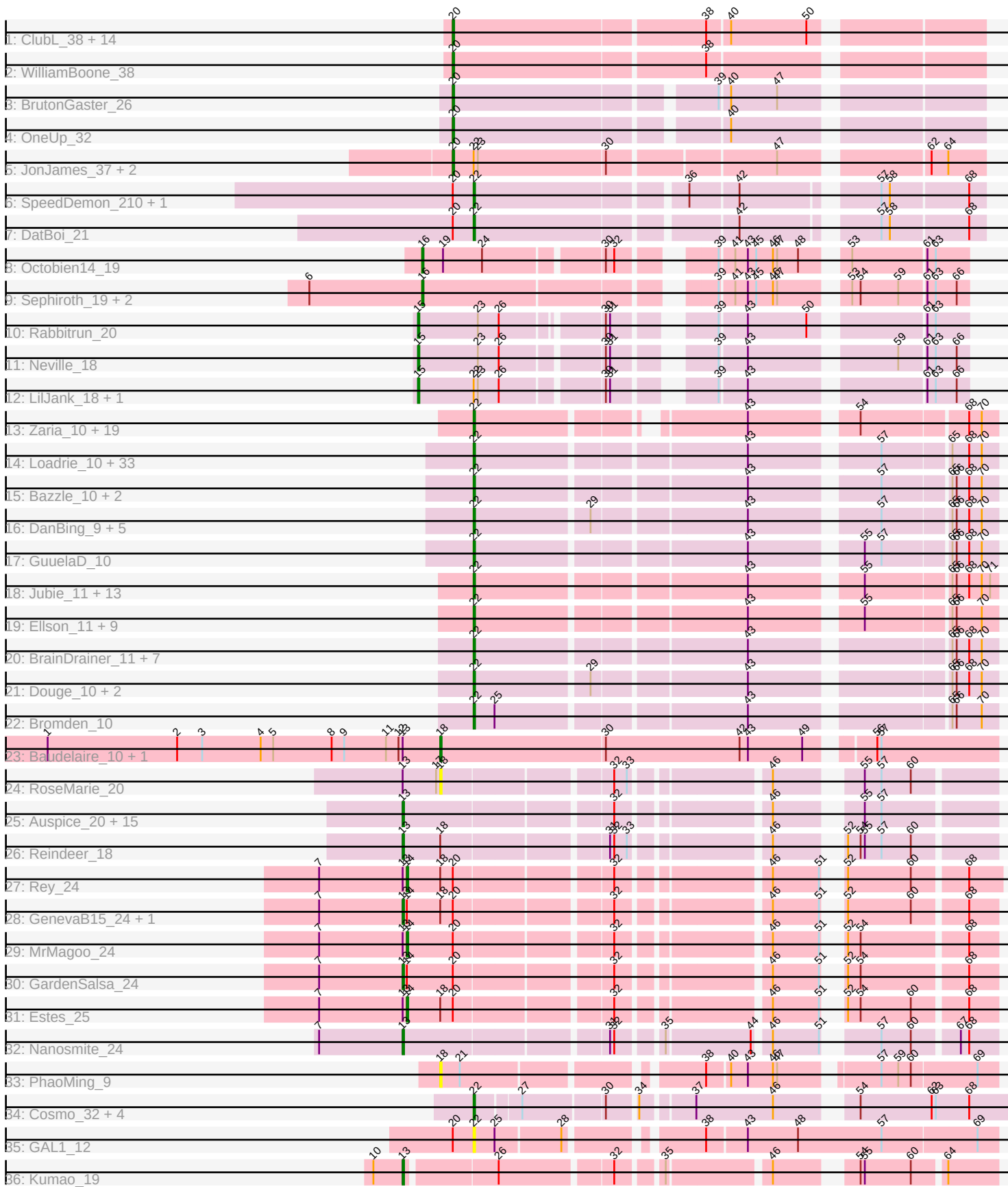


Pham 330543



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 330543 Report

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

Pham number 330543 has 167 members, 30 are drafts.

Phages represented in each track:

- Track 1 : ClubL_38, Miskis_36, Geeche_37, Dusty_37, Lozinak_38, Engineer_39, Abscondus_37, Toniann_38, Bachita_40, Norvs_39, Smoothie_39, Cucurbita_40, Aphelion_38, Culver_38, PhinkBoden_38
- Track 2 : WilliamBoone_38
- Track 3 : BrutonGaster_26
- Track 4 : OneUp_32
- Track 5 : JonJames_37, Cardigan_36, Yvonnestic_35
- Track 6 : SpeedDemon_210, Bantam_20
- Track 7 : DatBoi_21
- Track 8 : Octobien14_19
- Track 9 : Sephiroth_19, Kudefre_18, Syleon_19
- Track 10 : Rabbitrun_20
- Track 11 : Neville_18
- Track 12 : LilJank_18, Trax_18
- Track 13 : Zaria_10, Wyatt2_10, Silverleaf_10, Appletree2_10, AvadaKedavra_10, Rose5_10, Acquire49_10, Tyson_10, LeBron_10, UPIE_10, Helena_10, CicholasNage_10, Enceladus_10, MAckerman_10, JoeDirt_10, Poochiewood_10, DirkDirk_10, OhShagHennessy_10, Wamburgxpress_10, Calm_10
- Track 14 : Loadrie_10, Underpass_10, OverPar_10, Itos_10, BigCheese_10, LilDestine_10, MkaliMitinis3_10, Faith1_10, Nicholasp3_10, DrSeegs_10, Lewan_10, BobsGarage_10, Miley16_10, Sarshaun_10, Wigglewiggles_10, Kahlid_10, Zakai_10, Gabriela_10, Hafay_10, Vetrix_10, Soap141_10, Crossroads_10, SoJulia_10, ChengKai98_10, Winky_10, Netyap_10, Breezons_10, Molivier_10, Finemlucis_10, Gardann_10, Rumpelstiltskin_10, Lynnae_10, Wilder_10, Hiraya_10
- Track 15 : Bazzle_10, Archie_10, Rossetti_10
- Track 16 : DanBing_9, Tourach_10, ZhongYanYuan_9, Baoshan_9, DHan_10, Claus_10
- Track 17 : GuuelaD_10
- Track 18 : Jubie_11, Bellis_11, Kingsolomon_11, TriFive_11, MsGreen_11, Snenia_11, Finnry_11, Moostard_11, Clautastrophe_11, Jobypre_11, Nicholas_11, Red305_11, Samty_11, Lumos_11
- Track 19 : Ellson_11, Krypton555_11, BourbonZero_10, DuncansLeg_11, MiniMac_11, Lolly9_11, LiyuLake_11, KirDoubleO7_9, MiniLon_11, Whirlwind_12
- Track 20 : BrainDrainer_11, ChutneyChips_10, FarmResident_10, Douzhi_10, Sheng711_10, PYPDinur_10, Kropertea_10, DyoEdafos_11
- Track 21 : Douge_10, Quby_10, Chaser_10
- Track 22 : Bromden_10

- Track 23 : Baudelaire_10, Aegeus_10
- Track 24 : RoseMarie_20
- Track 25 : Auspice_20, TyDawg_20, IPhane7_20, KleverKiS_20, Skinny_21, Dulcita_21, Glaske16_21, Izel_21, LilhomieP_19, PegLeg_20, Bricole_20, SlimJimmy_19, TpudiCK_21, Diminimus_21, FreakyGoo_21, Bongo_20
- Track 26 : Reindeer_18
- Track 27 : Rey_24
- Track 28 : GenevaB15_24, Aziz_24
- Track 29 : MrMagoo_24
- Track 30 : GardenSalsa_24
- Track 31 : Estes_25
- Track 32 : Nanosmite_24
- Track 33 : PhaoMing_9
- Track 34 : Cosmo_32, MaryV_32, Wildcat_32, Azrael100_31, EniyanLRS_29
- Track 35 : GAL1_12
- Track 36 : Kumao_19

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

The start number called the most often in the published annotations is 22, it was called in 84 of the 137 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Acquire49_10, Appletree2_10, Archie_10, AvadaKedavra_10, Azrael100_31, Bantam_20, Baoshan_9, Bazzle_10, Bellis_11, BigCheese_10, BobsGarage_10, BourbonZero_10, BrainDrainer_11, Breezona_10, Bromden_10, Calm_10, Chaser_10, ChengKai98_10, ChutneyChips_10, CicholasNage_10, Claus_10, Clautastrophe_11, Cosmo_32, Crossroads_10, DHan_10, DanBing_9, DatBoi_21, DirkDirk_10, Douge_10, Douzhi_10, DrSeegs_10, DuncansLeg_11, DyoEdafos_11, Ellson_11, Enceladus_10, EniyanLRS_29, Faith1_10, FarmResident_10, FinemLucis_10, Finnry_11, GAL1_12, Gabriela_10, Gardann_10, GuuelaD_10, Hafay_10, Halena_10, Hiraya_10, Itos_10, Jobypre_11, JoeDirt_10, Jubie_11, Kahlid_10, Kingsolomon_11, KirDoubleO7_9, Kropertea_10, Krypton555_11, LeBron_10, Lewan_10, LilDestine_10, LiyuLake_11, Loadrie_10, Lolly9_11, Lumos_11, Lynnae_10, MAckerman_10, MaryV_32, Miley16_10, MiniLon_11, MiniMac_11, MkaliMitinis3_10, Molivier_10, Moostard_11, MsGreen_11, Netyap_10, Nicholas_11, Nicholasp3_10, OhShagHennessy_10, OverPar_10, PYPDinur_10, Poochiewood_10, Quby_10, Red305_11, Rose5_10, Rossetti_10, Rumpelstiltskin_10, Samty_11, Sarshaun_10, Sheng711_10, Silverleaf_10, Snenia_11, SoJulia_10, Soap141_10, SpeedDemon_210, Tourach_10, TriFive_11, Tyson_10, UPIE_10, Underpass_10, Vetrix_10, Wamburggrxpress_10, Whirlwind_12, Wigglewiggle_10, Wildcat_32, Wilder_10, Winky_10, Wyatt2_10, Zakai_10, Zaria_10, ZhongYanYuan_9,

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

- Cardigan_36, JonJames_37, LilJank_18, Trax_18, Yvonnetastic_35,

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

- Abscondus_37, Aegeus_10, Aphelion_38, Auspice_20, Aziz_24, Bachita_40, Baudelaire_10, Bongo_20, Bricole_20, BrutonGaster_26, ClubL_38, Cucurbita_40,

Culver_38, Diminimus_21, Dulcita_21, Dusty_37, Engineer_39, Estes_25, FreakyGoo_21, GardenSalsa_24, Geeche_37, GenevaB15_24, Glaske16_21, IPHane7_20, Izel_21, KleverKiS_20, Kudēfre_18, Kumao_19, LilhomieP_19, Lozinak_38, Miskis_36, MrMagoo_24, Nanosmite_24, Neville_18, Norvs_39, Octobien14_19, OneUp_32, PegLeg_20, PhaoMing_9, PhinkBoden_38, Rabbitrun_20, Reindeer_18, Rey_24, RoseMarie_20, Sephiroth_19, Skinny_21, SlimJimmy_19, Smoothie_39, Syleon_19, Toniann_38, TpudiCK_21, TyDawg_20, WilliamBoone_38,

Summary by start number:

Start 13:

- Found in 28 of 167 (16.8%) of genes in pham
- Manual Annotations of this start: 20 of 137
- Called 78.6% of time when present
- Phage (with cluster) where this start called: Auspice_20 (M1), Aziz_24 (M2), Bongo_20 (M1), Bricole_20 (M1), Diminimus_21 (M1), Dulcita_21 (M1), FreakyGoo_21 (M1), GardenSalsa_24 (M2), GenevaB15_24 (M2), Glaske16_21 (M1), IPHane7_20 (M1), Izel_21 (M1), KleverKiS_20 (M1), Kumao_19 (singleton), LilhomieP_19 (M1), Nanosmite_24 (M3), PegLeg_20 (M1), Reindeer_18 (M1), Skinny_21 (M1), SlimJimmy_19 (M1), TpudiCK_21 (M1), TyDawg_20 (M1),

Start 14:

- Found in 6 of 167 (3.6%) of genes in pham
- Manual Annotations of this start: 3 of 137
- Called 50.0% of time when present
- Phage (with cluster) where this start called: Estes_25 (M2), MrMagoo_24 (M2), Rey_24 (M2),

Start 15:

- Found in 4 of 167 (2.4%) of genes in pham
- Manual Annotations of this start: 4 of 137
- Called 100.0% of time when present
- Phage (with cluster) where this start called: LilJank_18 (DU2), Neville_18 (DU2), Rabbitrun_20 (DU2), Trax_18 (DU2),

Start 16:

- Found in 4 of 167 (2.4%) of genes in pham
- Manual Annotations of this start: 4 of 137
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Kudēfre_18 (DU1), Octobien14_19 (DU1), Sephiroth_19 (DU1), Syleon_19 (DU1),

Start 18:

- Found in 9 of 167 (5.4%) of genes in pham
- Manual Annotations of this start: 2 of 137
- Called 44.4% of time when present
- Phage (with cluster) where this start called: Aegeus_10 (L5), Baudelaire_10 (L5), PhaoMing_9 (UNK), RoseMarie_20 (M1),

Start 20:

- Found in 31 of 167 (18.6%) of genes in pham
- Manual Annotations of this start: 20 of 137

- Called 67.7% of time when present
- Phage (with cluster) where this start called: Abscondus_37 (CQ1), Aphelion_38 (CQ1), Bachita_40 (CQ1), BrutonGaster_26 (CQ2), Cardigan_36 (DD), ClubL_38 (CQ1), Cucurbita_40 (CQ1), Culver_38 (CQ1), Dusty_37 (CQ1), Engineer_39 (CQ1), Geeche_37 (CQ1), JonJames_37 (DD), Lozinak_38 (CQ1), Miskis_36 (CQ1), Norvs_39 (CQ1), OneUp_32 (CQ2), PhinkBoden_38 (CQ1), Smoothie_39 (CQ1), Toniann_38 (CQ1), WilliamBoone_38 (CQ1), Yvonnetastic_35 (DD),

Start 22:

- Found in 114 of 167 (68.3%) of genes in pham
- Manual Annotations of this start: 84 of 137
- Called 95.6% of time when present
- Phage (with cluster) where this start called: Acquire49_10 (L1), Appletree2_10 (L1), Archie_10 (L2), AvadaKedavra_10 (L1), Azrael100_31 (V), Bantam_20 (DL), Baoshan_9 (L2), Bazzle_10 (L2), Bellis_11 (L3), BigCheese_10 (L2), BobsGarage_10 (L2), BourbonZero_10 (L3), BrainDrainer_11 (L4), Breezona_10 (L2), Bromden_10 (L4), Calm_10 (L1), Chaser_10 (L4), ChengKai98_10 (L2), ChutneyChips_10 (L4), CicholasNage_10 (L1), Claus_10 (L2), Clautastrophe_11 (L3), Cosmo_32 (V), Crossroads_10 (L2), DHan_10 (L2), DanBing_9 (L2), DatBoi_21 (DL), DirkDirk_10 (L1), Douge_10 (L4), Douzhi_10 (L4), DrSeegs_10 (L2), DuncansLeg_11 (L3), DyoEdafos_11 (L4), Ellson_11 (L3), Enceladus_10 (L1), EniyanLRS_29 (V), Faith1_10 (L2), FarmResident_10 (L4), Finemlucis_10 (L2), Finnry_11 (L3), GAL1_12 (singleton), Gabriela_10 (L2), Gardann_10 (L2), GuuelaD_10 (L2), Hafay_10 (L2), Halena_10 (L1), Hiraya_10 (L2), Itos_10 (L2), Jobypre_11 (L3), JoeDirt_10 (L1), Jubie_11 (L3), Kahlid_10 (L2), Kingsolomon_11 (L3), KirDoubleO7_9 (L3), Kropertea_10 (L4), Krypton555_11 (L3), LeBron_10 (L1), Lewan_10 (L2), LilDestine_10 (L2), LiyuLake_11 (L3), Loadrie_10 (L2), Lolly9_11 (L3), Lumos_11 (L3), Lynnae_10 (L2), MAckerman_10 (L1), MaryV_32 (V), MileY16_10 (L2), MiniLon_11 (L3), MiniMac_11 (L3), MkaliMitinis3_10 (L2), Molivier_10 (L2), Moostard_11 (L3), MsGreen_11 (L3), Netyap_10 (L2), Nicholas_11 (L3), Nicholasp3_10 (L2), OhShagHennessey_10 (L1), OverPar_10 (L2), PYPDinur_10 (L4), Poochiewood_10 (L1), Quby_10 (L4), Red305_11 (L3), Rose5_10 (L1), Rossetti_10 (L2), Rumpelstiltskin_10 (L2), Samty_11 (L3), Sarshaun_10 (L2), Sheng711_10 (L4), Silverleaf_10 (L1), Snenia_11 (L3), SoJulia_10 (L2), Soap141_10 (L2), SpeedDemon_210 (DL), Tourach_10 (L2), TriFive_11 (L3), Tyson_10 (L1), UPIE_10 (L1), Underpass_10 (L2), Vetrix_10 (L2), Wamburggrxpress_10 (L1), Whirlwind_12 (L3), Wigglewiggles_10 (L2), Wildcat_32 (V), Wilder_10 (L2), Winky_10 (L2), Wyatt2_10 (L1), Zakai_10 (L2), Zaria_10 (L1), ZhongYanYuan_9 (L2),

Summary by clusters:

There are 17 clusters represented in this pham: singleton, CQ2, L1, DD, V, DU1, L4, L5, M1, L3, M3, M2, L2, CQ1, UNK, DU2, DL,

Info for manual annotations of cluster CQ1:

- Start number 20 was manually annotated 15 times for cluster CQ1.

Info for manual annotations of cluster CQ2:

- Start number 20 was manually annotated 2 times for cluster CQ2.

Info for manual annotations of cluster DD:

- Start number 20 was manually annotated 3 times for cluster DD.

Info for manual annotations of cluster DL:

- Start number 22 was manually annotated 3 times for cluster DL.

Info for manual annotations of cluster DU1:

- Start number 16 was manually annotated 4 times for cluster DU1.

Info for manual annotations of cluster DU2:

- Start number 15 was manually annotated 4 times for cluster DU2.

Info for manual annotations of cluster L1:

- Start number 22 was manually annotated 19 times for cluster L1.

Info for manual annotations of cluster L2:

- Start number 22 was manually annotated 32 times for cluster L2.

Info for manual annotations of cluster L3:

- Start number 22 was manually annotated 19 times for cluster L3.

Info for manual annotations of cluster L4:

- Start number 22 was manually annotated 6 times for cluster L4.

Info for manual annotations of cluster L5:

- Start number 18 was manually annotated 2 times for cluster L5.

Info for manual annotations of cluster M1:

- Start number 13 was manually annotated 15 times for cluster M1.

Info for manual annotations of cluster M2:

- Start number 13 was manually annotated 3 times for cluster M2.
- Start number 14 was manually annotated 3 times for cluster M2.

Info for manual annotations of cluster M3:

- Start number 13 was manually annotated 1 time for cluster M3.

Info for manual annotations of cluster V:

- Start number 22 was manually annotated 5 times for cluster V.

Gene Information:

Gene: Abscondus_37 Start: 15874, Stop: 16227, Start Num: 20

Candidate Starts for Abscondus_37:

(Start: 20 @15874 has 20 MA's), (38, 16048), (40, 16063), (50, 16117),

Gene: Acquire49_10 Start: 7710, Stop: 8033, Start Num: 22

Candidate Starts for Acquire49_10:

(Start: 22 @7710 has 84 MA's), (43, 7875), (54, 7941), (68, 8013), (70, 8022),

Gene: Aegeus_10 Start: 7298, Stop: 7678, Start Num: 18

Candidate Starts for Aegeus_10:

(1, 7016), (2, 7109), (3, 7127), (4, 7169), (5, 7178), (8, 7220), (9, 7229), (11, 7259), (12, 7268), (Start: 13 @7271 has 20 MA's), (Start: 18 @7298 has 2 MA's), (30, 7415), (42, 7511), (43, 7517), (49, 7556), (56, 7592), (57, 7595),

Gene: Aphelion_38 Start: 16143, Stop: 16496, Start Num: 20

Candidate Starts for Aphelion_38:

(Start: 20 @16143 has 20 MA's), (38, 16317), (40, 16332), (50, 16386),

Gene: Appletree2_10 Start: 7684, Stop: 8007, Start Num: 22

Candidate Starts for Appletree2_10:

(Start: 22 @7684 has 84 MA's), (43, 7849), (54, 7915), (68, 7987), (70, 7996),

Gene: Archie_10 Start: 7665, Stop: 8003, Start Num: 22

Candidate Starts for Archie_10:

(Start: 22 @7665 has 84 MA's), (43, 7845), (57, 7926), (65, 7971), (66, 7974), (68, 7983), (70, 7992),

Gene: Auspice_20 Start: 11510, Stop: 11878, Start Num: 13

Candidate Starts for Auspice_20:

(Start: 13 @11510 has 20 MA's), (32, 11648), (46, 11741), (55, 11789), (57, 11801),

Gene: AvadaKedavra_10 Start: 7710, Stop: 8033, Start Num: 22

Candidate Starts for AvadaKedavra_10:

(Start: 22 @7710 has 84 MA's), (43, 7875), (54, 7941), (68, 8013), (70, 8022),

Gene: Aziz_24 Start: 12073, Stop: 12441, Start Num: 13

Candidate Starts for Aziz_24:

(7, 12013), (Start: 13 @12073 has 20 MA's), (Start: 14 @12076 has 3 MA's), (Start: 18 @12100 has 2 MA's), (Start: 20 @12109 has 20 MA's), (32, 12211), (46, 12304), (51, 12337), (52, 12340), (60, 12385), (68, 12421),

Gene: Azrael100_31 Start: 14635, Stop: 14976, Start Num: 22

Candidate Starts for Azrael100_31:

(Start: 22 @14635 has 84 MA's), (27, 14665), (30, 14719), (34, 14737), (37, 14770), (46, 14824), (54, 14869), (62, 14920), (63, 14923), (68, 14947),

Gene: Bachita_40 Start: 16576, Stop: 16929, Start Num: 20

Candidate Starts for Bachita_40:

(Start: 20 @16576 has 20 MA's), (38, 16750), (40, 16765), (50, 16819),

Gene: Bantam_20 Start: 13628, Stop: 13957, Start Num: 22

Candidate Starts for Bantam_20:

(Start: 20 @13613 has 20 MA's), (Start: 22 @13628 has 84 MA's), (36, 13769), (42, 13802), (57, 13886), (58, 13892), (68, 13946),

Gene: Baoshan_9 Start: 7520, Stop: 7858, Start Num: 22

Candidate Starts for Baoshan_9:

(Start: 22 @7520 has 84 MA's), (29, 7598), (43, 7700), (57, 7781), (65, 7826), (66, 7829), (68, 7838), (70, 7847),

Gene: Baudelaire_10 Start: 7298, Stop: 7678, Start Num: 18

Candidate Starts for Baudelaire_10:

(1, 7016), (2, 7109), (3, 7127), (4, 7169), (5, 7178), (8, 7220), (9, 7229), (11, 7259), (12, 7268), (Start: 13 @7271 has 20 MA's), (Start: 18 @7298 has 2 MA's), (30, 7415), (42, 7511), (43, 7517), (49, 7556),

(56, 7592), (57, 7595),

Gene: Bazzle_10 Start: 7641, Stop: 7979, Start Num: 22

Candidate Starts for Bazzle_10:

(Start: 22 @7641 has 84 MA's), (43, 7821), (57, 7902), (65, 7947), (66, 7950), (68, 7959), (70, 7968),

Gene: Bellis_11 Start: 7840, Stop: 8178, Start Num: 22

Candidate Starts for Bellis_11:

(Start: 22 @7840 has 84 MA's), (43, 8020), (55, 8089), (65, 8146), (66, 8149), (68, 8158), (70, 8167), (71, 8173),

Gene: BigCheese_10 Start: 7692, Stop: 8030, Start Num: 22

Candidate Starts for BigCheese_10:

(Start: 22 @7692 has 84 MA's), (43, 7872), (57, 7953), (65, 7998), (68, 8010), (70, 8019),

Gene: BobsGarage_10 Start: 7692, Stop: 8030, Start Num: 22

Candidate Starts for BobsGarage_10:

(Start: 22 @7692 has 84 MA's), (43, 7872), (57, 7953), (65, 7998), (68, 8010), (70, 8019),

Gene: Bongo_20 Start: 11510, Stop: 11878, Start Num: 13

Candidate Starts for Bongo_20:

(Start: 13 @11510 has 20 MA's), (32, 11648), (46, 11741), (55, 11789), (57, 11801),

Gene: BourbonZero_10 Start: 7846, Stop: 8184, Start Num: 22

Candidate Starts for BourbonZero_10:

(Start: 22 @7846 has 84 MA's), (43, 8026), (55, 8095), (65, 8152), (66, 8155), (70, 8173),

Gene: BrainDrainer_11 Start: 7511, Stop: 7849, Start Num: 22

Candidate Starts for BrainDrainer_11:

(Start: 22 @7511 has 84 MA's), (43, 7691), (65, 7817), (66, 7820), (68, 7829), (70, 7838),

Gene: Breezona_10 Start: 7692, Stop: 8030, Start Num: 22

Candidate Starts for Breezona_10:

(Start: 22 @7692 has 84 MA's), (43, 7872), (57, 7953), (65, 7998), (68, 8010), (70, 8019),

Gene: Bricole_20 Start: 11509, Stop: 11877, Start Num: 13

Candidate Starts for Bricole_20:

(Start: 13 @11509 has 20 MA's), (32, 11647), (46, 11740), (55, 11788), (57, 11800),

Gene: Bromden_10 Start: 7421, Stop: 7759, Start Num: 22

Candidate Starts for Bromden_10:

(Start: 22 @7421 has 84 MA's), (25, 7436), (43, 7601), (65, 7727), (66, 7730), (70, 7748),

Gene: BrutonGaster_26 Start: 12775, Stop: 13119, Start Num: 20

Candidate Starts for BrutonGaster_26:

(Start: 20 @12775 has 20 MA's), (39, 12949), (40, 12955), (47, 12988),

Gene: Calm_10 Start: 7711, Stop: 8034, Start Num: 22

Candidate Starts for Calm_10:

(Start: 22 @7711 has 84 MA's), (43, 7876), (54, 7942), (68, 8014), (70, 8023),

Gene: Cardigan_36 Start: 17772, Stop: 18122, Start Num: 20

Candidate Starts for Cardigan_36:

(Start: 20 @17772 has 20 MA's), (Start: 22 @17787 has 84 MA's), (23, 17790), (30, 17880), (47, 17991), (62, 18084), (64, 18096),

Gene: Chaser_10 Start: 7426, Stop: 7764, Start Num: 22

Candidate Starts for Chaser_10:

(Start: 22 @7426 has 84 MA's), (29, 7504), (43, 7606), (65, 7732), (66, 7735), (68, 7744), (70, 7753),

Gene: ChengKai98_10 Start: 7692, Stop: 8030, Start Num: 22

Candidate Starts for ChengKai98_10:

(Start: 22 @7692 has 84 MA's), (43, 7872), (57, 7953), (65, 7998), (68, 8010), (70, 8019),

Gene: ChutneyChips_10 Start: 7414, Stop: 7752, Start Num: 22

Candidate Starts for ChutneyChips_10:

(Start: 22 @7414 has 84 MA's), (43, 7594), (65, 7720), (66, 7723), (68, 7732), (70, 7741),

Gene: CicholasNage_10 Start: 7711, Stop: 8034, Start Num: 22

Candidate Starts for CicholasNage_10:

(Start: 22 @7711 has 84 MA's), (43, 7876), (54, 7942), (68, 8014), (70, 8023),

Gene: Claus_10 Start: 7700, Stop: 8038, Start Num: 22

Candidate Starts for Claus_10:

(Start: 22 @7700 has 84 MA's), (29, 7778), (43, 7880), (57, 7961), (65, 8006), (66, 8009), (68, 8018), (70, 8027),

Gene: Clautastrophe_11 Start: 7844, Stop: 8182, Start Num: 22

Candidate Starts for Clautastrophe_11:

(Start: 22 @7844 has 84 MA's), (43, 8024), (55, 8093), (65, 8150), (66, 8153), (68, 8162), (70, 8171), (71, 8177),

Gene: ClubL_38 Start: 16065, Stop: 16418, Start Num: 20

Candidate Starts for ClubL_38:

(Start: 20 @16065 has 20 MA's), (38, 16239), (40, 16254), (50, 16308),

Gene: Cosmo_32 Start: 14642, Stop: 14983, Start Num: 22

Candidate Starts for Cosmo_32:

(Start: 22 @14642 has 84 MA's), (27, 14672), (30, 14726), (34, 14744), (37, 14777), (46, 14831), (54, 14876), (62, 14927), (63, 14930), (68, 14954),

Gene: Crossroads_10 Start: 7692, Stop: 8030, Start Num: 22

Candidate Starts for Crossroads_10:

(Start: 22 @7692 has 84 MA's), (43, 7872), (57, 7953), (65, 7998), (68, 8010), (70, 8019),

Gene: Cucurbita_40 Start: 17435, Stop: 17788, Start Num: 20

Candidate Starts for Cucurbita_40:

(Start: 20 @17435 has 20 MA's), (38, 17609), (40, 17624), (50, 17678),

Gene: Culver_38 Start: 15874, Stop: 16227, Start Num: 20

Candidate Starts for Culver_38:

(Start: 20 @15874 has 20 MA's), (38, 16048), (40, 16063), (50, 16117),

Gene: DHan_10 Start: 7636, Stop: 7974, Start Num: 22

Candidate Starts for DHan_10:

(Start: 22 @7636 has 84 MA's), (29, 7714), (43, 7816), (57, 7897), (65, 7942), (66, 7945), (68, 7954), (70, 7963),

Gene: DanBing_9 Start: 7519, Stop: 7857, Start Num: 22

Candidate Starts for DanBing_9:

(Start: 22 @7519 has 84 MA's), (29, 7597), (43, 7699), (57, 7780), (65, 7825), (66, 7828), (68, 7837), (70, 7846),

Gene: DatBoi_21 Start: 14419, Stop: 14748, Start Num: 22

Candidate Starts for DatBoi_21:

(Start: 20 @14404 has 20 MA's), (Start: 22 @14419 has 84 MA's), (42, 14593), (57, 14677), (58, 14683), (68, 14737),

Gene: Diminimus_21 Start: 11509, Stop: 11877, Start Num: 13

Candidate Starts for Diminimus_21:

(Start: 13 @11509 has 20 MA's), (32, 11647), (46, 11740), (55, 11788), (57, 11800),

Gene: DirkDirk_10 Start: 7712, Stop: 8035, Start Num: 22

Candidate Starts for DirkDirk_10:

(Start: 22 @7712 has 84 MA's), (43, 7877), (54, 7943), (68, 8015), (70, 8024),

Gene: Douge_10 Start: 7372, Stop: 7710, Start Num: 22

Candidate Starts for Douge_10:

(Start: 22 @7372 has 84 MA's), (29, 7450), (43, 7552), (65, 7678), (66, 7681), (68, 7690), (70, 7699),

Gene: Douzhi_10 Start: 7372, Stop: 7710, Start Num: 22

Candidate Starts for Douzhi_10:

(Start: 22 @7372 has 84 MA's), (43, 7552), (65, 7678), (66, 7681), (68, 7690), (70, 7699),

Gene: DrSeegs_10 Start: 7692, Stop: 8030, Start Num: 22

Candidate Starts for DrSeegs_10:

(Start: 22 @7692 has 84 MA's), (43, 7872), (57, 7953), (65, 7998), (68, 8010), (70, 8019),

Gene: Dulcita_21 Start: 11509, Stop: 11877, Start Num: 13

Candidate Starts for Dulcita_21:

(Start: 13 @11509 has 20 MA's), (32, 11647), (46, 11740), (55, 11788), (57, 11800),

Gene: DuncansLeg_11 Start: 7848, Stop: 8186, Start Num: 22

Candidate Starts for DuncansLeg_11:

(Start: 22 @7848 has 84 MA's), (43, 8028), (55, 8097), (65, 8154), (66, 8157), (70, 8175),

Gene: Dusty_37 Start: 15874, Stop: 16227, Start Num: 20

Candidate Starts for Dusty_37:

(Start: 20 @15874 has 20 MA's), (38, 16048), (40, 16063), (50, 16117),

Gene: DyoEdafos_11 Start: 7582, Stop: 7920, Start Num: 22

Candidate Starts for DyoEdafos_11:

(Start: 22 @7582 has 84 MA's), (43, 7762), (65, 7888), (66, 7891), (68, 7900), (70, 7909),

Gene: Ellson_11 Start: 7856, Stop: 8194, Start Num: 22

Candidate Starts for Ellson_11:

(Start: 22 @7856 has 84 MA's), (43, 8036), (55, 8105), (65, 8162), (66, 8165), (70, 8183),

Gene: Enceladus_10 Start: 7712, Stop: 8035, Start Num: 22
Candidate Starts for Enceladus_10:
(Start: 22 @7712 has 84 MA's), (43, 7877), (54, 7943), (68, 8015), (70, 8024),

Gene: Engineer_39 Start: 16091, Stop: 16444, Start Num: 20
Candidate Starts for Engineer_39:
(Start: 20 @16091 has 20 MA's), (38, 16265), (40, 16280), (50, 16334),

Gene: EniyanLRS_29 Start: 14336, Stop: 14677, Start Num: 22
Candidate Starts for EniyanLRS_29:
(Start: 22 @14336 has 84 MA's), (27, 14366), (30, 14420), (34, 14438), (37, 14471), (46, 14525), (54, 14570), (62, 14621), (63, 14624), (68, 14648),

Gene: Estes_25 Start: 12213, Stop: 12578, Start Num: 14
Candidate Starts for Estes_25:
(7, 12150), (Start: 13 @12210 has 20 MA's), (Start: 14 @12213 has 3 MA's), (Start: 18 @12237 has 2 MA's), (Start: 20 @12246 has 20 MA's), (32, 12348), (46, 12441), (51, 12474), (52, 12477), (54, 12486), (60, 12522), (68, 12558),

Gene: Faith1_10 Start: 7692, Stop: 8030, Start Num: 22
Candidate Starts for Faith1_10:
(Start: 22 @7692 has 84 MA's), (43, 7872), (57, 7953), (65, 7998), (68, 8010), (70, 8019),

Gene: FarmResident_10 Start: 7417, Stop: 7755, Start Num: 22
Candidate Starts for FarmResident_10:
(Start: 22 @7417 has 84 MA's), (43, 7597), (65, 7723), (66, 7726), (68, 7735), (70, 7744),

Gene: Finemlucis_10 Start: 7692, Stop: 8030, Start Num: 22
Candidate Starts for Finemlucis_10:
(Start: 22 @7692 has 84 MA's), (43, 7872), (57, 7953), (65, 7998), (68, 8010), (70, 8019),

Gene: Finnry_11 Start: 7841, Stop: 8179, Start Num: 22
Candidate Starts for Finnry_11:
(Start: 22 @7841 has 84 MA's), (43, 8021), (55, 8090), (65, 8147), (66, 8150), (68, 8159), (70, 8168), (71, 8174),

Gene: FreakyGoo_21 Start: 11510, Stop: 11878, Start Num: 13
Candidate Starts for FreakyGoo_21:
(Start: 13 @11510 has 20 MA's), (32, 11648), (46, 11741), (55, 11789), (57, 11801),

Gene: GAL1_12 Start: 8558, Stop: 8902, Start Num: 22
Candidate Starts for GAL1_12:
(Start: 20 @8543 has 20 MA's), (Start: 22 @8558 has 84 MA's), (25, 8573), (28, 8618), (38, 8699), (43, 8726), (48, 8762), (57, 8822), (69, 8888),

Gene: Gabriela_10 Start: 7692, Stop: 8030, Start Num: 22
Candidate Starts for Gabriela_10:
(Start: 22 @7692 has 84 MA's), (43, 7872), (57, 7953), (65, 7998), (68, 8010), (70, 8019),

Gene: Gardann_10 Start: 7692, Stop: 8030, Start Num: 22
Candidate Starts for Gardann_10:
(Start: 22 @7692 has 84 MA's), (43, 7872), (57, 7953), (65, 7998), (68, 8010), (70, 8019),

Gene: GardenSalsa_24 Start: 12046, Stop: 12414, Start Num: 13

Candidate Starts for GardenSalsa_24:

(7, 11986), (Start: 13 @12046 has 20 MA's), (Start: 14 @12049 has 3 MA's), (Start: 20 @12082 has 20 MA's), (32, 12184), (46, 12277), (51, 12310), (52, 12313), (54, 12322), (68, 12394),

Gene: Geeche_37 Start: 15965, Stop: 16318, Start Num: 20

Candidate Starts for Geeche_37:

(Start: 20 @15965 has 20 MA's), (38, 16139), (40, 16154), (50, 16208),

Gene: GenevaB15_24 Start: 12073, Stop: 12441, Start Num: 13

Candidate Starts for GenevaB15_24:

(7, 12013), (Start: 13 @12073 has 20 MA's), (Start: 14 @12076 has 3 MA's), (Start: 18 @12100 has 2 MA's), (Start: 20 @12109 has 20 MA's), (32, 12211), (46, 12304), (51, 12337), (52, 12340), (60, 12385), (68, 12421),

Gene: Glaske16_21 Start: 11509, Stop: 11877, Start Num: 13

Candidate Starts for Glaske16_21:

(Start: 13 @11509 has 20 MA's), (32, 11647), (46, 11740), (55, 11788), (57, 11800),

Gene: GuuelaD_10 Start: 7725, Stop: 8063, Start Num: 22

Candidate Starts for GuuelaD_10:

(Start: 22 @7725 has 84 MA's), (43, 7905), (55, 7974), (57, 7986), (65, 8031), (66, 8034), (68, 8043), (70, 8052),

Gene: Hafay_10 Start: 7725, Stop: 8063, Start Num: 22

Candidate Starts for Hafay_10:

(Start: 22 @7725 has 84 MA's), (43, 7905), (57, 7986), (65, 8031), (68, 8043), (70, 8052),

Gene: Halena_10 Start: 7711, Stop: 8034, Start Num: 22

Candidate Starts for Halena_10:

(Start: 22 @7711 has 84 MA's), (43, 7876), (54, 7942), (68, 8014), (70, 8023),

Gene: Hiraya_10 Start: 7692, Stop: 8030, Start Num: 22

Candidate Starts for Hiraya_10:

(Start: 22 @7692 has 84 MA's), (43, 7872), (57, 7953), (65, 7998), (68, 8010), (70, 8019),

Gene: IPhone7_20 Start: 11510, Stop: 11878, Start Num: 13

Candidate Starts for IPhone7_20:

(Start: 13 @11510 has 20 MA's), (32, 11648), (46, 11741), (55, 11789), (57, 11801),

Gene: Itos_10 Start: 7692, Stop: 8030, Start Num: 22

Candidate Starts for Itos_10:

(Start: 22 @7692 has 84 MA's), (43, 7872), (57, 7953), (65, 7998), (68, 8010), (70, 8019),

Gene: Izel_21 Start: 11509, Stop: 11877, Start Num: 13

Candidate Starts for Izel_21:

(Start: 13 @11509 has 20 MA's), (32, 11647), (46, 11740), (55, 11788), (57, 11800),

Gene: Jobypre_11 Start: 7844, Stop: 8182, Start Num: 22

Candidate Starts for Jobypre_11:

(Start: 22 @7844 has 84 MA's), (43, 8024), (55, 8093), (65, 8150), (66, 8153), (68, 8162), (70, 8171), (71, 8177),

Gene: JoeDirt_10 Start: 7711, Stop: 8034, Start Num: 22

Candidate Starts for JoeDirt_10:

(Start: 22 @7711 has 84 MA's), (43, 7876), (54, 7942), (68, 8014), (70, 8023),

Gene: JonJames_37 Start: 19987, Stop: 20337, Start Num: 20

Candidate Starts for JonJames_37:

(Start: 20 @19987 has 20 MA's), (Start: 22 @20002 has 84 MA's), (23, 20005), (30, 20095), (47, 20206), (62, 20299), (64, 20311),

Gene: Jubie_11 Start: 7844, Stop: 8182, Start Num: 22

Candidate Starts for Jubie_11:

(Start: 22 @7844 has 84 MA's), (43, 8024), (55, 8093), (65, 8150), (66, 8153), (68, 8162), (70, 8171), (71, 8177),

Gene: Kahlid_10 Start: 7692, Stop: 8030, Start Num: 22

Candidate Starts for Kahlid_10:

(Start: 22 @7692 has 84 MA's), (43, 7872), (57, 7953), (65, 7998), (68, 8010), (70, 8019),

Gene: Kingsolomon_11 Start: 7844, Stop: 8182, Start Num: 22

Candidate Starts for Kingsolomon_11:

(Start: 22 @7844 has 84 MA's), (43, 8024), (55, 8093), (65, 8150), (66, 8153), (68, 8162), (70, 8171), (71, 8177),

Gene: KirDoubleO7_9 Start: 7857, Stop: 8195, Start Num: 22

Candidate Starts for KirDoubleO7_9:

(Start: 22 @7857 has 84 MA's), (43, 8037), (55, 8106), (65, 8163), (66, 8166), (70, 8184),

Gene: KleverKiS_20 Start: 11506, Stop: 11874, Start Num: 13

Candidate Starts for KleverKiS_20:

(Start: 13 @11506 has 20 MA's), (32, 11644), (46, 11737), (55, 11785), (57, 11797),

Gene: Kropertea_10 Start: 7388, Stop: 7726, Start Num: 22

Candidate Starts for Kropertea_10:

(Start: 22 @7388 has 84 MA's), (43, 7568), (65, 7694), (66, 7697), (68, 7706), (70, 7715),

Gene: Krypton555_11 Start: 7833, Stop: 8171, Start Num: 22

Candidate Starts for Krypton555_11:

(Start: 22 @7833 has 84 MA's), (43, 8013), (55, 8082), (65, 8139), (66, 8142), (70, 8160),

Gene: Kudefre_18 Start: 11111, Stop: 11452, Start Num: 16

Candidate Starts for Kudefre_18:

(6, 11030), (Start: 16 @11111 has 4 MA's), (39, 11294), (41, 11303), (43, 11312), (45, 11318), (46, 11330), (47, 11333), (53, 11372), (54, 11378), (59, 11405), (61, 11423), (63, 11429), (66, 11444),

Gene: Kumao_19 Start: 10846, Stop: 11211, Start Num: 13

Candidate Starts for Kumao_19:

(10, 10825), (Start: 13 @10846 has 20 MA's), (26, 10906), (32, 10981), (35, 11008), (46, 11074), (54, 11119), (55, 11122), (60, 11155), (64, 11176),

Gene: LeBron_10 Start: 7711, Stop: 8034, Start Num: 22

Candidate Starts for LeBron_10:

(Start: 22 @7711 has 84 MA's), (43, 7876), (54, 7942), (68, 8014), (70, 8023),

Gene: Lewan_10 Start: 7692, Stop: 8030, Start Num: 22

Candidate Starts for Lewan_10:

(Start: 22 @7692 has 84 MA's), (43, 7872), (57, 7953), (65, 7998), (68, 8010), (70, 8019),

Gene: LilDestine_10 Start: 7692, Stop: 8030, Start Num: 22

Candidate Starts for LilDestine_10:

(Start: 22 @7692 has 84 MA's), (43, 7872), (57, 7953), (65, 7998), (68, 8010), (70, 8019),

Gene: LilJank_18 Start: 10973, Stop: 11311, Start Num: 15

Candidate Starts for LilJank_18:

(Start: 15 @10973 has 4 MA's), (Start: 22 @11012 has 84 MA's), (23, 11015), (26, 11030), (30, 11096), (31, 11099), (39, 11153), (43, 11171), (61, 11282), (63, 11288), (66, 11303),

Gene: LilhomieP_19 Start: 11510, Stop: 11878, Start Num: 13

Candidate Starts for LilhomieP_19:

(Start: 13 @11510 has 20 MA's), (32, 11648), (46, 11741), (55, 11789), (57, 11801),

Gene: LiyuLake_11 Start: 7848, Stop: 8186, Start Num: 22

Candidate Starts for LiyuLake_11:

(Start: 22 @7848 has 84 MA's), (43, 8028), (55, 8097), (65, 8154), (66, 8157), (70, 8175),

Gene: Loadrie_10 Start: 7725, Stop: 8063, Start Num: 22

Candidate Starts for Loadrie_10:

(Start: 22 @7725 has 84 MA's), (43, 7905), (57, 7986), (65, 8031), (68, 8043), (70, 8052),

Gene: Lolly9_11 Start: 7851, Stop: 8189, Start Num: 22

Candidate Starts for Lolly9_11:

(Start: 22 @7851 has 84 MA's), (43, 8031), (55, 8100), (65, 8157), (66, 8160), (70, 8178),

Gene: Lozinak_38 Start: 16146, Stop: 16499, Start Num: 20

Candidate Starts for Lozinak_38:

(Start: 20 @16146 has 20 MA's), (38, 16320), (40, 16335), (50, 16389),

Gene: Lumos_11 Start: 7844, Stop: 8182, Start Num: 22

Candidate Starts for Lumos_11:

(Start: 22 @7844 has 84 MA's), (43, 8024), (55, 8093), (65, 8150), (66, 8153), (68, 8162), (70, 8171), (71, 8177),

Gene: Lynnae_10 Start: 7692, Stop: 8030, Start Num: 22

Candidate Starts for Lynnae_10:

(Start: 22 @7692 has 84 MA's), (43, 7872), (57, 7953), (65, 7998), (68, 8010), (70, 8019),

Gene: MAckerman_10 Start: 7710, Stop: 8033, Start Num: 22

Candidate Starts for MAckerman_10:

(Start: 22 @7710 has 84 MA's), (43, 7875), (54, 7941), (68, 8013), (70, 8022),

Gene: MaryV_32 Start: 14608, Stop: 14949, Start Num: 22

Candidate Starts for MaryV_32:

(Start: 22 @14608 has 84 MA's), (27, 14638), (30, 14692), (34, 14710), (37, 14743), (46, 14797), (54, 14842), (62, 14893), (63, 14896), (68, 14920),

Gene: Miley16_10 Start: 7692, Stop: 8030, Start Num: 22

Candidate Starts for Miley16_10:

(Start: 22 @7692 has 84 MA's), (43, 7872), (57, 7953), (65, 7998), (68, 8010), (70, 8019),

Gene: MiniLon_11 Start: 7851, Stop: 8189, Start Num: 22

Candidate Starts for MiniLon_11:

(Start: 22 @7851 has 84 MA's), (43, 8031), (55, 8100), (65, 8157), (66, 8160), (70, 8178),

Gene: MiniMac_11 Start: 7852, Stop: 8190, Start Num: 22

Candidate Starts for MiniMac_11:

(Start: 22 @7852 has 84 MA's), (43, 8032), (55, 8101), (65, 8158), (66, 8161), (70, 8179),

Gene: Miskis_36 Start: 15909, Stop: 16262, Start Num: 20

Candidate Starts for Miskis_36:

(Start: 20 @15909 has 20 MA's), (38, 16083), (40, 16098), (50, 16152),

Gene: MkaliMitinis3_10 Start: 7692, Stop: 8030, Start Num: 22

Candidate Starts for MkaliMitinis3_10:

(Start: 22 @7692 has 84 MA's), (43, 7872), (57, 7953), (65, 7998), (68, 8010), (70, 8019),

Gene: Molivier_10 Start: 7698, Stop: 8036, Start Num: 22

Candidate Starts for Molivier_10:

(Start: 22 @7698 has 84 MA's), (43, 7878), (57, 7959), (65, 8004), (68, 8016), (70, 8025),

Gene: Moostard_11 Start: 7840, Stop: 8178, Start Num: 22

Candidate Starts for Moostard_11:

(Start: 22 @7840 has 84 MA's), (43, 8020), (55, 8089), (65, 8146), (66, 8149), (68, 8158), (70, 8167), (71, 8173),

Gene: MrMagoo_24 Start: 12049, Stop: 12414, Start Num: 14

Candidate Starts for MrMagoo_24:

(7, 11986), (Start: 13 @12046 has 20 MA's), (Start: 14 @12049 has 3 MA's), (Start: 20 @12082 has 20 MA's), (32, 12184), (46, 12277), (51, 12310), (52, 12313), (54, 12322), (68, 12394),

Gene: MsGreen_11 Start: 7844, Stop: 8182, Start Num: 22

Candidate Starts for MsGreen_11:

(Start: 22 @7844 has 84 MA's), (43, 8024), (55, 8093), (65, 8150), (66, 8153), (68, 8162), (70, 8171), (71, 8177),

Gene: Nanosmite_24 Start: 12264, Stop: 12632, Start Num: 13

Candidate Starts for Nanosmite_24:

(7, 12204), (Start: 13 @12264 has 20 MA's), (31, 12399), (32, 12402), (35, 12429), (44, 12486), (46, 12495), (51, 12528), (57, 12555), (60, 12576), (67, 12606), (68, 12612),

Gene: Netyap_10 Start: 7692, Stop: 8030, Start Num: 22

Candidate Starts for Netyap_10:

(Start: 22 @7692 has 84 MA's), (43, 7872), (57, 7953), (65, 7998), (68, 8010), (70, 8019),

Gene: Neville_18 Start: 10922, Stop: 11260, Start Num: 15

Candidate Starts for Neville_18:

(Start: 15 @10922 has 4 MA's), (23, 10964), (26, 10979), (30, 11045), (31, 11048), (39, 11102), (43, 11120), (59, 11213), (61, 11231), (63, 11237), (66, 11252),

Gene: Nicholas_11 Start: 7844, Stop: 8182, Start Num: 22

Candidate Starts for Nicholas_11:

(Start: 22 @7844 has 84 MA's), (43, 8024), (55, 8093), (65, 8150), (66, 8153), (68, 8162), (70, 8171), (71, 8177),

Gene: Nicholasp3_10 Start: 7692, Stop: 8030, Start Num: 22

Candidate Starts for Nicholasp3_10:

(Start: 22 @7692 has 84 MA's), (43, 7872), (57, 7953), (65, 7998), (68, 8010), (70, 8019),

Gene: Norvs_39 Start: 16148, Stop: 16501, Start Num: 20

Candidate Starts for Norvs_39:

(Start: 20 @16148 has 20 MA's), (38, 16322), (40, 16337), (50, 16391),

Gene: Octobien14_19 Start: 12174, Stop: 12509, Start Num: 16

Candidate Starts for Octobien14_19:

(Start: 16 @12174 has 4 MA's), (19, 12189), (24, 12216), (30, 12294), (32, 12300), (39, 12351), (41, 12360), (43, 12369), (45, 12375), (46, 12387), (47, 12390), (48, 12405), (53, 12429), (61, 12480), (63, 12486),

Gene: OhShagHennessy_10 Start: 7684, Stop: 8007, Start Num: 22

Candidate Starts for OhShagHennessy_10:

(Start: 22 @7684 has 84 MA's), (43, 7849), (54, 7915), (68, 7987), (70, 7996),

Gene: OneUp_32 Start: 13864, Stop: 14208, Start Num: 20

Candidate Starts for OneUp_32:

(Start: 20 @13864 has 20 MA's), (40, 14044),

Gene: OverPar_10 Start: 7725, Stop: 8063, Start Num: 22

Candidate Starts for OverPar_10:

(Start: 22 @7725 has 84 MA's), (43, 7905), (57, 7986), (65, 8031), (68, 8043), (70, 8052),

Gene: PYPDinur_10 Start: 7372, Stop: 7710, Start Num: 22

Candidate Starts for PYPDinur_10:

(Start: 22 @7372 has 84 MA's), (43, 7552), (65, 7678), (66, 7681), (68, 7690), (70, 7699),

Gene: PegLeg_20 Start: 11509, Stop: 11877, Start Num: 13

Candidate Starts for PegLeg_20:

(Start: 13 @11509 has 20 MA's), (32, 11647), (46, 11740), (55, 11788), (57, 11800),

Gene: PhaoMing_9 Start: 7160, Stop: 7510, Start Num: 18

Candidate Starts for PhaoMing_9:

(Start: 18 @7160 has 2 MA's), (21, 7172), (38, 7322), (40, 7337), (43, 7349), (46, 7367), (47, 7370), (57, 7430), (59, 7442), (60, 7451), (69, 7496),

Gene: PhinkBoden_38 Start: 16529, Stop: 16882, Start Num: 20

Candidate Starts for PhinkBoden_38:

(Start: 20 @16529 has 20 MA's), (38, 16703), (40, 16718), (50, 16772),

Gene: Poochiewood_10 Start: 7710, Stop: 8033, Start Num: 22

Candidate Starts for Poochiewood_10:

(Start: 22 @7710 has 84 MA's), (43, 7875), (54, 7941), (68, 8013), (70, 8022),

Gene: Quby_10 Start: 7371, Stop: 7709, Start Num: 22

Candidate Starts for Quby_10:

(Start: 22 @7371 has 84 MA's), (29, 7449), (43, 7551), (65, 7677), (66, 7680), (68, 7689), (70, 7698),

Gene: Rabbitrun_20 Start: 11446, Stop: 11781, Start Num: 15

Candidate Starts for Rabbitrun_20:

(Start: 15 @11446 has 4 MA's), (23, 11488), (26, 11503), (30, 11566), (31, 11569), (39, 11623), (43, 11641), (50, 11683), (61, 11752), (63, 11758),

Gene: Red305_11 Start: 7844, Stop: 8182, Start Num: 22

Candidate Starts for Red305_11:

(Start: 22 @7844 has 84 MA's), (43, 8024), (55, 8093), (65, 8150), (66, 8153), (68, 8162), (70, 8171), (71, 8177),

Gene: Reindeer_18 Start: 11362, Stop: 11730, Start Num: 13

Candidate Starts for Reindeer_18:

(Start: 13 @11362 has 20 MA's), (Start: 18 @11389 has 2 MA's), (31, 11497), (32, 11500), (33, 11509), (46, 11593), (52, 11629), (54, 11638), (55, 11641), (57, 11653), (60, 11674),

Gene: Rey_24 Start: 12284, Stop: 12652, Start Num: 14

Candidate Starts for Rey_24:

(7, 12221), (Start: 13 @12281 has 20 MA's), (Start: 14 @12284 has 3 MA's), (Start: 18 @12308 has 2 MA's), (Start: 20 @12317 has 20 MA's), (32, 12419), (46, 12512), (51, 12545), (52, 12548), (60, 12593), (68, 12629),

Gene: Rose5_10 Start: 7710, Stop: 8033, Start Num: 22

Candidate Starts for Rose5_10:

(Start: 22 @7710 has 84 MA's), (43, 7875), (54, 7941), (68, 8013), (70, 8022),

Gene: RoseMarie_20 Start: 11780, Stop: 12121, Start Num: 18

Candidate Starts for RoseMarie_20:

(Start: 13 @11753 has 20 MA's), (17, 11777), (Start: 18 @11780 has 2 MA's), (32, 11891), (33, 11900), (46, 11984), (55, 12032), (57, 12044), (60, 12065),

Gene: Rossetti_10 Start: 7692, Stop: 8030, Start Num: 22

Candidate Starts for Rossetti_10:

(Start: 22 @7692 has 84 MA's), (43, 7872), (57, 7953), (65, 7998), (66, 8001), (68, 8010), (70, 8019),

Gene: Rumpelstiltskin_10 Start: 7692, Stop: 8030, Start Num: 22

Candidate Starts for Rumpelstiltskin_10:

(Start: 22 @7692 has 84 MA's), (43, 7872), (57, 7953), (65, 7998), (68, 8010), (70, 8019),

Gene: Samty_11 Start: 7840, Stop: 8178, Start Num: 22

Candidate Starts for Samty_11:

(Start: 22 @7840 has 84 MA's), (43, 8020), (55, 8089), (65, 8146), (66, 8149), (68, 8158), (70, 8167), (71, 8173),

Gene: Sarshaun_10 Start: 7725, Stop: 8063, Start Num: 22

Candidate Starts for Sarshaun_10:

(Start: 22 @7725 has 84 MA's), (43, 7905), (57, 7986), (65, 8031), (68, 8043), (70, 8052),

Gene: Sephiroth_19 Start: 11282, Stop: 11623, Start Num: 16

Candidate Starts for Sephiroth_19:

(6, 11201), (Start: 16 @11282 has 4 MA's), (39, 11465), (41, 11474), (43, 11483), (45, 11489), (46, 11501), (47, 11504), (53, 11543), (54, 11549), (59, 11576), (61, 11594), (63, 11600), (66, 11615),

Gene: Sheng711_10 Start: 7372, Stop: 7710, Start Num: 22

Candidate Starts for Sheng711_10:

(Start: 22 @7372 has 84 MA's), (43, 7552), (65, 7678), (66, 7681), (68, 7690), (70, 7699),

Gene: Silverleaf_10 Start: 7710, Stop: 8033, Start Num: 22

Candidate Starts for Silverleaf_10:

(Start: 22 @7710 has 84 MA's), (43, 7875), (54, 7941), (68, 8013), (70, 8022),

Gene: Skinny_21 Start: 11510, Stop: 11878, Start Num: 13

Candidate Starts for Skinny_21:

(Start: 13 @11510 has 20 MA's), (32, 11648), (46, 11741), (55, 11789), (57, 11801),

Gene: SlimJimmy_19 Start: 11509, Stop: 11877, Start Num: 13

Candidate Starts for SlimJimmy_19:

(Start: 13 @11509 has 20 MA's), (32, 11647), (46, 11740), (55, 11788), (57, 11800),

Gene: Smoothie_39 Start: 16146, Stop: 16499, Start Num: 20

Candidate Starts for Smoothie_39:

(Start: 20 @16146 has 20 MA's), (38, 16320), (40, 16335), (50, 16389),

Gene: Snenia_11 Start: 7845, Stop: 8183, Start Num: 22

Candidate Starts for Snenia_11:

(Start: 22 @7845 has 84 MA's), (43, 8025), (55, 8094), (65, 8151), (66, 8154), (68, 8163), (70, 8172), (71, 8178),

Gene: SoJulia_10 Start: 7692, Stop: 8030, Start Num: 22

Candidate Starts for SoJulia_10:

(Start: 22 @7692 has 84 MA's), (43, 7872), (57, 7953), (65, 7998), (68, 8010), (70, 8019),

Gene: Soap141_10 Start: 7725, Stop: 8063, Start Num: 22

Candidate Starts for Soap141_10:

(Start: 22 @7725 has 84 MA's), (43, 7905), (57, 7986), (65, 8031), (68, 8043), (70, 8052),

Gene: SpeedDemon_210 Start: 13944, Stop: 14273, Start Num: 22

Candidate Starts for SpeedDemon_210:

(Start: 20 @13929 has 20 MA's), (Start: 22 @13944 has 84 MA's), (36, 14085), (42, 14118), (57, 14202), (58, 14208), (68, 14262),

Gene: Syleon_19 Start: 11204, Stop: 11545, Start Num: 16

Candidate Starts for Syleon_19:

(6, 11123), (Start: 16 @11204 has 4 MA's), (39, 11387), (41, 11396), (43, 11405), (45, 11411), (46, 11423), (47, 11426), (53, 11465), (54, 11471), (59, 11498), (61, 11516), (63, 11522), (66, 11537),

Gene: Toniann_38 Start: 16091, Stop: 16444, Start Num: 20

Candidate Starts for Toniann_38:

(Start: 20 @16091 has 20 MA's), (38, 16265), (40, 16280), (50, 16334),

Gene: Tourach_10 Start: 7705, Stop: 8043, Start Num: 22

Candidate Starts for Tourach_10:

(Start: 22 @7705 has 84 MA's), (29, 7783), (43, 7885), (57, 7966), (65, 8011), (66, 8014), (68, 8023), (70, 8032),

Gene: TpudiCK_21 Start: 11509, Stop: 11877, Start Num: 13

Candidate Starts for TpudiCK_21:

(Start: 13 @11509 has 20 MA's), (32, 11647), (46, 11740), (55, 11788), (57, 11800),

Gene: Trax_18 Start: 10922, Stop: 11260, Start Num: 15

Candidate Starts for Trax_18:

(Start: 15 @10922 has 4 MA's), (Start: 22 @10961 has 84 MA's), (23, 10964), (26, 10979), (30, 11045), (31, 11048), (39, 11102), (43, 11120), (61, 11231), (63, 11237), (66, 11252),

Gene: TriFive_11 Start: 7844, Stop: 8182, Start Num: 22

Candidate Starts for TriFive_11:

(Start: 22 @7844 has 84 MA's), (43, 8024), (55, 8093), (65, 8150), (66, 8153), (68, 8162), (70, 8171), (71, 8177),

Gene: TyDawg_20 Start: 11510, Stop: 11878, Start Num: 13

Candidate Starts for TyDawg_20:

(Start: 13 @11510 has 20 MA's), (32, 11648), (46, 11741), (55, 11789), (57, 11801),

Gene: Tyson_10 Start: 7710, Stop: 8033, Start Num: 22

Candidate Starts for Tyson_10:

(Start: 22 @7710 has 84 MA's), (43, 7875), (54, 7941), (68, 8013), (70, 8022),

Gene: UPIE_10 Start: 7708, Stop: 8031, Start Num: 22

Candidate Starts for UPIE_10:

(Start: 22 @7708 has 84 MA's), (43, 7873), (54, 7939), (68, 8011), (70, 8020),

Gene: Underpass_10 Start: 7692, Stop: 8030, Start Num: 22

Candidate Starts for Underpass_10:

(Start: 22 @7692 has 84 MA's), (43, 7872), (57, 7953), (65, 7998), (68, 8010), (70, 8019),

Gene: Vetrix_10 Start: 7692, Stop: 8030, Start Num: 22

Candidate Starts for Vetrix_10:

(Start: 22 @7692 has 84 MA's), (43, 7872), (57, 7953), (65, 7998), (68, 8010), (70, 8019),

Gene: Wamburgrexpress_10 Start: 7710, Stop: 8033, Start Num: 22

Candidate Starts for Wamburgrexpress_10:

(Start: 22 @7710 has 84 MA's), (43, 7875), (54, 7941), (68, 8013), (70, 8022),

Gene: Whirlwind_12 Start: 7838, Stop: 8176, Start Num: 22

Candidate Starts for Whirlwind_12:

(Start: 22 @7838 has 84 MA's), (43, 8018), (55, 8087), (65, 8144), (66, 8147), (70, 8165),

Gene: Wigglewigggle_10 Start: 7725, Stop: 8063, Start Num: 22

Candidate Starts for Wigglewigggle_10:

(Start: 22 @7725 has 84 MA's), (43, 7905), (57, 7986), (65, 8031), (68, 8043), (70, 8052),

Gene: Wildcat_32 Start: 14618, Stop: 14959, Start Num: 22

Candidate Starts for Wildcat_32:

(Start: 22 @14618 has 84 MA's), (27, 14648), (30, 14702), (34, 14720), (37, 14753), (46, 14807), (54, 14852), (62, 14903), (63, 14906), (68, 14930),

Gene: Wilder_10 Start: 7692, Stop: 8030, Start Num: 22

Candidate Starts for Wilder_10:

(Start: 22 @7692 has 84 MA's), (43, 7872), (57, 7953), (65, 7998), (68, 8010), (70, 8019),

Gene: WilliamBoone_38 Start: 15455, Stop: 15808, Start Num: 20

Candidate Starts for WilliamBoone_38:

(Start: 20 @15455 has 20 MA's), (38, 15629),

Gene: Winky_10 Start: 7692, Stop: 8030, Start Num: 22

Candidate Starts for Winky_10:

(Start: 22 @7692 has 84 MA's), (43, 7872), (57, 7953), (65, 7998), (68, 8010), (70, 8019),

Gene: Wyatt2_10 Start: 7710, Stop: 8033, Start Num: 22

Candidate Starts for Wyatt2_10:

(Start: 22 @7710 has 84 MA's), (43, 7875), (54, 7941), (68, 8013), (70, 8022),

Gene: Yvonnetastic_35 Start: 17536, Stop: 17886, Start Num: 20

Candidate Starts for Yvonnetastic_35:

(Start: 20 @17536 has 20 MA's), (Start: 22 @17551 has 84 MA's), (23, 17554), (30, 17644), (47, 17755), (62, 17848), (64, 17860),

Gene: Zakai_10 Start: 7680, Stop: 8018, Start Num: 22

Candidate Starts for Zakai_10:

(Start: 22 @7680 has 84 MA's), (43, 7860), (57, 7941), (65, 7986), (68, 7998), (70, 8007),

Gene: Zaria_10 Start: 7711, Stop: 8034, Start Num: 22

Candidate Starts for Zaria_10:

(Start: 22 @7711 has 84 MA's), (43, 7876), (54, 7942), (68, 8014), (70, 8023),

Gene: ZhongYanYuan_9 Start: 7520, Stop: 7858, Start Num: 22

Candidate Starts for ZhongYanYuan_9:

(Start: 22 @7520 has 84 MA's), (29, 7598), (43, 7700), (57, 7781), (65, 7826), (66, 7829), (68, 7838), (70, 7847),