 32293), (72, 32422), (77, 32443), (96, 32530), (107, 32575), (109, 32581), (127, 32674), (131, 32692), (140, 32752), (142, 32758), (153, 32809), (156, 32821), (181, 32929), (187, 32968), (199, 33001),

Gene: Armstrong_43 Start: 29796, Stop: 30521, Start Num: 46

Candidate Starts for Armstrong_43:

(3, 29571), (Start: 46 @29796 has 10 MA's), (Start: 52 @29814 has 1 MA's), (74, 29961), (77, 29970), (80, 29985), (86, 30009), (104, 30096), (109, 30108), (115, 30126), (130, 30213), (131, 30219), (138, 30264), (142, 30285), (147, 30303), (187, 30495), (193, 30510),

Gene: Arroyo_46 Start: 32377, Stop: 33162, Start Num: 51

Candidate Starts for Arroyo_46:

(4, 32161), (Start: 44 @32365 has 1 MA's), (Start: 51 @32377 has 14 MA's), (53, 32401), (72, 32530), (77, 32551), (96, 32638), (107, 32683), (109, 32689), (131, 32800), (140, 32860), (142, 32866), (153, 32917), (156, 32929), (187, 33076), (199, 33109),

Gene: Asa16_42 Start: 32994, Stop: 33812, Start Num: 43

Candidate Starts for Asa16_42:

(34, 32982), (Start: 43 @32994 has 48 MA's), (65, 33123), (131, 33456), (138, 33501), (139, 33510), (176, 33645), (185, 33675), (204, 33786),

Gene: Ascela_44 Start: 32212, Stop: 33024, Start Num: 43

Candidate Starts for Ascela_44:

(Start: 43 @32212 has 48 MA's), (57, 32287), (65, 32341), (81, 32431), (131, 32677), (133, 32695), (138, 32722), (152, 32764), (200, 32950), (204, 32998),

Gene: Ashes_41 Start: 30453, Stop: 31253, Start Num: 45

Candidate Starts for Ashes_41:

(14, 30351), (Start: 36 @30435 has 5 MA's), (Start: 45 @30453 has 7 MA's), (84, 30675), (100, 30756), (131, 30900), (133, 30918), (167, 31035), (169, 31047), (204, 31227), (206, 31239),

Gene: AvGardian_47 Start: 32285, Stop: 33004, Start Num: 49

Candidate Starts for AvGardian_47:

(4, 32069), (Start: 44 @32273 has 1 MA's), (Start: 49 @32285 has 40 MA's), (54, 32318), (69, 32426), (72, 32438), (77, 32459), (86, 32498), (104, 32585), (109, 32597), (115, 32615), (130, 32702), (131, 32708), (142, 32774), (147, 32792), (156, 32837), (157, 32843), (164, 32870), (178, 32936), (187, 32984),

Gene: Avocadoman_44 Start: 31398, Stop: 32117, Start Num: 49

Candidate Starts for Avocadoman_44:

(4, 31182), (Start: 44 @31386 has 1 MA's), (Start: 49 @31398 has 40 MA's), (94, 31647), (97, 31674), (109, 31710), (130, 31815), (131, 31821), (142, 31887), (149, 31911), (176, 32043), (177, 32046), (187, 32097),

Gene: BAjuniper_46 Start: 33187, Stop: 33909, Start Num: 49

Candidate Starts for BAjuniper_46:

(4, 32971), (Start: 44 @33175 has 1 MA's), (Start: 49 @33187 has 40 MA's), (72, 33340), (80, 33376), (86, 33400), (88, 33406), (89, 33412), (100, 33475), (109, 33499), (115, 33517), (130, 33604), (131, 33610), (142, 33676), (147, 33694), (187, 33886),

Gene: BabyDaisy_45 Start: 32232, Stop: 32951, Start Num: 49

Candidate Starts for BabyDaisy_45:

(4, 32016), (Start: 44 @32220 has 1 MA's), (Start: 49 @32232 has 40 MA's), (53, 32256), (77, 32406), (104, 32532), (109, 32544), (115, 32562), (117, 32577), (130, 32649), (131, 32655), (147, 32739), (155, 32778), (174, 32865), (181, 32892), (182, 32898), (187, 32931),

Gene: BabyYoda_46 Start: 33001, Stop: 33720, Start Num: 51

Candidate Starts for BabyYoda_46:

(4, 32785), (Start: 44 @32989 has 1 MA's), (Start: 51 @33001 has 14 MA's), (53, 33025), (74, 33166), (77, 33175), (86, 33214), (94, 33250), (107, 33307), (109, 33313), (131, 33424), (142, 33490), (147, 33508), (156, 33553), (163, 33583), (181, 33661), (187, 33700),

Gene: Bachaco_43 Start: 32963, Stop: 33685, Start Num: 49

Candidate Starts for Bachaco_43:

(Start: 44 @32951 has 1 MA's), (Start: 49 @32963 has 40 MA's), (54, 32996), (72, 33116), (74, 33128), (77, 33137), (97, 33239), (104, 33263), (109, 33275), (130, 33380), (131, 33386), (142, 33452), (174, 33596), (182, 33629), (187, 33662),

Gene: BaileyBlu_44 Start: 31818, Stop: 32633, Start Num: 41

Candidate Starts for BaileyBlu_44:

(Start: 41 @31818 has 3 MA's), (59, 31905), (63, 31941), (70, 31983), (82, 32040), (83, 32046), (106, 32154), (122, 32220), (180, 32475), (198, 32553), (204, 32607),

Gene: Barnstormer_49 Start: 33593, Stop: 34432, Start Num: 38

Candidate Starts for Barnstormer_49:

(2, 33335), (5, 33410), (18, 33524), (Start: 38 @33593 has 13 MA's), (131, 34025), (139, 34076), (141, 34085), (148, 34109), (204, 34382), (208, 34421),

Gene: Beaupre_44 Start: 30263, Stop: 31063, Start Num: 45

Candidate Starts for Beaupre_44:

(14, 30161), (Start: 36 @30245 has 5 MA's), (Start: 45 @30263 has 7 MA's), (84, 30485), (100, 30566), (131, 30710), (133, 30728), (167, 30845), (169, 30857), (204, 31037), (206, 31049),

Gene: BelmontSKP_46 Start: 32269, Stop: 33054, Start Num: 51

Candidate Starts for BelmontSKP_46:

(4, 32053), (Start: 44 @32257 has 1 MA's), (Start: 51 @32269 has 14 MA's), (53, 32293), (72, 32422), (77, 32443), (96, 32530), (107, 32575), (109, 32581), (127, 32674), (131, 32692), (140, 32752), (142, 32758), (153, 32809), (156, 32821), (181, 32929), (187, 32968), (199, 33001),

Gene: Bengal_46 Start: 31922, Stop: 32707, Start Num: 51

Candidate Starts for Bengal_46:

(4, 31706), (Start: 44 @31910 has 1 MA's), (Start: 51 @31922 has 14 MA's), (53, 31946), (64, 32030), (72, 32075), (77, 32096), (96, 32183), (107, 32228), (109, 32234), (115, 32252), (131, 32345), (140, 32405), (142, 32411), (153, 32462), (156, 32474), (187, 32621), (199, 32654),

Gene: Bernstein_43 Start: 29878, Stop: 30603, Start Num: 46

Candidate Starts for Bernstein_43:

(3, 29653), (6, 29680), (Start: 46 @29878 has 10 MA's), (Start: 52 @29896 has 1 MA's), (74, 30043), (77, 30052), (80, 30067), (86, 30091), (104, 30178), (109, 30190), (115, 30208), (130, 30295), (131, 30301), (138, 30346), (142, 30367), (147, 30385), (187, 30577), (193, 30592),

Gene: Berrie_46 Start: 33402, Stop: 34193, Start Num: 43

Candidate Starts for Berrie_46:

(Start: 43 @33402 has 48 MA's), (65, 33531), (69, 33561), (104, 33720), (131, 33849), (180, 34032), (200, 34119), (204, 34167),

Gene: Brahms_43 Start: 29798, Stop: 30523, Start Num: 46

Candidate Starts for Brahms_43:

(3, 29573), (6, 29600), (Start: 46 @29798 has 10 MA's), (Start: 52 @29816 has 1 MA's), (74, 29963), (77, 29972), (80, 29987), (86, 30011), (104, 30098), (109, 30110), (115, 30128), (130, 30215), (131, 30221), (138, 30266), (142, 30287), (147, 30305), (187, 30497), (193, 30512),

Gene: BubbaBear_44 Start: 31851, Stop: 32570, Start Num: 49

Candidate Starts for BubbaBear_44:

(Start: 44 @31839 has 1 MA's), (Start: 49 @31851 has 40 MA's), (94, 32100), (97, 32127), (109, 32163), (127, 32256), (130, 32268), (131, 32274), (142, 32340), (149, 32364), (176, 32496), (177, 32499), (187, 32550),

Gene: Buldak_42 Start: 30417, Stop: 31178, Start Num: 44

Candidate Starts for Buldak_42:

(4, 30204), (40, 30408), (Start: 44 @30417 has 1 MA's), (Start: 47 @30423 has 1 MA's), (Start: 49 @30429 has 40 MA's), (77, 30615), (100, 30729), (105, 30744), (116, 30783), (117, 30786), (131, 30864), (142, 30930), (163, 31026), (164, 31029), (187, 31146),

Gene: Burritobowl_45 Start: 31852, Stop: 32571, Start Num: 49

Candidate Starts for Burritobowl_45:

(4, 31636), (Start: 44 @31840 has 1 MA's), (Start: 49 @31852 has 40 MA's), (62, 31951), (69, 31993), (77, 32026), (86, 32065), (109, 32164), (117, 32197), (130, 32269), (131, 32275), (140, 32335), (142, 32341), (181, 32512), (187, 32551),

Gene: CallinAllBarbz_44 Start: 32005, Stop: 32820, Start Num: 41

Candidate Starts for CallinAllBarbz_44:

(Start: 41 @32005 has 3 MA's), (59, 32092), (63, 32128), (70, 32170), (83, 32233), (106, 32341), (115, 32371), (122, 32407), (180, 32662), (198, 32740), (204, 32794),

Gene: Cappuccino_41 Start: 30322, Stop: 31122, Start Num: 45

Candidate Starts for Cappuccino_41:

(Start: 36 @30304 has 5 MA's), (Start: 45 @30322 has 7 MA's), (84, 30544), (100, 30625), (131, 30769), (133, 30787), (167, 30904), (190, 31015), (201, 31063), (204, 31096), (206, 31108),

Gene: Caron_52 Start: 34597, Stop: 35439, Start Num: 38

Candidate Starts for Caron_52:

(26, 34555), (Start: 38 @34597 has 13 MA's), (78, 34789), (110, 34924), (131, 35029), (151, 35134), (159, 35170), (161, 35176), (204, 35392), (208, 35428),

Gene: Cashington_43 Start: 31231, Stop: 31950, Start Num: 49

Candidate Starts for Cashington_43:

(Start: 44 @31219 has 1 MA's), (Start: 49 @31231 has 40 MA's), (94, 31480), (97, 31507), (109, 31543), (127, 31636), (130, 31648), (131, 31654), (142, 31720), (149, 31744), (176, 31876), (177, 31879), (187, 31930),

Gene: Cassia_44 Start: 32176, Stop: 32967, Start Num: 43

Candidate Starts for Cassia_44:

(Start: 43 @32176 has 48 MA's), (65, 32305), (104, 32494), (131, 32623), (154, 32719), (172, 32776), (200, 32893), (204, 32941),

Gene: Celaena_43 Start: 32705, Stop: 33427, Start Num: 49

Candidate Starts for Celaena_43:

(Start: 44 @32693 has 1 MA's), (Start: 49 @32705 has 40 MA's), (54, 32738), (72, 32858), (74, 32870), (77, 32879), (109, 33017), (130, 33122), (131, 33128), (182, 33371), (187, 33404),

Gene: Cen1621_46 Start: 32188, Stop: 32991, Start Num: 38

Candidate Starts for Cen1621_46:

(24, 32140), (27, 32149), (Start: 38 @32188 has 13 MA's), (119, 32566), (130, 32626), (131, 32632), (132, 32644), (171, 32785), (200, 32908), (201, 32923), (204, 32956),

Gene: ChiliPepper_43 Start: 32335, Stop: 33057, Start Num: 49

Candidate Starts for ChiliPepper_43:

(4, 32119), (Start: 44 @32323 has 1 MA's), (Start: 49 @32335 has 40 MA's), (53, 32359), (69, 32476), (72, 32488), (74, 32500), (96, 32596), (98, 32614), (104, 32635), (109, 32647), (131, 32758), (142, 32824), (147, 32842), (156, 32887), (164, 32920), (182, 33001), (187, 33034),

Gene: Clayda5_44 Start: 29785, Stop: 30510, Start Num: 46

Candidate Starts for Clayda5_44:

(3, 29560), (6, 29587), (Start: 46 @29785 has 10 MA's), (Start: 52 @29803 has 1 MA's), (74, 29950), (77, 29959), (80, 29974), (86, 29998), (104, 30085), (109, 30097), (115, 30115), (130, 30202), (131, 30208), (138, 30253), (142, 30274), (147, 30292), (187, 30484), (193, 30499),

Gene: CliffHanger_47 Start: 31124, Stop: 31864, Start Num: 49

Candidate Starts for CliffHanger_47:

(Start: 49 @31124 has 40 MA's), (60, 31193), (77, 31307), (88, 31352), (90, 31364), (109, 31445), (115, 31463), (130, 31550), (131, 31556), (174, 31766), (187, 31832),

Gene: Coltrane_43 Start: 29798, Stop: 30523, Start Num: 46

Candidate Starts for Coltrane_43:

(3, 29573), (6, 29600), (Start: 46 @29798 has 10 MA's), (Start: 52 @29816 has 1 MA's), (74, 29963), (77, 29972), (80, 29987), (86, 30011), (104, 30098), (109, 30110), (115, 30128), (130, 30215), (131, 30221), (138, 30266), (142, 30287), (147, 30305), (187, 30497), (193, 30512),

Gene: Community_47 Start: 34215, Stop: 35021, Start Num: 43

Candidate Starts for Community_47:

(Start: 43 @34215 has 48 MA's), (65, 34344), (89, 34467), (131, 34674), (162, 34785), (200, 34947), (204, 34995),

Gene: Crewmate_50 Start: 32863, Stop: 33654, Start Num: 43

Candidate Starts for Crewmate_50:

(Start: 43 @32863 has 48 MA's), (104, 33181), (131, 33310), (190, 33547), (200, 33580), (204, 33628),

Gene: CroZenni_45 Start: 31772, Stop: 32557, Start Num: 51

Candidate Starts for CroZenni_45:

(4, 31556), (Start: 44 @31760 has 1 MA's), (Start: 51 @31772 has 14 MA's), (53, 31796), (64, 31880), (72, 31925), (77, 31946), (96, 32033), (107, 32078), (109, 32084), (115, 32102), (131, 32195), (140, 32255), (142, 32261), (153, 32312), (156, 32324), (187, 32471), (199, 32504),

Gene: CupcakePrincess_46 Start: 31958, Stop: 32680, Start Num: 49

Candidate Starts for CupcakePrincess_46:

(4, 31742), (Start: 44 @31946 has 1 MA's), (Start: 49 @31958 has 40 MA's), (53, 31982), (72, 32111), (77, 32132), (109, 32270), (130, 32375), (131, 32381), (142, 32447), (147, 32465), (187, 32657),

Gene: Cyan_45 Start: 32495, Stop: 33307, Start Num: 43

Candidate Starts for Cyan_45:

(Start: 43 @32495 has 48 MA's), (57, 32570), (65, 32624), (78, 32699), (81, 32714), (85, 32738), (131, 32960), (133, 32978), (152, 33047), (172, 33116), (200, 33233), (204, 33281),

Gene: DickRichards_44 Start: 32211, Stop: 32930, Start Num: 49

Candidate Starts for DickRichards_44:

(Start: 44 @32199 has 1 MA's), (Start: 49 @32211 has 40 MA's), (94, 32460), (109, 32523), (127, 32616), (130, 32628), (131, 32634), (142, 32700), (149, 32724), (176, 32856), (177, 32859), (187, 32910),

Gene: Didgeridoo_48 Start: 32578, Stop: 33297, Start Num: 49

Candidate Starts for Didgeridoo_48:

(Start: 44 @32566 has 1 MA's), (Start: 49 @32578 has 40 MA's), (53, 32602), (77, 32752), (104, 32878), (109, 32890), (115, 32908), (117, 32923), (130, 32995), (131, 33001), (147, 33085), (174, 33211), (181, 33238), (182, 33244), (187, 33277),

Gene: DirtyBubble_45 Start: 32669, Stop: 33388, Start Num: 51

Candidate Starts for DirtyBubble_45:

(Start: 44 @32657 has 1 MA's), (Start: 51 @32669 has 14 MA's), (53, 32693), (66, 32783), (72, 32822), (74, 32834), (77, 32843), (86, 32882), (94, 32918), (107, 32975), (109, 32981), (124, 33059), (131, 33092), (138, 33137), (142, 33158), (147, 33176), (156, 33221), (163, 33251), (181, 33329), (187, 33368),

Gene: Dismas_43 Start: 32288, Stop: 33010, Start Num: 49

Candidate Starts for Dismas_43:

(4, 32072), (Start: 44 @32276 has 1 MA's), (Start: 49 @32288 has 40 MA's), (53, 32312), (69, 32429), (72, 32441), (74, 32453), (96, 32549), (98, 32567), (104, 32588), (109, 32600), (131, 32711), (142, 32777), (147, 32795), (156, 32840), (164, 32873), (182, 32954), (187, 32987),

Gene: Donkey_41 Start: 30294, Stop: 31112, Start Num: 36

Candidate Starts for Donkey_41:

(Start: 36 @30294 has 5 MA's), (Start: 45 @30312 has 7 MA's), (84, 30534), (100, 30615), (131, 30759), (133, 30777), (167, 30894), (190, 31005), (201, 31053), (204, 31086), (206, 31098),

Gene: Doobus_44 Start: 31595, Stop: 32314, Start Num: 49

Candidate Starts for Doobus_44:

(4, 31379), (Start: 44 @31583 has 1 MA's), (Start: 49 @31595 has 40 MA's), (94, 31844), (97, 31871), (109, 31907), (127, 32000), (130, 32012), (131, 32018), (142, 32084), (149, 32108), (176, 32240), (177, 32243), (187, 32294),

Gene: DrManhattan_44 Start: 30654, Stop: 31463, Start Num: 43

Candidate Starts for DrManhattan_44:

(Start: 43 @30654 has 48 MA's), (65, 30783), (76, 30846), (131, 31110), (170, 31266), (190, 31356), (204, 31437),

Gene: DrSierra_42 Start: 30494, Stop: 31300, Start Num: 43

Candidate Starts for DrSierra_42:

(7, 30329), (9, 30344), (10, 30350), (Start: 43 @30494 has 48 MA's), (63, 30614), (65, 30623), (85, 30731), (89, 30746), (91, 30755), (126, 30929), (131, 30953), (162, 31064), (200, 31226), (204, 31274),

Gene: Eden_43 Start: 30525, Stop: 31250, Start Num: 46

Candidate Starts for Eden_43:

(Start: 46 @30525 has 10 MA's), (77, 30699), (104, 30825), (109, 30837), (115, 30855), (131, 30948), (134, 30969), (142, 31014), (147, 31032), (156, 31077), (175, 31164), (182, 31191), (187, 31224), (195, 31242),

Gene: Elezi_42 Start: 32991, Stop: 33809, Start Num: 43

Candidate Starts for Elezi_42:

(34, 32979), (Start: 43 @32991 has 48 MA's), (65, 33120), (131, 33453), (138, 33498), (139, 33507), (176, 33642), (185, 33672), (204, 33783),

Gene: Elva_47 Start: 32903, Stop: 33622, Start Num: 51

Candidate Starts for Elva_47:

(Start: 44 @32888 has 1 MA's), (Start: 51 @32903 has 14 MA's), (53, 32927), (54, 32936), (69, 33044), (74, 33068), (77, 33077), (94, 33152), (107, 33209), (109, 33215), (131, 33326), (145, 33401), (147, 33410), (156, 33455), (174, 33536), (181, 33563), (187, 33602), (191, 33611),

Gene: Emotion_50 Start: 34867, Stop: 35778, Start Num: 29

Candidate Starts for Emotion_50:

(Start: 29 @34867 has 2 MA's), (Start: 37 @34897 has 1 MA's), (39, 34903), (65, 35038), (71, 35077), (122, 35341), (131, 35398), (166, 35542), (170, 35563), (171, 35566), (183, 35611), (188, 35647), (204, 35728), (207, 35752),

Gene: Emotion_49 Start: 33922, Stop: 34743, Start Num: 38

Candidate Starts for Emotion_49:

(8, 33766), (31, 33901), (Start: 38 @33922 has 13 MA's), (83, 34159), (101, 34246), (118, 34318), (131, 34393), (139, 34447), (159, 34495), (204, 34717),

Gene: Eraser_42 Start: 33001, Stop: 33819, Start Num: 43

Candidate Starts for Eraser_42:

(34, 32989), (Start: 43 @33001 has 48 MA's), (65, 33130), (131, 33463), (138, 33508), (139, 33517), (176, 33652), (185, 33682), (204, 33793),

Gene: Eula_46 Start: 31944, Stop: 32666, Start Num: 49

Candidate Starts for Eula_46:

(4, 31728), (Start: 44 @31932 has 1 MA's), (Start: 49 @31944 has 40 MA's), (53, 31968), (72, 32097), (77, 32118), (88, 32163), (109, 32256), (130, 32361), (131, 32367), (142, 32433), (147, 32451), (187, 32643),

Gene: Exile_39 Start: 33484, Stop: 34293, Start Num: 41

Candidate Starts for Exile_39:

(Start: 41 @33484 has 3 MA's), (112, 33844), (120, 33886), (131, 33949), (133, 33967), (135, 33973), (180, 34135), (198, 34213), (204, 34267),

Gene: Finalfrontier_46 Start: 32803, Stop: 33522, Start Num: 49

Candidate Starts for Finalfrontier_46:

(4, 32587), (Start: 44 @32791 has 1 MA's), (Start: 49 @32803 has 40 MA's), (53, 32827), (72, 32956), (77, 32977), (109, 33115), (130, 33220), (131, 33226), (142, 33292), (147, 33310), (181, 33463), (187, 33502),

Gene: FlameThrower_43 Start: 32154, Stop: 32876, Start Num: 49

Candidate Starts for FlameThrower_43:

(Start: 44 @32142 has 1 MA's), (Start: 49 @32154 has 40 MA's), (54, 32187), (72, 32307), (74, 32319), (77, 32328), (109, 32466), (130, 32571), (131, 32577), (182, 32820), (187, 32853),

Gene: Floof_51 Start: 34481, Stop: 35374, Start Num: 38

Candidate Starts for Floof_51:

(22, 34421), (Start: 38 @34481 has 13 MA's), (89, 34733), (128, 34916), (131, 34928), (159, 35072), (176, 35153), (205, 35303), (209, 35342), (210, 35351), (211, 35357),

Gene: Franklin22_44 Start: 30400, Stop: 31122, Start Num: 46

Candidate Starts for Franklin22_44:

(Start: 46 @30400 has 10 MA's), (62, 30499), (77, 30574), (80, 30589), (86, 30613), (93, 30640), (104, 30700), (109, 30712), (121, 30763), (131, 30823), (134, 30844), (142, 30889), (147, 30907), (187, 31099),

Gene: Gack_43 Start: 30444, Stop: 31169, Start Num: 46

Candidate Starts for Gack_43:

(Start: 46 @30444 has 10 MA's), (Start: 52 @30462 has 1 MA's), (60, 30513), (77, 30618), (80, 30633), (98, 30723), (109, 30756), (121, 30807), (131, 30867), (142, 30933), (147, 30951), (187, 31143),

Gene: Gambol_42 Start: 30331, Stop: 31131, Start Num: 45

Candidate Starts for Gambol_42:

(Start: 36 @30313 has 5 MA's), (Start: 45 @30331 has 7 MA's), (84, 30553), (100, 30634), (131, 30778), (133, 30796), (167, 30913), (190, 31024), (201, 31072), (204, 31105), (206, 31117),

Gene: GardenState_50 Start: 33862, Stop: 34695, Start Num: 38

Candidate Starts for GardenState_50:

(Start: 38 @33862 has 13 MA's), (131, 34300), (161, 34435), (204, 34651),

Gene: Giorgio_42 Start: 30246, Stop: 31046, Start Num: 45

Candidate Starts for Giorgio_42:

(14, 30144), (Start: 36 @30228 has 5 MA's), (Start: 45 @30246 has 7 MA's), (84, 30468), (100, 30549), (131, 30693), (133, 30711), (167, 30828), (169, 30840), (204, 31020), (206, 31032),

Gene: Gretchen_50 Start: 35099, Stop: 35974, Start Num: 38

Candidate Starts for Gretchen_50:

(17, 35027), (Start: 38 @35099 has 13 MA's), (85, 35336), (89, 35351), (96, 35387), (128, 35534), (131, 35546), (140, 35606), (141, 35609), (146, 35627), (176, 35747), (183, 35768), (205, 35897), (210, 35945), (212, 35957),

Gene: Gumpizza_42 Start: 30202, Stop: 31002, Start Num: 45

Candidate Starts for Gumpizza_42:

(14, 30100), (Start: 36 @30184 has 5 MA's), (Start: 45 @30202 has 7 MA's), (84, 30424), (100, 30505), (131, 30649), (133, 30667), (167, 30784), (169, 30796), (204, 30976), (206, 30988),

Gene: Halsey_41 Start: 30440, Stop: 31258, Start Num: 36

Candidate Starts for Halsey_41:

(14, 30356), (Start: 36 @30440 has 5 MA's), (Start: 45 @30458 has 7 MA's), (84, 30680), (100, 30761), (131, 30905), (133, 30923), (167, 31040), (169, 31052), (190, 31151), (204, 31232), (206, 31244),

Gene: Honk_46 Start: 30645, Stop: 31490, Start Num: 38

Candidate Starts for Honk_46:

(20, 30585), (Start: 38 @30645 has 13 MA's), (79, 30843), (82, 30858), (91, 30894), (152, 31206), (171, 31257), (190, 31347), (204, 31428),

Gene: IAmGroot_50 Start: 34329, Stop: 35162, Start Num: 38

Candidate Starts for IAmGroot_50:

(Start: 38 @34329 has 13 MA's), (131, 34767), (161, 34902), (204, 35118),

Gene: Icarian_49 Start: 33677, Stop: 34396, Start Num: 50

Candidate Starts for Icarian_49:

(30, 33626), (Start: 50 @33677 has 1 MA's), (53, 33701), (66, 33791), (74, 33842), (77, 33851), (86, 33890), (94, 33926), (107, 33983), (109, 33989), (131, 34100), (138, 34145), (142, 34166), (147, 34184), (156, 34229), (157, 34235), (163, 34259), (181, 34337), (187, 34376),

Gene: IndyLu_45 Start: 32178, Stop: 32897, Start Num: 49

Candidate Starts for IndyLu_45:

(Start: 44 @32166 has 1 MA's), (Start: 49 @32178 has 40 MA's), (53, 32202), (77, 32352), (104, 32478), (109, 32490), (115, 32508), (117, 32523), (130, 32595), (131, 32601), (155, 32724), (181, 32838), (182, 32844), (187, 32877), (192, 32889),

Gene: Iter_44 Start: 32207, Stop: 33019, Start Num: 43

Candidate Starts for Iter_44:

(Start: 43 @32207 has 48 MA's), (57, 32282), (65, 32336), (81, 32426), (131, 32672), (133, 32690), (138, 32717), (152, 32759), (200, 32945), (204, 32993),

Gene: IttyBittyPiggy_45 Start: 31970, Stop: 32758, Start Num: 43

Candidate Starts for IttyBittyPiggy_45:

(16, 31886), (Start: 43 @31970 has 48 MA's), (65, 32099), (104, 32288), (131, 32417), (200, 32684), (204, 32732),

Gene: Jabb_46 Start: 31958, Stop: 32680, Start Num: 49

Candidate Starts for Jabb_46:

(4, 31742), (Start: 44 @31946 has 1 MA's), (Start: 49 @31958 has 40 MA's), (53, 31982), (72, 32111), (77, 32132), (109, 32270), (130, 32375), (131, 32381), (142, 32447), (147, 32465), (187, 32657),

Gene: Janeemi_47 Start: 34214, Stop: 35026, Start Num: 43

Candidate Starts for Janeemi_47:

(Start: 43 @34214 has 48 MA's), (63, 34334), (65, 34343), (69, 34373), (104, 34532), (131, 34661), (159, 34781), (200, 34952), (204, 35000),

Gene: Jankie_43 Start: 30673, Stop: 31491, Start Num: 40

Candidate Starts for Jankie_43:

(40, 30673), (65, 30808), (82, 30898), (83, 30904), (101, 30991), (122, 31078), (131, 31135), (198, 31411), (204, 31465), (206, 31477),

Gene: JasmineDragon_49 Start: 33132, Stop: 33989, Start Num: 25

Candidate Starts for JasmineDragon_49:

(Start: 25 @33132 has 1 MA's), (Start: 36 @33168 has 5 MA's), (Start: 42 @33177 has 1 MA's), (63, 33300), (83, 33399), (114, 33528), (131, 33639), (198, 33909), (204, 33963),

Gene: JasmineDragon_50 Start: 34166, Stop: 35137, Start Num: 37

Candidate Starts for JasmineDragon_50:

(Start: 29 @34136 has 2 MA's), (Start: 37 @34166 has 1 MA's), (39, 34172), (68, 34328), (70, 34340), (122, 34577), (133, 34652), (150, 34718), (161, 34754), (165, 34772), (171, 34799), (198, 34910), (203, 34955), (204, 34964), (214, 35111),

Gene: Joemato_45 Start: 32522, Stop: 33334, Start Num: 43

Candidate Starts for Joemato_45:

(Start: 43 @32522 has 48 MA's), (57, 32597), (65, 32651), (78, 32726), (81, 32741), (85, 32765), (131, 32987), (133, 33005), (152, 33074), (172, 33143), (200, 33260), (204, 33308),

Gene: JohnDoe_45 Start: 32518, Stop: 33330, Start Num: 43

Candidate Starts for JohnDoe_45:

(Start: 43 @32518 has 48 MA's), (57, 32593), (65, 32647), (78, 32722), (81, 32737), (85, 32761), (131, 32983), (133, 33001), (152, 33070), (172, 33139), (200, 33256), (204, 33304),

Gene: Johnathan_44 Start: 31234, Stop: 31953, Start Num: 49

Candidate Starts for Johnathan_44:

(Start: 44 @31222 has 1 MA's), (Start: 49 @31234 has 40 MA's), (69, 31375), (72, 31387), (77, 31408), (104, 31534), (109, 31546), (127, 31639), (130, 31651), (131, 31657), (136, 31693), (140, 31717), (142, 31723), (147, 31741), (181, 31894), (187, 31933),

Gene: Jovita_46 Start: 31973, Stop: 32692, Start Num: 49

Candidate Starts for Jovita_46:

(Start: 44 @31961 has 1 MA's), (Start: 49 @31973 has 40 MA's), (53, 31997), (69, 32114), (72, 32126), (77, 32147), (109, 32285), (130, 32390), (131, 32396), (142, 32462), (147, 32480), (181, 32633), (187, 32672),

Gene: Jstan_44 Start: 32983, Stop: 33813, Start Num: 34

Candidate Starts for Jstan_44:

(34, 32983), (Start: 43 @32995 has 48 MA's), (65, 33124), (131, 33457), (138, 33502), (139, 33511), (176, 33646), (185, 33676), (204, 33787),

Gene: JuneStar_46 Start: 34096, Stop: 34911, Start Num: 43

Candidate Starts for JuneStar_46:

(Start: 43 @34096 has 48 MA's), (62, 34213), (65, 34225), (85, 34333), (89, 34348), (131, 34555), (176, 34735), (200, 34831), (204, 34879),

Gene: Kalimba_41 Start: 30291, Stop: 31109, Start Num: 36

Candidate Starts for Kalimba_41:

(Start: 36 @30291 has 5 MA's), (Start: 45 @30309 has 7 MA's), (84, 30531), (100, 30612), (131, 30756), (133, 30774), (167, 30891), (190, 31002), (201, 31050), (204, 31083), (206, 31095),

Gene: Kate33_45 Start: 31923, Stop: 32642, Start Num: 49

Candidate Starts for Kate33_45:

(Start: 44 @31911 has 1 MA's), (Start: 49 @31923 has 40 MA's), (53, 31947), (77, 32097), (104, 32223), (109, 32235), (115, 32253), (117, 32268), (130, 32340), (131, 32346), (147, 32430), (155, 32469), (181, 32583), (182, 32589), (187, 32622), (192, 32634),

Gene: Katzastrophic_44 Start: 32284, Stop: 33006, Start Num: 49

Candidate Starts for Katzastrophic_44:

(Start: 44 @32272 has 1 MA's), (Start: 49 @32284 has 40 MA's), (54, 32317), (72, 32437), (74, 32449), (77, 32458), (109, 32596), (121, 32647), (131, 32707), (142, 32773), (147, 32791), (182, 32950), (187, 32983),

Gene: Kaylissa_46 Start: 32908, Stop: 33726, Start Num: 43

Candidate Starts for Kaylissa_46:

(Start: 43 @32908 has 48 MA's), (63, 33028), (65, 33037), (86, 33142), (87, 33145), (89, 33154), (111, 33262), (117, 33292), (123, 33334), (131, 33370), (172, 33535), (200, 33652), (204, 33700),

Gene: KeAlii_42 Start: 32155, Stop: 32934, Start Num: 45

Candidate Starts for KeAlii_42:

(Start: 43 @32149 has 48 MA's), (Start: 45 @32155 has 7 MA's), (89, 32374), (108, 32467), (127, 32563), (131, 32581), (204, 32908), (206, 32920),

Gene: Kenzers_46 Start: 32014, Stop: 32736, Start Num: 49

Candidate Starts for Kenzers_46:

(4, 31798), (Start: 44 @32002 has 1 MA's), (Start: 49 @32014 has 40 MA's), (74, 32179), (77, 32188), (86, 32227), (96, 32275), (97, 32290), (104, 32314), (109, 32326), (115, 32344), (130, 32431), (131, 32437), (142, 32503), (181, 32677), (187, 32716),

Gene: Kieran_43 Start: 32296, Stop: 33018, Start Num: 49

Candidate Starts for Kieran_43:

(4, 32080), (Start: 44 @32284 has 1 MA's), (Start: 49 @32296 has 40 MA's), (53, 32320), (69, 32437), (72, 32449), (74, 32461), (96, 32557), (98, 32575), (104, 32596), (109, 32608), (131, 32719), (142, 32785), (147, 32803), (156, 32848), (182, 32962), (187, 32995),

Gene: LadyAstra_52 Start: 34290, Stop: 35267, Start Num: 37

Candidate Starts for LadyAstra_52:

(12, 34194), (Start: 37 @34290 has 1 MA's), (39, 34296), (68, 34455), (70, 34467), (122, 34704), (133, 34779), (150, 34845), (161, 34881), (171, 34926), (198, 35040), (203, 35085), (204, 35094), (213, 35187), (214, 35241),

Gene: LadyAstra_51 Start: 33299, Stop: 34114, Start Num: 42

Candidate Starts for LadyAstra_51:

(Start: 42 @33299 has 1 MA's), (63, 33422), (83, 33521), (87, 33533), (114, 33650), (124, 33716), (131, 33761), (160, 33869), (204, 34088),

Gene: Lahqtemish_45 Start: 32204, Stop: 32989, Start Num: 51

Candidate Starts for Lahqtemish_45:

(Start: 44 @32192 has 1 MA's), (Start: 51 @32204 has 14 MA's), (53, 32228), (72, 32357), (77, 32378), (96, 32465), (107, 32510), (109, 32516), (131, 32627), (140, 32687), (142, 32693), (153, 32744), (156, 32756), (181, 32864), (187, 32903), (199, 32936),

Gene: Lego_44 Start: 32226, Stop: 33044, Start Num: 43

Candidate Starts for Lego_44:

(Start: 43 @32226 has 48 MA's), (63, 32346), (65, 32355), (86, 32460), (87, 32463), (89, 32472), (111, 32580), (117, 32610), (131, 32688), (172, 32853), (200, 32970), (204, 33018),

Gene: Liebe_45 Start: 33847, Stop: 34644, Start Num: 43

Candidate Starts for Liebe_45:

(Start: 43 @33847 has 48 MA's), (53, 33889), (63, 33967), (91, 34096), (92, 34099), (115, 34201), (131, 34294), (183, 34498), (204, 34618), (206, 34630),

Gene: LimaBean_45 Start: 31536, Stop: 32321, Start Num: 51

Candidate Starts for LimaBean_45:

(4, 31320), (Start: 44 @31524 has 1 MA's), (Start: 51 @31536 has 14 MA's), (53, 31560), (64, 31644), (72, 31689), (77, 31710), (96, 31797), (107, 31842), (109, 31848), (115, 31866), (131, 31959), (140, 32019), (142, 32025), (153, 32076), (156, 32088), (187, 32235), (199, 32268),

Gene: Lizalica_43 Start: 31676, Stop: 32488, Start Num: 43

Candidate Starts for Lizalica_43:

(Start: 43 @31676 has 48 MA's), (53, 31718), (65, 31805), (75, 31865), (81, 31895), (85, 31919), (131, 32141), (133, 32159), (138, 32186), (152, 32228), (200, 32414), (204, 32462),

Gene: London_42 Start: 32991, Stop: 33809, Start Num: 43

Candidate Starts for London_42:

(34, 32979), (Start: 43 @32991 has 48 MA's), (65, 33120), (131, 33453), (138, 33498), (139, 33507), (176, 33642), (185, 33672), (204, 33783),

Gene: Loviatar_82 Start: 33899, Stop: 34618, Start Num: 51

Candidate Starts for Loviatar_82:

(4, 33683), (Start: 44 @33887 has 1 MA's), (Start: 51 @33899 has 14 MA's), (53, 33923), (66, 34013), (74, 34064), (77, 34073), (86, 34112), (94, 34148), (107, 34205), (109, 34211), (131, 34322), (142, 34388), (147, 34406), (156, 34451), (163, 34481), (181, 34559), (187, 34598), (191, 34607),

Gene: Lynlen_46 Start: 32014, Stop: 32733, Start Num: 49

Candidate Starts for Lynlen_46:

(4, 31798), (Start: 44 @32002 has 1 MA's), (Start: 49 @32014 has 40 MA's), (69, 32155), (77, 32188), (104, 32314), (109, 32326), (130, 32431), (131, 32437), (136, 32473), (140, 32497), (142, 32503), (181, 32674), (187, 32713), (192, 32725),

Gene: MaGuCo_42 Start: 32331, Stop: 33128, Start Num: 43

Candidate Starts for MaGuCo_42:

(Start: 43 @32331 has 48 MA's), (53, 32373), (63, 32451), (91, 32580), (92, 32583), (115, 32685), (131, 32778), (183, 32982), (204, 33102), (206, 33114),

Gene: Mabodamaca_50 Start: 35098, Stop: 35934, Start Num: 38

Candidate Starts for Mabodamaca_50:

(Start: 38 @35098 has 13 MA's), (56, 35161), (60, 35185), (113, 35434), (131, 35530), (144, 35602), (204, 35887),

Gene: Maureen_45 Start: 33847, Stop: 34644, Start Num: 43

Candidate Starts for Maureen_45:

(Start: 43 @33847 has 48 MA's), (53, 33889), (63, 33967), (91, 34096), (92, 34099), (115, 34201), (131, 34294), (183, 34498), (204, 34618), (206, 34630),

Gene: Milomuff_46 Start: 31760, Stop: 32479, Start Num: 49

Candidate Starts for Milomuff_46:

(Start: 44 @31748 has 1 MA's), (Start: 49 @31760 has 40 MA's), (94, 32009), (97, 32036), (109, 32072), (127, 32165), (130, 32177), (131, 32183), (142, 32249), (149, 32273), (176, 32405), (177, 32408), (187, 32459),

Gene: MiniMommy_52 Start: 34167, Stop: 35138, Start Num: 37

Candidate Starts for MiniMommy_52:

(Start: 29 @34137 has 2 MA's), (Start: 37 @34167 has 1 MA's), (39, 34173), (68, 34329), (70, 34341), (122, 34578), (133, 34653), (150, 34719), (161, 34755), (165, 34773), (171, 34800), (198, 34911), (203, 34956), (204, 34965), (214, 35112),

Gene: MiniMommy_51 Start: 33178, Stop: 33990, Start Num: 42

Candidate Starts for MiniMommy_51:

(Start: 25 @33133 has 1 MA's), (Start: 36 @33169 has 5 MA's), (Start: 42 @33178 has 1 MA's), (63, 33301), (83, 33400), (114, 33529), (131, 33640), (198, 33910), (204, 33964),

Gene: MissSwiss_45 Start: 31166, Stop: 31975, Start Num: 43

Candidate Starts for MissSwiss_45:

(Start: 43 @31166 has 48 MA's), (65, 31295), (76, 31358), (103, 31493), (131, 31622), (170, 31778), (196, 31883), (204, 31949),

Gene: Moss_41 Start: 30380, Stop: 31198, Start Num: 36

Candidate Starts for Moss_41:

(14, 30296), (Start: 36 @30380 has 5 MA's), (Start: 45 @30398 has 7 MA's), (84, 30620), (100, 30701), (131, 30845), (133, 30863), (167, 30980), (169, 30992), (190, 31091), (204, 31172), (206, 31184),

Gene: MsUbiquitous_46 Start: 31958, Stop: 32680, Start Num: 49

Candidate Starts for MsUbiquitous_46:

(4, 31742), (Start: 44 @31946 has 1 MA's), (Start: 49 @31958 has 40 MA's), (53, 31982), (72, 32111), (77, 32132), (109, 32270), (130, 32375), (131, 32381), (142, 32447), (147, 32465), (187, 32657),

Gene: Mudpuppy_41 Start: 32165, Stop: 32983, Start Num: 43

Candidate Starts for Mudpuppy_41:

(Start: 43 @32165 has 48 MA's), (63, 32285), (65, 32294), (87, 32402), (89, 32411), (111, 32519), (117, 32549), (131, 32627), (172, 32792), (200, 32909), (204, 32957),

Gene: Mysterium_40 Start: 30210, Stop: 31028, Start Num: 36

Candidate Starts for Mysterium_40:

(14, 30126), (Start: 36 @30210 has 5 MA's), (Start: 45 @30228 has 7 MA's), (84, 30450), (100, 30531), (131, 30675), (133, 30693), (167, 30810), (169, 30822), (204, 31002), (206, 31014),

Gene: Nicky22_46 Start: 32406, Stop: 33125, Start Num: 51

Candidate Starts for Nicky22_46:

(Start: 44 @32394 has 1 MA's), (Start: 51 @32406 has 14 MA's), (53, 32430), (74, 32571), (77, 32580), (86, 32619), (98, 32685), (107, 32712), (109, 32718), (131, 32829), (147, 32913), (156, 32958), (163, 32988), (174, 33039), (181, 33066), (187, 33105),

Gene: Niobe_42 Start: 32995, Stop: 33813, Start Num: 43

Candidate Starts for Niobe_42:

(34, 32983), (Start: 43 @32995 has 48 MA's), (65, 33124), (131, 33457), (138, 33502), (139, 33511), (176, 33646), (185, 33676), (204, 33787),

Gene: Nitro_43 Start: 32794, Stop: 33615, Start Num: 43

Candidate Starts for Nitro_43:

(Start: 43 @32794 has 48 MA's), (65, 32923), (76, 32986), (131, 33250), (143, 33316), (168, 33406), (170, 33418), (176, 33445), (200, 33541), (204, 33589),

Gene: ObiToo_50 Start: 33306, Stop: 34097, Start Num: 43

Candidate Starts for ObiToo_50:

(Start: 43 @33306 has 48 MA's), (104, 33624), (131, 33753), (190, 33990), (200, 34023), (204, 34071),

Gene: Olliecat_42 Start: 30495, Stop: 31241, Start Num: 49

Candidate Starts for Olliecat_42:

(Start: 47 @30489 has 1 MA's), (Start: 49 @30495 has 40 MA's), (55, 30537), (77, 30681), (104, 30807), (116, 30849), (131, 30930), (142, 30996), (151, 31038), (163, 31092), (164, 31095), (176, 31155), (179, 31167), (182, 31176), (186, 31203), (187, 31209),

Gene: PastaFagioli_46 Start: 32598, Stop: 33383, Start Num: 51

Candidate Starts for PastaFagioli_46:

(Start: 44 @32586 has 1 MA's), (Start: 51 @32598 has 14 MA's), (53, 32622), (72, 32751), (77, 32772), (96, 32859), (107, 32904), (109, 32910), (131, 33021), (140, 33081), (142, 33087), (153, 33138), (156,

33150), (187, 33297), (199, 33330),

Gene: Percival_51 Start: 34934, Stop: 35809, Start Num: 38

Candidate Starts for Percival_51:

(17, 34862), (Start: 38 @34934 has 13 MA's), (85, 35171), (89, 35186), (96, 35222), (128, 35369), (131, 35381), (140, 35441), (141, 35444), (146, 35462), (176, 35582), (183, 35603), (205, 35732), (210, 35780), (212, 35792),

Gene: PhigPhack_46 Start: 31778, Stop: 32497, Start Num: 49

Candidate Starts for PhigPhack_46:

(4, 31562), (Start: 44 @31766 has 1 MA's), (Start: 49 @31778 has 40 MA's), (77, 31952), (86, 31991), (104, 32078), (109, 32090), (117, 32123), (130, 32195), (131, 32201), (140, 32261), (142, 32267), (181, 32438), (187, 32477),

Gene: Phisb_46 Start: 32003, Stop: 32722, Start Num: 49

Candidate Starts for Phisb_46:

(4, 31787), (Start: 44 @31991 has 1 MA's), (Start: 49 @32003 has 40 MA's), (53, 32027), (69, 32144), (72, 32156), (77, 32177), (109, 32315), (130, 32420), (131, 32426), (142, 32492), (147, 32510), (181, 32663), (187, 32702),

Gene: Phives_48 Start: 34043, Stop: 34849, Start Num: 43

Candidate Starts for Phives_48:

(Start: 43 @34043 has 48 MA's), (65, 34172), (89, 34295), (131, 34502), (162, 34613), (200, 34775), (204, 34823),

Gene: Pixelle_45 Start: 33205, Stop: 34023, Start Num: 43

Candidate Starts for Pixelle_45:

(15, 33112), (17, 33127), (19, 33130), (Start: 36 @33196 has 5 MA's), (Start: 43 @33205 has 48 MA's), (65, 33334), (91, 33466), (131, 33667), (176, 33856), (185, 33886), (204, 33997),

Gene: Pixelle_46 Start: 34066, Stop: 35172, Start Num: 43

Candidate Starts for Pixelle_46:

(Start: 43 @34066 has 48 MA's), (70, 34228), (102, 34363), (131, 34498), (172, 34642), (173, 34648), (194, 34735), (200, 34759), (204, 34807), (215, 34960),

Gene: Powerpuff_47 Start: 33614, Stop: 34432, Start Num: 43

Candidate Starts for Powerpuff_47:

(Start: 43 @33614 has 48 MA's), (63, 33734), (65, 33743), (86, 33848), (87, 33851), (89, 33860), (111, 33968), (117, 33998), (131, 34076), (172, 34241), (200, 34358), (204, 34406),

Gene: Pumpkins_44 Start: 32640, Stop: 33479, Start Num: 43

Candidate Starts for Pumpkins_44:

(Start: 43 @32640 has 48 MA's), (65, 32769), (67, 32787), (76, 32832), (87, 32877), (131, 33099), (200, 33405), (204, 33453),

Gene: QMacho_48 Start: 32641, Stop: 33360, Start Num: 51

Candidate Starts for QMacho_48:

(4, 32425), (Start: 44 @32629 has 1 MA's), (Start: 51 @32641 has 14 MA's), (53, 32665), (74, 32806), (77, 32815), (86, 32854), (107, 32947), (109, 32953), (131, 33064), (142, 33130), (147, 33148), (156, 33193), (163, 33223), (181, 33301), (187, 33340),

Gene: Quenya_45 Start: 32476, Stop: 33198, Start Num: 49

Candidate Starts for Quenya_45:

(4, 32260), (Start: 44 @32464 has 1 MA's), (Start: 49 @32476 has 40 MA's), (54, 32509), (72, 32629), (74, 32641), (77, 32650), (94, 32725), (96, 32737), (104, 32776), (109, 32788), (115, 32806), (130, 32893), (131, 32899), (138, 32944), (142, 32965), (156, 33028), (164, 33061), (174, 33109), (187, 33175),

Gene: Reedo_44 Start: 30708, Stop: 31547, Start Num: 43

Candidate Starts for Reedo_44:

(Start: 43 @30708 has 48 MA's), (65, 30837), (67, 30855), (73, 30882), (117, 31092), (123, 31134), (131, 31170), (185, 31410), (204, 31521),

Gene: RockScotty_43 Start: 30226, Stop: 31026, Start Num: 45

Candidate Starts for RockScotty_43:

(14, 30124), (Start: 36 @30208 has 5 MA's), (Start: 45 @30226 has 7 MA's), (84, 30448), (100, 30529), (131, 30673), (133, 30691), (167, 30808), (169, 30820), (204, 31000), (206, 31012),

Gene: Rollins_43 Start: 29896, Stop: 30603, Start Num: 52

Candidate Starts for Rollins_43:

(3, 29653), (6, 29680), (Start: 46 @29878 has 10 MA's), (Start: 52 @29896 has 1 MA's), (74, 30043), (77, 30052), (80, 30067), (86, 30091), (104, 30178), (109, 30190), (115, 30208), (130, 30295), (131, 30301), (138, 30346), (142, 30367), (147, 30385), (187, 30577), (193, 30592),

Gene: Rona_43 Start: 32279, Stop: 33001, Start Num: 49

Candidate Starts for Rona_43:

(4, 32063), (Start: 44 @32267 has 1 MA's), (Start: 49 @32279 has 40 MA's), (53, 32303), (69, 32420), (72, 32432), (74, 32444), (96, 32540), (98, 32558), (104, 32579), (109, 32591), (131, 32702), (142, 32768), (147, 32786), (156, 32831), (164, 32864), (182, 32945), (187, 32978),

Gene: Sabourin_46 Start: 30309, Stop: 31109, Start Num: 45

Candidate Starts for Sabourin_46:

(Start: 36 @30291 has 5 MA's), (Start: 45 @30309 has 7 MA's), (84, 30531), (100, 30612), (131, 30756), (133, 30774), (167, 30891), (190, 31002), (201, 31050), (204, 31083), (206, 31095),

Gene: SanaSana_48 Start: 33508, Stop: 34227, Start Num: 51

Candidate Starts for SanaSana_48:

(4, 33292), (Start: 44 @33496 has 1 MA's), (Start: 51 @33508 has 14 MA's), (53, 33532), (66, 33622), (69, 33649), (74, 33673), (77, 33682), (86, 33721), (94, 33757), (98, 33787), (107, 33814), (109, 33820), (131, 33931), (142, 33997), (147, 34015), (156, 34060), (158, 34069), (163, 34090), (181, 34168), (187, 34207), (192, 34219),

Gene: SansAfet_46 Start: 31865, Stop: 32584, Start Num: 49

Candidate Starts for SansAfet_46:

(4, 31649), (Start: 44 @31853 has 1 MA's), (Start: 49 @31865 has 40 MA's), (62, 31964), (77, 32039), (86, 32078), (104, 32165), (109, 32177), (117, 32210), (130, 32282), (131, 32288), (140, 32348), (142, 32354), (147, 32372), (181, 32525), (187, 32564),

Gene: SarBear_45 Start: 31651, Stop: 32370, Start Num: 49

Candidate Starts for SarBear_45:

(4, 31435), (Start: 44 @31639 has 1 MA's), (Start: 49 @31651 has 40 MA's), (53, 31675), (72, 31804), (77, 31825), (109, 31963), (130, 32068), (131, 32074), (142, 32140), (147, 32158), (181, 32311), (187, 32350),

Gene: Shaffner_44 Start: 32695, Stop: 33489, Start Num: 43

Candidate Starts for Shaffner_44:

(Start: 43 @32695 has 48 MA's), (65, 32824), (104, 33013), (131, 33142), (154, 33235), (172, 33292), (200, 33409), (204, 33457),

Gene: ShakeltOph_52 Start: 34166, Stop: 35137, Start Num: 37

Candidate Starts for ShakeltOph_52:

(Start: 29 @34136 has 2 MA's), (Start: 37 @34166 has 1 MA's), (39, 34172), (68, 34328), (70, 34340), (122, 34577), (133, 34652), (150, 34718), (161, 34754), (165, 34772), (171, 34799), (198, 34910), (203, 34955), (204, 34964), (214, 35111),

Gene: ShakeltOph_51 Start: 33177, Stop: 33989, Start Num: 42

Candidate Starts for ShakeltOph_51:

(Start: 25 @33132 has 1 MA's), (Start: 36 @33168 has 5 MA's), (Start: 42 @33177 has 1 MA's), (63, 33300), (83, 33399), (114, 33528), (131, 33639), (198, 33909), (204, 33963),

Gene: Sharkboy_44 Start: 32378, Stop: 33100, Start Num: 49

Candidate Starts for Sharkboy_44:

(4, 32162), (Start: 44 @32366 has 1 MA's), (Start: 49 @32378 has 40 MA's), (53, 32402), (69, 32519), (72, 32531), (74, 32543), (96, 32639), (98, 32657), (104, 32678), (109, 32690), (131, 32801), (142, 32867), (147, 32885), (156, 32930), (164, 32963), (182, 33044), (187, 33077),

Gene: Shayna_45 Start: 31215, Stop: 31955, Start Num: 49

Candidate Starts for Shayna_45:

(4, 30999), (Start: 44 @31203 has 1 MA's), (Start: 49 @31215 has 40 MA's), (72, 31377), (74, 31389), (77, 31398), (107, 31530), (109, 31536), (129, 31638), (130, 31641), (131, 31647), (150, 31740), (163, 31806), (177, 31872), (182, 31890), (187, 31923),

Gene: Simpson_47 Start: 32526, Stop: 33338, Start Num: 43

Candidate Starts for Simpson_47:

(Start: 43 @32526 has 48 MA's), (57, 32601), (65, 32655), (78, 32730), (81, 32745), (85, 32769), (131, 32991), (133, 33009), (152, 33078), (172, 33147), (200, 33264), (204, 33312),

Gene: Skylord_43 Start: 29809, Stop: 30534, Start Num: 46

Candidate Starts for Skylord_43:

(3, 29584), (6, 29611), (Start: 46 @29809 has 10 MA's), (Start: 52 @29827 has 1 MA's), (74, 29974), (77, 29983), (80, 29998), (86, 30022), (104, 30109), (109, 30121), (115, 30139), (130, 30226), (131, 30232), (138, 30277), (142, 30298), (147, 30316), (187, 30508), (193, 30523),

Gene: Slay_46 Start: 32379, Stop: 33098, Start Num: 49

Candidate Starts for Slay_46:

(1, 32070), (4, 32163), (Start: 44 @32367 has 1 MA's), (Start: 49 @32379 has 40 MA's), (72, 32532), (77, 32553), (109, 32691), (130, 32796), (131, 32802), (142, 32868), (147, 32886), (181, 33039), (187, 33078), (192, 33090),

Gene: Snek_42 Start: 30604, Stop: 31398, Start Num: 43

Candidate Starts for Snek_42:

(11, 30475), (12, 30508), (13, 30511), (Start: 21 @30544 has 1 MA's), (33, 30595), (Start: 43 @30604 has 48 MA's), (65, 30733), (67, 30751), (131, 31039), (135, 31063), (160, 31156), (172, 31207), (185, 31258), (200, 31324), (204, 31372),

Gene: Softsoap_45 Start: 31776, Stop: 32495, Start Num: 49

Candidate Starts for Softsoap_45:

(Start: 44 @31764 has 1 MA's), (Start: 49 @31776 has 40 MA's), (94, 32025), (97, 32052), (109, 32088), (127, 32181), (130, 32193), (131, 32199), (142, 32265), (149, 32289), (176, 32421), (177,

32424), (187, 32475),

Gene: Solea_46 Start: 31760, Stop: 32479, Start Num: 49

Candidate Starts for Solea_46:

(Start: 44 @31748 has 1 MA's), (Start: 49 @31760 has 40 MA's), (94, 32009), (97, 32036), (109, 32072), (127, 32165), (130, 32177), (131, 32183), (142, 32249), (149, 32273), (176, 32405), (177, 32408), (187, 32459),

Gene: Soondubu_40 Start: 33487, Stop: 34296, Start Num: 41

Candidate Starts for Soondubu_40:

(Start: 41 @33487 has 3 MA's), (112, 33847), (120, 33889), (131, 33952), (133, 33970), (135, 33976), (180, 34138), (198, 34216), (204, 34270),

Gene: Sooty_41 Start: 30324, Stop: 31124, Start Num: 45

Candidate Starts for Sooty_41:

(Start: 36 @30306 has 5 MA's), (Start: 45 @30324 has 7 MA's), (84, 30546), (100, 30627), (131, 30771), (133, 30789), (167, 30906), (190, 31017), (201, 31065), (204, 31098), (206, 31110),

Gene: SpecialK_41 Start: 30306, Stop: 31106, Start Num: 45

Candidate Starts for SpecialK_41:

(14, 30204), (Start: 36 @30288 has 5 MA's), (Start: 45 @30306 has 7 MA's), (84, 30528), (100, 30609), (131, 30753), (133, 30771), (167, 30888), (169, 30900), (190, 30999), (204, 31080), (206, 31092),

Gene: Squircle_42 Start: 30488, Stop: 31240, Start Num: 47

Candidate Starts for Squircle_42:

(Start: 47 @30488 has 1 MA's), (Start: 49 @30494 has 40 MA's), (55, 30536), (77, 30680), (104, 30806), (116, 30848), (131, 30929), (142, 30995), (151, 31037), (163, 31091), (164, 31094), (176, 31154), (179, 31166), (182, 31175), (186, 31202), (187, 31208),

Gene: Stoor_46 Start: 33177, Stop: 33896, Start Num: 49

Candidate Starts for Stoor_46:

(4, 32961), (Start: 44 @33165 has 1 MA's), (Start: 49 @33177 has 40 MA's), (53, 33201), (54, 33210), (66, 33291), (69, 33318), (72, 33330), (74, 33342), (77, 33351), (86, 33390), (94, 33426), (97, 33453), (104, 33477), (109, 33489), (115, 33507), (130, 33594), (131, 33600), (140, 33660), (147, 33684), (163, 33759), (174, 33810), (176, 33822), (181, 33837), (182, 33843), (187, 33876), (189, 33882),

Gene: Stromboli_46 Start: 33039, Stop: 33758, Start Num: 51

Candidate Starts for Stromboli_46:

(4, 32823), (Start: 44 @33027 has 1 MA's), (Start: 51 @33039 has 14 MA's), (53, 33063), (74, 33204), (77, 33213), (86, 33252), (94, 33288), (107, 33345), (109, 33351), (131, 33462), (142, 33528), (147, 33546), (156, 33591), (163, 33621), (181, 33699), (187, 33738),

Gene: Stuu_45 Start: 30316, Stop: 31218, Start Num: 14

Candidate Starts for Stuu_45:

(14, 30316), (Start: 36 @30400 has 5 MA's), (Start: 45 @30418 has 7 MA's), (84, 30640), (100, 30721), (131, 30865), (133, 30883), (167, 31000), (169, 31012), (190, 31111), (204, 31192), (206, 31204),

Gene: SuMoo_53 Start: 34756, Stop: 35586, Start Num: 38

Candidate Starts for SuMoo_53:

(28, 34720), (Start: 38 @34756 has 13 MA's), (56, 34819), (60, 34843), (113, 35092), (131, 35188), (204, 35545),

Gene: Subaru_43 Start: 32979, Stop: 33809, Start Num: 34

Candidate Starts for Subaru_43:

(34, 32979), (Start: 43 @32991 has 48 MA's), (65, 33120), (131, 33453), (138, 33498), (139, 33507), (176, 33642), (185, 33672), (204, 33783),

Gene: Sue2_45 Start: 32968, Stop: 33750, Start Num: 45

Candidate Starts for Sue2_45:

(Start: 45 @32968 has 7 MA's), (101, 33265), (108, 33292), (131, 33406), (172, 33562), (183, 33604), (185, 33613), (204, 33724),

Gene: SunnyD_45 Start: 31220, Stop: 31960, Start Num: 49

Candidate Starts for SunnyD_45:

(4, 31004), (Start: 44 @31208 has 1 MA's), (Start: 49 @31220 has 40 MA's), (72, 31382), (74, 31394), (77, 31403), (107, 31535), (109, 31541), (130, 31646), (131, 31652), (150, 31745), (163, 31811), (177, 31877), (182, 31895), (187, 31928),

Gene: Swervy_46 Start: 31923, Stop: 32642, Start Num: 49

Candidate Starts for Swervy_46:

(Start: 44 @31911 has 1 MA's), (Start: 49 @31923 has 40 MA's), (53, 31947), (72, 32076), (77, 32097), (109, 32235), (130, 32340), (131, 32346), (142, 32412), (147, 32430), (181, 32583), (187, 32622),

Gene: Tallboi_44 Start: 33369, Stop: 34190, Start Num: 43

Candidate Starts for Tallboi_44:

(Start: 43 @33369 has 48 MA's), (65, 33498), (76, 33561), (123, 33789), (131, 33825), (176, 34020), (190, 34083), (200, 34116), (204, 34164),

Gene: Tbone_44 Start: 32394, Stop: 33212, Start Num: 43

Candidate Starts for Tbone_44:

(Start: 43 @32394 has 48 MA's), (63, 32514), (65, 32523), (86, 32628), (87, 32631), (89, 32640), (111, 32748), (117, 32778), (131, 32856), (172, 33021), (200, 33138), (204, 33186),

Gene: Teagster_46 Start: 32113, Stop: 32853, Start Num: 49

Candidate Starts for Teagster_46:

(Start: 44 @32101 has 1 MA's), (Start: 49 @32113 has 40 MA's), (72, 32275), (74, 32287), (77, 32296), (107, 32428), (109, 32434), (129, 32536), (130, 32539), (131, 32545), (150, 32638), (163, 32704), (177, 32770), (182, 32788), (187, 32821),

Gene: TforTroy_46 Start: 32506, Stop: 33342, Start Num: 43

Candidate Starts for TforTroy_46:

(Start: 43 @32506 has 48 MA's), (65, 32635), (67, 32653), (86, 32740), (87, 32743), (131, 32965), (141, 33028), (170, 33145), (183, 33193), (200, 33268), (204, 33316),

Gene: Tian_43 Start: 33180, Stop: 33998, Start Num: 43

Candidate Starts for Tian_43:

(15, 33087), (17, 33102), (19, 33105), (Start: 36 @33171 has 5 MA's), (Start: 43 @33180 has 48 MA's), (65, 33309), (91, 33441), (131, 33642), (176, 33831), (185, 33861), (204, 33972),

Gene: Tuck_48 Start: 34596, Stop: 35402, Start Num: 43

Candidate Starts for Tuck_48:

(Start: 43 @34596 has 48 MA's), (65, 34725), (89, 34848), (131, 35055), (162, 35166), (200, 35328), (204, 35376),

Gene: TukTuk_46 Start: 31931, Stop: 32650, Start Num: 49

Candidate Starts for TukTuk_46:

(4, 31715), (Start: 44 @31919 has 1 MA's), (Start: 49 @31931 has 40 MA's), (53, 31955), (72, 32084), (77, 32105), (109, 32243), (130, 32348), (131, 32354), (142, 32420), (147, 32438), (181, 32591), (187, 32630),

Gene: Turab_42 Start: 31623, Stop: 32456, Start Num: 35

Candidate Starts for Turab_42:

(35, 31623), (Start: 43 @31635 has 48 MA's), (65, 31764), (70, 31797), (76, 31827), (123, 32055), (131, 32091), (170, 32259), (200, 32382), (204, 32430),

Gene: Tutumahutu_46 Start: 32497, Stop: 33315, Start Num: 43

Candidate Starts for Tutumahutu_46:

(Start: 43 @32497 has 48 MA's), (63, 32617), (65, 32626), (86, 32731), (87, 32734), (89, 32743), (111, 32851), (117, 32881), (131, 32959), (172, 33124), (200, 33241), (204, 33289),

Gene: Tweety19_43 Start: 30544, Stop: 31398, Start Num: 21

Candidate Starts for Tweety19_43:

(11, 30475), (12, 30508), (13, 30511), (Start: 21 @30544 has 1 MA's), (33, 30595), (Start: 43 @30604 has 48 MA's), (65, 30733), (67, 30751), (131, 31039), (135, 31063), (160, 31156), (172, 31207), (185, 31258), (200, 31324), (204, 31372),

Gene: UtzChips_49 Start: 33579, Stop: 34418, Start Num: 38

Candidate Starts for UtzChips_49:

(2, 33321), (5, 33396), (18, 33510), (Start: 38 @33579 has 13 MA's), (85, 33801), (131, 34011), (139, 34062), (141, 34071), (148, 34095), (172, 34206), (204, 34368), (208, 34407),

Gene: VResidence_44 Start: 31752, Stop: 32570, Start Num: 43

Candidate Starts for VResidence_44:

(Start: 43 @31752 has 48 MA's), (65, 31881), (87, 31989), (89, 31998), (117, 32136), (131, 32214), (172, 32379), (180, 32409), (200, 32496), (204, 32544),

Gene: Vitas_43 Start: 29791, Stop: 30516, Start Num: 46

Candidate Starts for Vitas_43:

(3, 29566), (6, 29593), (Start: 46 @29791 has 10 MA's), (Start: 52 @29809 has 1 MA's), (74, 29956), (77, 29965), (80, 29980), (86, 30004), (104, 30091), (109, 30103), (115, 30121), (130, 30208), (131, 30214), (138, 30259), (142, 30280), (147, 30298), (187, 30490), (193, 30505),

Gene: VroomVroom_47 Start: 33099, Stop: 33911, Start Num: 42

Candidate Starts for VroomVroom_47:

(Start: 42 @33099 has 1 MA's), (58, 33183), (63, 33222), (83, 33321), (87, 33333), (97, 33393), (114, 33450), (125, 33525), (131, 33561), (204, 33885),

Gene: VroomVroom_48 Start: 34057, Stop: 35061, Start Num: 29

Candidate Starts for VroomVroom_48:

(Start: 29 @34057 has 2 MA's), (Start: 37 @34087 has 1 MA's), (39, 34093), (68, 34252), (70, 34264), (122, 34501), (133, 34576), (150, 34642), (161, 34678), (171, 34723), (198, 34834), (203, 34879), (204, 34888), (214, 35035),

Gene: WalkingDead_47 Start: 33791, Stop: 34510, Start Num: 51

Candidate Starts for WalkingDead_47:

(4, 33572), (Start: 51 @33791 has 14 MA's), (53, 33815), (54, 33824), (69, 33932), (72, 33944), (74, 33956), (77, 33965), (86, 34004), (94, 34040), (97, 34067), (104, 34091), (109, 34103), (115, 34121), (130, 34208), (131, 34214), (140, 34274), (147, 34298), (163, 34373), (174, 34424), (176, 34436), (181, 34451), (182, 34457), (187, 34490),

Gene: Warda_45 Start: 32571, Stop: 33389, Start Num: 43

Candidate Starts for Warda_45:

(Start: 43 @32571 has 48 MA's), (63, 32691), (65, 32700), (86, 32805), (87, 32808), (89, 32817), (111, 32925), (117, 32955), (131, 33033), (172, 33198), (200, 33315), (204, 33363),

Gene: Wildwest_43 Start: 31833, Stop: 32639, Start Num: 43

Candidate Starts for Wildwest_43:

(7, 31668), (9, 31683), (10, 31689), (Start: 43 @31833 has 48 MA's), (63, 31953), (65, 31962), (85, 32070), (89, 32085), (126, 32268), (131, 32292), (162, 32403), (200, 32565), (204, 32613),

Gene: Yang_44 Start: 31815, Stop: 32630, Start Num: 43

Candidate Starts for Yang_44:

(Start: 43 @31815 has 48 MA's), (62, 31932), (65, 31944), (85, 32052), (89, 32067), (131, 32274), (172, 32433), (176, 32454), (200, 32550), (204, 32598),

Gene: YesChef_45 Start: 32473, Stop: 33291, Start Num: 43

Candidate Starts for YesChef_45:

(Start: 43 @32473 has 48 MA's), (63, 32593), (65, 32602), (86, 32707), (87, 32710), (89, 32719), (111, 32827), (117, 32857), (131, 32935), (172, 33100), (200, 33217), (204, 33265),

Gene: Zeta1847_42 Start: 31621, Stop: 32589, Start Num: 23

Candidate Starts for Zeta1847_42:

(Start: 23 @31621 has 1 MA's), (32, 31654), (Start: 38 @31672 has 13 MA's), (48, 31687), (82, 31882), (85, 31894), (99, 31972), (130, 32104), (131, 32110), (132, 32122), (137, 32152), (154, 32227), (184, 32332), (202, 32431), (204, 32449), (206, 32461),