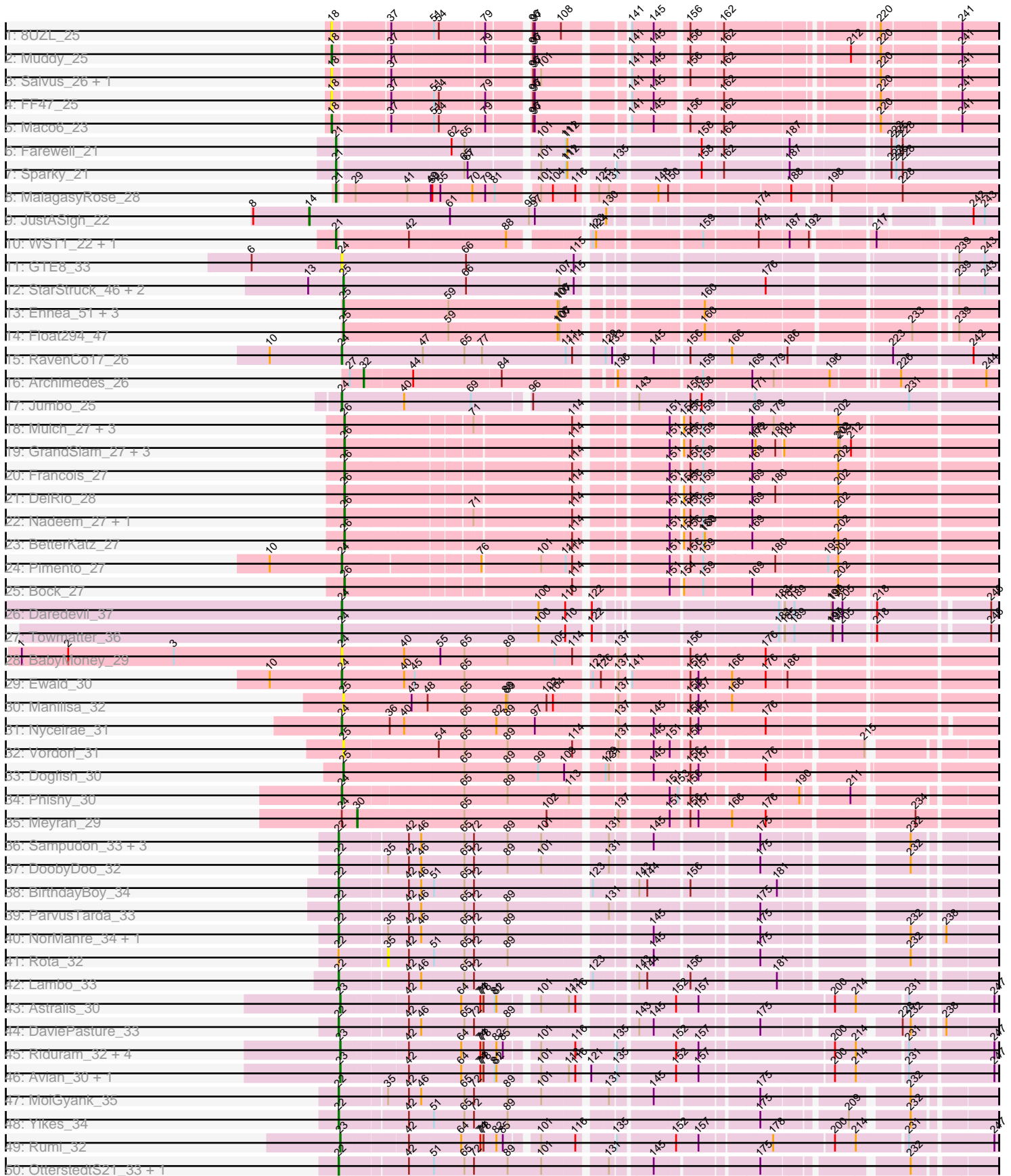


Pham 296233



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 296233 Report

This analysis was run 04/25/26 on database version 644.

Pham number 296233 has 227 members, 40 are drafts.

Phages represented in each track:

- Track 1 : 8UZL_25
- Track 2 : Muddy_25
- Track 3 : Salvus_26, LongHai_26
- Track 4 : FF47_25
- Track 5 : Maco6_23
- Track 6 : Farewell_21
- Track 7 : Sparky_21
- Track 8 : MalagasyRose_28
- Track 9 : JustASigh_22
- Track 10 : WST1_22, IdentityCrisis_21
- Track 11 : GTE8_33
- Track 12 : StarStruck_46, MerCougar_46, Outis_46
- Track 13 : Ennea_51, Patio_48, Skysand_47, Lollipop1437_50
- Track 14 : Float294_47
- Track 15 : RavenCo17_26
- Track 16 : Archimedes_26
- Track 17 : Jumbo_25
- Track 18 : Mulch_27, Parada_27, NancyRae_27, Brylie_27
- Track 19 : GrandSlam_27, Chop_27, Ayotoya_27, Hamood_27
- Track 20 : Francois_27
- Track 21 : DelRio_28
- Track 22 : Nadeem_27, WheatThin_27
- Track 23 : BetterKatz_27
- Track 24 : Pimento_27
- Track 25 : Bock_27
- Track 26 : Daredevil_37
- Track 27 : Towmatter_36
- Track 28 : BabyMoney_29
- Track 29 : Ewald_30
- Track 30 : Manilisa_32
- Track 31 : Nyceirae_31
- Track 32 : Vordorf_31
- Track 33 : Dogfish_30
- Track 34 : Phishy_30
- Track 35 : Meyran_29
- Track 36 : Sampudon_33, Fulcrum_34, GOATification_34, Jalebi_32
- Track 37 : DoobyDoo_32

- Track 38 : BirthdayBoy_34
- Track 39 : ParvusTarda_33
- Track 40 : NorManre_34, Patos_34
- Track 41 : Rota_32
- Track 42 : Lambo_33
- Track 43 : Astralis_30
- Track 44 : DaviePasture_33
- Track 45 : Riduram_32, NovaSharks_32, Jamemuya19_30, Alyssamiracle_33, RazorC_31
- Track 46 : Avian_30, Stormer_32
- Track 47 : MoiGyank_35
- Track 48 : Yikes_34
- Track 49 : Rumi_32
- Track 50 : OtterstedtS21_33, Gretellyn_33
- Track 51 : Alephilan_30
- Track 52 : Charminar_31
- Track 53 : Gibbin_34
- Track 54 : Lila22_32
- Track 55 : Erutan_33
- Track 56 : LuckyLeo_32
- Track 57 : Rukungu_33
- Track 58 : Apeppi_30
- Track 59 : Genamy16_33
- Track 60 : LavAbarElk_31
- Track 61 : Tillicus_32
- Track 62 : Ranch_33
- Track 63 : Zany_32
- Track 64 : Wojtek_32
- Track 65 : Mima20_31
- Track 66 : Pywacket_32
- Track 67 : DumpsterDude_23
- Track 68 : Zodiariah_22
- Track 69 : Sprinklemunch_22
- Track 70 : MakCheese_24
- Track 71 : LordVader_21
- Track 72 : Sbash_21
- Track 73 : Che9c_21, Purky_22
- Track 74 : Bluvara_22, Okabe_21
- Track 75 : Curiosium_29
- Track 76 : Neighly_28, Psycho_28, Larva_28, Dadosky_28, AlleyCat_28
- Track 77 : SamScheppers_27, Eponine_29
- Track 78 : Juliette_30, Ruthiejr_29
- Track 79 : DanSyl44_30
- Track 80 : Taquito_27
- Track 81 : Omnicron_28
- Track 82 : ViviJ_26, InvictusManeo_27, LilDirt_26, Collard_27, BananenDer11_27, DoubleChamp_27, Agent47_27
- Track 83 : Rando14_28
- Track 84 : SoSeph_27, Heftyboy_27, Paola_27, Guillsminger_27, Leston_27
- Track 85 : Thyatira_27
- Track 86 : OkiRoe_27
- Track 87 : Waterfoul_27
- Track 88 : Kratio_26

- Track 89 : Edugator_27
- Track 90 : Miryou_27
- Track 91 : Bricole_31, FreakyGoo_32, IPhane7_31, TyDawg_31, TpudiCK_32, Bongo_31, PegLeg_31, LilhomieP_30
- Track 92 : Izel_32, Dulcita_32, SlimJimmy_30, Diminimus_32, Glaske16_32, KleverKiS_31, Auspice_31
- Track 93 : Skinny_32
- Track 94 : Reindeer_30
- Track 95 : Rubeelu_22, Butters_22
- Track 96 : Panchino_21, SkinnyPete_21
- Track 97 : Phrann_21
- Track 98 : Raymond7_21
- Track 99 : MichelleMyBell_22
- Track 100 : Kevin1_22
- Track 101 : Impisi_22
- Track 102 : Xeno_21
- Track 103 : Rebel_21
- Track 104 : BronnyJr_22
- Track 105 : StressBall_22, Glaske_22, Gavriela_22, KilKor_22, Phalm_22, Shweta_21, Megiddo_22, CactusJack_22
- Track 106 : Atcoo_22
- Track 107 : 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, Jebeks_22, Etoile_22, Donovan_22, Ksquared_22, Sonah_22, Thespis_22, HC_22, Zilizebeth_22, Kari_22, Phegasus_22, Arib1_22, Juniormint_22, Fishburne_22, GaloreK_22, FirstPlacePfu_22, Techage_22
- Track 108 : Dynamo_22, Andies_21, Willsammy_22, Scitech_21
- Track 109 : Phineas_22
- Track 110 : Chubbello_22
- Track 111 : Camster_22
- Track 112 : Langerak_22, Malithi_22
- Track 113 : PeanutPie_22
- Track 114 : Jung_22
- Track 115 : Tortellini_22
- Track 116 : Xavia_22
- Track 117 : Phayonce_22, ThulaThula_22
- Track 118 : Demikore_38, Labelle_37, Madruga_36, SuperSonics_37, Patience_38
- Track 119 : Bipper_28
- Track 120 : AuntGwenStacy_28, Faiyaz_28, Typha_28, Hilltopfarm_28
- Track 121 : Cracklewink_28
- Track 122 : Rem711_30
- Track 123 : 32HC_31

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

The start number called the most often in the published annotations is 21, it was called in 89 of the 187 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, BananenDer11_27, Bartholomew_22, Bhagsy_22, Bipper_28, Bluvara_22, Bongo_31, Bricole_31, BronnyJr_22, Brusacoram_22, Bunnies_22, Camster_22, Che9c_21, Chubbello_22, Collard_27, Cracklewink_28, Curiosium_29, Dadosky_28, DanSyl44_30, Diminimus_32, Donovan_22, DoubleChamp_27, Dulcita_32, Dynamo_22, Edugator_27, Etoile_22, Faiyaz_28, Farewell_21, FirstPlacePfu_22, Fishburne_22, FreakyGoo_32, GaloreK_22, Glaske16_32, Guillsminger_27, HC_22, HUHilltop_22, Heftyboy_27, Hilltopfarm_28, IPhane7_31, IdentityCrisis_21, InvictusManeo_27, Izel_32, Jebeks_22, Jung_22, Juniormint_22, Kari_22, KleverKiS_31, Kratio_26, Ksquared_22, Larva_28, Leston_27, LilDirt_26, LilhomieP_30, Majeke_22, MalagasyRose_28, Mangethe_22, MichelleMyBell_22, Miryou_27, Necropolis_22, Neighly_28, Okabe_21, OkiRoe_27, Omnicron_28, Panchino_21, Paola_27, PegLeg_31, Phayonce_22, Phegasus_22, Phineas_22, Polkaroo_22, Psycho_28, Purky_22, Rando14_28, Raymond7_21, Reindeer_30, Sbash_21, Scitech_21, SkinnyPete_21, SlimJimmy_30, SoSeph_27, Sonah_22, Sparky_21, StevieRay_22, Techage_22, Thespis_22, ThulaThula_22, Thyatira_27, Tortellini_22, TpudiCK_32, TyDawg_31, Typha_28, Venti_22, Vidya_22, ViviJ_26, WST1_22, Waterfoul_27, Willsammy_22, Xavia_22, Zilizebeth_22,

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

- Eponine_29, Langerak_22, Malithi_22, PeanutPie_22, Phrann_21, SamScheppers_27, Taquito_27,

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

- 32HC_31, 8UZL_25, Alephlan_30, Alyssamiracle_33, Apeppi_30, Archimedes_26, Astralis_30, Avian_30, Ayotoya_27, BabyMoney_29, BetterKatz_27, BirthdayBoy_34, Bock_27, Brylie_27, Butters_22, CactusJack_22, Charminar_31, Chop_27, Daredevil_37, DaviePasture_33, DelRio_28, Demikore_38, Dogfish_30, DoobyDoo_32, DumpsterDude_23, Ennea_51, Erutan_33, Ewald_30, FF47_25, Float294_47, Francois_27, Fulcrum_34, GOATification_34, GTE8_33, Gavriela_22, Genamy16_33, Gibbin_34, Glaske_22, GrandSlam_27, GretelLyn_33, Hamood_27, Impisi_22, Jalebi_32, Jamemuya19_30, Juliette_30, Jumbo_25, JustASigh_22, Kevin1_22, KilKor_22, Labelle_37, Lambo_33, LavAbarElk_31, Lila22_32, Lollipop1437_50, LongHai_26, LordVader_21, LuckyLeo_32, Maco6_23, Madrugua_36, MakCheese_24, Manilisa_32, Megiddo_22, MerCougar_46, Meyran_29, Mima20_31, MoiGyank_35, Muddy_25, Mulch_27, Nadeem_27, NancyRae_27, NorManre_34, NovaSharks_32, Nyceirae_31, OtterstedtS21_33, Outis_46, Parada_27, ParvusTarda_33, Patience_38, Patio_48, Patos_34, Phalm_22, Phishy_30, Pimento_27, Pywacket_32, Ranch_33, RavenCo17_26, RazorC_31, Rebel_21, Rem711_30, Riduram_32, Rota_32, Rubeelu_22, Rukungu_33, Rumi_32, Ruthiejr_29, Salvus_26, Sampudon_33, Shweta_21, Skinny_32, Skysand_47, Sprinklemunch_22, StarStruck_46, Stormer_32, StressBall_22, SuperSonics_37, Tillicus_32, Towmatter_36, Vordorf_31, WheatThin_27, Wojtek_32, Xeno_21, Yikes_34, Zany_32, Zodiariah_22,

Summary by start number:

Start 14:

- Found in 3 of 227 (1.3%) of genes in pham
- Manual Annotations of this start: 2 of 187
- Called 100.0% of time when present
- Phage (with cluster) where this start called: 32HC_31 (Z), JustASigh_22 (AH), Rem711_30 (Z),

Start 18:

- Found in 15 of 227 (6.6%) of genes in pham
- Manual Annotations of this start: 11 of 187
- Called 100.0% of time when present
- Phage (with cluster) where this start called: 8UZL_25 (AB), CactusJack_22 (P1), FF47_25 (AB), Gavriela_22 (P1), Glaske_22 (P1), KilKor_22 (P1), LongHai_26 (AB), Maco6_23 (AB), Megiddo_22 (P1), Muddy_25 (AB), Phalm_22 (P1), Salvus_26 (AB), Shweta_21 (N), StressBall_22 (P1), Xeno_21 (N),

Start 19:

- Found in 43 of 227 (18.9%) of genes in pham
- Manual Annotations of this start: 6 of 187
- Called 14.0% of time when present
- Phage (with cluster) where this start called: Eponine_29 (K4), Langerak_22 (P1), Malithi_22 (P1), Phrann_21 (N), SamScheppers_27 (K4), Taquito_27 (K4),

Start 20:

- Found in 5 of 227 (2.2%) of genes in pham
- Manual Annotations of this start: 5 of 187
- 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 21:

- Found in 113 of 227 (49.8%) of genes in pham
- Manual Annotations of this start: 89 of 187
- Called 93.8% 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), BananenDer11_27 (K5), Bartholomew_22 (P1), Bhagsy_22 (P1), Bipper_28 (Y), Bluvara_22 (I3), Bongo_31 (M1), Bricole_31 (M1), BronnyJr_22 (P1), Brusacoram_22 (P1), Bunnies_22 (P1), Camster_22 (P1), Che9c_21 (I2), Chubbello_22 (P1), Collard_27 (K5), Cracklewink_28 (Y), Curiosium_29 (K1), Dadosky_28 (K5), DanSyl44_30 (K4), Diminimus_32 (M1), Donovan_22 (P1), DoubleChamp_27 (K5), Dulcita_32 (M1), Dynamo_22 (P1), Edugator_27 (K5), Etoile_22 (P1), Faiyaz_28 (Y), Farewell_21 (AF), FirstPlacePfu_22 (P1), Fishburne_22 (P1), FreakyGoo_32 (M1), GaloreK_22 (P1), Glaske16_32 (M1), Guillsminger_27 (K5), HC_22 (I1), HUHilltop_22 (P1), Heftyboy_27 (K5), Hilltopfarm_28 (Y), IPhone7_31 (M1), IdentityCrisis_21 (AJ), InvictusManeo_27 (K5), Izel_32 (M1), Jebeks_22 (P1), Jung_22 (P1), Juniormint_22 (P1), Kari_22 (P1), KleverKiS_31 (M1), Kratio_26 (K5), Ksquared_22 (P1), Larva_28 (K5), Leston_27 (K5), LilDirt_26 (K5), LilhomieP_30 (M1), Majeke_22 (P1), MalagasyRose_28 (AG), Mangethe_22 (P1), MichelleMyBell_22 (N), Miryou_27 (K5), Necropolis_22 (P1), Neighly_28 (K3), Okabe_21 (F8), OkiRoe_27 (K5), Omnicron_28 (K5), Panchino_21 (N), Paola_27 (K5), PegLeg_31 (M1), Phayonce_22 (P5), Phegasus_22 (P1), Phineas_22 (P1), Polkaroo_22 (P1), Psycho_28 (K5), Purky_22 (P6), Rando14_28 (K5), Raymond7_21 (N), Reindeer_30 (M1), Sbash_21 (I2), Scitech_21 (N), SkinnyPete_21 (N), 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), Tortellini_22 (P2), TpudiCK_32 (M1), TyDawg_31 (M1), Typha_28 (Y), Venti_22 (P1), Vidya_22 (P1), ViviJ_26 (K5), WST1_22 (AJ), Waterfoul_27 (K5), Willsammy_22 (P1), Xavia_22 (P3), Zilizebeth_22

(P1),

Start 22:

- Found in 30 of 227 (13.2%) of genes in pham
- Manual Annotations of this start: 25 of 187
- Called 90.0% of time when present
- Phage (with cluster) where this start called: Alephilan_30 (DV), Apeppi_30 (DV), BirthdayBoy_34 (DV), DaviePasture_33 (DV), DoobyDoo_32 (DV), Erutan_33 (DV), Fulcrum_34 (DV), GOATification_34 (DV), Gibbin_34 (DV), GretelLyn_33 (DV), Jalebi_32 (DV), Lambo_33 (DV), LavAbarElk_31 (DV), Lila22_32 (DV), Mima20_31 (DV), MoiGyank_35 (DV), NorManre_34 (DV), OtterstedtS21_33 (DV), ParvusTarda_33 (DV), Patos_34 (DV), Pywacket_32 (DV), Ranch_33 (DV), Sampudon_33 (DV), Tillicus_32 (DV), Wojtek_32 (DV), Yikes_34 (DV), Zany_32 (DV),

Start 23:

- Found in 11 of 227 (4.8%) of genes in pham
- Manual Annotations of this start: 8 of 187
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Alyssamiracle_33 (DV), Astralis_30 (DV), Avian_30 (DV), Charminar_31 (DV), Genamy16_33 (DV), Jamemuya19_30 (DV), NovaSharks_32 (DV), RazorC_31 (DV), Riduram_32 (DV), Rumi_32 (DV), Stormer_32 (DV),

Start 24:

- Found in 19 of 227 (8.4%) of genes in pham
- Manual Annotations of this start: 12 of 187
- Called 89.5% of time when present
- Phage (with cluster) where this start called: BabyMoney_29 (DT), Daredevil_37 (DL), DumpsterDude_23 (DW), Ewald_30 (DT), GTE8_33 (CR2), Impisi_22 (N), Jumbo_25 (DF3), LordVader_21 (F), Nyceirae_31 (DT), Phishy_30 (DT), Pimento_27 (DI), RavenCo17_26 (CZ8), Rebel_21 (N), Skinny_32 (M1), Sprinklemunch_22 (DW), Towmatter_36 (DL), Zodiariah_22 (DW),

Start 25:

- Found in 11 of 227 (4.8%) of genes in pham
- Manual Annotations of this start: 9 of 187
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Dogfish_30 (DT), Ennea_51 (CR3), Float294_47 (CR3), Lollipop1437_50 (CR3), Manilisa_32 (DT), MerCougar_46 (CR2), Outis_46 (CR2), Patio_48 (CR3), Skysand_47 (CR3), StarStruck_46 (CR2), Vordorf_31 (DT),

Start 26:

- Found in 19 of 227 (8.4%) of genes in pham
- Manual Annotations of this start: 17 of 187
- 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), Demikore_38 (U), Francois_27 (DI), GrandSlam_27 (DI), Hamood_27 (DI), Labelle_37 (U), Madruga_36 (U), Mulch_27 (DI), Nadeem_27 (DI), NancyRae_27 (DI), Parada_27 (DI), Patience_38 (U), SuperSonics_37 (U), WheatThin_27 (DI),

Start 30:

- Found in 39 of 227 (17.2%) of genes in pham
- Manual Annotations of this start: 1 of 187
- Called 5.1% of time when present
- Phage (with cluster) where this start called: Meyran_29 (DT), PeanutPie_22 (P1),

Start 32:

- Found in 3 of 227 (1.3%) of genes in pham
- Manual Annotations of this start: 1 of 187
- Called 33.3% of time when present
- Phage (with cluster) where this start called: Archimedes_26 (DA),

Start 33:

- Found in 3 of 227 (1.3%) of genes in pham
- Manual Annotations of this start: 1 of 187
- Called 33.3% of time when present
- Phage (with cluster) where this start called: LuckyLeo_32 (DV),

Start 35:

- Found in 8 of 227 (3.5%) of genes in pham
- No Manual Annotations of this start.
- Called 25.0% of time when present
- Phage (with cluster) where this start called: Rota_32 (DV), Rukungu_33 (DV),

Start 40:

- Found in 7 of 227 (3.1%) of genes in pham
- No Manual Annotations of this start.
- Called 14.3% of time when present
- Phage (with cluster) where this start called: MakCheese_24 (DW),

Summary by clusters:

There are 34 clusters represented in this pham: DL, DI, CZ8, DA, K3, K1, AB, M1, K5, K4, DV, DW, DT, F, I1, I3, I2, DF3, P2, P3, P1, P6, AG, P5, AH, AJ, N, U, Y, Z, AF, CR2, CR3, F8,

Info for manual annotations of cluster AB:

- Start number 18 was manually annotated 2 times for cluster AB.

Info for manual annotations of cluster AF:

- Start number 21 was manually annotated 2 times for cluster AF.

Info for manual annotations of cluster AG:

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

Info for manual annotations of cluster AH:

- Start number 14 was manually annotated 1 time for cluster AH.

Info for manual annotations of cluster AJ:

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

Info for manual annotations of cluster CR2:

- Start number 25 was manually annotated 3 times for cluster CR2.

Info for manual annotations of cluster CR3:

- Start number 25 was manually annotated 5 times for cluster CR3.

Info for manual annotations of cluster CZ8:

- Start number 24 was manually annotated 1 time for cluster CZ8.

Info for manual annotations of cluster DA:

- Start number 32 was manually annotated 1 time for cluster DA.

Info for manual annotations of cluster DF3:

- Start number 24 was manually annotated 1 time for cluster DF3.

Info for manual annotations of cluster DI:

- Start number 24 was manually annotated 1 time for cluster DI.
- Start number 26 was manually annotated 14 times for cluster DI.

Info for manual annotations of cluster DL:

- Start number 24 was manually annotated 2 times for cluster DL.

Info for manual annotations of cluster DT:

- Start number 24 was manually annotated 3 times for cluster DT.
- Start number 25 was manually annotated 1 time for cluster DT.
- Start number 30 was manually annotated 1 time for cluster DT.

Info for manual annotations of cluster DV:

- Start number 22 was manually annotated 25 times for cluster DV.
- Start number 23 was manually annotated 8 times for cluster DV.
- Start number 33 was manually annotated 1 time for cluster DV.

Info for manual annotations of cluster DW:

- Start number 24 was manually annotated 2 times for cluster DW.

Info for manual annotations of cluster I1:

- Start number 21 was manually annotated 2 times for cluster I1.

Info for manual annotations of cluster I2:

- Start number 21 was manually annotated 2 times for cluster I2.

Info for manual annotations of cluster K1:

- Start number 21 was manually annotated 1 time for cluster K1.

Info for manual annotations of cluster K4:

- Start number 19 was manually annotated 3 times for cluster K4.
- Start number 20 was manually annotated 2 times for cluster K4.

Info for manual annotations of cluster K5:

- Start number 21 was manually annotated 21 times for cluster K5.

Info for manual annotations of cluster M1:

- Start number 21 was manually annotated 14 times for cluster M1.
- Start number 24 was manually annotated 1 time for cluster M1.

Info for manual annotations of cluster N:

- Start number 18 was manually annotated 2 times for cluster N.
- Start number 19 was manually annotated 1 time for cluster N.
- Start number 20 was manually annotated 3 times for cluster N.
- Start number 21 was manually annotated 5 times for cluster N.
- Start number 24 was manually annotated 1 time for cluster N.

Info for manual annotations of cluster P1:

- Start number 18 was manually annotated 7 times for cluster P1.
- Start number 19 was manually annotated 2 times for cluster P1.
- Start number 21 was manually annotated 30 times for cluster P1.

Info for manual annotations of cluster P2:

- Start number 21 was manually annotated 1 time for cluster P2.

Info for manual annotations of cluster P3:

- Start number 21 was manually annotated 1 time for cluster P3.

Info for manual annotations of cluster P5:

- Start number 21 was manually annotated 2 times for cluster P5.

Info for manual annotations of cluster P6:

- Start number 21 was manually annotated 1 time for cluster P6.

Info for manual annotations of cluster U:

- Start number 26 was manually annotated 3 times for cluster U.

Info for manual annotations of cluster Y:

- Start number 21 was manually annotated 5 times for cluster Y.

Info for manual annotations of cluster Z:

- Start number 14 was manually annotated 1 time for cluster Z.

Gene Information:

Gene: 32HC_31 Start: 25140, Stop: 26351, Start Num: 14

Candidate Starts for 32HC_31:

(Start: 14 @25140 has 2 MA's), (15, 25161), (38, 25299), (60, 25401), (91, 25524), (94, 25539), (98, 25560), (109, 25611), (118, 25641), (119, 25644), (120, 25650), (125, 25677), (126, 25680), (128, 25686), (133, 25701), (134, 25707), (140, 25728), (142, 25740), (161, 25872), (163, 25899), (197, 26082), (210, 26115), (241, 26289),

Gene: 8UZL_25 Start: 21727, Stop: 22752, Start Num: 18

Candidate Starts for 8UZL_25:

(Start: 18 @21727 has 11 MA's), (37, 21817), (51, 21886), (54, 21895), (79, 21973), (96, 22036), (97, 22039), (108, 22087), (141, 22183), (145, 22219), (156, 22270), (162, 22327), (220, 22564), (241, 22690),

Gene: Agent47_27 Start: 24079, Stop: 25143, Start Num: 21

Candidate Starts for Agent47_27:

(Start: 21 @24079 has 89 MA's), (39, 24169), (42, 24196), (57, 24259), (70, 24307), (81, 24346), (86, 24364), (101, 24409), (109, 24448), (125, 24496), (131, 24514), (148, 24589), (159, 24655), (172, 24745), (173, 24748), (174, 24751), (182, 24784), (208, 24883), (210, 24886), (227, 24970), (232, 24982), (242, 25099),

Gene: Alephilan_30 Start: 28717, Stop: 29766, Start Num: 22

Candidate Starts for Alephilan_30:

(Start: 22 @28717 has 25 MA's), (42, 28831), (51, 28873), (58, 28894), (65, 28927), (72, 28942), (89, 29005), (92, 29023), (135, 29176), (143, 29206), (146, 29233), (177, 29416), (187, 29446), (230, 29620), (238, 29674),

Gene: AlleyCat_28 Start: 24010, Stop: 25074, Start Num: 21

Candidate Starts for AlleyCat_28:

(Start: 21 @24010 has 89 MA's), (39, 24100), (43, 24130), (55, 24184), (57, 24190), (70, 24238), (81, 24277), (86, 24295), (88, 24298), (109, 24379), (125, 24427), (131, 24445), (159, 24586), (172, 24676), (173, 24679), (174, 24682), (182, 24715), (186, 24727), (208, 24814), (210, 24817), (232, 24913), (242, 25030),

Gene: Alyssamiracle_33 Start: 27521, Stop: 28618, Start Num: 23

Candidate Starts for Alyssamiracle_33:

(Start: 23 @27521 has 8 MA's), (42, 27635), (64, 27728), (74, 27761), (77, 27764), (78, 27767), (82, 27788), (85, 27800), (101, 27848), (116, 27911), (135, 27965), (152, 28061), (157, 28103), (200, 28337), (214, 28376), (231, 28463), (247, 28610),

Gene: Andies_21 Start: 20194, Stop: 21228, Start Num: 21

Candidate Starts for Andies_21:

(Start: 21 @20194 has 89 MA's), (50, 20350), (52, 20356), (82, 20464), (83, 20467), (88, 20482), (111, 20569), (125, 20614), (145, 20695), (156, 20752), (159, 20776), (176, 20881), (192, 20953), (206, 20998),

Gene: Apeppi_30 Start: 28862, Stop: 29908, Start Num: 22

Candidate Starts for Apeppi_30:

(Start: 22 @28862 has 25 MA's), (Start: 33 @28919 has 1 MA's), (48, 29009), (51, 29018), (53, 29024), (56, 29033), (72, 29087), (123, 29285), (143, 29351), (144, 29363), (156, 29432), (181, 29573), (209, 29681),

Gene: Archimedes_26 Start: 23367, Stop: 24368, Start Num: 32

Candidate Starts for Archimedes_26:

(27, 23343), (Start: 32 @23367 has 1 MA's), (44, 23445), (84, 23595), (136, 23766), (159, 23898), (169, 23982), (179, 24018), (196, 24114), (226, 24213), (244, 24348),

Gene: Arib1_22 Start: 21305, Stop: 22342, Start Num: 21

Candidate Starts for Arib1_22:

(16, 21281), (Start: 19 @21302 has 6 MA's), (Start: 21 @21305 has 89 MA's), (Start: 30 @21329 has 1 MA's), (52, 21467), (63, 21509), (83, 21578), (101, 21638), (111, 21683), (125, 21728), (145, 21809), (156, 21866), (159, 21890), (176, 21995), (192, 22067), (206, 22112), (240, 22277),

Gene: Astralis_30 Start: 27111, Stop: 28208, Start Num: 23

Candidate Starts for Astralis_30:

(Start: 23 @27111 has 8 MA's), (42, 27225), (64, 27318), (74, 27351), (77, 27354), (78, 27357), (81, 27375), (82, 27378), (101, 27438), (113, 27489), (116, 27501), (152, 27651), (157, 27693), (200, 27927), (214, 27966), (231, 28053), (247, 28200),

Gene: Atcoo_22 Start: 21759, Stop: 22826, Start Num: 21

Candidate Starts for Atcoo_22:

(Start: 21 @21759 has 89 MA's), (52, 21921), (63, 21963), (83, 22032), (101, 22092), (111, 22137), (125, 22182), (156, 22320), (159, 22344),

Gene: AuntGwenStacy_28 Start: 26025, Stop: 27062, Start Num: 21

Candidate Starts for AuntGwenStacy_28:

(Start: 21 @26025 has 89 MA's), (44, 26148), (57, 26202), (65, 26238), (85, 26301), (101, 26349), (114, 26403), (115, 26406), (158, 26592), (162, 26628), (168, 26670), (174, 26688), (188, 26739),

Gene: Auspice_31 Start: 26992, Stop: 28047, Start Num: 21

Candidate Starts for Auspice_31:

(Start: 21 @26992 has 89 MA's), (65, 27205), (79, 27241), (96, 27304), (115, 27376), (125, 27406), (132, 27427), (143, 27463), (148, 27499), (156, 27547), (158, 27568), (160, 27574), (162, 27604), (164, 27607), (170, 27655), (222, 27865), (236, 27919),

Gene: Avian_30 Start: 27503, Stop: 28600, Start Num: 23

Candidate Starts for Avian_30:

(Start: 23 @27503 has 8 MA's), (42, 27617), (64, 27710), (74, 27743), (77, 27746), (78, 27749), (81, 27767), (82, 27770), (101, 27830), (113, 27881), (116, 27893), (121, 27905), (135, 27947), (152, 28043), (157, 28085), (200, 28319), (214, 28358), (231, 28445), (247, 28592),

Gene: Ayotoya_27 Start: 24101, Stop: 25168, Start Num: 26

Candidate Starts for Ayotoya_27:

(Start: 26 @24101 has 17 MA's), (114, 24479), (151, 24620), (154, 24635), (156, 24647), (159, 24671), (169, 24755), (172, 24761), (180, 24794), (184, 24806), (202, 24902), (203, 24905), (212, 24926),

Gene: Babsiella_22 Start: 21313, Stop: 22350, Start Num: 21

Candidate Starts for Babsiella_22:

(16, 21289), (Start: 19 @21310 has 6 MA's), (Start: 21 @21313 has 89 MA's), (Start: 30 @21337 has 1 MA's), (52, 21475), (63, 21517), (83, 21586), (101, 21646), (111, 21691), (125, 21736), (145, 21817), (156, 21874), (159, 21898), (176, 22003), (192, 22075), (206, 22120), (240, 22285),

Gene: BabyMoney_29 Start: 25948, Stop: 27033, Start Num: 24

Candidate Starts for BabyMoney_29:

(1, 25351), (2, 25438), (3, 25636), (Start: 24 @25948 has 12 MA's), (40, 26053), (55, 26116), (65, 26158), (89, 26236), (105, 26320), (114, 26350), (137, 26413), (156, 26521), (176, 26653),

Gene: BananenDer11_27 Start: 24040, Stop: 25104, Start Num: 21

Candidate Starts for BananenDer11_27:

(Start: 21 @24040 has 89 MA's), (39, 24130), (42, 24157), (57, 24220), (70, 24268), (81, 24307), (86, 24325), (101, 24370), (109, 24409), (125, 24457), (131, 24475), (148, 24550), (159, 24616), (172, 24706), (173, 24709), (174, 24712), (182, 24745), (208, 24844), (210, 24847), (227, 24931), (232, 24943), (242, 25060),

Gene: Bartholomew_22 Start: 21299, Stop: 22336, Start Num: 21

Candidate Starts for Bartholomew_22:

(16, 21275), (Start: 19 @21296 has 6 MA's), (Start: 21 @21299 has 89 MA's), (Start: 30 @21323 has 1 MA's), (52, 21461), (63, 21503), (83, 21572), (101, 21632), (111, 21677), (125, 21722), (145, 21803),

(156, 21860), (159, 21884), (176, 21989), (192, 22061), (206, 22106), (240, 22271),

Gene: BetterKatz_27 Start: 23574, Stop: 24641, Start Num: 26

Candidate Starts for BetterKatz_27:

(Start: 26 @23574 has 17 MA's), (114, 23952), (151, 24093), (154, 24108), (156, 24120), (159, 24144), (160, 24147), (169, 24228), (202, 24375),

Gene: Bhagsy_22 Start: 21306, Stop: 22343, Start Num: 21

Candidate Starts for Bhagsy_22:

(16, 21282), (Start: 19 @21303 has 6 MA's), (Start: 21 @21306 has 89 MA's), (Start: 30 @21330 has 1 MA's), (52, 21468), (63, 21510), (83, 21579), (101, 21639), (111, 21684), (125, 21729), (145, 21810), (156, 21867), (159, 21891), (176, 21996), (192, 22068), (206, 22113), (240, 22278),

Gene: Bipper_28 Start: 26155, Stop: 27216, Start Num: 21

Candidate Starts for Bipper_28:

(Start: 21 @26155 has 89 MA's), (46, 26293), (51, 26314), (52, 26317), (64, 26365), (65, 26368), (86, 26443), (101, 26488), (111, 26530), (112, 26533), (117, 26551), (125, 26575), (129, 26587), (132, 26596), (135, 26602), (159, 26734), (172, 26824), (188, 26881), (193, 26917), (202, 26956), (221, 27037), (245, 27199),

Gene: BirthdayBoy_34 Start: 29543, Stop: 30589, Start Num: 22

Candidate Starts for BirthdayBoy_34:

(Start: 22 @29543 has 25 MA's), (42, 29657), (46, 29678), (51, 29699), (65, 29753), (72, 29768), (123, 29966), (143, 30032), (144, 30044), (156, 30113), (181, 30254),

Gene: Bluvara_22 Start: 21380, Stop: 22417, Start Num: 21

Candidate Starts for Bluvara_22:

(16, 21356), (Start: 19 @21377 has 6 MA's), (Start: 21 @21380 has 89 MA's), (Start: 30 @21404 has 1 MA's), (52, 21542), (63, 21584), (83, 21653), (101, 21713), (111, 21758), (125, 21803), (145, 21884), (156, 21941), (159, 21965), (176, 22070), (192, 22142), (206, 22187),

Gene: Bock_27 Start: 23324, Stop: 24391, Start Num: 26

Candidate Starts for Bock_27:

(Start: 26 @23324 has 17 MA's), (114, 23702), (151, 23843), (154, 23858), (159, 23894), (169, 23978), (202, 24125),

Gene: Bongo_31 Start: 26992, Stop: 28047, Start Num: 21

Candidate Starts for Bongo_31:

(Start: 21 @26992 has 89 MA's), (65, 27205), (79, 27241), (96, 27304), (115, 27376), (125, 27406), (132, 27427), (143, 27463), (148, 27499), (156, 27547), (158, 27568), (160, 27574), (162, 27604), (164, 27607), (170, 27655), (219, 27844), (222, 27865), (236, 27919),

Gene: Bricole_31 Start: 26978, Stop: 28033, Start Num: 21

Candidate Starts for Bricole_31:

(Start: 21 @26978 has 89 MA's), (65, 27191), (79, 27227), (96, 27290), (115, 27362), (125, 27392), (132, 27413), (143, 27449), (148, 27485), (156, 27533), (158, 27554), (160, 27560), (162, 27590), (164, 27593), (170, 27641), (219, 27830), (222, 27851), (236, 27905),

Gene: BronnyJr_22 Start: 21730, Stop: 22797, Start Num: 21

Candidate Starts for BronnyJr_22:

(Start: 19 @21727 has 6 MA's), (Start: 21 @21730 has 89 MA's), (52, 21892), (63, 21934), (83, 22003), (101, 22063), (111, 22108), (125, 22153), (144, 22222), (145, 22234), (156, 22291), (159, 22315), (187, 22453), (188, 22456),

Gene: Brusacoram_22 Start: 21299, Stop: 22336, Start Num: 21

Candidate Starts for Brusacoram_22:

(16, 21275), (Start: 19 @21296 has 6 MA's), (Start: 21 @21299 has 89 MA's), (Start: 30 @21323 has 1 MA's), (52, 21461), (63, 21503), (83, 21572), (101, 21632), (111, 21677), (125, 21722), (145, 21803), (156, 21860), (159, 21884), (176, 21989), (192, 22061), (206, 22106), (240, 22271),

Gene: Brylie_27 Start: 23315, Stop: 24382, Start Num: 26

Candidate Starts for Brylie_27:

(Start: 26 @23315 has 17 MA's), (71, 23525), (114, 23693), (151, 23834), (154, 23849), (156, 23861), (159, 23885), (169, 23969), (179, 24005), (202, 24116),

Gene: Bunnies_22 Start: 21321, Stop: 22358, Start Num: 21

Candidate Starts for Bunnies_22:

(16, 21297), (Start: 19 @21318 has 6 MA's), (Start: 21 @21321 has 89 MA's), (Start: 30 @21345 has 1 MA's), (52, 21483), (63, 21525), (83, 21594), (101, 21654), (111, 21699), (125, 21744), (145, 21825), (156, 21882), (159, 21906), (176, 22011), (192, 22083), (206, 22128), (240, 22293),

Gene: Butters_22 Start: 19998, Stop: 21038, Start Num: 20

Candidate Starts for Butters_22:

(11, 19932), (Start: 20 @19998 has 5 MA's), (50, 20157), (52, 20163), (82, 20271), (83, 20274), (88, 20289), (111, 20379), (125, 20424), (145, 20505), (156, 20562), (159, 20586), (172, 20673), (176, 20691), (192, 20763), (206, 20808), (240, 20973),

Gene: CactusJack_22 Start: 21561, Stop: 22601, Start Num: 18

Candidate Starts for CactusJack_22:

(Start: 18 @21561 has 11 MA's), (50, 21720), (52, 21726), (63, 21768), (82, 21834), (83, 21837), (101, 21897), (111, 21942), (125, 21987), (145, 22068), (156, 22125), (159, 22149), (176, 22254), (192, 22326), (206, 22371),

Gene: Camster_22 Start: 21300, Stop: 22367, Start Num: 21

Candidate Starts for Camster_22:

(16, 21276), (Start: 19 @21297 has 6 MA's), (Start: 21 @21300 has 89 MA's), (Start: 30 @21324 has 1 MA's), (52, 21462), (63, 21504), (83, 21573), (101, 21633), (111, 21678), (125, 21723), (144, 21792), (145, 21804), (156, 21861), (159, 21885), (191, 22056),

Gene: Charminar_31 Start: 27114, Stop: 28211, Start Num: 23

Candidate Starts for Charminar_31:

(Start: 23 @27114 has 8 MA's), (42, 27228), (64, 27321), (74, 27354), (77, 27357), (78, 27360), (82, 27381), (85, 27393), (101, 27441), (116, 27504), (135, 27558), (152, 27654), (157, 27696), (178, 27822), (200, 27930), (214, 27969), (231, 28056), (247, 28203),

Gene: Che9c_21 Start: 21007, Stop: 22053, Start Num: 21

Candidate Starts for Che9c_21:

(Start: 21 @21007 has 89 MA's), (65, 21220), (101, 21331), (111, 21373), (112, 21376), (135, 21445), (158, 21577), (162, 21613), (187, 21721), (222, 21874), (225, 21883), (228, 21895),

Gene: Chop_27 Start: 23849, Stop: 24916, Start Num: 26

Candidate Starts for Chop_27:

(Start: 26 @23849 has 17 MA's), (114, 24227), (151, 24368), (154, 24383), (156, 24395), (159, 24419), (169, 24503), (172, 24509), (180, 24542), (184, 24554), (202, 24650), (203, 24653), (212, 24674),

Gene: Chubbello_22 Start: 21298, Stop: 22335, Start Num: 21

Candidate Starts for Chubbello_22:

(16, 21274), (Start: 19 @21295 has 6 MA's), (Start: 21 @21298 has 89 MA's), (Start: 30 @21322 has 1 MA's), (52, 21460), (63, 21502), (83, 21571), (101, 21631), (111, 21676), (125, 21721), (145, 21802), (156, 21859), (159, 21883), (172, 21970), (176, 21988), (192, 22060), (206, 22105), (240, 22270),

Gene: Collard_27 Start: 24040, Stop: 25104, Start Num: 21

Candidate Starts for Collard_27:

(Start: 21 @24040 has 89 MA's), (39, 24130), (42, 24157), (57, 24220), (70, 24268), (81, 24307), (86, 24325), (101, 24370), (109, 24409), (125, 24457), (131, 24475), (148, 24550), (159, 24616), (172, 24706), (173, 24709), (174, 24712), (182, 24745), (208, 24844), (210, 24847), (227, 24931), (232, 24943), (242, 25060),

Gene: Cracklewink_28 Start: 26155, Stop: 27216, Start Num: 21

Candidate Starts for Cracklewink_28:

(Start: 21 @26155 has 89 MA's), (46, 26293), (51, 26314), (52, 26317), (64, 26365), (65, 26368), (86, 26443), (101, 26488), (111, 26530), (112, 26533), (117, 26551), (125, 26575), (129, 26587), (132, 26596), (135, 26602), (159, 26734), (172, 26824), (188, 26881), (202, 26956), (221, 27037), (245, 27199),

Gene: Curiosium_29 Start: 23069, Stop: 24148, Start Num: 21

Candidate Starts for Curiosium_29:

(Start: 21 @23069 has 89 MA's), (31, 23096), (41, 23183), (50, 23228), (55, 23243), (57, 23249), (63, 23276), (67, 23291), (81, 23336), (82, 23339), (85, 23351), (90, 23372), (101, 23399), (104, 23420), (125, 23486), (156, 23630), (158, 23651), (160, 23657), (198, 23855), (212, 23888), (214, 23897),

Gene: Dadosky_28 Start: 24011, Stop: 25075, Start Num: 21

Candidate Starts for Dadosky_28:

(Start: 21 @24011 has 89 MA's), (39, 24101), (43, 24131), (55, 24185), (57, 24191), (70, 24239), (81, 24278), (86, 24296), (88, 24299), (109, 24380), (125, 24428), (131, 24446), (159, 24587), (172, 24677), (173, 24680), (174, 24683), (182, 24716), (186, 24728), (208, 24815), (210, 24818), (232, 24914), (242, 25031),

Gene: DanSyl44_30 Start: 25030, Stop: 26100, Start Num: 21

Candidate Starts for DanSyl44_30:

(Start: 19 @25027 has 6 MA's), (Start: 21 @25030 has 89 MA's), (73, 25270), (83, 25306), (85, 25315), (88, 25321), (101, 25366), (111, 25411), (116, 25429), (125, 25456), (145, 25537), (156, 25594), (159, 25618),

Gene: Daredevil_37 Start: 34603, Stop: 35670, Start Num: 24

Candidate Starts for Daredevil_37:

(Start: 24 @34603 has 12 MA's), (100, 34948), (110, 34993), (122, 35023), (183, 35314), (185, 35320), (189, 35338), (197, 35404), (199, 35407), (205, 35425), (218, 35473), (246, 35659),

Gene: DaviePasture_33 Start: 29342, Stop: 30391, Start Num: 22

Candidate Starts for DaviePasture_33:

(Start: 22 @29342 has 25 MA's), (42, 29456), (46, 29477), (65, 29552), (72, 29567), (89, 29630), (143, 29831), (145, 29855), (175, 30026), (228, 30239), (232, 30254), (238, 30299),

Gene: DelRio_28 Start: 24323, Stop: 25387, Start Num: 26

Candidate Starts for DelRio_28:

(Start: 26 @24323 has 17 MA's), (114, 24701), (151, 24842), (154, 24854), (156, 24866), (159, 24890), (169, 24974), (180, 25013), (202, 25121),

Gene: Demikore_38 Start: 32041, Stop: 33081, Start Num: 26

Candidate Starts for Demikore_38:

(Start: 26 @32041 has 17 MA's), (37, 32119), (51, 32197), (113, 32410), (114, 32416), (141, 32494), (156, 32587), (160, 32614),

Gene: Diminimus_32 Start: 26991, Stop: 28046, Start Num: 21

Candidate Starts for Diminimus_32:

(Start: 21 @26991 has 89 MA's), (65, 27204), (79, 27240), (96, 27303), (115, 27375), (125, 27405), (132, 27426), (143, 27462), (148, 27498), (156, 27546), (158, 27567), (160, 27573), (162, 27603), (164, 27606), (170, 27654), (222, 27864), (236, 27918),

Gene: Dogfish_30 Start: 26617, Stop: 27699, Start Num: 25

Candidate Starts for Dogfish_30:

(Start: 25 @26617 has 9 MA's), (65, 26827), (89, 26905), (99, 26959), (109, 27004), (129, 27061), (131, 27067), (145, 27130), (156, 27187), (157, 27202), (176, 27319),

Gene: Donovan_22 Start: 21288, Stop: 22325, Start Num: 21

Candidate Starts for Donovan_22:

(16, 21264), (Start: 19 @21285 has 6 MA's), (Start: 21 @21288 has 89 MA's), (Start: 30 @21312 has 1 MA's), (52, 21450), (63, 21492), (83, 21561), (101, 21621), (111, 21666), (125, 21711), (145, 21792), (156, 21849), (159, 21873), (176, 21978), (192, 22050), (206, 22095), (240, 22260),

Gene: DoobyDoo_32 Start: 28492, Stop: 29541, Start Num: 22

Candidate Starts for DoobyDoo_32:

(Start: 22 @28492 has 25 MA's), (35, 28567), (42, 28606), (46, 28627), (65, 28702), (72, 28717), (89, 28780), (101, 28840), (131, 28942), (175, 29176), (232, 29404),

Gene: DoubleChamp_27 Start: 24040, Stop: 25104, Start Num: 21

Candidate Starts for DoubleChamp_27:

(Start: 21 @24040 has 89 MA's), (39, 24130), (42, 24157), (57, 24220), (70, 24268), (81, 24307), (86, 24325), (101, 24370), (109, 24409), (125, 24457), (131, 24475), (148, 24550), (159, 24616), (172, 24706), (173, 24709), (174, 24712), (182, 24745), (208, 24844), (210, 24847), (227, 24931), (232, 24943), (242, 25060),

Gene: Dulcita_32 Start: 26991, Stop: 28046, Start Num: 21

Candidate Starts for Dulcita_32:

(Start: 21 @26991 has 89 MA's), (65, 27204), (79, 27240), (96, 27303), (115, 27375), (125, 27405), (132, 27426), (143, 27462), (148, 27498), (156, 27546), (158, 27567), (160, 27573), (162, 27603), (164, 27606), (170, 27654), (222, 27864), (236, 27918),

Gene: DumpsterDude_23 Start: 21990, Stop: 23072, Start Num: 24

Candidate Starts for DumpsterDude_23:

(10, 21855), (Start: 24 @21990 has 12 MA's), (34, 22062), (65, 22200), (77, 22230), (101, 22338), (111, 22380), (129, 22434), (156, 22560),

Gene: Dynamo_22 Start: 21688, Stop: 22722, Start Num: 21

Candidate Starts for Dynamo_22:

(Start: 21 @21688 has 89 MA's), (50, 21844), (52, 21850), (82, 21958), (83, 21961), (88, 21976), (111, 22063), (125, 22108), (145, 22189), (156, 22246), (159, 22270), (176, 22375), (192, 22447), (206, 22492),

Gene: Edugator_27 Start: 24010, Stop: 25074, Start Num: 21

Candidate Starts for Edugator_27:

(Start: 21 @24010 has 89 MA's), (39, 24100), (43, 24130), (55, 24184), (57, 24190), (70, 24238), (81, 24277), (86, 24295), (88, 24298), (109, 24379), (125, 24427), (131, 24445), (159, 24586), (172, 24676), (173, 24679), (174, 24682), (182, 24715), (186, 24727), (208, 24814), (210, 24817), (242, 25030),

Gene: Ennea_51 Start: 36974, Stop: 38035, Start Num: 25

Candidate Starts for Ennea_51:

(Start: 25 @36974 has 9 MA's), (59, 37160), (106, 37346), (107, 37349), (160, 37559),

Gene: Eponine_29 Start: 24914, Stop: 25987, Start Num: 19

Candidate Starts for Eponine_29:

(Start: 19 @24914 has 6 MA's), (Start: 21 @24917 has 89 MA's), (73, 25157), (83, 25193), (85, 25202), (88, 25208), (101, 25253), (111, 25298), (116, 25316), (125, 25343), (145, 25424), (156, 25481), (159, 25505),

Gene: Erutan_33 Start: 29002, Stop: 30048, Start Num: 22

Candidate Starts for Erutan_33:

(Start: 22 @29002 has 25 MA's), (42, 29116), (46, 29137), (65, 29212), (72, 29227), (89, 29290), (145, 29515), (175, 29686), (187, 29731), (232, 29914),

Gene: Etoile_22 Start: 21299, Stop: 22336, Start Num: 21

Candidate Starts for Etoile_22:

(16, 21275), (Start: 19 @21296 has 6 MA's), (Start: 21 @21299 has 89 MA's), (Start: 30 @21323 has 1 MA's), (52, 21461), (63, 21503), (83, 21572), (101, 21632), (111, 21677), (125, 21722), (145, 21803), (156, 21860), (159, 21884), (176, 21989), (192, 22061), (206, 22106), (240, 22271),

Gene: Ewald_30 Start: 26639, Stop: 27724, Start Num: 24

Candidate Starts for Ewald_30:

(10, 26504), (Start: 24 @26639 has 12 MA's), (40, 26744), (45, 26762), (65, 26849), (123, 27062), (126, 27077), (137, 27104), (141, 27119), (156, 27212), (157, 27227), (166, 27284), (176, 27344), (186, 27377),

Gene: FF47_25 Start: 21654, Stop: 22679, Start Num: 18

Candidate Starts for FF47_25:

(Start: 18 @21654 has 11 MA's), (37, 21744), (51, 21813), (54, 21822), (79, 21900), (96, 21963), (97, 21966), (141, 22110), (145, 22146), (162, 22254), (220, 22491), (241, 22617),

Gene: Faiyaz_28 Start: 26025, Stop: 27062, Start Num: 21

Candidate Starts for Faiyaz_28:

(Start: 21 @26025 has 89 MA's), (44, 26148), (57, 26202), (65, 26238), (85, 26301), (101, 26349), (114, 26403), (115, 26406), (158, 26592), (162, 26628), (168, 26670), (174, 26688), (188, 26739),

Gene: Farewell_21 Start: 21884, Stop: 22930, Start Num: 21

Candidate Starts for Farewell_21:

(Start: 21 @21884 has 89 MA's), (62, 22076), (65, 22097), (101, 22208), (111, 22250), (112, 22253), (158, 22454), (162, 22490), (187, 22598), (222, 22751), (225, 22760), (228, 22772),

Gene: FirstPlacePfu_22 Start: 21299, Stop: 22336, Start Num: 21

Candidate Starts for FirstPlacePfu_22:

(16, 21275), (Start: 19 @21296 has 6 MA's), (Start: 21 @21299 has 89 MA's), (Start: 30 @21323 has 1 MA's), (52, 21461), (63, 21503), (83, 21572), (101, 21632), (111, 21677), (125, 21722), (145, 21803), (156, 21860), (159, 21884), (176, 21989), (192, 22061), (206, 22106), (240, 22271),

Gene: Fishburne_22 Start: 21299, Stop: 22336, Start Num: 21

Candidate Starts for Fishburne_22:

(16, 21275), (Start: 19 @21296 has 6 MA's), (Start: 21 @21299 has 89 MA's), (Start: 30 @21323 has 1 MA's), (52, 21461), (63, 21503), (83, 21572), (101, 21632), (111, 21677), (125, 21722), (145, 21803), (156, 21860), (159, 21884), (176, 21989), (192, 22061), (206, 22106), (240, 22271),

Gene: Float294_47 Start: 36416, Stop: 37477, Start Num: 25

Candidate Starts for Float294_47:

(Start: 25 @36416 has 9 MA's), (59, 36602), (106, 36788), (107, 36791), (160, 37001), (233, 37340), (239, 37406),

Gene: Francois_27 Start: 23338, Stop: 24405, Start Num: 26

Candidate Starts for Francois_27:

(Start: 26 @23338 has 17 MA's), (114, 23716), (151, 23857), (156, 23884), (159, 23908), (169, 23992), (202, 24139),

Gene: FreakyGoo_32 Start: 26992, Stop: 28047, Start Num: 21

Candidate Starts for FreakyGoo_32:

(Start: 21 @26992 has 89 MA's), (65, 27205), (79, 27241), (96, 27304), (115, 27376), (125, 27406), (132, 27427), (143, 27463), (148, 27499), (156, 27547), (158, 27568), (160, 27574), (162, 27604), (164, 27607), (170, 27655), (219, 27844), (222, 27865), (236, 27919),

Gene: Fulcrum_34 Start: 29520, Stop: 30569, Start Num: 22

Candidate Starts for Fulcrum_34:

(Start: 22 @29520 has 25 MA's), (42, 29634), (46, 29655), (65, 29730), (72, 29745), (89, 29808), (101, 29868), (131, 29970), (145, 30033), (175, 30204), (232, 30432),

Gene: GOATification_34 Start: 29520, Stop: 30569, Start Num: 22

Candidate Starts for GOATification_34:

(Start: 22 @29520 has 25 MA's), (42, 29634), (46, 29655), (65, 29730), (72, 29745), (89, 29808), (101, 29868), (131, 29970), (145, 30033), (175, 30204), (232, 30432),

Gene: GTE8_33 Start: 29229, Stop: 30287, Start Num: 24

Candidate Starts for GTE8_33:

(6, 29067), (Start: 24 @29229 has 12 MA's), (66, 29445), (115, 29628), (239, 30216), (243, 30261),

Gene: GaloreK_22 Start: 21295, Stop: 22332, Start Num: 21

Candidate Starts for GaloreK_22:

(16, 21271), (Start: 19 @21292 has 6 MA's), (Start: 21 @21295 has 89 MA's), (Start: 30 @21319 has 1 MA's), (52, 21457), (63, 21499), (83, 21568), (101, 21628), (111, 21673), (125, 21718), (145, 21799), (156, 21856), (159, 21880), (176, 21985), (192, 22057), (206, 22102), (240, 22267),

Gene: Gavriela_22 Start: 21561, Stop: 22601, Start Num: 18

Candidate Starts for Gavriela_22:

(Start: 18 @21561 has 11 MA's), (50, 21720), (52, 21726), (63, 21768), (82, 21834), (83, 21837), (101, 21897), (111, 21942), (125, 21987), (145, 22068), (156, 22125), (159, 22149), (176, 22254), (192, 22326), (206, 22371),

Gene: Genamy16_33 Start: 27521, Stop: 28618, Start Num: 23

Candidate Starts for Genamy16_33:

(Start: 23 @27521 has 8 MA's), (42, 27635), (64, 27728), (74, 27761), (77, 27764), (78, 27767), (81, 27785), (82, 27788), (85, 27800), (101, 27848), (116, 27911), (135, 27965), (152, 28061), (157, 28103), (200, 28337), (214, 28376), (231, 28463), (247, 28610),

Gene: Gibbin_34 Start: 29619, Stop: 30668, Start Num: 22

Candidate Starts for Gibbin_34:

(Start: 22 @29619 has 25 MA's), (42, 29733), (51, 29775), (65, 29829), (72, 29844), (89, 29907), (175, 30303), (187, 30348), (209, 30438), (232, 30531),

Gene: Glaske_22 Start: 21561, Stop: 22601, Start Num: 18

Candidate Starts for Glaske_22:

(Start: 18 @21561 has 11 MA's), (50, 21720), (52, 21726), (63, 21768), (82, 21834), (83, 21837), (101, 21897), (111, 21942), (125, 21987), (145, 22068), (156, 22125), (159, 22149), (176, 22254), (192, 22326), (206, 22371),

Gene: Glaske16_32 Start: 26991, Stop: 28046, Start Num: 21

Candidate Starts for Glaske16_32:

(Start: 21 @26991 has 89 MA's), (65, 27204), (79, 27240), (96, 27303), (115, 27375), (125, 27405), (132, 27426), (143, 27462), (148, 27498), (156, 27546), (158, 27567), (160, 27573), (162, 27603), (164, 27606), (170, 27654), (222, 27864), (236, 27918),

Gene: GrandSlam_27 Start: 23849, Stop: 24916, Start Num: 26

Candidate Starts for GrandSlam_27:

(Start: 26 @23849 has 17 MA's), (114, 24227), (151, 24368), (154, 24383), (156, 24395), (159, 24419), (169, 24503), (172, 24509), (180, 24542), (184, 24554), (202, 24650), (203, 24653), (212, 24674),

Gene: Gretellyn_33 Start: 29878, Stop: 30933, Start Num: 22

Candidate Starts for Gretellyn_33:

(Start: 22 @29878 has 25 MA's), (42, 29992), (51, 30034), (65, 30088), (72, 30103), (89, 30166), (101, 30226), (131, 30328), (145, 30391), (175, 30562), (232, 30796),

Gene: Guillsminger_27 Start: 23933, Stop: 25000, Start Num: 21

Candidate Starts for Guillsminger_27:

(Start: 21 @23933 has 89 MA's), (42, 24050), (55, 24107), (67, 24155), (70, 24161), (86, 24218), (88, 24221), (90, 24236), (101, 24263), (109, 24302), (111, 24305), (114, 24317), (115, 24320), (116, 24323), (123, 24338), (137, 24383), (139, 24389), (148, 24443), (156, 24491), (161, 24521), (167, 24566), (192, 24695), (207, 24749),

Gene: HC_22 Start: 21369, Stop: 22406, Start Num: 21

Candidate Starts for HC_22:

(16, 21345), (Start: 19 @21366 has 6 MA's), (Start: 21 @21369 has 89 MA's), (Start: 30 @21393 has 1 MA's), (52, 21531), (63, 21573), (83, 21642), (101, 21702), (111, 21747), (125, 21792), (145, 21873), (156, 21930), (159, 21954), (176, 22059), (192, 22131), (206, 22176), (240, 22341),

Gene: HUHilltop_22 Start: 21299, Stop: 22336, Start Num: 21

Candidate Starts for HUHilltop_22:

(16, 21275), (Start: 19 @21296 has 6 MA's), (Start: 21 @21299 has 89 MA's), (Start: 30 @21323 has 1 MA's), (52, 21461), (63, 21503), (83, 21572), (101, 21632), (111, 21677), (125, 21722), (145, 21803), (156, 21860), (159, 21884), (176, 21989), (192, 22061), (206, 22106), (240, 22271),

Gene: Hamood_27 Start: 23849, Stop: 24916, Start Num: 26

Candidate Starts for Hamood_27:

(Start: 26 @23849 has 17 MA's), (114, 24227), (151, 24368), (154, 24383), (156, 24395), (159, 24419), (169, 24503), (172, 24509), (180, 24542), (184, 24554), (202, 24650), (203, 24653), (212, 24674),

Gene: Heftyboy_27 Start: 24081, Stop: 25148, Start Num: 21

Candidate Starts for Heftyboy_27:

(Start: 21 @24081 has 89 MA's), (42, 24198), (55, 24255), (67, 24303), (70, 24309), (86, 24366), (88, 24369), (90, 24384), (101, 24411), (109, 24450), (111, 24453), (114, 24465), (115, 24468), (116, 24471), (123, 24486), (137, 24531), (139, 24537), (148, 24591), (156, 24639), (161, 24669), (167, 24714), (192, 24843), (207, 24897),

Gene: Hilltopfarm_28 Start: 26055, Stop: 27092, Start Num: 21

Candidate Starts for Hilltopfarm_28:

(Start: 21 @26055 has 89 MA's), (44, 26178), (57, 26232), (65, 26268), (85, 26331), (101, 26379), (114, 26433), (115, 26436), (158, 26622), (162, 26658), (168, 26700), (174, 26718), (188, 26769),

Gene: IPhone7_31 Start: 26992, Stop: 28047, Start Num: 21

Candidate Starts for IPhone7_31:

(Start: 21 @26992 has 89 MA's), (65, 27205), (79, 27241), (96, 27304), (115, 27376), (125, 27406), (132, 27427), (143, 27463), (148, 27499), (156, 27547), (158, 27568), (160, 27574), (162, 27604), (164, 27607), (170, 27655), (219, 27844), (222, 27865), (236, 27919),

Gene: IdentityCrisis_21 Start: 19031, Stop: 20086, Start Num: 21

Candidate Starts for IdentityCrisis_21:

(Start: 21 @19031 has 89 MA's), (42, 19148), (88, 19322), (123, 19439), (124, 19445), (159, 19610), (174, 19703), (187, 19751), (192, 19787), (217, 19880),

Gene: Impisi_22 Start: 20207, Stop: 21247, Start Num: 24

Candidate Starts for Impisi_22:

(Start: 24 @20207 has 12 MA's), (52, 20372), (63, 20414), (83, 20483), (101, 20543), (111, 20588), (125, 20633), (144, 20702), (145, 20714), (156, 20771), (159, 20795), (176, 20900), (192, 20972), (206, 21017),

Gene: InvictusManeo_27 Start: 24083, Stop: 25147, Start Num: 21

Candidate Starts for InvictusManeo_27:

(Start: 21 @24083 has 89 MA's), (39, 24173), (42, 24200), (57, 24263), (70, 24311), (81, 24350), (86, 24368), (101, 24413), (109, 24452), (125, 24500), (131, 24518), (148, 24593), (159, 24659), (172, 24749), (173, 24752), (174, 24755), (182, 24788), (208, 24887), (210, 24890), (227, 24974), (232, 24986), (242, 25103),

Gene: Izel_32 Start: 26991, Stop: 28046, Start Num: 21

Candidate Starts for Izel_32:

(Start: 21 @26991 has 89 MA's), (65, 27204), (79, 27240), (96, 27303), (115, 27375), (125, 27405), (132, 27426), (143, 27462), (148, 27498), (156, 27546), (158, 27567), (160, 27573), (162, 27603), (164, 27606), (170, 27654), (222, 27864), (236, 27918),

Gene: Jalebi_32 Start: 30054, Stop: 31103, Start Num: 22

Candidate Starts for Jalebi_32:

(Start: 22 @30054 has 25 MA's), (42, 30168), (46, 30189), (65, 30264), (72, 30279), (89, 30342), (101, 30402), (131, 30504), (145, 30567), (175, 30738), (232, 30966),

Gene: Jamemuya19_30 Start: 27111, Stop: 28208, Start Num: 23

Candidate Starts for Jamemuya19_30:

(Start: 23 @27111 has 8 MA's), (42, 27225), (64, 27318), (74, 27351), (77, 27354), (78, 27357), (82, 27378), (85, 27390), (101, 27438), (116, 27501), (135, 27555), (152, 27651), (157, 27693), (200, 27927), (214, 27966), (231, 28053), (247, 28200),

Gene: Jebeks_22 Start: 21284, Stop: 22321, Start Num: 21

Candidate Starts for Jebeks_22:

(16, 21260), (Start: 19 @21281 has 6 MA's), (Start: 21 @21284 has 89 MA's), (Start: 30 @21308 has 1 MA's), (52, 21446), (63, 21488), (83, 21557), (101, 21617), (111, 21662), (125, 21707), (145, 21788), (156, 21845), (159, 21869), (176, 21974), (192, 22046), (206, 22091), (240, 22256),

Gene: Juliette_30 Start: 24531, Stop: 25565, Start Num: 20

Candidate Starts for Juliette_30:

(11, 24465), (Start: 20 @24531 has 5 MA's), (50, 24687), (51, 24690), (63, 24735), (65, 24744), (88, 24819), (111, 24906), (125, 24951), (145, 25032), (156, 25089), (159, 25113), (176, 25218), (192, 25290), (213, 25350), (240, 25500),

Gene: Jumbo_25 Start: 36377, Stop: 37471, Start Num: 24

Candidate Starts for Jumbo_25:

(Start: 24 @36377 has 12 MA's), (40, 36485), (69, 36602), (96, 36689), (143, 36851), (156, 36944), (158, 36965), (171, 37052), (231, 37319),

Gene: Jung_22 Start: 21225, Stop: 22292, Start Num: 21

Candidate Starts for Jung_22:

(16, 21201), (Start: 19 @21222 has 6 MA's), (Start: 21 @21225 has 89 MA's), (Start: 30 @21249 has 1 MA's), (50, 21381), (52, 21387), (63, 21429), (82, 21495), (83, 21498), (101, 21558), (111, 21603), (125, 21648), (145, 21729), (156, 21786), (159, 21810), (165, 21852), (191, 21981), (194, 22002),

Gene: Juniormint_22 Start: 21325, Stop: 22380, Start Num: 21

Candidate Starts for Juniormint_22:

(16, 21301), (Start: 19 @21322 has 6 MA's), (Start: 21 @21325 has 89 MA's), (Start: 30 @21349 has 1 MA's), (52, 21487), (63, 21529), (83, 21598), (101, 21676), (111, 21721), (125, 21766), (145, 21847), (156, 21904), (159, 21928), (176, 22033), (192, 22105), (206, 22150), (240, 22315),

Gene: JustASigh_22 Start: 22794, Stop: 23885, Start Num: 14

Candidate Starts for JustASigh_22:

(8, 22689), (Start: 14 @22794 has 2 MA's), (61, 23058), (95, 23202), (97, 23211), (130, 23322), (174, 23547), (242, 23841), (243, 23862),

Gene: Kari_22 Start: 21299, Stop: 22336, Start Num: 21

Candidate Starts for Kari_22:

(16, 21275), (Start: 19 @21296 has 6 MA's), (Start: 21 @21299 has 89 MA's), (Start: 30 @21323 has 1 MA's), (52, 21461), (63, 21503), (83, 21572), (101, 21632), (111, 21677), (125, 21722), (145, 21803), (156, 21860), (159, 21884), (176, 21989), (192, 22061), (206, 22106), (240, 22271),

Gene: Kevin1_22 Start: 19999, Stop: 21036, Start Num: 20

Candidate Starts for Kevin1_22:

(11, 19933), (Start: 20 @19999 has 5 MA's), (50, 20155), (52, 20161), (82, 20269), (88, 20287), (111, 20377), (125, 20422), (145, 20503), (159, 20584), (172, 20671), (176, 20689), (192, 20761), (206, 20806), (240, 20971),

Gene: KilKor_22 Start: 21561, Stop: 22601, Start Num: 18

Candidate Starts for KilKor_22:

(Start: 18 @21561 has 11 MA's), (50, 21720), (52, 21726), (63, 21768), (82, 21834), (83, 21837), (101, 21897), (111, 21942), (125, 21987), (145, 22068), (156, 22125), (159, 22149), (176, 22254), (192, 22326), (206, 22371),

Gene: KleverKiS_31 Start: 26972, Stop: 28027, Start Num: 21

Candidate Starts for KleverKiS_31:

(Start: 21 @26972 has 89 MA's), (65, 27185), (79, 27221), (96, 27284), (115, 27356), (125, 27386), (132, 27407), (143, 27443), (148, 27479), (156, 27527), (158, 27548), (160, 27554), (162, 27584), (164, 27587), (170, 27635), (222, 27845), (236, 27899),

Gene: Kratio_26 Start: 23714, Stop: 24778, Start Num: 21

Candidate Starts for Kratio_26:

(Start: 21 @23714 has 89 MA's), (39, 23804), (43, 23834), (57, 23894), (70, 23942), (81, 23981), (86, 23999), (109, 24083), (125, 24131), (131, 24149), (148, 24224), (159, 24290), (172, 24380), (173, 24383), (174, 24386), (182, 24419), (208, 24518), (210, 24521), (227, 24605), (232, 24617), (242, 24734),

Gene: Ksquared_22 Start: 21321, Stop: 22358, Start Num: 21

Candidate Starts for Ksquared_22:

(16, 21297), (Start: 19 @21318 has 6 MA's), (Start: 21 @21321 has 89 MA's), (Start: 30 @21345 has 1 MA's), (52, 21483), (63, 21525), (83, 21594), (101, 21654), (111, 21699), (125, 21744), (145, 21825), (156, 21882), (159, 21906), (176, 22011), (192, 22083), (206, 22128), (240, 22293),

Gene: Labelle_37 Start: 32043, Stop: 33083, Start Num: 26

Candidate Starts for Labelle_37:

(Start: 26 @32043 has 17 MA's), (37, 32121), (51, 32199), (113, 32412), (114, 32418), (141, 32496), (156, 32589), (160, 32616),

Gene: Lambo_33 Start: 29541, Stop: 30587, Start Num: 22

Candidate Starts for Lambo_33:

(Start: 22 @29541 has 25 MA's), (42, 29655), (46, 29676), (65, 29751), (72, 29766), (123, 29964), (143, 30030), (144, 30042), (156, 30111), (181, 30252),

Gene: Langerak_22 Start: 21280, Stop: 22320, Start Num: 19

Candidate Starts for Langerak_22:

(16, 21259), (Start: 19 @21280 has 6 MA's), (Start: 21 @21283 has 89 MA's), (Start: 30 @21307 has 1 MA's), (52, 21445), (63, 21487), (83, 21556), (101, 21616), (111, 21661), (125, 21706), (145, 21787), (156, 21844), (159, 21868), (176, 21973), (192, 22045), (206, 22090), (240, 22255),

Gene: Larva_28 Start: 23878, Stop: 24942, Start Num: 21

Candidate Starts for Larva_28:

(Start: 21 @23878 has 89 MA's), (39, 23968), (43, 23998), (55, 24052), (57, 24058), (70, 24106), (81, 24145), (86, 24163), (88, 24166), (109, 24247), (125, 24295), (131, 24313), (159, 24454), (172, 24544), (173, 24547), (174, 24550), (182, 24583), (186, 24595), (208, 24682), (210, 24685), (232, 24781), (242, 24898),

Gene: LavAbarElk_31 Start: 27993, Stop: 29042, Start Num: 22

Candidate Starts for LavAbarElk_31:

(Start: 22 @27993 has 25 MA's), (42, 28107), (46, 28128), (65, 28203), (72, 28218), (89, 28281), (101, 28341), (131, 28443), (145, 28506), (175, 28677), (209, 28812), (232, 28905),

Gene: Leston_27 Start: 24063, Stop: 25130, Start Num: 21

Candidate Starts for Leston_27:

(Start: 21 @24063 has 89 MA's), (42, 24180), (55, 24237), (67, 24285), (70, 24291), (86, 24348), (88, 24351), (90, 24366), (101, 24393), (109, 24432), (111, 24435), (114, 24447), (115, 24450), (116, 24453), (123, 24468), (137, 24513), (139, 24519), (148, 24573), (156, 24621), (161, 24651), (167, 24696), (192, 24825), (207, 24879),

Gene: LilDirt_26 Start: 23840, Stop: 24904, Start Num: 21

Candidate Starts for LilDirt_26:

(Start: 21 @23840 has 89 MA's), (39, 23930), (42, 23957), (57, 24020), (70, 24068), (81, 24107), (86, 24125), (101, 24170), (109, 24209), (125, 24257), (131, 24275), (148, 24350), (159, 24416), (172, 24506), (173, 24509), (174, 24512), (182, 24545), (208, 24644), (210, 24647), (227, 24731), (232, 24743), (242, 24860),

Gene: Lila22_32 Start: 29496, Stop: 30542, Start Num: 22

Candidate Starts for Lila22_32:

(Start: 22 @29496 has 25 MA's), (42, 29610), (46, 29631), (65, 29706), (72, 29721), (89, 29784), (131, 29946), (181, 30207),

Gene: LilhomieP_30 Start: 26992, Stop: 28047, Start Num: 21

Candidate Starts for LilhomieP_30:

(Start: 21 @26992 has 89 MA's), (65, 27205), (79, 27241), (96, 27304), (115, 27376), (125, 27406), (132, 27427), (143, 27463), (148, 27499), (156, 27547), (158, 27568), (160, 27574), (162, 27604), (164, 27607), (170, 27655), (219, 27844), (222, 27865), (236, 27919),

Gene: Lollipop1437_50 Start: 36962, Stop: 38023, Start Num: 25

Candidate Starts for Lollipop1437_50:

(Start: 25 @36962 has 9 MA's), (59, 37148), (106, 37334), (107, 37337), (160, 37547),

Gene: LongHai_26 Start: 22028, Stop: 23053, Start Num: 18

Candidate Starts for LongHai_26:

(Start: 18 @22028 has 11 MA's), (37, 22118), (96, 22337), (97, 22340), (101, 22352), (141, 22484), (145, 22520), (156, 22571), (162, 22628), (220, 22865), (241, 22991),

Gene: LordVader_21 Start: 19492, Stop: 20529, Start Num: 24

Candidate Starts for LordVader_21:

(Start: 24 @19492 has 12 MA's), (Start: 30 @19516 has 1 MA's), (52, 19654), (63, 19696), (83, 19765), (101, 19825), (111, 19870), (125, 19915), (144, 19984), (156, 20053), (159, 20077), (176, 20182), (192, 20254), (206, 20299),

Gene: LuckyLeo_32 Start: 28919, Stop: 29908, Start Num: 33

Candidate Starts for LuckyLeo_32:

(Start: 22 @28862 has 25 MA's), (Start: 33 @28919 has 1 MA's), (48, 29009), (51, 29018), (53, 29024), (56, 29033), (72, 29087), (123, 29285), (143, 29351), (144, 29363), (156, 29432), (181, 29573), (209, 29681),

Gene: Maco6_23 Start: 20985, Stop: 22013, Start Num: 18

Candidate Starts for Maco6_23:

(Start: 18 @20985 has 11 MA's), (37, 21075), (51, 21144), (54, 21153), (79, 21231), (96, 21294), (97, 21297), (141, 21441), (145, 21477), (156, 21528), (162, 21585), (220, 21825), (241, 21951),

Gene: Madruga_36 Start: 31712, Stop: 32752, Start Num: 26

Candidate Starts for Madruga_36:

(Start: 26 @31712 has 17 MA's), (37, 31790), (51, 31868), (113, 32081), (114, 32087), (141, 32165), (156, 32258), (160, 32285),

Gene: Majeke_22 Start: 21305, Stop: 22342, Start Num: 21

Candidate Starts for Majeke_22:

(16, 21281), (Start: 19 @21302 has 6 MA's), (Start: 21 @21305 has 89 MA's), (Start: 30 @21329 has 1 MA's), (52, 21467), (63, 21509), (83, 21578), (101, 21638), (111, 21683), (125, 21728), (145, 21809), (156, 21866), (159, 21890), (176, 21995), (192, 22067), (206, 22112), (240, 22277),

Gene: MakCheese_24 Start: 21714, Stop: 22658, Start Num: 40

Candidate Starts for MakCheese_24:

(Start: 24 @21606 has 12 MA's), (40, 21714), (79, 21855), (93, 21927), (101, 21960), (148, 22134), (155, 22173), (156, 22182), (176, 22305), (186, 22338), (201, 22410), (215, 22458), (218, 22461), (232, 22524),

Gene: MalagasyRose_28 Start: 22698, Stop: 23777, Start Num: 21

Candidate Starts for MalagasyRose_28:

(Start: 21 @22698 has 89 MA's), (29, 22719), (41, 22812), (49, 22854), (50, 22857), (55, 22872), (70, 22926), (79, 22947), (81, 22965), (101, 23028), (104, 23049), (116, 23088), (125, 23115), (131, 23133), (148, 23211), (150, 23229), (188, 23424), (198, 23484), (228, 23607),

Gene: Malithi_22 Start: 21221, Stop: 22261, Start Num: 19

Candidate Starts for Malithi_22:

(16, 21200), (Start: 19 @21221 has 6 MA's), (Start: 21 @21224 has 89 MA's), (Start: 30 @21248 has 1 MA's), (52, 21386), (63, 21428), (83, 21497), (101, 21557), (111, 21602), (125, 21647), (145, 21728), (156, 21785), (159, 21809), (176, 21914), (192, 21986), (206, 22031), (240, 22196),

Gene: Mangethe_22 Start: 21305, Stop: 22342, Start Num: 21

Candidate Starts for Mangethe_22:

(16, 21281), (Start: 19 @21302 has 6 MA's), (Start: 21 @21305 has 89 MA's), (Start: 30 @21329 has 1 MA's), (52, 21467), (63, 21509), (83, 21578), (101, 21638), (111, 21683), (125, 21728), (145, 21809), (156, 21866), (159, 21890), (176, 21995), (192, 22067), (206, 22112), (240, 22277),

Gene: Manilisa_32 Start: 27398, Stop: 28474, Start Num: 25

Candidate Starts for Manilisa_32:

(Start: 25 @27398 has 9 MA's), (43, 27515), (48, 27545), (65, 27608), (88, 27683), (89, 27686), (102, 27755), (104, 27767), (137, 27860), (156, 27962), (157, 27977), (166, 28034),

Gene: Megiddo_22 Start: 21561, Stop: 22601, Start Num: 18

Candidate Starts for Megiddo_22:

(Start: 18 @21561 has 11 MA's), (50, 21720), (52, 21726), (63, 21768), (82, 21834), (83, 21837), (101, 21897), (111, 21942), (125, 21987), (145, 22068), (156, 22125), (159, 22149), (176, 22254), (192, 22326), (206, 22371),

Gene: MerCougar_46 Start: 36238, Stop: 37293, Start Num: 25

Candidate Starts for MerCougar_46:

(13, 36175), (Start: 25 @36238 has 9 MA's), (66, 36451), (107, 36610), (115, 36634), (176, 36922), (239, 37222), (243, 37267),

Gene: Meyran_29 Start: 27126, Stop: 28187, Start Num: 30

Candidate Starts for Meyran_29:

(Start: 24 @27099 has 12 MA's), (Start: 30 @27126 has 1 MA's), (65, 27309), (102, 27456), (137, 27561), (151, 27642), (156, 27669), (157, 27684), (166, 27747), (176, 27807), (234, 28044),

Gene: MichelleMyBell_22 Start: 20029, Stop: 21114, Start Num: 21

Candidate Starts for MichelleMyBell_22:

(11, 19963), (Start: 21 @20029 has 89 MA's), (52, 20191), (83, 20302), (101, 20362), (111, 20407), (145, 20533), (148, 20542), (156, 20590),

Gene: Mima20_31 Start: 29243, Stop: 30292, Start Num: 22

Candidate Starts for Mima20_31:

(Start: 22 @29243 has 25 MA's), (35, 29318), (42, 29357), (46, 29378), (65, 29453), (72, 29468), (89, 29531), (101, 29591), (131, 29693), (175, 29927), (209, 30062), (232, 30155),

Gene: Miryou_27 Start: 23918, Stop: 24985, Start Num: 21

Candidate Starts for Miryou_27:

(Start: 21 @23918 has 89 MA's), (42, 24035), (55, 24092), (67, 24140), (70, 24146), (86, 24203), (88, 24206), (90, 24221), (101, 24248), (109, 24287), (111, 24290), (114, 24302), (115, 24305), (116, 24308), (123, 24323), (137, 24368), (139, 24374), (148, 24428), (156, 24476), (161, 24506), (167, 24551), (192, 24680), (207, 24734),

Gene: MoiGyank_35 Start: 29924, Stop: 30973, Start Num: 22

Candidate Starts for MoiGyank_35:

(Start: 22 @29924 has 25 MA's), (35, 29999), (42, 30038), (46, 30059), (65, 30134), (72, 30149), (89, 30212), (101, 30272), (131, 30374), (145, 30437), (175, 30608), (232, 30836),

Gene: Muddy_25 Start: 21935, Stop: 22960, Start Num: 18

Candidate Starts for Muddy_25:

(Start: 18 @21935 has 11 MA's), (37, 22025), (79, 22181), (96, 22244), (97, 22247), (141, 22391), (145, 22427), (156, 22478), (162, 22535), (212, 22733), (220, 22772), (241, 22898),

Gene: Mulch_27 Start: 23315, Stop: 24382, Start Num: 26

Candidate Starts for Mulch_27:

(Start: 26 @23315 has 17 MA's), (71, 23525), (114, 23693), (151, 23834), (154, 23849), (156, 23861), (159, 23885), (169, 23969), (179, 24005), (202, 24116),

Gene: Nadeem_27 Start: 23315, Stop: 24382, Start Num: 26

Candidate Starts for Nadeem_27:

(Start: 26 @23315 has 17 MA's), (71, 23525), (114, 23693), (151, 23834), (154, 23849), (156, 23861), (159, 23885), (169, 23969), (202, 24116),

Gene: NancyRae_27 Start: 23321, Stop: 24388, Start Num: 26

Candidate Starts for NancyRae_27:

(Start: 26 @23321 has 17 MA's), (71, 23531), (114, 23699), (151, 23840), (154, 23855), (156, 23867), (159, 23891), (169, 23975), (179, 24011), (202, 24122),

Gene: Necropolis_22 Start: 21299, Stop: 22336, Start Num: 21

Candidate Starts for Necropolis_22:

(16, 21275), (Start: 19 @21296 has 6 MA's), (Start: 21 @21299 has 89 MA's), (Start: 30 @21323 has 1 MA's), (52, 21461), (63, 21503), (83, 21572), (101, 21632), (111, 21677), (125, 21722), (145, 21803), (156, 21860), (159, 21884), (176, 21989), (192, 22061), (206, 22106), (240, 22271),

Gene: Neighly_28 Start: 23877, Stop: 24941, Start Num: 21

Candidate Starts for Neighly_28:

(Start: 21 @23877 has 89 MA's), (39, 23967), (43, 23997), (55, 24051), (57, 24057), (70, 24105), (81, 24144), (86, 24162), (88, 24165), (109, 24246), (125, 24294), (131, 24312), (159, 24453), (172, 24543), (173, 24546), (174, 24549), (182, 24582), (186, 24594), (208, 24681), (210, 24684), (232, 24780), (242, 24897),

Gene: NorManre_34 Start: 29125, Stop: 30174, Start Num: 22

Candidate Starts for NorManre_34:

(Start: 22 @29125 has 25 MA's), (35, 29200), (42, 29239), (46, 29260), (65, 29335), (72, 29350), (89, 29413), (145, 29638), (175, 29809), (232, 30037), (238, 30082),

Gene: NovaSharks_32 Start: 27111, Stop: 28208, Start Num: 23

Candidate Starts for NovaSharks_32:

(Start: 23 @27111 has 8 MA's), (42, 27225), (64, 27318), (74, 27351), (77, 27354), (78, 27357), (82, 27378), (85, 27390), (101, 27438), (116, 27501), (135, 27555), (152, 27651), (157, 27693), (200, 27927), (214, 27966), (231, 28053), (247, 28200),

Gene: Nyceirae_31 Start: 26839, Stop: 27909, Start Num: 24

Candidate Starts for Nyceirae_31:

(Start: 24 @26839 has 12 MA's), (36, 26920), (40, 26944), (65, 27049), (82, 27106), (89, 27127), (97, 27175), (137, 27301), (145, 27352), (156, 27409), (157, 27424), (176, 27541),

Gene: Okabe_21 Start: 20462, Stop: 21499, Start Num: 21

Candidate Starts for Okabe_21:

(16, 20438), (Start: 19 @20459 has 6 MA's), (Start: 21 @20462 has 89 MA's), (Start: 30 @20486 has 1 MA's), (52, 20624), (63, 20666), (83, 20735), (101, 20795), (111, 20840), (125, 20885), (145, 20966), (156, 21023), (159, 21047), (176, 21152), (192, 21224), (206, 21269),

Gene: OkiRoe_27 Start: 23934, Stop: 25001, Start Num: 21

Candidate Starts for OkiRoe_27:

(Start: 21 @23934 has 89 MA's), (42, 24051), (55, 24108), (67, 24156), (70, 24162), (88, 24222), (90, 24237), (101, 24264), (109, 24303), (111, 24306), (114, 24318), (115, 24321), (116, 24324), (123, 24339), (137, 24384), (139, 24390), (148, 24444), (156, 24492), (161, 24522), (167, 24567), (192, 24696), (207, 24750),

Gene: Omnicron_28 Start: 22797, Stop: 23876, Start Num: 21

Candidate Starts for Omnicron_28:

(Start: 21 @22797 has 89 MA's), (31, 22824), (55, 22971), (57, 22977), (70, 23025), (81, 23064), (86, 23082), (90, 23100), (109, 23166), (123, 23202), (129, 23226), (131, 23232), (149, 23325), (165, 23427), (172, 23472), (186, 23517), (187, 23520), (190, 23538), (193, 23559), (204, 23601), (212, 23619), (228, 23715), (229, 23718), (245, 23859),

Gene: OtterstedtS21_33 Start: 29200, Stop: 30249, Start Num: 22

Candidate Starts for OtterstedtS21_33:

(Start: 22 @29200 has 25 MA's), (42, 29314), (51, 29356), (65, 29410), (72, 29425), (89, 29488), (101, 29548), (131, 29650), (145, 29713), (175, 29884), (232, 30112),

Gene: Outis_46 Start: 35932, Stop: 36987, Start Num: 25

Candidate Starts for Outis_46:

(13, 35869), (Start: 25 @35932 has 9 MA's), (66, 36145), (107, 36304), (115, 36328), (176, 36616), (239, 36916), (243, 36961),

Gene: Panchino_21 Start: 20180, Stop: 21217, Start Num: 21

Candidate Starts for Panchino_21:

(Start: 21 @20180 has 89 MA's), (50, 20336), (52, 20342), (82, 20450), (88, 20468), (111, 20558), (125, 20603), (145, 20684), (159, 20765), (172, 20852), (176, 20870), (192, 20942), (206, 20987), (240, 21152),

Gene: Paola_27 Start: 23933, Stop: 25000, Start Num: 21

Candidate Starts for Paola_27:

(Start: 21 @23933 has 89 MA's), (42, 24050), (55, 24107), (67, 24155), (70, 24161), (86, 24218), (88, 24221), (90, 24236), (101, 24263), (109, 24302), (111, 24305), (114, 24317), (115, 24320), (116, 24323), (123, 24338), (137, 24383), (139, 24389), (148, 24443), (156, 24491), (161, 24521), (167, 24566), (192, 24695), (207, 24749),

Gene: Parada_27 Start: 23315, Stop: 24382, Start Num: 26

Candidate Starts for Parada_27:

(Start: 26 @23315 has 17 MA's), (71, 23525), (114, 23693), (151, 23834), (154, 23849), (156, 23861), (159, 23885), (169, 23969), (179, 24005), (202, 24116),

Gene: ParvusTarda_33 Start: 28670, Stop: 29716, Start Num: 22

Candidate Starts for ParvusTarda_33:

(Start: 22 @28670 has 25 MA's), (42, 28784), (46, 28805), (65, 28880), (72, 28895), (89, 28958), (131, 29120), (175, 29354),

Gene: Patience_38 Start: 32593, Stop: 33633, Start Num: 26

Candidate Starts for Patience_38:

(Start: 26 @32593 has 17 MA's), (37, 32671), (51, 32749), (113, 32962), (114, 32968), (141, 33046), (156, 33139), (160, 33166),

Gene: Patio_48 Start: 36198, Stop: 37259, Start Num: 25

Candidate Starts for Patio_48:

(Start: 25 @36198 has 9 MA's), (59, 36384), (106, 36570), (107, 36573), (160, 36783),

Gene: Patos_34 Start: 29125, Stop: 30174, Start Num: 22

Candidate Starts for Patos_34:

(Start: 22 @29125 has 25 MA's), (35, 29200), (42, 29239), (46, 29260), (65, 29335), (72, 29350), (89, 29413), (145, 29638), (175, 29809), (232, 30037), (238, 30082),

Gene: PeanutPie_22 Start: 21330, Stop: 22343, Start Num: 30

Candidate Starts for PeanutPie_22:

(16, 21282), (Start: 19 @21303 has 6 MA's), (Start: 21 @21306 has 89 MA's), (Start: 30 @21330 has 1 MA's), (52, 21468), (63, 21510), (83, 21579), (101, 21639), (111, 21684), (125, 21729), (145, 21810), (156, 21867), (159, 21891), (176, 21996), (192, 22068), (206, 22113), (240, 22278),

Gene: PegLeg_31 Start: 26991, Stop: 28046, Start Num: 21

Candidate Starts for PegLeg_31:

(Start: 21 @26991 has 89 MA's), (65, 27204), (79, 27240), (96, 27303), (115, 27375), (125, 27405), (132, 27426), (143, 27462), (148, 27498), (156, 27546), (158, 27567), (160, 27573), (162, 27603), (164, 27606), (170, 27654), (219, 27843), (222, 27864), (236, 27918),

Gene: Phalm_22 Start: 21561, Stop: 22601, Start Num: 18

Candidate Starts for Phalm_22:

(Start: 18 @21561 has 11 MA's), (50, 21720), (52, 21726), (63, 21768), (82, 21834), (83, 21837), (101, 21897), (111, 21942), (125, 21987), (145, 22068), (156, 22125), (159, 22149), (176, 22254), (192, 22326), (206, 22371),

Gene: Phayonce_22 Start: 21448, Stop: 22485, Start Num: 21

Candidate Starts for Phayonce_22:

(Start: 21 @21448 has 89 MA's), (52, 21610), (65, 21661), (79, 21697), (85, 21724), (101, 21772), (115, 21829), (127, 21865), (158, 22018), (162, 22054), (176, 22126), (212, 22261), (222, 22315), (238, 22393),

Gene: Phegasus_22 Start: 21305, Stop: 22342, Start Num: 21

Candidate Starts for Phegasus_22:

(16, 21281), (Start: 19 @21302 has 6 MA's), (Start: 21 @21305 has 89 MA's), (Start: 30 @21329 has 1 MA's), (52, 21467), (63, 21509), (83, 21578), (101, 21638), (111, 21683), (125, 21728), (145, 21809),

(156, 21866), (159, 21890), (176, 21995), (192, 22067), (206, 22112), (240, 22277),

Gene: Phineas_22 Start: 21670, Stop: 22707, Start Num: 21

Candidate Starts for Phineas_22:

(Start: 21 @21670 has 89 MA's), (52, 21835), (63, 21877), (82, 21943), (83, 21946), (88, 21961), (111, 22048), (125, 22093), (145, 22174), (156, 22231), (159, 22255), (176, 22360), (192, 22432), (206, 22477),

Gene: Phishy_30 Start: 26793, Stop: 27842, Start Num: 24

Candidate Starts for Phishy_30:

(Start: 24 @26793 has 12 MA's), (65, 27003), (89, 27081), (113, 27189), (151, 27339), (153, 27351), (156, 27366), (190, 27543), (211, 27618),

Gene: Phrann_21 Start: 20409, Stop: 21479, Start Num: 19

Candidate Starts for Phrann_21:

(Start: 19 @20409 has 6 MA's), (Start: 21 @20412 has 89 MA's), (52, 20574), (63, 20616), (83, 20685), (101, 20745), (111, 20790), (125, 20835), (144, 20904), (145, 20916), (156, 20973), (159, 20997), (191, 21168),

Gene: Pimento_27 Start: 22790, Stop: 23857, Start Num: 24

Candidate Starts for Pimento_27:

(10, 22655), (Start: 24 @22790 has 12 MA's), (76, 23009), (101, 23111), (111, 23153), (114, 23165), (151, 23309), (156, 23336), (159, 23360), (180, 23483), (195, 23573), (202, 23591),

Gene: Polkaroo_22 Start: 21315, Stop: 22352, Start Num: 21

Candidate Starts for Polkaroo_22:

(16, 21291), (Start: 19 @21312 has 6 MA's), (Start: 21 @21315 has 89 MA's), (Start: 30 @21339 has 1 MA's), (52, 21477), (63, 21519), (83, 21588), (101, 21648), (111, 21693), (125, 21738), (145, 21819), (156, 21876), (159, 21900), (176, 22005), (192, 22077), (206, 22122), (240, 22287),

Gene: Psycho_28 Start: 24008, Stop: 25072, Start Num: 21

Candidate Starts for Psycho_28:

(Start: 21 @24008 has 89 MA's), (39, 24098), (43, 24128), (55, 24182), (57, 24188), (70, 24236), (81, 24275), (86, 24293), (88, 24296), (109, 24377), (125, 24425), (131, 24443), (159, 24584), (172, 24674), (173, 24677), (174, 24680), (182, 24713), (186, 24725), (208, 24812), (210, 24815), (232, 24911), (242, 25028),

Gene: Purky_22 Start: 21124, Stop: 22170, Start Num: 21

Candidate Starts for Purky_22:

(Start: 21 @21124 has 89 MA's), (65, 21337), (101, 21448), (111, 21490), (112, 21493), (135, 21562), (158, 21694), (162, 21730), (187, 21838), (222, 21991), (225, 22000), (228, 22012),

Gene: Pywacket_32 Start: 30015, Stop: 31064, Start Num: 22

Candidate Starts for Pywacket_32:

(Start: 22 @30015 has 25 MA's), (35, 30090), (42, 30129), (46, 30150), (65, 30225), (72, 30240), (89, 30303), (101, 30363), (131, 30465), (145, 30528), (175, 30699), (232, 30927),

Gene: Ranch_33 Start: 28024, Stop: 29073, Start Num: 22

Candidate Starts for Ranch_33:

(Start: 22 @28024 has 25 MA's), (42, 28138), (51, 28180), (65, 28234), (72, 28249), (89, 28312), (145, 28537), (175, 28708), (232, 28936), (238, 28981),

Gene: Rando14_28 Start: 22698, Stop: 23777, Start Num: 21

Candidate Starts for Rando14_28:

(Start: 21 @22698 has 89 MA's), (28, 22716), (43, 22818), (55, 22872), (56, 22875), (57, 22878), (70, 22926), (80, 22962), (81, 22965), (82, 22968), (90, 23001), (123, 23103), (125, 23115), (129, 23127), (131, 23133), (134, 23145), (141, 23166), (153, 23244), (160, 23286), (165, 23328), (172, 23373), (204, 23502),

Gene: RavenCo17_26 Start: 23835, Stop: 24911, Start Num: 24

Candidate Starts for RavenCo17_26:

(10, 23700), (Start: 24 @23835 has 12 MA's), (47, 23973), (65, 24045), (77, 24075), (111, 24225), (114, 24237), (129, 24279), (133, 24291), (145, 24348), (156, 24399), (166, 24471), (186, 24564), (223, 24726), (242, 24867),

Gene: Raymond7_21 Start: 20415, Stop: 21500, Start Num: 21

Candidate Starts for Raymond7_21:

(Start: 21 @20415 has 89 MA's), (52, 20577), (83, 20688), (85, 20697), (88, 20703), (101, 20748), (111, 20793), (145, 20919), (148, 20928), (156, 20976),

Gene: RazorC_31 Start: 27503, Stop: 28600, Start Num: 23

Candidate Starts for RazorC_31:

(Start: 23 @27503 has 8 MA's), (42, 27617), (64, 27710), (74, 27743), (77, 27746), (78, 27749), (82, 27770), (85, 27782), (101, 27830), (116, 27893), (135, 27947), (152, 28043), (157, 28085), (200, 28319), (214, 28358), (231, 28445), (247, 28592),

Gene: Rebel_21 Start: 19868, Stop: 20905, Start Num: 24

Candidate Starts for Rebel_21:

(4, 19631), (5, 19673), (7, 19703), (9, 19733), (12, 19793), (17, 19847), (Start: 24 @19868 has 12 MA's), (52, 20030), (63, 20072), (83, 20141), (101, 20201), (111, 20246), (125, 20291), (144, 20360), (156, 20429), (159, 20453), (176, 20558), (192, 20630), (206, 20675),

Gene: Reindeer_30 Start: 26952, Stop: 28001, Start Num: 21

Candidate Starts for Reindeer_30:

(Start: 21 @26952 has 89 MA's), (Start: 32 @26988 has 1 MA's), (65, 27165), (85, 27228), (86, 27231), (99, 27270), (102, 27285), (116, 27336), (132, 27384), (148, 27453), (156, 27501), (158, 27522), (160, 27528), (162, 27558), (176, 27630), (212, 27765), (222, 27819), (235, 27870), (237, 27876), (238, 27909),

Gene: Rem711_30 Start: 25189, Stop: 26352, Start Num: 14

Candidate Starts for Rem711_30:

(Start: 14 @25189 has 2 MA's), (60, 25450), (75, 25510), (87, 25555), (91, 25573), (98, 25609), (130, 25717), (138, 25732), (147, 25789), (172, 25951), (207, 26101),

Gene: Riduram_32 Start: 27081, Stop: 28178, Start Num: 23

Candidate Starts for Riduram_32:

(Start: 23 @27081 has 8 MA's), (42, 27195), (64, 27288), (74, 27321), (77, 27324), (78, 27327), (82, 27348), (85, 27360), (101, 27408), (116, 27471), (135, 27525), (152, 27621), (157, 27663), (200, 27897), (214, 27936), (231, 28023), (247, 28170),

Gene: Rota_32 Start: 29482, Stop: 30456, Start Num: 35

Candidate Starts for Rota_32:

(Start: 22 @29407 has 25 MA's), (35, 29482), (42, 29521), (51, 29563), (65, 29617), (72, 29632), (89, 29695), (145, 29920), (175, 30091), (232, 30319),

Gene: Rubeelu_22 Start: 19998, Stop: 21038, Start Num: 20

Candidate Starts for Rubeelu_22:

(11, 19932), (Start: 20 @19998 has 5 MA's), (50, 20157), (52, 20163), (82, 20271), (83, 20274), (88, 20289), (111, 20379), (125, 20424), (145, 20505), (156, 20562), (159, 20586), (172, 20673), (176, 20691), (192, 20763), (206, 20808), (240, 20973),

Gene: Rukungu_33 Start: 29795, Stop: 30766, Start Num: 35

Candidate Starts for Rukungu_33:

(Start: 22 @29720 has 25 MA's), (35, 29795), (42, 29834), (46, 29855), (65, 29930), (72, 29945), (89, 30008), (101, 30068), (145, 30233), (175, 30404),

Gene: Rumi_32 Start: 27114, Stop: 28211, Start Num: 23

Candidate Starts for Rumi_32:

(Start: 23 @27114 has 8 MA's), (42, 27228), (64, 27321), (74, 27354), (77, 27357), (78, 27360), (82, 27381), (85, 27393), (101, 27441), (116, 27504), (135, 27558), (152, 27654), (157, 27696), (178, 27822), (200, 27930), (214, 27969), (231, 28056), (247, 28203),

Gene: Ruthiejr_29 Start: 24262, Stop: 25296, Start Num: 20

Candidate Starts for Ruthiejr_29:

(11, 24196), (Start: 20 @24262 has 5 MA's), (50, 24418), (51, 24421), (63, 24466), (65, 24475), (88, 24550), (111, 24637), (125, 24682), (145, 24763), (156, 24820), (159, 24844), (176, 24949), (192, 25021), (213, 25081), (240, 25231),

Gene: Salvus_26 Start: 22028, Stop: 23053, Start Num: 18

Candidate Starts for Salvus_26:

(Start: 18 @22028 has 11 MA's), (37, 22118), (96, 22337), (97, 22340), (101, 22352), (141, 22484), (145, 22520), (156, 22571), (162, 22628), (220, 22865), (241, 22991),

Gene: SamScheppers_27 Start: 24552, Stop: 25625, Start Num: 19

Candidate Starts for SamScheppers_27:

(Start: 19 @24552 has 6 MA's), (Start: 21 @24555 has 89 MA's), (73, 24795), (83, 24831), (85, 24840), (88, 24846), (101, 24891), (111, 24936), (116, 24954), (125, 24981), (145, 25062), (156, 25119), (159, 25143),

Gene: Sampudon_33 Start: 30054, Stop: 31103, Start Num: 22

Candidate Starts for Sampudon_33:

(Start: 22 @30054 has 25 MA's), (42, 30168), (46, 30189), (65, 30264), (72, 30279), (89, 30342), (101, 30402), (131, 30504), (145, 30567), (175, 30738), (232, 30966),

Gene: Sbash_21 Start: 21030, Stop: 22079, Start Num: 21

Candidate Starts for Sbash_21:

(Start: 21 @21030 has 89 MA's), (52, 21192), (65, 21243), (85, 21306), (115, 21411), (158, 21600), (162, 21636), (176, 21708), (212, 21843), (222, 21897), (238, 21987),

Gene: Scitech_21 Start: 20194, Stop: 21228, Start Num: 21

Candidate Starts for Scitech_21:

(Start: 21 @20194 has 89 MA's), (50, 20350), (52, 20356), (82, 20464), (83, 20467), (88, 20482), (111, 20569), (125, 20614), (145, 20695), (156, 20752), (159, 20776), (176, 20881), (192, 20953), (206, 20998),

Gene: Shweta_21 Start: 20201, Stop: 21238, Start Num: 18

Candidate Starts for Shweta_21:

(Start: 18 @20201 has 11 MA's), (50, 20357), (52, 20363), (63, 20405), (82, 20471), (83, 20474), (101, 20534), (111, 20579), (125, 20624), (145, 20705), (156, 20762), (159, 20786), (176, 20891), (192,

20963), (206, 21008),

Gene: Skinny_32 Start: 27432, Stop: 28493, Start Num: 24

Candidate Starts for Skinny_32:

(Start: 24 @27432 has 12 MA's), (Start: 32 @27468 has 1 MA's), (36, 27510), (55, 27600), (62, 27621), (68, 27648), (85, 27711), (111, 27801), (114, 27813), (117, 27822), (133, 27867), (148, 27933), (159, 28005), (172, 28095), (176, 28113), (206, 28230), (210, 28242), (231, 28332),

Gene: SkinnyPete_21 Start: 20204, Stop: 21241, Start Num: 21

Candidate Starts for SkinnyPete_21:

(Start: 21 @20204 has 89 MA's), (50, 20360), (52, 20366), (82, 20474), (88, 20492), (111, 20582), (125, 20627), (145, 20708), (159, 20789), (172, 20876), (176, 20894), (192, 20966), (206, 21011), (240, 21176),

Gene: Skysand_47 Start: 36418, Stop: 37479, Start Num: 25

Candidate Starts for Skysand_47:

(Start: 25 @36418 has 9 MA's), (59, 36604), (106, 36790), (107, 36793), (160, 37003),

Gene: SlimJimmy_30 Start: 26975, Stop: 28030, Start Num: 21

Candidate Starts for SlimJimmy_30:

(Start: 21 @26975 has 89 MA's), (65, 27188), (79, 27224), (96, 27287), (115, 27359), (125, 27389), (132, 27410), (143, 27446), (148, 27482), (156, 27530), (158, 27551), (160, 27557), (162, 27587), (164, 27590), (170, 27638), (222, 27848), (236, 27902),

Gene: SoSeph_27 Start: 24081, Stop: 25148, Start Num: 21

Candidate Starts for SoSeph_27:

(Start: 21 @24081 has 89 MA's), (42, 24198), (55, 24255), (67, 24303), (70, 24309), (86, 24366), (88, 24369), (90, 24384), (101, 24411), (109, 24450), (111, 24453), (114, 24465), (115, 24468), (116, 24471), (123, 24486), (137, 24531), (139, 24537), (148, 24591), (156, 24639), (161, 24669), (167, 24714), (192, 24843), (207, 24897),

Gene: Sonah_22 Start: 21289, Stop: 22326, Start Num: 21

Candidate Starts for Sonah_22:

(16, 21265), (Start: 19 @21286 has 6 MA's), (Start: 21 @21289 has 89 MA's), (Start: 30 @21313 has 1 MA's), (52, 21451), (63, 21493), (83, 21562), (101, 21622), (111, 21667), (125, 21712), (145, 21793), (156, 21850), (159, 21874), (176, 21979), (192, 22051), (206, 22096), (240, 22261),

Gene: Sparky_21 Start: 21885, Stop: 22931, Start Num: 21

Candidate Starts for Sparky_21:

(Start: 21 @21885 has 89 MA's), (65, 22098), (67, 22104), (101, 22209), (111, 22251), (112, 22254), (135, 22323), (158, 22455), (162, 22491), (187, 22599), (222, 22752), (225, 22761), (228, 22773),

Gene: Sprinklemunch_22 Start: 21828, Stop: 22874, Start Num: 24

Candidate Starts for Sprinklemunch_22:

(Start: 24 @21828 has 12 MA's), (40, 21933), (65, 22038), (103, 22194), (108, 22212), (109, 22215), (128, 22269), (156, 22398), (186, 22554), (201, 22626), (215, 22674), (218, 22677), (224, 22710),

Gene: StarStruck_46 Start: 35932, Stop: 36987, Start Num: 25

Candidate Starts for StarStruck_46:

(13, 35869), (Start: 25 @35932 has 9 MA's), (66, 36145), (107, 36304), (115, 36328), (176, 36616), (239, 36916), (243, 36961),

Gene: StevieRay_22 Start: 21290, Stop: 22327, Start Num: 21

Candidate Starts for StevieRay_22:

(16, 21266), (Start: 19 @21287 has 6 MA's), (Start: 21 @21290 has 89 MA's), (Start: 30 @21314 has 1 MA's), (52, 21452), (63, 21494), (83, 21563), (101, 21623), (111, 21668), (125, 21713), (145, 21794), (156, 21851), (159, 21875), (176, 21980), (192, 22052), (206, 22097), (240, 22262),

Gene: Stormer_32 Start: 27117, Stop: 28214, Start Num: 23

Candidate Starts for Stormer_32:

(Start: 23 @27117 has 8 MA's), (42, 27231), (64, 27324), (74, 27357), (77, 27360), (78, 27363), (81, 27381), (82, 27384), (101, 27444), (113, 27495), (116, 27507), (121, 27519), (135, 27561), (152, 27657), (157, 27699), (200, 27933), (214, 27972), (231, 28059), (247, 28206),

Gene: StressBall_22 Start: 21561, Stop: 22601, Start Num: 18

Candidate Starts for StressBall_22:

(Start: 18 @21561 has 11 MA's), (50, 21720), (52, 21726), (63, 21768), (82, 21834), (83, 21837), (101, 21897), (111, 21942), (125, 21987), (145, 22068), (156, 22125), (159, 22149), (176, 22254), (192, 22326), (206, 22371),

Gene: SuperSonics_37 Start: 31769, Stop: 32809, Start Num: 26

Candidate Starts for SuperSonics_37:

(Start: 26 @31769 has 17 MA's), (37, 31847), (51, 31925), (113, 32138), (114, 32144), (141, 32222), (156, 32315), (160, 32342),

Gene: Taquito_27 Start: 24633, Stop: 25676, Start Num: 19

Candidate Starts for Taquito_27:

(Start: 19 @24633 has 6 MA's), (Start: 21 @24636 has 89 MA's), (73, 24876), (83, 24912), (85, 24921), (88, 24927), (101, 24972), (111, 25017), (116, 25035), (125, 25062), (145, 25143), (156, 25200), (159, 25224), (176, 25329), (192, 25401), (206, 25446),

Gene: Techage_22 Start: 21290, Stop: 22327, Start Num: 21

Candidate Starts for Techage_22:

(16, 21266), (Start: 19 @21287 has 6 MA's), (Start: 21 @21290 has 89 MA's), (Start: 30 @21314 has 1 MA's), (52, 21452), (63, 21494), (83, 21563), (101, 21623), (111, 21668), (125, 21713), (145, 21794), (156, 21851), (159, 21875), (176, 21980), (192, 22052), (206, 22097), (240, 22262),

Gene: Thespis_22 Start: 21299, Stop: 22336, Start Num: 21

Candidate Starts for Thespis_22:

(16, 21275), (Start: 19 @21296 has 6 MA's), (Start: 21 @21299 has 89 MA's), (Start: 30 @21323 has 1 MA's), (52, 21461), (63, 21503), (83, 21572), (101, 21632), (111, 21677), (125, 21722), (145, 21803), (156, 21860), (159, 21884), (176, 21989), (192, 22061), (206, 22106), (240, 22271),

Gene: ThulaThula_22 Start: 21454, Stop: 22491, Start Num: 21

Candidate Starts for ThulaThula_22:

(Start: 21 @21454 has 89 MA's), (52, 21616), (65, 21667), (79, 21703), (85, 21730), (101, 21778), (115, 21835), (127, 21871), (158, 22024), (162, 22060), (176, 22132), (212, 22267), (222, 22321), (238, 22399),

Gene: Thyatira_27 Start: 23933, Stop: 25000, Start Num: 21

Candidate Starts for Thyatira_27:

(Start: 21 @23933 has 89 MA's), (42, 24050), (55, 24107), (67, 24155), (70, 24161), (86, 24218), (88, 24221), (90, 24236), (101, 24263), (109, 24302), (111, 24305), (114, 24317), (115, 24320), (116, 24323), (123, 24338), (137, 24383), (139, 24389), (148, 24443), (156, 24491), (161, 24521), (167, 24566), (192, 24695), (207, 24749), (216, 24794),

Gene: Tillicus_32 Start: 28456, Stop: 29502, Start Num: 22

Candidate Starts for Tillicus_32:

(Start: 22 @28456 has 25 MA's), (Start: 33 @28513 has 1 MA's), (48, 28603), (51, 28612), (53, 28618), (56, 28627), (72, 28681), (128, 28897), (131, 28906), (143, 28945), (144, 28957), (156, 29026), (175, 29140), (181, 29167), (209, 29275),

Gene: Tortellini_22 Start: 21866, Stop: 22936, Start Num: 21

Candidate Starts for Tortellini_22:

(Start: 21 @21866 has 89 MA's), (73, 22106), (83, 22142), (85, 22151), (88, 22157), (101, 22202), (111, 22247), (116, 22265), (125, 22292), (145, 22373), (159, 22454), (187, 22592), (188, 22595),

Gene: Towmatter_36 Start: 34440, Stop: 35507, Start Num: 24

Candidate Starts for Towmatter_36:

(Start: 24 @34440 has 12 MA's), (100, 34785), (110, 34830), (122, 34860), (183, 35151), (185, 35157), (189, 35175), (197, 35241), (199, 35244), (205, 35262), (218, 35310), (246, 35496),

Gene: TpudiCK_32 Start: 26991, Stop: 28046, Start Num: 21

Candidate Starts for TpudiCK_32:

(Start: 21 @26991 has 89 MA's), (65, 27204), (79, 27240), (96, 27303), (115, 27375), (125, 27405), (132, 27426), (143, 27462), (148, 27498), (156, 27546), (158, 27567), (160, 27573), (162, 27603), (164, 27606), (170, 27654), (219, 27843), (222, 27864), (236, 27918),

Gene: TyDawg_31 Start: 26992, Stop: 28047, Start Num: 21

Candidate Starts for TyDawg_31:

(Start: 21 @26992 has 89 MA's), (65, 27205), (79, 27241), (96, 27304), (115, 27376), (125, 27406), (132, 27427), (143, 27463), (148, 27499), (156, 27547), (158, 27568), (160, 27574), (162, 27604), (164, 27607), (170, 27655), (219, 27844), (222, 27865), (236, 27919),

Gene: Typha_28 Start: 26025, Stop: 27062, Start Num: 21

Candidate Starts for Typha_28:

(Start: 21 @26025 has 89 MA's), (44, 26148), (57, 26202), (65, 26238), (85, 26301), (101, 26349), (114, 26403), (115, 26406), (158, 26592), (162, 26628), (168, 26670), (174, 26688), (188, 26739),

Gene: Venti_22 Start: 21299, Stop: 22336, Start Num: 21

Candidate Starts for Venti_22:

(16, 21275), (Start: 19 @21296 has 6 MA's), (Start: 21 @21299 has 89 MA's), (Start: 30 @21323 has 1 MA's), (52, 21461), (63, 21503), (83, 21572), (101, 21632), (111, 21677), (125, 21722), (145, 21803), (156, 21860), (159, 21884), (176, 21989), (192, 22061), (206, 22106), (240, 22271),

Gene: Vidya_22 Start: 21299, Stop: 22336, Start Num: 21

Candidate Starts for Vidya_22:

(16, 21275), (Start: 19 @21296 has 6 MA's), (Start: 21 @21299 has 89 MA's), (Start: 30 @21323 has 1 MA's), (52, 21461), (63, 21503), (83, 21572), (101, 21632), (111, 21677), (125, 21722), (145, 21803), (156, 21860), (159, 21884), (176, 21989), (192, 22061), (206, 22106), (240, 22271),

Gene: ViviJ_26 Start: 23840, Stop: 24904, Start Num: 21

Candidate Starts for ViviJ_26:

(Start: 21 @23840 has 89 MA's), (39, 23930), (42, 23957), (57, 24020), (70, 24068), (81, 24107), (86, 24125), (101, 24170), (109, 24209), (125, 24257), (131, 24275), (148, 24350), (159, 24416), (172, 24506), (173, 24509), (174, 24512), (182, 24545), (208, 24644), (210, 24647), (227, 24731), (232, 24743), (242, 24860),

Gene: Vordorf_31 Start: 26927, Stop: 27976, Start Num: 25

Candidate Starts for Vordorf_31:

(Start: 25 @26927 has 9 MA's), (54, 27092), (65, 27137), (89, 27215), (114, 27329), (137, 27392), (145, 27443), (151, 27473), (156, 27500), (215, 27776),

Gene: WST1_22 Start: 19043, Stop: 20098, Start Num: 21

Candidate Starts for WST1_22:

(Start: 21 @19043 has 89 MA's), (42, 19160), (88, 19334), (123, 19451), (124, 19457), (159, 19622), (174, 19715), (187, 19763), (192, 19799), (217, 19892),

Gene: Waterfoul_27 Start: 23954, Stop: 25021, Start Num: 21

Candidate Starts for Waterfoul_27:

(Start: 21 @23954 has 89 MA's), (42, 24071), (67, 24176), (70, 24182), (88, 24242), (90, 24257), (101, 24284), (109, 24323), (111, 24326), (114, 24338), (115, 24341), (116, 24344), (123, 24359), (137, 24404), (139, 24410), (148, 24464), (156, 24512), (161, 24542), (167, 24587), (192, 24716), (207, 24770),

Gene: WheatThin_27 Start: 23315, Stop: 24382, Start Num: 26

Candidate Starts for WheatThin_27:

(Start: 26 @23315 has 17 MA's), (71, 23525), (114, 23693), (151, 23834), (154, 23849), (156, 23861), (159, 23885), (169, 23969), (202, 24116),

Gene: Willsammy_22 Start: 21571, Stop: 22605, Start Num: 21

Candidate Starts for Willsammy_22:

(Start: 21 @21571 has 89 MA's), (50, 21727), (52, 21733), (82, 21841), (83, 21844), (88, 21859), (111, 21946), (125, 21991), (145, 22072), (156, 22129), (159, 22153), (176, 22258), (192, 22330), (206, 22375),

Gene: Wojtek_32 Start: 28749, Stop: 29798, Start Num: 22

Candidate Starts for Wojtek_32:

(Start: 22 @28749 has 25 MA's), (42, 28863), (51, 28905), (65, 28959), (72, 28974), (89, 29037), (145, 29262), (175, 29433), (232, 29661), (238, 29706),

Gene: Xavia_22 Start: 21888, Stop: 22955, Start Num: 21

Candidate Starts for Xavia_22:

(Start: 21 @21888 has 89 MA's), (52, 22050), (63, 22092), (83, 22161), (101, 22221), (111, 22266), (116, 22284), (125, 22311), (145, 22392), (156, 22449), (159, 22473), (191, 22644),

Gene: Xeno_21 Start: 20200, Stop: 21240, Start Num: 18

Candidate Starts for Xeno_21:

(Start: 18 @20200 has 11 MA's), (52, 20365), (63, 20407), (83, 20476), (101, 20536), (111, 20581), (125, 20626), (145, 20707), (156, 20764), (159, 20788), (176, 20893), (192, 20965), (206, 21010),

Gene: Yikes_34 Start: 30133, Stop: 31182, Start Num: 22

Candidate Starts for Yikes_34:

(Start: 22 @30133 has 25 MA's), (42, 30247), (51, 30289), (65, 30343), (72, 30358), (89, 30421), (175, 30817), (209, 30952), (232, 31045),

Gene: Zany_32 Start: 29660, Stop: 30706, Start Num: 22

Candidate Starts for Zany_32:

(Start: 22 @29660 has 25 MA's), (42, 29774), (46, 29795), (65, 29870), (72, 29885), (89, 29948), (101, 30008), (131, 30110), (175, 30344),

Gene: Zilizebeth_22 Start: 21299, Stop: 22336, Start Num: 21

Candidate Starts for Zilizebeth_22:

(16, 21275), (Start: 19 @21296 has 6 MA's), (Start: 21 @21299 has 89 MA's), (Start: 30 @21323 has 1 MA's), (52, 21461), (63, 21503), (83, 21572), (101, 21632), (111, 21677), (125, 21722), (145, 21803), (156, 21860), (159, 21884), (176, 21989), (192, 22061), (206, 22106), (240, 22271),

Gene: Zodiariah_22 Start: 21904, Stop: 22950, Start Num: 24

Candidate Starts for Zodiariah_22:

(Start: 24 @21904 has 12 MA's), (40, 22009), (65, 22114), (108, 22288), (109, 22291), (156, 22474), (186, 22630), (201, 22702), (215, 22750), (218, 22753), (224, 22786),