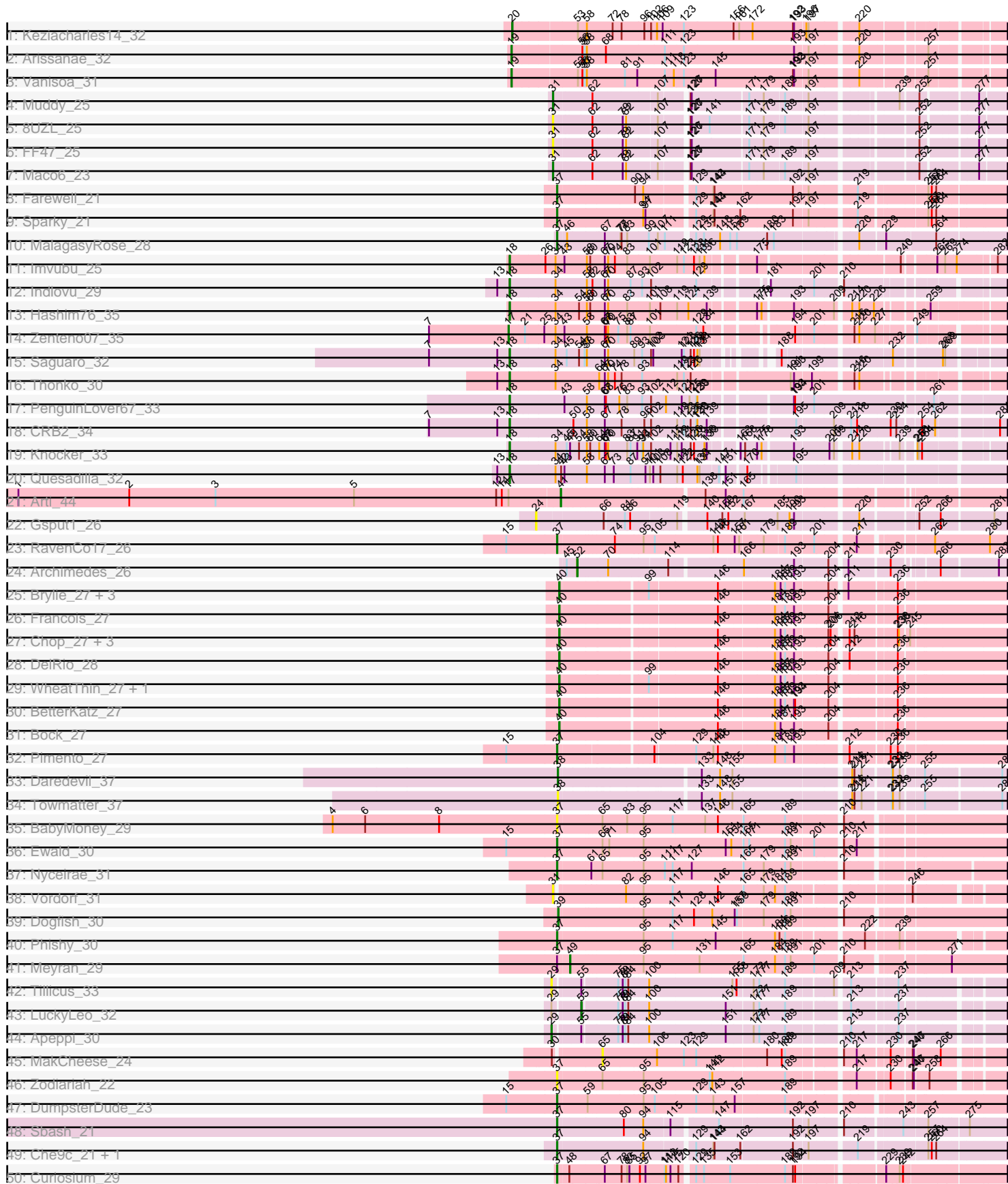
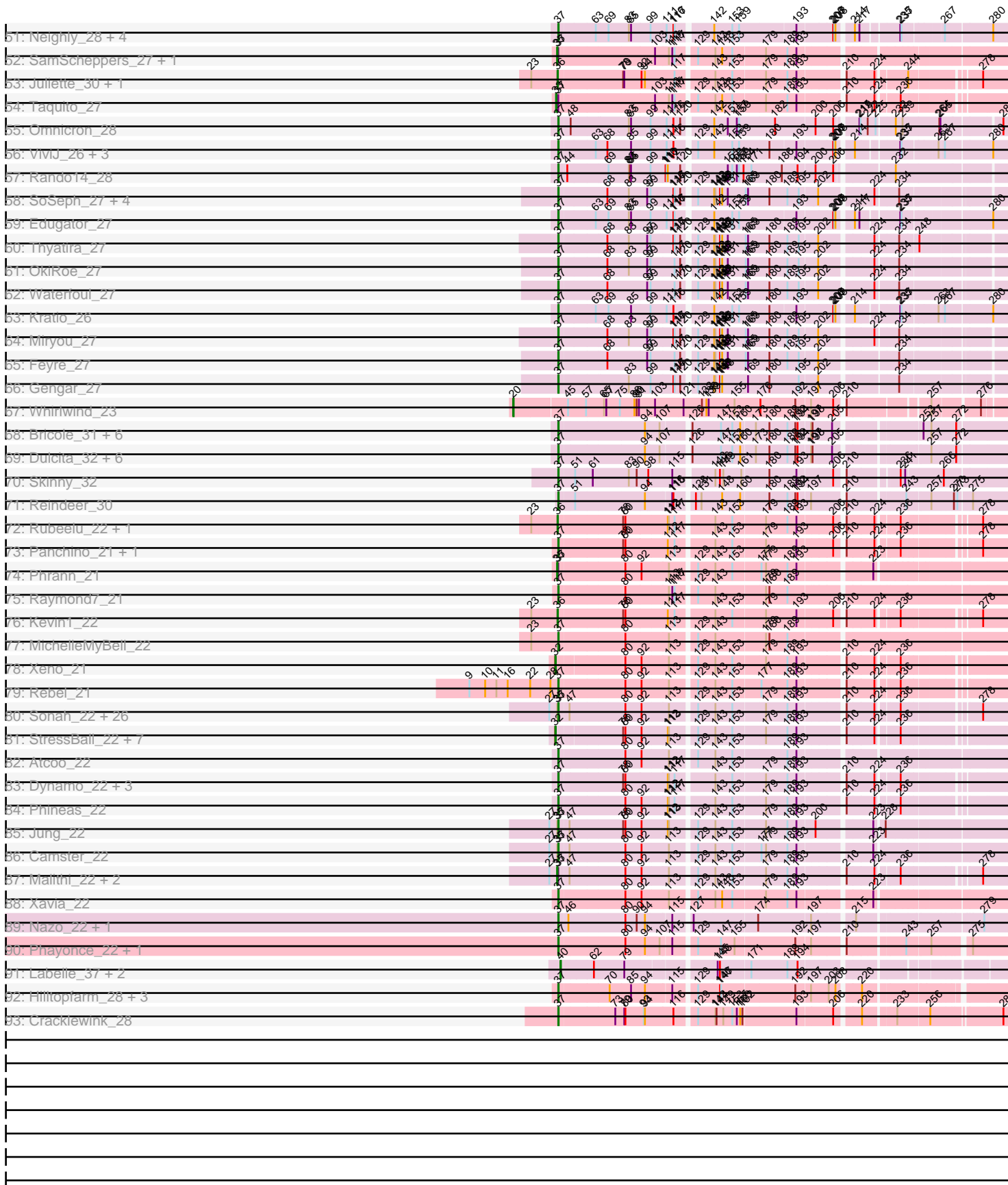


Pham 215888



Pham 215888



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 215888 Report

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

Pham number 215888 has 173 members, 23 are drafts.

Phages represented in each track:

- Track 1 : Keziacharles14_32
- Track 2 : Arissanae_32
- Track 3 : Vanisoa_31
- Track 4 : Muddy_25
- Track 5 : 8UZL_25
- Track 6 : FF47_25
- Track 7 : Maco6_23
- Track 8 : Farewell_21
- Track 9 : Sparky_21
- Track 10 : MalagasyRose_28
- Track 11 : Imvubu_25
- Track 12 : Indlovu_29
- Track 13 : Hashim76_35
- Track 14 : Zenteno07_35
- Track 15 : Saguaro_32
- Track 16 : Thonko_30
- Track 17 : PenguinLover67_33
- Track 18 : CRB2_34
- Track 19 : Knocker_33
- Track 20 : Quesadilla_32
- Track 21 : Arti_44
- Track 22 : Gsput1_26
- Track 23 : RavenCo17_26
- Track 24 : Archimedes_26
- Track 25 : Brylie_27, Mulch_27, Parada_27, NancyRae_27
- Track 26 : Francois_27
- Track 27 : Chop_27, Ayotoya_27, GrandSlam_27, Hamood_27
- Track 28 : DelRio_28
- Track 29 : WheatThin_27, Nadeem_27
- Track 30 : BetterKatz_27
- Track 31 : Bock_27
- Track 32 : Pimento_27
- Track 33 : Daredevil_37
- Track 34 : Towmatter_37
- Track 35 : BabyMoney_29
- Track 36 : Ewald_30
- Track 37 : Nyceirae_31

- Track 38 : Vordorf_31
- Track 39 : Dogfish_30
- Track 40 : Phishy_30
- Track 41 : Meyran_29
- Track 42 : Tillicus_33
- Track 43 : LuckyLeo_32
- Track 44 : Apeppi_30
- Track 45 : MakCheese_24
- Track 46 : Zodiariah_22
- Track 47 : DumpsterDude_23
- Track 48 : Sbash_21
- Track 49 : Che9c_21, Purky_22
- Track 50 : Curiosium_29
- Track 51 : Neighly_28, Larva_28, Psycho_28, Dadosky_28, AlleyCat_28
- Track 52 : SamScheppers_27, Eponine_29
- Track 53 : Juliette_30, Ruthiejr_29
- Track 54 : Taquito_27
- Track 55 : Omnicron_28
- Track 56 : ViviJ_26, InvictusManeo_27, Collard_27, Agent47_27
- Track 57 : Rando14_28
- Track 58 : SoSeph_27, Heftyboy_27, Paola_27, Guillsminger_27, Leston_27
- Track 59 : Edugator_27
- Track 60 : Thyatira_27
- Track 61 : OkiRoe_27
- Track 62 : Waterfoul_27
- Track 63 : Kratio_26
- Track 64 : Miryou_27
- Track 65 : Feyre_27
- Track 66 : Gengar_27
- Track 67 : Whirlwind_23
- Track 68 : Bricole_31, IPhane7_31, TyDawg_31, Bongo_31, FreakyGoo_31, PegLeg_31, LilhomieP_30
- Track 69 : Dulcita_32, Izel_30, Auspice_31, SlimJimmy_30, Diminimus_32, Glaske16_32, KleverKiS_31
- Track 70 : Skinny_32
- Track 71 : Reindeer_30
- Track 72 : Rubeelu_22, Butters_22
- Track 73 : Panchino_21, SkinnyPete_21
- Track 74 : Phrann_21
- Track 75 : Raymond7_21
- Track 76 : Kevin1_22
- Track 77 : MichelleMyBell_22
- Track 78 : Xeno_21
- Track 79 : Rebel_21
- Track 80 : Sonah_22, Bartholomew_22, Venti_22, Polkaroo_22, Bhagsy_22, Brusacoram_22, HUHilltop_22, Mangethe_22, Necropolis_22, Majeke_22, Babsiella_22, StevieRay_22, Bunnies_22, Vidya_22, FirstPlacePfu_22, Jebeks_22, Etoile_22, Donovan_22, Ksqared_22, Thespis_22, HC_22, Zilizebeth_22, Phegasus_22, Arib1_22, Juniormint_22, Fishburne_22, Techage_22
- Track 81 : StressBall_22, Glaske_22, Gavriela_22, KilKor_22, Phalm_22, Shweta_21, Megiddo_22, CactusJack_22
- Track 82 : Atcoo_22
- Track 83 : Dynamo_22, Andies_21, Willsammy_22, Scitech_21

- Track 84 : Phineas_22
- Track 85 : Jung_22
- Track 86 : Camster_22
- Track 87 : Malithi_22, Kari_22, Langerak_22
- Track 88 : Xavia_22
- Track 89 : Nazo_22, BigNuz_22
- Track 90 : Phayonce_22, ThulaThula_22
- Track 91 : Labelle_37, Madruga_36, Patience_38
- Track 92 : Hilltopfarm_28, AuntGwenStacy_28, Faiyaz_28, Typha_28
- Track 93 : Cracklewink_28

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

The start number called the most often in the published annotations is 37, it was called in 91 of the 150 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Agent47_27, AlleyCat_28, Andies_21, Arib1_22, Atcoo_22, AuntGwenStacy_28, Auspice_31, Babsiella_22, BabyMoney_29, Bartholomew_22, Bhagsy_22, BigNuz_22, Bongo_31, Bricole_31, Brusacoram_22, Bunnies_22, Camster_22, Che9c_21, Collard_27, Cracklewink_28, Curiosium_29, Dadosky_28, Diminimus_32, Donovan_22, Dulcita_32, DumpsterDude_23, Dynamo_22, Edugator_27, Etoile_22, Ewald_30, Faiyaz_28, Farewell_21, Feyre_27, FirstPlacePfu_22, Fishburne_22, FreakyGoo_31, Gengar_27, Glaske16_32, Guillsminger_27, HC_22, HUHilltop_22, Heftyboy_27, Hilltopfarm_28, IPhane7_31, InvictusManeo_27, Izel_30, Jebeks_22, Jung_22, Juniormint_22, KleverKiS_31, Kratio_26, Ksquared_22, Larva_28, Leston_27, LilhomieP_30, Majeke_22, MalagasyRose_28, Mangethe_22, MichelleMyBell_22, Miryou_27, Nazo_22, Necropolis_22, Neighly_28, Nyceirae_31, OkiRoe_27, Omnicron_28, Panchino_21, Paola_27, PegLeg_31, Phayonce_22, Phegasus_22, Phineas_22, Phishy_30, Pimento_27, Polkaroo_22, Psycho_28, Purky_22, Rando14_28, RavenCo17_26, Raymond7_21, Rebel_21, Reindeer_30, Sbash_21, Scitech_21, SkinnyPete_21, Skinny_32, SlimJimmy_30, SoSeph_27, Sonah_22, Sparky_21, StevieRay_22, Techage_22, Thespis_22, ThulaThula_22, Thyatira_27, TyDawg_31, Typha_28, Venti_22, Vidya_22, ViviJ_26, Waterfoul_27, Willsammy_22, Xavia_22, Zilizebeth_22, Zodiariah_22,

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

- Eponine_29, Kari_22, Langerak_22, Malithi_22, Meyran_29, Phrann_21, SamScheppers_27, Taquito_27,

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

- 8UZL_25, Apeppi_30, Archimedes_26, Arissanae_32, Arti_44, Ayotoya_27, BetterKatz_27, Bock_27, Brylie_27, Butters_22, CRB2_34, CactusJack_22, Chop_27, Daredevil_37, DelRio_28, Dogfish_30, FF47_25, Francois_27, Gavriela_22, Glaske_22, GrandSlam_27, Gsput1_26, Hamood_27, Hashim76_35, Imvubu_25, Indlovu_29, Juliette_30, Kevin1_22, Keziacharles14_32, KilKor_22, Knocker_33, Labelle_37, LuckyLeo_32, Maco6_23, Madruga_36, MakCheese_24, Megiddo_22, Muddy_25, Mulch_27, Nadeem_27, NancyRae_27, Parada_27, Patience_38, PenguinLover67_33, Phalm_22, Quesadilla_32, Rubeelu_22, Ruthiejr_29, Saguaro_32, Shweta_21, StressBall_22, Thonko_30, Tillicus_33,

Towmatter_37, Vanisoa_31, Vordorf_31, WheatThin_27, Whirlwind_23, Xeno_21, Zenteno07_35,

Summary by start number:

Start 17:

- Found in 2 of 173 (1.2%) of genes in pham
- Manual Annotations of this start: 1 of 150
- Called 50.0% of time when present
- Phage (with cluster) where this start called: Zenteno07_35 (B13),

Start 18:

- Found in 9 of 173 (5.2%) of genes in pham
- Manual Annotations of this start: 9 of 150
- Called 100.0% of time when present
- Phage (with cluster) where this start called: CRB2_34 (B9), Hashim76_35 (B13), Imvubu_25 (B10), Indlovu_29 (B11), Knocker_33 (B9), PenguinLover67_33 (B9), Quesadilla_32 (B9), Saguaro_32 (B7), Thonko_30 (B8),

Start 19:

- Found in 2 of 173 (1.2%) of genes in pham
- Manual Annotations of this start: 2 of 150
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Arissanae_32 (A9), Vanisoa_31 (A9),

Start 20:

- Found in 2 of 173 (1.2%) of genes in pham
- Manual Annotations of this start: 2 of 150
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Keziacharles14_32 (A9), Whirlwind_23 (L3),

Start 24:

- Found in 1 of 173 (0.6%) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Gsput1_26 (CU2),

Start 29:

- Found in 3 of 173 (1.7%) of genes in pham
- Manual Annotations of this start: 1 of 150
- Called 66.7% of time when present
- Phage (with cluster) where this start called: Apeppi_30 (DV), Tillicus_33 (DV),

Start 31:

- Found in 5 of 173 (2.9%) of genes in pham
- Manual Annotations of this start: 2 of 150
- Called 100.0% of time when present
- Phage (with cluster) where this start called: 8UZL_25 (AB), FF47_25 (AB), Maco6_23 (AB), Muddy_25 (AB), Vordorf_31 (DT),

Start 32:

- Found in 9 of 173 (5.2%) of genes in pham

- Manual Annotations of this start: 8 of 150
- Called 100.0% of time when present
- Phage (with cluster) where this start called: CactusJack_22 (P1), Gavriela_22 (P1), Glaske_22 (P1), KilKor_22 (P1), Megiddo_22 (P1), Phalm_22 (P1), Shweta_21 (N), StressBall_22 (P1), Xeno_21 (N),

Start 33:

- Found in 1 of 173 (0.6%) of genes in pham
- Manual Annotations of this start: 1 of 150
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Taquito_27 (K4),

Start 35:

- Found in 35 of 173 (20.2%) of genes in pham
- Manual Annotations of this start: 5 of 150
- Called 17.1% of time when present
- Phage (with cluster) where this start called: Eponine_29 (K4), Kari_22 (P1), Langerak_22 (P1), Malithi_22 (P1), Phrann_21 (N), SamScheppers_27 (K4),

Start 36:

- Found in 5 of 173 (2.9%) of genes in pham
- Manual Annotations of this start: 5 of 150
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Butters_22 (N), Juliette_30 (K4), Kevin1_22 (N), Rubeelu_22 (N), Ruthiejr_29 (K4),

Start 37:

- Found in 113 of 173 (65.3%) of genes in pham
- Manual Annotations of this start: 91 of 150
- Called 92.9% of time when present
- Phage (with cluster) where this start called: Agent47_27 (K5), AlleyCat_28 (K5), Andies_21 (N), Arib1_22 (P1), Atcoo_22 (P1), AuntGwenStacy_28 (Y), Auspice_31 (M1), Babsiella_22 (I1), BabyMoney_29 (DT), Bartholomew_22 (P1), Bhagsy_22 (P1), BigNuz_22 (P4), Bongo_31 (M1), Bricole_31 (M1), Brusacoram_22 (P1), Bunnies_22 (P1), Camster_22 (P1), Che9c_21 (I2), Collard_27 (K5), Cracklewink_28 (Y), Curiosium_29 (K1), Dadosky_28 (K5), Diminimus_32 (M1), Donovan_22 (P1), Dulcita_32 (M1), DumpsterDude_23 (DW), Dynamo_22 (P1), Edugator_27 (K5), Etoile_22 (P1), Ewald_30 (DT), Faiyaz_28 (Y), Farewell_21 (AF), Feyre_27 (K5), FirstPlacePfu_22 (P1), Fishburne_22 (P1), FreakyGoo_31 (M1), Gengar_27 (K5), Glaske16_32 (M1), Guillsminger_27 (K5), HC_22 (I1), HUHilltop_22 (P1), Heftyboy_27 (K5), Hilltopfarm_28 (Y), IPhane7_31 (M1), InvictusManeo_27 (K5), Izel_30 (M1), Jebeks_22 (P1), Jung_22 (P1), Juniormint_22 (P1), KleverKiS_31 (M1), Kratio_26 (K5), Ksquared_22 (P1), Larva_28 (K5), Leston_27 (K5), LilhomieP_30 (M1), Majeke_22 (P1), MalagasyRose_28 (AG), Mangethe_22 (P1), MichelleMyBell_22 (N), Miryou_27 (K5), Nazo_22 (P4), Necropolis_22 (P1), Neighly_28 (K3), Nyceirae_31 (DT), OkiRoe_27 (K5), Omnicron_28 (K5), Panchino_21 (N), Paola_27 (K5), PegLeg_31 (M1), Phayonce_22 (P5), Phegasus_22 (P1), Phineas_22 (P1), Phishy_30 (DT), Pimento_27 (DI), Polkaroo_22 (P1), Psycho_28 (K5), Purky_22 (P6), Rando14_28 (K5), RavenCo17_26 (CZ8), Raymond7_21 (N), Rebel_21 (N), Reindeer_30 (M1), Sbash_21 (I2), Scitech_21 (N), SkinnyPete_21 (N), Skinny_32 (M1), SlimJimmy_30 (M1), SoSeph_27 (K5), Sonah_22 (P1), Sparky_21 (AF), StevieRay_22 (P1), Techage_22 (P1), Thespis_22 (P1), ThulaThula_22 (P5), Thyatira_27 (K5), TyDawg_31 (M1), Typha_28 (Y),

Venti_22 (P1), Vidya_22 (P1), ViviJ_26 (K5), Waterfoul_27 (K5), Willsammy_22 (P1), Xavia_22 (P3), Zilizebeth_22 (P1), Zodiariah_22 (DW),

Start 38:

- Found in 2 of 173 (1.2%) of genes in pham
- Manual Annotations of this start: 1 of 150
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Daredevil_37 (DL), Towmatter_37 (DL),

Start 39:

- Found in 1 of 173 (0.6%) of genes in pham
- Manual Annotations of this start: 1 of 150
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Dogfish_30 (DT),

Start 40:

- Found in 17 of 173 (9.8%) of genes in pham
- Manual Annotations of this start: 17 of 150
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Ayotoya_27 (DI), BetterKatz_27 (DI), Bock_27 (DI), Brylie_27 (DI), Chop_27 (DI), DelRio_28 (DI), Francois_27 (DI), GrandSlam_27 (DI), Hamood_27 (DI), Labelle_37 (U), Madrugua_36 (U), Mulch_27 (DI), Nadeem_27 (DI), NancyRae_27 (DI), Parada_27 (DI), Patience_38 (U), WheatThin_27 (DI),

Start 41:

- Found in 1 of 173 (0.6%) of genes in pham
- Manual Annotations of this start: 1 of 150
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Arti_44 (CR2),

Start 49:

- Found in 2 of 173 (1.2%) of genes in pham
- Manual Annotations of this start: 1 of 150
- Called 50.0% of time when present
- Phage (with cluster) where this start called: Meyran_29 (DT),

Start 52:

- Found in 1 of 173 (0.6%) of genes in pham
- Manual Annotations of this start: 1 of 150
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Archimedes_26 (DA),

Start 55:

- Found in 3 of 173 (1.7%) of genes in pham
- Manual Annotations of this start: 1 of 150
- Called 33.3% of time when present
- Phage (with cluster) where this start called: LuckyLeo_32 (DV),

Start 65:

- Found in 6 of 173 (3.5%) of genes in pham
- No Manual Annotations of this start.
- Called 16.7% of time when present

- Phage (with cluster) where this start called: MakCheese_24 (DW),

Summary by clusters:

There are 35 clusters represented in this pham: DL, B10, DI, K4, CZ8, DA, K3, K1, AB, M1, B13, K5, B11, DV, DW, DT, AG, I1, I2, A9, P3, P1, P6, P4, P5, N, U, L3, Y, AF, CU2, CR2, B7, B8, B9,

Info for manual annotations of cluster A9:

- Start number 19 was manually annotated 2 times for cluster A9.
- Start number 20 was manually annotated 1 time for cluster A9.

Info for manual annotations of cluster AB:

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

Info for manual annotations of cluster AF:

- Start number 37 was manually annotated 2 times for cluster AF.

Info for manual annotations of cluster AG:

- Start number 37 was manually annotated 1 time for cluster AG.

Info for manual annotations of cluster B10:

- Start number 18 was manually annotated 1 time for cluster B10.

Info for manual annotations of cluster B11:

- Start number 18 was manually annotated 1 time for cluster B11.

Info for manual annotations of cluster B13:

- Start number 17 was manually annotated 1 time for cluster B13.
- Start number 18 was manually annotated 1 time for cluster B13.

Info for manual annotations of cluster B7:

- Start number 18 was manually annotated 1 time for cluster B7.

Info for manual annotations of cluster B8:

- Start number 18 was manually annotated 1 time for cluster B8.

Info for manual annotations of cluster B9:

- Start number 18 was manually annotated 4 times for cluster B9.

Info for manual annotations of cluster CR2:

- Start number 41 was manually annotated 1 time for cluster CR2.

Info for manual annotations of cluster CZ8:

- Start number 37 was manually annotated 1 time for cluster CZ8.

Info for manual annotations of cluster DA:

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

Info for manual annotations of cluster DI:

- Start number 37 was manually annotated 1 time for cluster DI.
- Start number 40 was manually annotated 14 times for cluster DI.

Info for manual annotations of cluster DL:

- Start number 38 was manually annotated 1 time for cluster DL.

Info for manual annotations of cluster DT:

- Start number 37 was manually annotated 3 times for cluster DT.
- Start number 39 was manually annotated 1 time for cluster DT.
- Start number 49 was manually annotated 1 time for cluster DT.

Info for manual annotations of cluster DV:

- Start number 29 was manually annotated 1 time for cluster DV.
- Start number 55 was manually annotated 1 time for cluster DV.

Info for manual annotations of cluster DW:

- Start number 37 was manually annotated 1 time for cluster DW.

Info for manual annotations of cluster I1:

- Start number 37 was manually annotated 2 times for cluster I1.

Info for manual annotations of cluster I2:

- Start number 37 was manually annotated 2 times for cluster I2.

Info for manual annotations of cluster K1:

- Start number 37 was manually annotated 1 time for cluster K1.

Info for manual annotations of cluster K4:

- Start number 33 was manually annotated 1 time for cluster K4.
- Start number 35 was manually annotated 2 times for cluster K4.
- Start number 36 was manually annotated 2 times for cluster K4.

Info for manual annotations of cluster K5:

- Start number 37 was manually annotated 22 times for cluster K5.

Info for manual annotations of cluster L3:

- Start number 20 was manually annotated 1 time for cluster L3.

Info for manual annotations of cluster M1:

- Start number 37 was manually annotated 13 times for cluster M1.

Info for manual annotations of cluster N:

- Start number 32 was manually annotated 2 times for cluster N.
- Start number 35 was manually annotated 1 time for cluster N.
- Start number 36 was manually annotated 3 times for cluster N.
- Start number 37 was manually annotated 6 times for cluster N.

Info for manual annotations of cluster P1:

- Start number 32 was manually annotated 6 times for cluster P1.
- Start number 35 was manually annotated 2 times for cluster P1.
- Start number 37 was manually annotated 27 times for cluster P1.

Info for manual annotations of cluster P3:

- Start number 37 was manually annotated 1 time for cluster P3.

Info for manual annotations of cluster P4:

- Start number 37 was manually annotated 2 times for cluster P4.

Info for manual annotations of cluster P5:

- Start number 37 was manually annotated 2 times for cluster P5.

Info for manual annotations of cluster P6:

- Start number 37 was manually annotated 1 time for cluster P6.

Info for manual annotations of cluster U:

- Start number 40 was manually annotated 3 times for cluster U.

Info for manual annotations of cluster Y:

- Start number 37 was manually annotated 3 times for cluster Y.

Gene Information:

Gene: 8UZL_25 Start: 21727, Stop: 22752, Start Num: 31

Candidate Starts for 8UZL_25:

(Start: 31 @21727 has 2 MA's), (62, 21817), (79, 21886), (82, 21895), (107, 21973), (126, 22036), (127, 22039), (141, 22087), (171, 22183), (179, 22219), (189, 22270), (197, 22327), (252, 22564), (277, 22690),

Gene: Agent47_27 Start: 24079, Stop: 25143, Start Num: 37

Candidate Starts for Agent47_27:

(Start: 37 @24079 has 91 MA's), (63, 24169), (68, 24196), (85, 24259), (99, 24307), (111, 24346), (116, 24364), (129, 24409), (142, 24448), (153, 24496), (159, 24514), (180, 24589), (193, 24655), (206, 24745), (207, 24748), (208, 24751), (214, 24784), (235, 24883), (237, 24886), (263, 24970), (267, 24982), (280, 25099),

Gene: AlleyCat_28 Start: 24010, Stop: 25074, Start Num: 37

Candidate Starts for AlleyCat_28:

(Start: 37 @24010 has 91 MA's), (63, 24100), (69, 24130), (83, 24184), (85, 24190), (99, 24238), (111, 24277), (116, 24295), (117, 24298), (142, 24379), (153, 24427), (159, 24445), (193, 24586), (206, 24676), (207, 24679), (208, 24682), (214, 24715), (217, 24727), (235, 24814), (237, 24817), (267, 24913), (280, 25030),

Gene: Andies_21 Start: 20194, Stop: 21228, Start Num: 37

Candidate Starts for Andies_21:

(Start: 37 @20194 has 91 MA's), (78, 20350), (80, 20356), (112, 20464), (113, 20467), (117, 20482), (143, 20569), (153, 20614), (179, 20695), (189, 20752), (193, 20776), (210, 20881), (224, 20953), (236, 20998),

Gene: Apeppi_30 Start: 28862, Stop: 29908, Start Num: 29

Candidate Starts for Apeppi_30:

(Start: 29 @28862 has 1 MA's), (Start: 55 @28919 has 1 MA's), (75, 29009), (79, 29018), (81, 29024), (84, 29033), (100, 29087), (151, 29285), (173, 29351), (177, 29363), (189, 29432), (213, 29573), (237, 29681),

Gene: Archimedes_26 Start: 23367, Stop: 24368, Start Num: 52

Candidate Starts for Archimedes_26:

(45, 23343), (Start: 52 @23367 has 1 MA's), (70, 23445), (114, 23595), (166, 23766), (193, 23898), (204, 23982), (211, 24018), (230, 24114), (266, 24213), (283, 24348),

Gene: Arib1_22 Start: 21305, Stop: 22342, Start Num: 37

Candidate Starts for Arib1_22:

(27, 21281), (Start: 35 @21302 has 5 MA's), (Start: 37 @21305 has 91 MA's), (47, 21329), (80, 21467), (92, 21509), (113, 21578), (129, 21638), (143, 21683), (153, 21728), (179, 21809), (189, 21866), (193, 21890), (210, 21995), (224, 22067), (236, 22112), (278, 22277),

Gene: Arissanae_32 Start: 24817, Stop: 26022, Start Num: 19

Candidate Starts for Arissanae_32:

(Start: 19 @24817 has 2 MA's), (56, 24994), (57, 25000), (58, 25003), (68, 25054), (111, 25210), (123, 25258), (193, 25552), (197, 25585), (220, 25696), (257, 25852),

Gene: Arti_44 Start: 34961, Stop: 36019, Start Num: 41

Candidate Starts for Arti_44:

(1, 33521), (2, 33818), (3, 34049), (5, 34418), (12, 34796), (14, 34811), (Start: 17 @34829 has 1 MA's), (Start: 41 @34961 has 1 MA's), (138, 35306), (151, 35357), (165, 35405),

Gene: Atcoo_22 Start: 21759, Stop: 22826, Start Num: 37

Candidate Starts for Atcoo_22:

(Start: 37 @21759 has 91 MA's), (80, 21921), (92, 21963), (113, 22032), (129, 22092), (143, 22137), (153, 22182), (189, 22320), (193, 22344),

Gene: AuntGwenStacy_28 Start: 26025, Stop: 27062, Start Num: 37

Candidate Starts for AuntGwenStacy_28:

(Start: 37 @26025 has 91 MA's), (70, 26148), (85, 26202), (94, 26238), (115, 26301), (129, 26349), (146, 26403), (147, 26406), (192, 26592), (197, 26628), (203, 26670), (208, 26688), (220, 26739),

Gene: Auspice_31 Start: 26992, Stop: 28047, Start Num: 37

Candidate Starts for Auspice_31:

(Start: 37 @26992 has 91 MA's), (94, 27205), (107, 27241), (126, 27304), (147, 27376), (153, 27406), (160, 27427), (173, 27463), (180, 27499), (189, 27547), (192, 27568), (194, 27574), (197, 27604), (198, 27607), (205, 27655), (257, 27865), (272, 27919),

Gene: Ayotoya_27 Start: 24101, Stop: 25168, Start Num: 40

Candidate Starts for Ayotoya_27:

(Start: 40 @24101 has 17 MA's), (146, 24479), (184, 24620), (187, 24635), (189, 24647), (193, 24671), (204, 24755), (206, 24761), (212, 24794), (216, 24806), (236, 24902), (238, 24905), (245, 24926),

Gene: Babsiella_22 Start: 21313, Stop: 22350, Start Num: 37

Candidate Starts for Babsiella_22:

(27, 21289), (Start: 35 @21310 has 5 MA's), (Start: 37 @21313 has 91 MA's), (47, 21337), (80, 21475), (92, 21517), (113, 21586), (129, 21646), (143, 21691), (153, 21736), (179, 21817), (189, 21874), (193, 21898), (210, 22003), (224, 22075), (236, 22120), (278, 22285),

Gene: BabyMoney_29 Start: 25948, Stop: 27033, Start Num: 37

Candidate Starts for BabyMoney_29:

(4, 25351), (6, 25438), (8, 25636), (Start: 37 @25948 has 91 MA's), (65, 26053), (83, 26116), (95, 26158), (117, 26236), (137, 26320), (146, 26350), (165, 26413), (189, 26521), (210, 26653),

Gene: Bartholomew_22 Start: 21299, Stop: 22336, Start Num: 37

Candidate Starts for Bartholomew_22:

(27, 21275), (Start: 35 @21296 has 5 MA's), (Start: 37 @21299 has 91 MA's), (47, 21323), (80, 21461), (92, 21503), (113, 21572), (129, 21632), (143, 21677), (153, 21722), (179, 21803), (189, 21860), (193, 21884), (210, 21989), (224, 22061), (236, 22106), (278, 22271),

Gene: BetterKatz_27 Start: 23574, Stop: 24641, Start Num: 40

Candidate Starts for BetterKatz_27:

(Start: 40 @23574 has 17 MA's), (146, 23952), (184, 24093), (187, 24108), (189, 24120), (193, 24144), (194, 24147), (204, 24228), (236, 24375),

Gene: Bhagsy_22 Start: 21306, Stop: 22343, Start Num: 37

Candidate Starts for Bhagsy_22:

(27, 21282), (Start: 35 @21303 has 5 MA's), (Start: 37 @21306 has 91 MA's), (47, 21330), (80, 21468), (92, 21510), (113, 21579), (129, 21639), (143, 21684), (153, 21729), (179, 21810), (189, 21867), (193, 21891), (210, 21996), (224, 22068), (236, 22113), (278, 22278),

Gene: BigNuz_22 Start: 21497, Stop: 22546, Start Num: 37

Candidate Starts for BigNuz_22:

(Start: 37 @21497 has 91 MA's), (46, 21518), (80, 21659), (90, 21689), (94, 21710), (115, 21773), (127, 21812), (174, 21971), (197, 22103), (215, 22199), (279, 22484),

Gene: Bock_27 Start: 23324, Stop: 24391, Start Num: 40

Candidate Starts for Bock_27:

(Start: 40 @23324 has 17 MA's), (146, 23702), (184, 23843), (187, 23858), (193, 23894), (204, 23978), (236, 24125),

Gene: Bongo_31 Start: 26992, Stop: 28047, Start Num: 37

Candidate Starts for Bongo_31:

(Start: 37 @26992 has 91 MA's), (94, 27205), (107, 27241), (126, 27304), (147, 27376), (153, 27406), (160, 27427), (173, 27463), (180, 27499), (189, 27547), (192, 27568), (194, 27574), (197, 27604), (198, 27607), (205, 27655), (253, 27844), (257, 27865), (272, 27919),

Gene: Bricole_31 Start: 26978, Stop: 28033, Start Num: 37

Candidate Starts for Bricole_31:

(Start: 37 @26978 has 91 MA's), (94, 27191), (107, 27227), (126, 27290), (147, 27362), (153, 27392), (160, 27413), (173, 27449), (180, 27485), (189, 27533), (192, 27554), (194, 27560), (197, 27590), (198, 27593), (205, 27641), (253, 27830), (257, 27851), (272, 27905),

Gene: Brusacoram_22 Start: 21299, Stop: 22336, Start Num: 37

Candidate Starts for Brusacoram_22:

(27, 21275), (Start: 35 @21296 has 5 MA's), (Start: 37 @21299 has 91 MA's), (47, 21323), (80, 21461), (92, 21503), (113, 21572), (129, 21632), (143, 21677), (153, 21722), (179, 21803), (189, 21860), (193, 21884), (210, 21989), (224, 22061), (236, 22106), (278, 22271),

Gene: Brylie_27 Start: 23315, Stop: 24382, Start Num: 40

Candidate Starts for Brylie_27:

(Start: 40 @23315 has 17 MA's), (99, 23525), (146, 23693), (184, 23834), (187, 23849), (189, 23861), (193, 23885), (204, 23969), (211, 24005), (236, 24116),

Gene: Bunnies_22 Start: 21321, Stop: 22358, Start Num: 37

Candidate Starts for Bunnies_22:

(27, 21297), (Start: 35 @21318 has 5 MA's), (Start: 37 @21321 has 91 MA's), (47, 21345), (80, 21483), (92, 21525), (113, 21594), (129, 21654), (143, 21699), (153, 21744), (179, 21825), (189, 21882), (193,

21906), (210, 22011), (224, 22083), (236, 22128), (278, 22293),

Gene: Butters_22 Start: 19998, Stop: 21038, Start Num: 36

Candidate Starts for Butters_22:

(23, 19932), (Start: 36 @19998 has 5 MA's), (78, 20157), (80, 20163), (112, 20271), (113, 20274), (117, 20289), (143, 20379), (153, 20424), (179, 20505), (189, 20562), (193, 20586), (206, 20673), (210, 20691), (224, 20763), (236, 20808), (278, 20973),

Gene: CRB2_34 Start: 34225, Stop: 35433, Start Num: 18

Candidate Starts for CRB2_34:

(7, 34009), (13, 34192), (Start: 18 @34225 has 9 MA's), (50, 34387), (58, 34423), (67, 34471), (78, 34516), (96, 34576), (102, 34594), (119, 34660), (123, 34678), (126, 34696), (129, 34711), (130, 34714), (139, 34738), (195, 34933), (209, 35023), (213, 35068), (218, 35083), (230, 35170), (234, 35185), (254, 35236), (262, 35269), (284, 35416),

Gene: CactusJack_22 Start: 21561, Stop: 22601, Start Num: 32

Candidate Starts for CactusJack_22:

(Start: 32 @21561 has 8 MA's), (78, 21720), (80, 21726), (92, 21768), (112, 21834), (113, 21837), (129, 21897), (143, 21942), (153, 21987), (179, 22068), (189, 22125), (193, 22149), (210, 22254), (224, 22326), (236, 22371),

Gene: Camster_22 Start: 21300, Stop: 22367, Start Num: 37

Candidate Starts for Camster_22:

(27, 21276), (Start: 35 @21297 has 5 MA's), (Start: 37 @21300 has 91 MA's), (47, 21324), (80, 21462), (92, 21504), (113, 21573), (129, 21633), (143, 21678), (153, 21723), (177, 21792), (179, 21804), (189, 21861), (193, 21885), (223, 22056),

Gene: Che9c_21 Start: 21007, Stop: 22053, Start Num: 37

Candidate Starts for Che9c_21:

(Start: 37 @21007 has 91 MA's), (94, 21220), (129, 21331), (143, 21373), (144, 21376), (162, 21445), (192, 21577), (197, 21613), (219, 21721), (257, 21874), (260, 21883), (264, 21895),

Gene: Chop_27 Start: 23849, Stop: 24916, Start Num: 40

Candidate Starts for Chop_27:

(Start: 40 @23849 has 17 MA's), (146, 24227), (184, 24368), (187, 24383), (189, 24395), (193, 24419), (204, 24503), (206, 24509), (212, 24542), (216, 24554), (236, 24650), (238, 24653), (245, 24674),

Gene: Collard_27 Start: 24040, Stop: 25104, Start Num: 37

Candidate Starts for Collard_27:

(Start: 37 @24040 has 91 MA's), (63, 24130), (68, 24157), (85, 24220), (99, 24268), (111, 24307), (116, 24325), (129, 24370), (142, 24409), (153, 24457), (159, 24475), (180, 24550), (193, 24616), (206, 24706), (207, 24709), (208, 24712), (214, 24745), (235, 24844), (237, 24847), (263, 24931), (267, 24943), (280, 25060),

Gene: Cracklewink_28 Start: 26155, Stop: 27216, Start Num: 37

Candidate Starts for Cracklewink_28:

(Start: 37 @26155 has 91 MA's), (73, 26293), (79, 26314), (80, 26317), (93, 26365), (94, 26368), (116, 26443), (129, 26488), (143, 26530), (144, 26533), (149, 26551), (153, 26575), (157, 26587), (160, 26596), (162, 26602), (193, 26734), (206, 26824), (220, 26881), (233, 26956), (256, 27037), (284, 27199),

Gene: Curiosium_29 Start: 23069, Stop: 24148, Start Num: 37

Candidate Starts for Curiosium_29:

(Start: 37 @23069 has 91 MA's), (48, 23096), (67, 23183), (78, 23228), (83, 23243), (85, 23249), (92, 23276), (97, 23291), (111, 23336), (112, 23339), (115, 23351), (120, 23372), (129, 23399), (135, 23420), (153, 23486), (189, 23630), (192, 23651), (194, 23657), (229, 23855), (239, 23888), (242, 23897),

Gene: Dadosky_28 Start: 24011, Stop: 25075, Start Num: 37

Candidate Starts for Dadosky_28:

(Start: 37 @24011 has 91 MA's), (63, 24101), (69, 24131), (83, 24185), (85, 24191), (99, 24239), (111, 24278), (116, 24296), (117, 24299), (142, 24380), (153, 24428), (159, 24446), (193, 24587), (206, 24677), (207, 24680), (208, 24683), (214, 24716), (217, 24728), (235, 24815), (237, 24818), (267, 24914), (280, 25031),

Gene: Daredevil_37 Start: 34603, Stop: 35670, Start Num: 38

Candidate Starts for Daredevil_37:

(Start: 38 @34603 has 1 MA's), (133, 34948), (148, 34993), (155, 35023), (214, 35314), (216, 35320), (221, 35338), (231, 35404), (232, 35407), (239, 35425), (255, 35473), (285, 35659),

Gene: DelRio_28 Start: 24323, Stop: 25387, Start Num: 40

Candidate Starts for DelRio_28:

(Start: 40 @24323 has 17 MA's), (146, 24701), (184, 24842), (187, 24854), (189, 24866), (193, 24890), (204, 24974), (212, 25013), (236, 25121),

Gene: Diminimus_32 Start: 26991, Stop: 28046, Start Num: 37

Candidate Starts for Diminimus_32:

(Start: 37 @26991 has 91 MA's), (94, 27204), (107, 27240), (126, 27303), (147, 27375), (153, 27405), (160, 27426), (173, 27462), (180, 27498), (189, 27546), (192, 27567), (194, 27573), (197, 27603), (198, 27606), (205, 27654), (257, 27864), (272, 27918),

Gene: Dogfish_30 Start: 26617, Stop: 27699, Start Num: 39

Candidate Starts for Dogfish_30:

(Start: 39 @26617 has 1 MA's), (95, 26827), (117, 26905), (128, 26959), (142, 27004), (157, 27061), (159, 27067), (179, 27130), (189, 27187), (191, 27202), (210, 27319),

Gene: Donovan_22 Start: 21288, Stop: 22325, Start Num: 37

Candidate Starts for Donovan_22:

(27, 21264), (Start: 35 @21285 has 5 MA's), (Start: 37 @21288 has 91 MA's), (47, 21312), (80, 21450), (92, 21492), (113, 21561), (129, 21621), (143, 21666), (153, 21711), (179, 21792), (189, 21849), (193, 21873), (210, 21978), (224, 22050), (236, 22095), (278, 22260),

Gene: Dulcita_32 Start: 26991, Stop: 28046, Start Num: 37

Candidate Starts for Dulcita_32:

(Start: 37 @26991 has 91 MA's), (94, 27204), (107, 27240), (126, 27303), (147, 27375), (153, 27405), (160, 27426), (173, 27462), (180, 27498), (189, 27546), (192, 27567), (194, 27573), (197, 27603), (198, 27606), (205, 27654), (257, 27864), (272, 27918),

Gene: DumpsterDude_23 Start: 21990, Stop: 23072, Start Num: 37

Candidate Starts for DumpsterDude_23:

(15, 21855), (Start: 37 @21990 has 91 MA's), (59, 22062), (95, 22200), (105, 22230), (129, 22338), (143, 22380), (157, 22434), (189, 22560),

Gene: Dynamo_22 Start: 21688, Stop: 22722, Start Num: 37

Candidate Starts for Dynamo_22:

(Start: 37 @21688 has 91 MA's), (78, 21844), (80, 21850), (112, 21958), (113, 21961), (117, 21976), (143, 22063), (153, 22108), (179, 22189), (189, 22246), (193, 22270), (210, 22375), (224, 22447), (236, 22492),

Gene: Edugator_27 Start: 24010, Stop: 25074, Start Num: 37

Candidate Starts for Edugator_27:

(Start: 37 @24010 has 91 MA's), (63, 24100), (69, 24130), (83, 24184), (85, 24190), (99, 24238), (111, 24277), (116, 24295), (117, 24298), (142, 24379), (153, 24427), (159, 24445), (193, 24586), (206, 24676), (207, 24679), (208, 24682), (214, 24715), (217, 24727), (235, 24814), (237, 24817), (280, 25030),

Gene: Eponine_29 Start: 24914, Stop: 25987, Start Num: 35

Candidate Starts for Eponine_29:

(Start: 35 @24914 has 5 MA's), (Start: 37 @24917 has 91 MA's), (103, 25157), (113, 25193), (115, 25202), (117, 25208), (129, 25253), (143, 25298), (148, 25316), (153, 25343), (179, 25424), (189, 25481), (193, 25505),

Gene: Etoile_22 Start: 21299, Stop: 22336, Start Num: 37

Candidate Starts for Etoile_22:

(27, 21275), (Start: 35 @21296 has 5 MA's), (Start: 37 @21299 has 91 MA's), (47, 21323), (80, 21461), (92, 21503), (113, 21572), (129, 21632), (143, 21677), (153, 21722), (179, 21803), (189, 21860), (193, 21884), (210, 21989), (224, 22061), (236, 22106), (278, 22271),

Gene: Ewald_30 Start: 26639, Stop: 27724, Start Num: 37

Candidate Starts for Ewald_30:

(15, 26504), (Start: 37 @26639 has 91 MA's), (65, 26744), (71, 26762), (95, 26849), (151, 27062), (154, 27077), (165, 27104), (171, 27119), (189, 27212), (191, 27227), (201, 27284), (210, 27344), (217, 27377),

Gene: FF47_25 Start: 21654, Stop: 22679, Start Num: 31

Candidate Starts for FF47_25:

(Start: 31 @21654 has 2 MA's), (62, 21744), (79, 21813), (82, 21822), (107, 21900), (126, 21963), (127, 21966), (171, 22110), (179, 22146), (197, 22254), (252, 22491), (277, 22617),

Gene: Faiyaz_28 Start: 26025, Stop: 27062, Start Num: 37

Candidate Starts for Faiyaz_28:

(Start: 37 @26025 has 91 MA's), (70, 26148), (85, 26202), (94, 26238), (115, 26301), (129, 26349), (146, 26403), (147, 26406), (192, 26592), (197, 26628), (203, 26670), (208, 26688), (220, 26739),

Gene: Farewell_21 Start: 21884, Stop: 22930, Start Num: 37

Candidate Starts for Farewell_21:

(Start: 37 @21884 has 91 MA's), (90, 22076), (94, 22097), (129, 22208), (143, 22250), (144, 22253), (192, 22454), (197, 22490), (219, 22598), (257, 22751), (260, 22760), (264, 22772),

Gene: Feyre_27 Start: 23851, Stop: 24918, Start Num: 37

Candidate Starts for Feyre_27:

(Start: 37 @23851 has 91 MA's), (68, 23968), (97, 24073), (99, 24079), (117, 24139), (120, 24154), (129, 24181), (142, 24220), (143, 24223), (146, 24235), (147, 24238), (148, 24241), (151, 24256), (165, 24301), (169, 24307), (180, 24361), (189, 24409), (195, 24439), (202, 24484), (234, 24667),

Gene: FirstPlacePfu_22 Start: 21299, Stop: 22336, Start Num: 37

Candidate Starts for FirstPlacePfu_22:

(27, 21275), (Start: 35 @21296 has 5 MA's), (Start: 37 @21299 has 91 MA's), (47, 21323), (80, 21461), (92, 21503), (113, 21572), (129, 21632), (143, 21677), (153, 21722), (179, 21803), (189, 21860), (193, 21884), (210, 21989), (224, 22061), (236, 22106), (278, 22271),

Gene: Fishburne_22 Start: 21299, Stop: 22336, Start Num: 37

Candidate Starts for Fishburne_22:

(27, 21275), (Start: 35 @21296 has 5 MA's), (Start: 37 @21299 has 91 MA's), (47, 21323), (80, 21461), (92, 21503), (113, 21572), (129, 21632), (143, 21677), (153, 21722), (179, 21803), (189, 21860), (193, 21884), (210, 21989), (224, 22061), (236, 22106), (278, 22271),

Gene: Francois_27 Start: 23338, Stop: 24405, Start Num: 40

Candidate Starts for Francois_27:

(Start: 40 @23338 has 17 MA's), (146, 23716), (184, 23857), (189, 23884), (193, 23908), (204, 23992), (236, 24139),

Gene: FreakyGoo_31 Start: 26992, Stop: 28047, Start Num: 37

Candidate Starts for FreakyGoo_31:

(Start: 37 @26992 has 91 MA's), (94, 27205), (107, 27241), (126, 27304), (147, 27376), (153, 27406), (160, 27427), (173, 27463), (180, 27499), (189, 27547), (192, 27568), (194, 27574), (197, 27604), (198, 27607), (205, 27655), (253, 27844), (257, 27865), (272, 27919),

Gene: Gavriela_22 Start: 21561, Stop: 22601, Start Num: 32

Candidate Starts for Gavriela_22:

(Start: 32 @21561 has 8 MA's), (78, 21720), (80, 21726), (92, 21768), (112, 21834), (113, 21837), (129, 21897), (143, 21942), (153, 21987), (179, 22068), (189, 22125), (193, 22149), (210, 22254), (224, 22326), (236, 22371),

Gene: Gengar_27 Start: 23958, Stop: 25028, Start Num: 37

Candidate Starts for Gengar_27:

(Start: 37 @23958 has 91 MA's), (83, 24132), (99, 24186), (116, 24243), (117, 24246), (120, 24261), (129, 24288), (142, 24327), (143, 24330), (146, 24342), (147, 24345), (148, 24348), (169, 24417), (180, 24471), (195, 24549), (202, 24594), (234, 24777),

Gene: Glaske_22 Start: 21561, Stop: 22601, Start Num: 32

Candidate Starts for Glaske_22:

(Start: 32 @21561 has 8 MA's), (78, 21720), (80, 21726), (92, 21768), (112, 21834), (113, 21837), (129, 21897), (143, 21942), (153, 21987), (179, 22068), (189, 22125), (193, 22149), (210, 22254), (224, 22326), (236, 22371),

Gene: Glaske16_32 Start: 26991, Stop: 28046, Start Num: 37

Candidate Starts for Glaske16_32:

(Start: 37 @26991 has 91 MA's), (94, 27204), (107, 27240), (126, 27303), (147, 27375), (153, 27405), (160, 27426), (173, 27462), (180, 27498), (189, 27546), (192, 27567), (194, 27573), (197, 27603), (198, 27606), (205, 27654), (257, 27864), (272, 27918),

Gene: GrandSlam_27 Start: 23849, Stop: 24916, Start Num: 40

Candidate Starts for GrandSlam_27:

(Start: 40 @23849 has 17 MA's), (146, 24227), (184, 24368), (187, 24383), (189, 24395), (193, 24419), (204, 24503), (206, 24509), (212, 24542), (216, 24554), (236, 24650), (238, 24653), (245, 24674),

Gene: Gspu1_26 Start: 21693, Stop: 22775, Start Num: 24

Candidate Starts for Gspu1_26:

(24, 21693), (66, 21855), (81, 21903), (86, 21915), (119, 22017), (140, 22077), (150, 22110), (152, 22125), (167, 22164), (185, 22248), (190, 22278), (193, 22290), (220, 22437), (252, 22563), (266, 22620), (281, 22743),

Gene: Guillsminger_27 Start: 23933, Stop: 25000, Start Num: 37

Candidate Starts for Guillsminger_27:

(Start: 37 @23933 has 91 MA's), (68, 24050), (83, 24107), (97, 24155), (99, 24161), (116, 24218), (117, 24221), (120, 24236), (129, 24263), (142, 24302), (143, 24305), (146, 24317), (147, 24320), (148, 24323), (151, 24338), (165, 24383), (169, 24389), (180, 24443), (189, 24491), (195, 24521), (202, 24566), (224, 24695), (234, 24749),

Gene: HC_22 Start: 21369, Stop: 22406, Start Num: 37

Candidate Starts for HC_22:

(27, 21345), (Start: 35 @21366 has 5 MA's), (Start: 37 @21369 has 91 MA's), (47, 21393), (80, 21531), (92, 21573), (113, 21642), (129, 21702), (143, 21747), (153, 21792), (179, 21873), (189, 21930), (193, 21954), (210, 22059), (224, 22131), (236, 22176), (278, 22341),

Gene: HUHilltop_22 Start: 21299, Stop: 22336, Start Num: 37

Candidate Starts for HUHilltop_22:

(27, 21275), (Start: 35 @21296 has 5 MA's), (Start: 37 @21299 has 91 MA's), (47, 21323), (80, 21461), (92, 21503), (113, 21572), (129, 21632), (143, 21677), (153, 21722), (179, 21803), (189, 21860), (193, 21884), (210, 21989), (224, 22061), (236, 22106), (278, 22271),

Gene: Hamood_27 Start: 23849, Stop: 24916, Start Num: 40

Candidate Starts for Hamood_27:

(Start: 40 @23849 has 17 MA's), (146, 24227), (184, 24368), (187, 24383), (189, 24395), (193, 24419), (204, 24503), (206, 24509), (212, 24542), (216, 24554), (236, 24650), (238, 24653), (245, 24674),

Gene: Hashim76_35 Start: 31239, Stop: 32393, Start Num: 18

Candidate Starts for Hashim76_35:

(Start: 18 @31239 has 9 MA's), (34, 31356), (54, 31416), (58, 31437), (60, 31446), (67, 31485), (70, 31494), (83, 31545), (101, 31605), (108, 31632), (119, 31674), (124, 31704), (139, 31752), (175, 31854), (178, 31866), (193, 31941), (209, 32037), (214, 32067), (220, 32085), (226, 32121), (259, 32223),

Gene: Heftyboy_27 Start: 24081, Stop: 25148, Start Num: 37

Candidate Starts for Heftyboy_27:

(Start: 37 @24081 has 91 MA's), (68, 24198), (83, 24255), (97, 24303), (99, 24309), (116, 24366), (117, 24369), (120, 24384), (129, 24411), (142, 24450), (143, 24453), (146, 24465), (147, 24468), (148, 24471), (151, 24486), (165, 24531), (169, 24537), (180, 24591), (189, 24639), (195, 24669), (202, 24714), (224, 24843), (234, 24897),

Gene: Hilltopfarm_28 Start: 26055, Stop: 27092, Start Num: 37

Candidate Starts for Hilltopfarm_28:

(Start: 37 @26055 has 91 MA's), (70, 26178), (85, 26232), (94, 26268), (115, 26331), (129, 26379), (146, 26433), (147, 26436), (192, 26622), (197, 26658), (203, 26700), (208, 26718), (220, 26769),

Gene: IPhone7_31 Start: 26992, Stop: 28047, Start Num: 37

Candidate Starts for IPhone7_31:

(Start: 37 @26992 has 91 MA's), (94, 27205), (107, 27241), (126, 27304), (147, 27376), (153, 27406), (160, 27427), (173, 27463), (180, 27499), (189, 27547), (192, 27568), (194, 27574), (197, 27604), (198, 27607), (205, 27655), (253, 27844), (257, 27865), (272, 27919),

Gene: Imvubu_25 Start: 28919, Stop: 30094, Start Num: 18

Candidate Starts for Imvubu_25:

(Start: 18 @28919 has 9 MA's), (26, 29009), (34, 29036), (43, 29057), (58, 29117), (60, 29126), (67, 29165), (70, 29174), (74, 29192), (83, 29225), (101, 29285), (119, 29354), (123, 29372), (128, 29399), (131, 29414), (136, 29426), (175, 29534), (240, 29858), (265, 29933), (269, 29954), (274, 29984), (282, 30071),

Gene: Indlovu_29 Start: 31250, Stop: 32386, Start Num: 18

Candidate Starts for Indlovu_29:

(13, 31217), (Start: 18 @31250 has 9 MA's), (34, 31367), (58, 31448), (62, 31463), (67, 31496), (70, 31505), (87, 31565), (93, 31595), (102, 31619), (129, 31736), (181, 31877), (201, 31985), (210, 32042),

Gene: InvictusManeo_27 Start: 24083, Stop: 25147, Start Num: 37

Candidate Starts for InvictusManeo_27:

(Start: 37 @24083 has 91 MA's), (63, 24173), (68, 24200), (85, 24263), (99, 24311), (111, 24350), (116, 24368), (129, 24413), (142, 24452), (153, 24500), (159, 24518), (180, 24593), (193, 24659), (206, 24749), (207, 24752), (208, 24755), (214, 24788), (235, 24887), (237, 24890), (263, 24974), (267, 24986), (280, 25103),

Gene: Izel_30 Start: 26991, Stop: 28046, Start Num: 37

Candidate Starts for Izel_30:

(Start: 37 @26991 has 91 MA's), (94, 27204), (107, 27240), (126, 27303), (147, 27375), (153, 27405), (160, 27426), (173, 27462), (180, 27498), (189, 27546), (192, 27567), (194, 27573), (197, 27603), (198, 27606), (205, 27654), (257, 27864), (272, 27918),

Gene: Jebeks_22 Start: 21284, Stop: 22321, Start Num: 37

Candidate Starts for Jebeks_22:

(27, 21260), (Start: 35 @21281 has 5 MA's), (Start: 37 @21284 has 91 MA's), (47, 21308), (80, 21446), (92, 21488), (113, 21557), (129, 21617), (143, 21662), (153, 21707), (179, 21788), (189, 21845), (193, 21869), (210, 21974), (224, 22046), (236, 22091), (278, 22256),

Gene: Juliette_30 Start: 24531, Stop: 25565, Start Num: 36

Candidate Starts for Juliette_30:

(23, 24465), (Start: 36 @24531 has 5 MA's), (78, 24687), (79, 24690), (92, 24735), (94, 24744), (117, 24819), (143, 24906), (153, 24951), (179, 25032), (189, 25089), (193, 25113), (210, 25218), (224, 25290), (244, 25350), (278, 25500),

Gene: Jung_22 Start: 21225, Stop: 22292, Start Num: 37

Candidate Starts for Jung_22:

(27, 21201), (Start: 35 @21222 has 5 MA's), (Start: 37 @21225 has 91 MA's), (47, 21249), (78, 21381), (80, 21387), (92, 21429), (112, 21495), (113, 21498), (129, 21558), (143, 21603), (153, 21648), (179, 21729), (189, 21786), (193, 21810), (200, 21852), (223, 21981), (228, 22002),

Gene: Juniormint_22 Start: 21325, Stop: 22380, Start Num: 37

Candidate Starts for Juniormint_22:

(27, 21301), (Start: 35 @21322 has 5 MA's), (Start: 37 @21325 has 91 MA's), (47, 21349), (80, 21487), (92, 21529), (113, 21598), (129, 21676), (143, 21721), (153, 21766), (179, 21847), (189, 21904), (193, 21928), (210, 22033), (224, 22105), (236, 22150), (278, 22315),

Gene: Kari_22 Start: 21296, Stop: 22336, Start Num: 35

Candidate Starts for Kari_22:

(27, 21275), (Start: 35 @21296 has 5 MA's), (Start: 37 @21299 has 91 MA's), (47, 21323), (80, 21461), (92, 21503), (113, 21572), (129, 21632), (143, 21677), (153, 21722), (179, 21803), (189, 21860), (193, 21884), (210, 21989), (224, 22061), (236, 22106), (278, 22271),

Gene: Kevin1_22 Start: 19999, Stop: 21036, Start Num: 36

Candidate Starts for Kevin1_22:

(23, 19933), (Start: 36 @19999 has 5 MA's), (78, 20155), (80, 20161), (112, 20269), (117, 20287), (143, 20377), (153, 20422), (179, 20503), (193, 20584), (206, 20671), (210, 20689), (224, 20761), (236, 20806), (278, 20971),

Gene: Keziacharles14_32 Start: 24883, Stop: 26085, Start Num: 20

Candidate Starts for Keziacharles14_32:

(Start: 20 @24883 has 2 MA's), (53, 25045), (58, 25066), (72, 25135), (78, 25159), (96, 25219), (102, 25237), (106, 25252), (109, 25267), (123, 25321), (156, 25453), (161, 25468), (172, 25504), (192, 25612), (193, 25615), (196, 25642), (197, 25648), (220, 25759),

Gene: KilKor_22 Start: 21561, Stop: 22601, Start Num: 32

Candidate Starts for KilKor_22:

(Start: 32 @21561 has 8 MA's), (78, 21720), (80, 21726), (92, 21768), (112, 21834), (113, 21837), (129, 21897), (143, 21942), (153, 21987), (179, 22068), (189, 22125), (193, 22149), (210, 22254), (224, 22326), (236, 22371),

Gene: KleverKiS_31 Start: 26972, Stop: 28027, Start Num: 37

Candidate Starts for KleverKiS_31:

(Start: 37 @26972 has 91 MA's), (94, 27185), (107, 27221), (126, 27284), (147, 27356), (153, 27386), (160, 27407), (173, 27443), (180, 27479), (189, 27527), (192, 27548), (194, 27554), (197, 27584), (198, 27587), (205, 27635), (257, 27845), (272, 27899),

Gene: Knocker_33 Start: 33872, Stop: 35014, Start Num: 18

Candidate Starts for Knocker_33:

(Start: 18 @33872 has 9 MA's), (34, 33989), (45, 34016), (Start: 49 @34025 has 1 MA's), (54, 34049), (58, 34070), (60, 34079), (64, 34103), (67, 34118), (68, 34121), (70, 34127), (83, 34178), (87, 34187), (91, 34205), (93, 34217), (94, 34220), (102, 34241), (115, 34292), (119, 34307), (121, 34319), (126, 34343), (128, 34352), (136, 34379), (139, 34385), (163, 34445), (168, 34457), (175, 34487), (178, 34499), (193, 34574), (205, 34658), (209, 34670), (214, 34700), (220, 34718), (239, 34799), (250, 34826), (251, 34829), (254, 34838),

Gene: Kratio_26 Start: 23714, Stop: 24778, Start Num: 37

Candidate Starts for Kratio_26:

(Start: 37 @23714 has 91 MA's), (63, 23804), (69, 23834), (85, 23894), (99, 23942), (111, 23981), (116, 23999), (142, 24083), (153, 24131), (159, 24149), (180, 24224), (193, 24290), (206, 24380), (207, 24383), (208, 24386), (214, 24419), (235, 24518), (237, 24521), (263, 24605), (267, 24617), (280, 24734),

Gene: Ksquared_22 Start: 21321, Stop: 22358, Start Num: 37

Candidate Starts for Ksquared_22:

(27, 21297), (Start: 35 @21318 has 5 MA's), (Start: 37 @21321 has 91 MA's), (47, 21345), (80, 21483), (92, 21525), (113, 21594), (129, 21654), (143, 21699), (153, 21744), (179, 21825), (189, 21882), (193, 21906), (210, 22011), (224, 22083), (236, 22128), (278, 22293),

Gene: Labelle_37 Start: 32043, Stop: 33083, Start Num: 40

Candidate Starts for Labelle_37:

(Start: 40 @32043 has 17 MA's), (62, 32121), (79, 32199), (145, 32412), (146, 32418), (171, 32496), (189, 32589), (194, 32616),

Gene: Langerak_22 Start: 21280, Stop: 22320, Start Num: 35

Candidate Starts for Langerak_22:

(27, 21259), (Start: 35 @21280 has 5 MA's), (Start: 37 @21283 has 91 MA's), (47, 21307), (80, 21445), (92, 21487), (113, 21556), (129, 21616), (143, 21661), (153, 21706), (179, 21787), (189, 21844), (193, 21868), (210, 21973), (224, 22045), (236, 22090), (278, 22255),

Gene: Larva_28 Start: 23878, Stop: 24942, Start Num: 37

Candidate Starts for Larva_28:

(Start: 37 @23878 has 91 MA's), (63, 23968), (69, 23998), (83, 24052), (85, 24058), (99, 24106), (111, 24145), (116, 24163), (117, 24166), (142, 24247), (153, 24295), (159, 24313), (193, 24454), (206, 24544), (207, 24547), (208, 24550), (214, 24583), (217, 24595), (235, 24682), (237, 24685), (267, 24781), (280, 24898),

Gene: Leston_27 Start: 24063, Stop: 25130, Start Num: 37

Candidate Starts for Leston_27:

(Start: 37 @24063 has 91 MA's), (68, 24180), (83, 24237), (97, 24285), (99, 24291), (116, 24348), (117, 24351), (120, 24366), (129, 24393), (142, 24432), (143, 24435), (146, 24447), (147, 24450), (148, 24453), (151, 24468), (165, 24513), (169, 24519), (180, 24573), (189, 24621), (195, 24651), (202, 24696), (224, 24825), (234, 24879),

Gene: LilhomieP_30 Start: 26992, Stop: 28047, Start Num: 37

Candidate Starts for LilhomieP_30:

(Start: 37 @26992 has 91 MA's), (94, 27205), (107, 27241), (126, 27304), (147, 27376), (153, 27406), (160, 27427), (173, 27463), (180, 27499), (189, 27547), (192, 27568), (194, 27574), (197, 27604), (198, 27607), (205, 27655), (253, 27844), (257, 27865), (272, 27919),

Gene: LuckyLeo_32 Start: 28919, Stop: 29908, Start Num: 55

Candidate Starts for LuckyLeo_32:

(Start: 29 @28862 has 1 MA's), (Start: 55 @28919 has 1 MA's), (75, 29009), (79, 29018), (81, 29024), (84, 29033), (100, 29087), (151, 29285), (173, 29351), (177, 29363), (189, 29432), (213, 29573), (237, 29681),

Gene: Maco6_23 Start: 20985, Stop: 22013, Start Num: 31

Candidate Starts for Maco6_23:

(Start: 31 @20985 has 2 MA's), (62, 21075), (79, 21144), (82, 21153), (107, 21231), (126, 21294), (127, 21297), (171, 21441), (179, 21477), (189, 21528), (197, 21585), (252, 21825), (277, 21951),

Gene: Madruga_36 Start: 31712, Stop: 32752, Start Num: 40

Candidate Starts for Madruga_36:

(Start: 40 @31712 has 17 MA's), (62, 31790), (79, 31868), (145, 32081), (146, 32087), (171, 32165), (189, 32258), (194, 32285),

Gene: Majeke_22 Start: 21305, Stop: 22342, Start Num: 37

Candidate Starts for Majeke_22:

(27, 21281), (Start: 35 @21302 has 5 MA's), (Start: 37 @21305 has 91 MA's), (47, 21329), (80, 21467), (92, 21509), (113, 21578), (129, 21638), (143, 21683), (153, 21728), (179, 21809), (189, 21866), (193, 21890), (210, 21995), (224, 22067), (236, 22112), (278, 22277),

Gene: MakCheese_24 Start: 21714, Stop: 22658, Start Num: 65

Candidate Starts for MakCheese_24:

(30, 21606), (65, 21714), (106, 21855), (123, 21927), (129, 21960), (180, 22134), (188, 22173), (189, 22182), (210, 22305), (217, 22338), (230, 22410), (246, 22458), (247, 22461), (266, 22524),

Gene: MalagasyRose_28 Start: 22698, Stop: 23777, Start Num: 37

Candidate Starts for MalagasyRose_28:

(Start: 37 @22698 has 91 MA's), (46, 22719), (67, 22812), (77, 22854), (78, 22857), (83, 22872), (99, 22926), (107, 22947), (111, 22965), (129, 23028), (135, 23049), (148, 23088), (153, 23115), (159, 23133), (180, 23211), (183, 23229), (220, 23424), (229, 23484), (264, 23607),

Gene: Malithi_22 Start: 21221, Stop: 22261, Start Num: 35

Candidate Starts for Malithi_22:

(27, 21200), (Start: 35 @21221 has 5 MA's), (Start: 37 @21224 has 91 MA's), (47, 21248), (80, 21386), (92, 21428), (113, 21497), (129, 21557), (143, 21602), (153, 21647), (179, 21728), (189, 21785), (193, 21809), (210, 21914), (224, 21986), (236, 22031), (278, 22196),

Gene: Mangethe_22 Start: 21305, Stop: 22342, Start Num: 37

Candidate Starts for Mangethe_22:

(27, 21281), (Start: 35 @21302 has 5 MA's), (Start: 37 @21305 has 91 MA's), (47, 21329), (80, 21467), (92, 21509), (113, 21578), (129, 21638), (143, 21683), (153, 21728), (179, 21809), (189, 21866), (193, 21890), (210, 21995), (224, 22067), (236, 22112), (278, 22277),

Gene: Megiddo_22 Start: 21561, Stop: 22601, Start Num: 32

Candidate Starts for Megiddo_22:

(Start: 32 @21561 has 8 MA's), (78, 21720), (80, 21726), (92, 21768), (112, 21834), (113, 21837), (129, 21897), (143, 21942), (153, 21987), (179, 22068), (189, 22125), (193, 22149), (210, 22254), (224, 22326), (236, 22371),

Gene: Meyran_29 Start: 27126, Stop: 28187, Start Num: 49

Candidate Starts for Meyran_29:

(Start: 37 @27099 has 91 MA's), (Start: 49 @27126 has 1 MA's), (95, 27309), (131, 27456), (165, 27561), (184, 27642), (189, 27669), (191, 27684), (201, 27747), (210, 27807), (271, 28044),

Gene: MichelleMyBell_22 Start: 20029, Stop: 21114, Start Num: 37

Candidate Starts for MichelleMyBell_22:

(23, 19963), (Start: 37 @20029 has 91 MA's), (80, 20191), (113, 20302), (129, 20362), (143, 20407), (179, 20533), (180, 20542), (189, 20590),

Gene: Miryou_27 Start: 23918, Stop: 24985, Start Num: 37

Candidate Starts for Miryou_27:

(Start: 37 @23918 has 91 MA's), (68, 24035), (83, 24092), (97, 24140), (99, 24146), (116, 24203), (117, 24206), (120, 24221), (129, 24248), (142, 24287), (143, 24290), (146, 24302), (147, 24305), (148, 24308), (151, 24323), (165, 24368), (169, 24374), (180, 24428), (189, 24476), (195, 24506), (202, 24551), (224, 24680), (234, 24734),

Gene: Muddy_25 Start: 21935, Stop: 22960, Start Num: 31

Candidate Starts for Muddy_25:

(Start: 31 @21935 has 2 MA's), (62, 22025), (107, 22181), (126, 22244), (127, 22247), (171, 22391), (179, 22427), (189, 22478), (197, 22535), (239, 22733), (252, 22772), (277, 22898),

Gene: Mulch_27 Start: 23315, Stop: 24382, Start Num: 40

Candidate Starts for Mulch_27:

(Start: 40 @23315 has 17 MA's), (99, 23525), (146, 23693), (184, 23834), (187, 23849), (189, 23861), (193, 23885), (204, 23969), (211, 24005), (236, 24116),

Gene: Nadeem_27 Start: 23315, Stop: 24382, Start Num: 40

Candidate Starts for Nadeem_27:

(Start: 40 @23315 has 17 MA's), (99, 23525), (146, 23693), (184, 23834), (187, 23849), (189, 23861), (193, 23885), (204, 23969), (236, 24116),

Gene: NancyRae_27 Start: 23321, Stop: 24388, Start Num: 40

Candidate Starts for NancyRae_27:

(Start: 40 @23321 has 17 MA's), (99, 23531), (146, 23699), (184, 23840), (187, 23855), (189, 23867), (193, 23891), (204, 23975), (211, 24011), (236, 24122),

Gene: Nazo_22 Start: 21497, Stop: 22546, Start Num: 37

Candidate Starts for Nazo_22:

(Start: 37 @21497 has 91 MA's), (46, 21518), (80, 21659), (90, 21689), (94, 21710), (115, 21773), (127, 21812), (174, 21971), (197, 22103), (215, 22199), (279, 22484),

Gene: Necropolis_22 Start: 21299, Stop: 22336, Start Num: 37

Candidate Starts for Necropolis_22:

(27, 21275), (Start: 35 @21296 has 5 MA's), (Start: 37 @21299 has 91 MA's), (47, 21323), (80, 21461), (92, 21503), (113, 21572), (129, 21632), (143, 21677), (153, 21722), (179, 21803), (189, 21860), (193, 21884), (210, 21989), (224, 22061), (236, 22106), (278, 22271),

Gene: Neighly_28 Start: 23877, Stop: 24941, Start Num: 37

Candidate Starts for Neighly_28:

(Start: 37 @23877 has 91 MA's), (63, 23967), (69, 23997), (83, 24051), (85, 24057), (99, 24105), (111, 24144), (116, 24162), (117, 24165), (142, 24246), (153, 24294), (159, 24312), (193, 24453), (206, 24543), (207, 24546), (208, 24549), (214, 24582), (217, 24594), (235, 24681), (237, 24684), (267, 24780), (280, 24897),

Gene: Nyceirae_31 Start: 26839, Stop: 27909, Start Num: 37

Candidate Starts for Nyceirae_31:

(Start: 37 @26839 has 91 MA's), (61, 26920), (65, 26944), (95, 27049), (111, 27106), (117, 27127), (127, 27175), (165, 27301), (179, 27352), (189, 27409), (191, 27424), (210, 27541),

Gene: OkiRoe_27 Start: 23934, Stop: 25001, Start Num: 37

Candidate Starts for OkiRoe_27:

(Start: 37 @23934 has 91 MA's), (68, 24051), (83, 24108), (97, 24156), (99, 24162), (117, 24222), (120, 24237), (129, 24264), (142, 24303), (143, 24306), (146, 24318), (147, 24321), (148, 24324), (151, 24339), (165, 24384), (169, 24390), (180, 24444), (189, 24492), (195, 24522), (202, 24567), (224, 24696), (234, 24750),

Gene: Omnicron_28 Start: 22797, Stop: 23876, Start Num: 37

Candidate Starts for Omnicron_28:

(Start: 37 @22797 has 91 MA's), (48, 22824), (83, 22971), (85, 22977), (99, 23025), (111, 23064), (116, 23082), (120, 23100), (142, 23166), (151, 23202), (157, 23226), (159, 23232), (182, 23325), (200, 23427), (206, 23472), (217, 23517), (219, 23520), (222, 23538), (225, 23559), (232, 23601), (239, 23619), (264, 23715), (265, 23718), (284, 23859),

Gene: Panchino_21 Start: 20180, Stop: 21217, Start Num: 37

Candidate Starts for Panchino_21:

(Start: 37 @20180 has 91 MA's), (78, 20336), (80, 20342), (112, 20450), (117, 20468), (143, 20558), (153, 20603), (179, 20684), (193, 20765), (206, 20852), (210, 20870), (224, 20942), (236, 20987), (278, 21152),

Gene: Paola_27 Start: 23933, Stop: 25000, Start Num: 37

Candidate Starts for Paola_27:

(Start: 37 @23933 has 91 MA's), (68, 24050), (83, 24107), (97, 24155), (99, 24161), (116, 24218), (117, 24221), (120, 24236), (129, 24263), (142, 24302), (143, 24305), (146, 24317), (147, 24320), (148, 24323), (151, 24338), (165, 24383), (169, 24389), (180, 24443), (189, 24491), (195, 24521), (202, 24566), (224, 24695), (234, 24749),

Gene: Parada_27 Start: 23315, Stop: 24382, Start Num: 40

Candidate Starts for Parada_27:

(Start: 40 @23315 has 17 MA's), (99, 23525), (146, 23693), (184, 23834), (187, 23849), (189, 23861), (193, 23885), (204, 23969), (211, 24005), (236, 24116),

Gene: Patience_38 Start: 32593, Stop: 33633, Start Num: 40

Candidate Starts for Patience_38:

(Start: 40 @32593 has 17 MA's), (62, 32671), (79, 32749), (145, 32962), (146, 32968), (171, 33046), (189, 33139), (194, 33166),

Gene: PegLeg_31 Start: 26991, Stop: 28046, Start Num: 37

Candidate Starts for PegLeg_31:

(Start: 37 @26991 has 91 MA's), (94, 27204), (107, 27240), (126, 27303), (147, 27375), (153, 27405), (160, 27426), (173, 27462), (180, 27498), (189, 27546), (192, 27567), (194, 27573), (197, 27603), (198, 27606), (205, 27654), (253, 27843), (257, 27864), (272, 27918),

Gene: PenguinLover67_33 Start: 33434, Stop: 34648, Start Num: 18

Candidate Starts for PenguinLover67_33:

(Start: 18 @33434 has 9 MA's), (43, 33572), (58, 33632), (67, 33680), (68, 33683), (76, 33719), (83, 33740), (93, 33779), (102, 33803), (112, 33842), (121, 33881), (125, 33902), (129, 33920), (130, 33923), (193, 34136), (194, 34139), (201, 34184), (261, 34478),

Gene: Phalm_22 Start: 21561, Stop: 22601, Start Num: 32

Candidate Starts for Phalm_22:

(Start: 32 @21561 has 8 MA's), (78, 21720), (80, 21726), (92, 21768), (112, 21834), (113, 21837), (129, 21897), (143, 21942), (153, 21987), (179, 22068), (189, 22125), (193, 22149), (210, 22254), (224, 22326), (236, 22371),

Gene: Phayonce_22 Start: 21448, Stop: 22485, Start Num: 37

Candidate Starts for Phayonce_22:

(Start: 37 @21448 has 91 MA's), (80, 21610), (94, 21661), (107, 21697), (115, 21724), (129, 21772), (147, 21829), (155, 21865), (192, 22018), (197, 22054), (210, 22126), (243, 22261), (257, 22315), (275, 22393),

Gene: Phegasus_22 Start: 21305, Stop: 22342, Start Num: 37

Candidate Starts for Phegasus_22:

(27, 21281), (Start: 35 @21302 has 5 MA's), (Start: 37 @21305 has 91 MA's), (47, 21329), (80, 21467), (92, 21509), (113, 21578), (129, 21638), (143, 21683), (153, 21728), (179, 21809), (189, 21866), (193, 21890), (210, 21995), (224, 22067), (236, 22112), (278, 22277),

Gene: Phineas_22 Start: 21670, Stop: 22707, Start Num: 37

Candidate Starts for Phineas_22:

(Start: 37 @21670 has 91 MA's), (80, 21835), (92, 21877), (112, 21943), (113, 21946), (117, 21961), (143, 22048), (153, 22093), (179, 22174), (189, 22231), (193, 22255), (210, 22360), (224, 22432), (236, 22477),

Gene: Phishy_30 Start: 26793, Stop: 27842, Start Num: 37

Candidate Starts for Phishy_30:

(Start: 37 @26793 has 91 MA's), (95, 27003), (117, 27081), (145, 27189), (184, 27339), (186, 27351), (189, 27366), (222, 27543), (239, 27618),

Gene: Phrann_21 Start: 20409, Stop: 21479, Start Num: 35

Candidate Starts for Phrann_21:

(Start: 35 @20409 has 5 MA's), (Start: 37 @20412 has 91 MA's), (80, 20574), (92, 20616), (113, 20685), (129, 20745), (143, 20790), (153, 20835), (177, 20904), (179, 20916), (189, 20973), (193, 20997), (223, 21168),

Gene: Pimento_27 Start: 22790, Stop: 23857, Start Num: 37

Candidate Starts for Pimento_27:

(15, 22655), (Start: 37 @22790 has 91 MA's), (104, 23009), (129, 23111), (143, 23153), (146, 23165), (184, 23309), (189, 23336), (193, 23360), (212, 23483), (230, 23573), (236, 23591),

Gene: Polkaroo_22 Start: 21315, Stop: 22352, Start Num: 37

Candidate Starts for Polkaroo_22:

(27, 21291), (Start: 35 @21312 has 5 MA's), (Start: 37 @21315 has 91 MA's), (47, 21339), (80, 21477), (92, 21519), (113, 21588), (129, 21648), (143, 21693), (153, 21738), (179, 21819), (189, 21876), (193, 21900), (210, 22005), (224, 22077), (236, 22122), (278, 22287),

Gene: Psycho_28 Start: 24008, Stop: 25072, Start Num: 37

Candidate Starts for Psycho_28:

(Start: 37 @24008 has 91 MA's), (63, 24098), (69, 24128), (83, 24182), (85, 24188), (99, 24236), (111, 24275), (116, 24293), (117, 24296), (142, 24377), (153, 24425), (159, 24443), (193, 24584), (206, 24674), (207, 24677), (208, 24680), (214, 24713), (217, 24725), (235, 24812), (237, 24815), (267, 24911), (280, 25028),

Gene: Purky_22 Start: 21124, Stop: 22170, Start Num: 37

Candidate Starts for Purky_22:

(Start: 37 @21124 has 91 MA's), (94, 21337), (129, 21448), (143, 21490), (144, 21493), (162, 21562), (192, 21694), (197, 21730), (219, 21838), (257, 21991), (260, 22000), (264, 22012),

Gene: Quesadilla_32 Start: 33335, Stop: 34516, Start Num: 18

Candidate Starts for Quesadilla_32:

(13, 33302), (Start: 18 @33335 has 9 MA's), (34, 33452), (42, 33467), (43, 33473), (58, 33533), (67, 33581), (73, 33605), (87, 33650), (97, 33689), (101, 33701), (103, 33710), (108, 33728), (119, 33770), (122, 33785), (130, 33824), (131, 33830), (147, 33875), (151, 33881), (170, 33926), (195, 34028),

Gene: Rando14_28 Start: 22698, Stop: 23777, Start Num: 37

Candidate Starts for Rando14_28:

(Start: 37 @22698 has 91 MA's), (44, 22716), (69, 22818), (83, 22872), (84, 22875), (85, 22878), (99, 22926), (110, 22962), (111, 22965), (112, 22968), (120, 23001), (151, 23103), (153, 23115), (157, 23127), (159, 23133), (164, 23145), (171, 23166), (186, 23244), (194, 23286), (200, 23328), (206, 23373), (232, 23502),

Gene: RavenCo17_26 Start: 23835, Stop: 24911, Start Num: 37

Candidate Starts for RavenCo17_26:

(15, 23700), (Start: 37 @23835 has 91 MA's), (74, 23973), (95, 24045), (105, 24075), (143, 24225), (146, 24237), (157, 24279), (161, 24291), (179, 24348), (189, 24399), (201, 24471), (217, 24564), (262, 24726), (280, 24867),

Gene: Raymond7_21 Start: 20415, Stop: 21500, Start Num: 37

Candidate Starts for Raymond7_21:

(Start: 37 @20415 has 91 MA's), (80, 20577), (113, 20688), (115, 20697), (117, 20703), (129, 20748), (143, 20793), (179, 20919), (180, 20928), (189, 20976),

Gene: Rebel_21 Start: 19868, Stop: 20905, Start Num: 37

Candidate Starts for Rebel_21:

(9, 19631), (10, 19673), (11, 19703), (16, 19733), (22, 19793), (28, 19847), (Start: 37 @19868 has 91 MA's), (80, 20030), (92, 20072), (113, 20141), (129, 20201), (143, 20246), (153, 20291), (177, 20360), (189, 20429), (193, 20453), (210, 20558), (224, 20630), (236, 20675),

Gene: Reindeer_30 Start: 26952, Stop: 28001, Start Num: 37

Candidate Starts for Reindeer_30:

(Start: 37 @26952 has 91 MA's), (51, 26988), (94, 27165), (115, 27228), (116, 27231), (128, 27270), (131, 27285), (148, 27336), (160, 27384), (180, 27453), (189, 27501), (192, 27522), (194, 27528), (197, 27558), (210, 27630), (243, 27765), (257, 27819), (270, 27870), (273, 27876), (275, 27909),

Gene: Rubeelu_22 Start: 19998, Stop: 21038, Start Num: 36

Candidate Starts for Rubeelu_22:

(23, 19932), (Start: 36 @19998 has 5 MA's), (78, 20157), (80, 20163), (112, 20271), (113, 20274), (117, 20289), (143, 20379), (153, 20424), (179, 20505), (189, 20562), (193, 20586), (206, 20673), (210, 20691), (224, 20763), (236, 20808), (278, 20973),

Gene: Ruthiejr_29 Start: 24262, Stop: 25296, Start Num: 36

Candidate Starts for Ruthiejr_29:

(23, 24196), (Start: 36 @24262 has 5 MA's), (78, 24418), (79, 24421), (92, 24466), (94, 24475), (117, 24550), (143, 24637), (153, 24682), (179, 24763), (189, 24820), (193, 24844), (210, 24949), (224, 25021), (244, 25081), (278, 25231),

Gene: Saguaro_32 Start: 33436, Stop: 34548, Start Num: 18

Candidate Starts for Saguaro_32:

(7, 33223), (13, 33406), (Start: 18 @33436 has 9 MA's), (34, 33550), (45, 33577), (54, 33610), (57, 33625), (58, 33631), (67, 33679), (70, 33688), (89, 33757), (93, 33778), (102, 33802), (103, 33808), (121, 33883), (123, 33889), (126, 33907), (128, 33916), (130, 33925), (131, 33931), (188, 34051), (232, 34303), (268, 34411), (269, 34417),

Gene: SamScheppers_27 Start: 24552, Stop: 25625, Start Num: 35

Candidate Starts for SamScheppers_27:

(Start: 35 @24552 has 5 MA's), (Start: 37 @24555 has 91 MA's), (103, 24795), (113, 24831), (115, 24840), (117, 24846), (129, 24891), (143, 24936), (148, 24954), (153, 24981), (179, 25062), (189, 25119), (193, 25143),

Gene: Sbash_21 Start: 21030, Stop: 22079, Start Num: 37

Candidate Starts for Sbash_21:

(Start: 37 @21030 has 91 MA's), (80, 21192), (94, 21243), (115, 21306), (147, 21411), (192, 21600), (197, 21636), (210, 21708), (243, 21843), (257, 21897), (275, 21987),

Gene: Scitech_21 Start: 20194, Stop: 21228, Start Num: 37

Candidate Starts for Scitech_21:

(Start: 37 @20194 has 91 MA's), (78, 20350), (80, 20356), (112, 20464), (113, 20467), (117, 20482), (143, 20569), (153, 20614), (179, 20695), (189, 20752), (193, 20776), (210, 20881), (224, 20953), (236, 20998),

Gene: Shweta_21 Start: 20201, Stop: 21238, Start Num: 32

Candidate Starts for Shweta_21:

(Start: 32 @20201 has 8 MA's), (78, 20357), (80, 20363), (92, 20405), (112, 20471), (113, 20474), (129, 20534), (143, 20579), (153, 20624), (179, 20705), (189, 20762), (193, 20786), (210, 20891), (224, 20963), (236, 21008),

Gene: Skinny_32 Start: 27432, Stop: 28493, Start Num: 37

Candidate Starts for Skinny_32:

(Start: 37 @27432 has 91 MA's), (51, 27468), (61, 27510), (83, 27600), (90, 27621), (98, 27648), (115, 27711), (143, 27801), (146, 27813), (149, 27822), (161, 27867), (180, 27933), (193, 28005), (206, 28095), (210, 28113), (236, 28230), (241, 28242), (266, 28332),

Gene: SkinnyPete_21 Start: 20204, Stop: 21241, Start Num: 37

Candidate Starts for SkinnyPete_21:

(Start: 37 @20204 has 91 MA's), (78, 20360), (80, 20366), (112, 20474), (117, 20492), (143, 20582), (153, 20627), (179, 20708), (193, 20789), (206, 20876), (210, 20894), (224, 20966), (236, 21011), (278, 21176),

Gene: SlimJimmy_30 Start: 26975, Stop: 28030, Start Num: 37

Candidate Starts for SlimJimmy_30:

(Start: 37 @26975 has 91 MA's), (94, 27188), (107, 27224), (126, 27287), (147, 27359), (153, 27389), (160, 27410), (173, 27446), (180, 27482), (189, 27530), (192, 27551), (194, 27557), (197, 27587), (198, 27590), (205, 27638), (257, 27848), (272, 27902),

Gene: SoSeph_27 Start: 24081, Stop: 25148, Start Num: 37

Candidate Starts for SoSeph_27:

(Start: 37 @24081 has 91 MA's), (68, 24198), (83, 24255), (97, 24303), (99, 24309), (116, 24366), (117, 24369), (120, 24384), (129, 24411), (142, 24450), (143, 24453), (146, 24465), (147, 24468), (148, 24471), (151, 24486), (165, 24531), (169, 24537), (180, 24591), (189, 24639), (195, 24669), (202, 24714), (224, 24843), (234, 24897),

Gene: Sonah_22 Start: 21289, Stop: 22326, Start Num: 37

Candidate Starts for Sonah_22:

(27, 21265), (Start: 35 @21286 has 5 MA's), (Start: 37 @21289 has 91 MA's), (47, 21313), (80, 21451), (92, 21493), (113, 21562), (129, 21622), (143, 21667), (153, 21712), (179, 21793), (189, 21850), (193, 21874), (210, 21979), (224, 22051), (236, 22096), (278, 22261),

Gene: Sparky_21 Start: 21885, Stop: 22931, Start Num: 37

Candidate Starts for Sparky_21:

(Start: 37 @21885 has 91 MA's), (94, 22098), (97, 22104), (129, 22209), (143, 22251), (144, 22254), (162, 22323), (192, 22455), (197, 22491), (219, 22599), (257, 22752), (260, 22761), (264, 22773),

Gene: StevieRay_22 Start: 21290, Stop: 22327, Start Num: 37

Candidate Starts for StevieRay_22:

(27, 21266), (Start: 35 @21287 has 5 MA's), (Start: 37 @21290 has 91 MA's), (47, 21314), (80, 21452), (92, 21494), (113, 21563), (129, 21623), (143, 21668), (153, 21713), (179, 21794), (189, 21851), (193, 21875), (210, 21980), (224, 22052), (236, 22097), (278, 22262),

Gene: StressBall_22 Start: 21561, Stop: 22601, Start Num: 32

Candidate Starts for StressBall_22:

(Start: 32 @21561 has 8 MA's), (78, 21720), (80, 21726), (92, 21768), (112, 21834), (113, 21837), (129, 21897), (143, 21942), (153, 21987), (179, 22068), (189, 22125), (193, 22149), (210, 22254),

(224, 22326), (236, 22371),

Gene: Taquito_27 Start: 24633, Stop: 25676, Start Num: 33

Candidate Starts for Taquito_27:

(Start: 33 @24633 has 1 MA's), (Start: 37 @24636 has 91 MA's), (103, 24876), (113, 24912), (115, 24921), (117, 24927), (129, 24972), (143, 25017), (148, 25035), (153, 25062), (179, 25143), (189, 25200), (193, 25224), (210, 25329), (224, 25401), (236, 25446),

Gene: Techage_22 Start: 21290, Stop: 22327, Start Num: 37

Candidate Starts for Techage_22:

(27, 21266), (Start: 35 @21287 has 5 MA's), (Start: 37 @21290 has 91 MA's), (47, 21314), (80, 21452), (92, 21494), (113, 21563), (129, 21623), (143, 21668), (153, 21713), (179, 21794), (189, 21851), (193, 21875), (210, 21980), (224, 22052), (236, 22097), (278, 22262),

Gene: Thespis_22 Start: 21299, Stop: 22336, Start Num: 37

Candidate Starts for Thespis_22:

(27, 21275), (Start: 35 @21296 has 5 MA's), (Start: 37 @21299 has 91 MA's), (47, 21323), (80, 21461), (92, 21503), (113, 21572), (129, 21632), (143, 21677), (153, 21722), (179, 21803), (189, 21860), (193, 21884), (210, 21989), (224, 22061), (236, 22106), (278, 22271),

Gene: Thonko_30 Start: 29614, Stop: 30771, Start Num: 18

Candidate Starts for Thonko_30:

(13, 29584), (Start: 18 @29614 has 9 MA's), (34, 29728), (64, 29845), (67, 29860), (70, 29869), (74, 29887), (78, 29905), (93, 29959), (119, 30049), (123, 30067), (126, 30085), (191, 30319), (193, 30328), (199, 30370), (216, 30460), (220, 30472),

Gene: ThulaThula_22 Start: 21454, Stop: 22491, Start Num: 37

Candidate Starts for ThulaThula_22:

(Start: 37 @21454 has 91 MA's), (80, 21616), (94, 21667), (107, 21703), (115, 21730), (129, 21778), (147, 21835), (155, 21871), (192, 22024), (197, 22060), (210, 22132), (243, 22267), (257, 22321), (275, 22399),

Gene: Thyatira_27 Start: 23933, Stop: 25000, Start Num: 37

Candidate Starts for Thyatira_27:

(Start: 37 @23933 has 91 MA's), (68, 24050), (83, 24107), (97, 24155), (99, 24161), (116, 24218), (117, 24221), (120, 24236), (129, 24263), (142, 24302), (143, 24305), (146, 24317), (147, 24320), (148, 24323), (151, 24338), (165, 24383), (169, 24389), (180, 24443), (189, 24491), (195, 24521), (202, 24566), (224, 24695), (234, 24749), (248, 24794),

Gene: Tillicus_33 Start: 28456, Stop: 29502, Start Num: 29

Candidate Starts for Tillicus_33:

(Start: 29 @28456 has 1 MA's), (Start: 55 @28513 has 1 MA's), (75, 28603), (79, 28612), (81, 28618), (84, 28627), (100, 28681), (155, 28897), (158, 28906), (173, 28945), (177, 28957), (189, 29026), (209, 29140), (213, 29167), (237, 29275),

Gene: Towmatter_37 Start: 34440, Stop: 35507, Start Num: 38

Candidate Starts for Towmatter_37:

(Start: 38 @34440 has 1 MA's), (133, 34785), (148, 34830), (155, 34860), (214, 35151), (216, 35157), (221, 35175), (231, 35241), (232, 35244), (239, 35262), (255, 35310), (285, 35496),

Gene: TyDawg_31 Start: 26992, Stop: 28047, Start Num: 37

Candidate Starts for TyDawg_31:

(Start: 37 @26992 has 91 MA's), (94, 27205), (107, 27241), (126, 27304), (147, 27376), (153, 27406), (160, 27427), (173, 27463), (180, 27499), (189, 27547), (192, 27568), (194, 27574), (197, 27604), (198, 27607), (205, 27655), (253, 27844), (257, 27865), (272, 27919),

Gene: Typha_28 Start: 26025, Stop: 27062, Start Num: 37

Candidate Starts for Typha_28:

(Start: 37 @26025 has 91 MA's), (70, 26148), (85, 26202), (94, 26238), (115, 26301), (129, 26349), (146, 26403), (147, 26406), (192, 26592), (197, 26628), (203, 26670), (208, 26688), (220, 26739),

Gene: Vanisoa_31 Start: 24621, Stop: 25826, Start Num: 19

Candidate Starts for Vanisoa_31:

(Start: 19 @24621 has 2 MA's), (53, 24786), (56, 24798), (57, 24804), (58, 24807), (81, 24909), (91, 24942), (111, 25014), (118, 25038), (123, 25062), (145, 25146), (192, 25353), (193, 25356), (197, 25389), (220, 25500), (257, 25656),

Gene: Venti_22 Start: 21299, Stop: 22336, Start Num: 37

Candidate Starts for Venti_22:

(27, 21275), (Start: 35 @21296 has 5 MA's), (Start: 37 @21299 has 91 MA's), (47, 21323), (80, 21461), (92, 21503), (113, 21572), (129, 21632), (143, 21677), (153, 21722), (179, 21803), (189, 21860), (193, 21884), (210, 21989), (224, 22061), (236, 22106), (278, 22271),

Gene: Vidya_22 Start: 21299, Stop: 22336, Start Num: 37

Candidate Starts for Vidya_22:

(27, 21275), (Start: 35 @21296 has 5 MA's), (Start: 37 @21299 has 91 MA's), (47, 21323), (80, 21461), (92, 21503), (113, 21572), (129, 21632), (143, 21677), (153, 21722), (179, 21803), (189, 21860), (193, 21884), (210, 21989), (224, 22061), (236, 22106), (278, 22271),

Gene: ViviJ_26 Start: 23840, Stop: 24904, Start Num: 37

Candidate Starts for ViviJ_26:

(Start: 37 @23840 has 91 MA's), (63, 23930), (68, 23957), (85, 24020), (99, 24068), (111, 24107), (116, 24125), (129, 24170), (142, 24209), (153, 24257), (159, 24275), (180, 24350), (193, 24416), (206, 24506), (207, 24509), (208, 24512), (214, 24545), (235, 24644), (237, 24647), (263, 24731), (267, 24743), (280, 24860),

Gene: Vordorf_31 Start: 26927, Stop: 27976, Start Num: 31

Candidate Starts for Vordorf_31:

(Start: 31 @26927 has 2 MA's), (82, 27092), (95, 27137), (117, 27215), (146, 27329), (165, 27392), (179, 27443), (184, 27473), (189, 27500), (246, 27776),

Gene: Waterfoul_27 Start: 23954, Stop: 25021, Start Num: 37

Candidate Starts for Waterfoul_27:

(Start: 37 @23954 has 91 MA's), (68, 24071), (97, 24176), (99, 24182), (117, 24242), (120, 24257), (129, 24284), (142, 24323), (143, 24326), (146, 24338), (147, 24341), (148, 24344), (151, 24359), (165, 24404), (169, 24410), (180, 24464), (189, 24512), (195, 24542), (202, 24587), (224, 24716), (234, 24770),

Gene: WheatThin_27 Start: 23315, Stop: 24382, Start Num: 40

Candidate Starts for WheatThin_27:

(Start: 40 @23315 has 17 MA's), (99, 23525), (146, 23693), (184, 23834), (187, 23849), (189, 23861), (193, 23885), (204, 23969), (236, 24116),

Gene: Whirlwind_23 Start: 22004, Stop: 23203, Start Num: 20

Candidate Starts for Whirlwind_23:

(Start: 20 @22004 has 2 MA's), (45, 22136), (57, 22184), (65, 22229), (67, 22235), (75, 22271), (88, 22310), (90, 22316), (91, 22322), (103, 22364), (121, 22436), (132, 22484), (136, 22496), (139, 22502), (155, 22571), (176, 22640), (192, 22733), (197, 22769), (206, 22823), (210, 22841), (257, 23033), (276, 23141),

Gene: Willsammy_22 Start: 21571, Stop: 22605, Start Num: 37

Candidate Starts for Willsammy_22:

(Start: 37 @21571 has 91 MA's), (78, 21727), (80, 21733), (112, 21841), (113, 21844), (117, 21859), (143, 21946), (153, 21991), (179, 22072), (189, 22129), (193, 22153), (210, 22258), (224, 22330), (236, 22375),

Gene: Xavia_22 Start: 21888, Stop: 22955, Start Num: 37

Candidate Starts for Xavia_22:

(Start: 37 @21888 has 91 MA's), (80, 22050), (92, 22092), (113, 22161), (129, 22221), (143, 22266), (148, 22284), (153, 22311), (179, 22392), (189, 22449), (193, 22473), (223, 22644),

Gene: Xeno_21 Start: 20200, Stop: 21240, Start Num: 32

Candidate Starts for Xeno_21:

(Start: 32 @20200 has 8 MA's), (80, 20365), (92, 20407), (113, 20476), (129, 20536), (143, 20581), (153, 20626), (179, 20707), (189, 20764), (193, 20788), (210, 20893), (224, 20965), (236, 21010),

Gene: Zenteno07_35 Start: 31167, Stop: 32306, Start Num: 17

Candidate Starts for Zenteno07_35:

(7, 30954), (Start: 17 @31167 has 1 MA's), (21, 31209), (25, 31257), (34, 31287), (43, 31308), (58, 31368), (67, 31416), (68, 31419), (70, 31425), (75, 31452), (83, 31476), (87, 31485), (101, 31536), (129, 31656), (134, 31674), (194, 31860), (201, 31905), (216, 31989), (220, 32001), (227, 32040), (249, 32118),

Gene: Zilizebeth_22 Start: 21299, Stop: 22336, Start Num: 37

Candidate Starts for Zilizebeth_22:

(27, 21275), (Start: 35 @21296 has 5 MA's), (Start: 37 @21299 has 91 MA's), (47, 21323), (80, 21461), (92, 21503), (113, 21572), (129, 21632), (143, 21677), (153, 21722), (179, 21803), (189, 21860), (193, 21884), (210, 21989), (224, 22061), (236, 22106), (278, 22271),

Gene: Zodiariah_22 Start: 21904, Stop: 22950, Start Num: 37

Candidate Starts for Zodiariah_22:

(Start: 37 @21904 has 91 MA's), (65, 22009), (95, 22114), (141, 22288), (142, 22291), (189, 22474), (217, 22630), (230, 22702), (246, 22750), (247, 22753), (258, 22786),