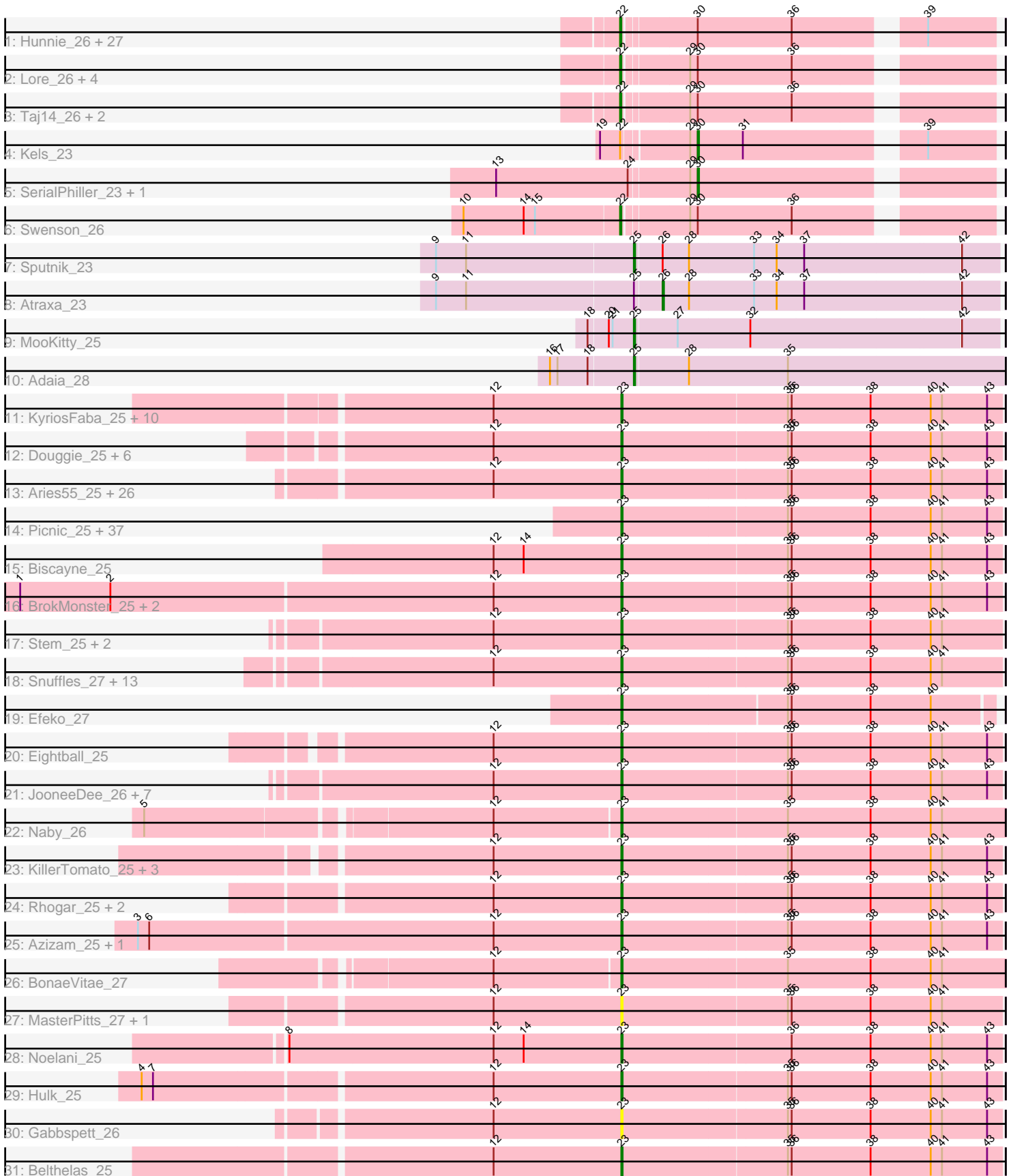


Pham 171239



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 171239 Report

This analysis was run 07/10/24 on database version 566.

WARNING: Pham size does not match number of genes in report. Either unphamerated genes have been added (by you) or starterator has removed genes due to invalid start codon.

Pham number 171239 has 175 members, 20 are drafts.

Phages represented in each track:

- Track 1 : Hunnie_26, Inspire2_26, Decurro_26, Guntur_26, Sandman_26, Ronnie_26, Azathoth_26, Courtney3_26, CGermain_26, Stratus_26, Massimo_26, Maggie_26, Copper_26, Seume_26, Link_26, Toulouse_25, LouisXIV_26, Arby_26, Moloch_26, TymAbreu_26, Yank_26, Chestnut_27, Dewayne_26, Prospero_26, Muttie_26, TinoCrisci_26, Mariposa_26, Sourignavong_27
- Track 2 : Lore_26, Blair_26, Laila_28, Elkhorn_26, StewieGriff_26
- Track 3 : Taj14_26, KylieMac_27, Saphira_27
- Track 4 : Kels_23
- Track 5 : SerialPhiller_23, Arielagos_23
- Track 6 : Swenson_26
- Track 7 : Sputnik_23
- Track 8 : Atraxa_23
- Track 9 : MooKitty_25
- Track 10 : Adaia_28
- Track 11 : KyriosFaba_25, Bradley2_25, Anseraureola_25, Lola20_25, Jahseh_25, Danimal_25, Gillker_25, Baine_26, EdElric_25, Cayde6_26, Yasuo_25
- Track 12 : Duggie_25, Leafy_25, Kevanna_25, Loca_25, MelBee03_25, Quaker_25, Livingwater_25
- Track 13 : Aries55_25, KayPaulus_25, Kaijohn_25, MrGreen_25, Avvas_25, Scamander_25, Charbie_25, Kojax4_25, Josuke_25, Otwor_25, Wolfpack_25, Vanisius_25, Jerky_25, LaviMo_25, Bodhi17_25, SantasSleigh_25, Maneater_27, Godfather_25, Sage7_28, Cheesecake_25, Rhysand_25, Danno_25, TimoTea_25, Sippinontea_25, Burgy_25, VitulaEligans_25, RoscoWindex_27
- Track 14 : Picnic_25, Majesty_25, Witch_25, Luxx_25, Goobery_25, JaimeB_25, Ciel_25, NeumannU_25, BarBear_25, Aztec_25, Pondwater_25, Jannah_25, Erin_25, Yubaba_25, Minima_25, Chatham_25, Dongwon_25, Horacetta_25, Gardevoir_25, SeaWolves_25, PaoPu_25, YertPhresh_25, Hernandez44_25, JoBros_25, Alucard_25, GoldenBlanche_26, BurtonThePup_25, ManAs_25, Slentz_25, Dooby_25, Puddles3_26, Sara_25, Owens_25, Scrunchy_25, Astro16_25, Octopus_25, BinkBonk_25, LemonPepper_26
- Track 15 : Biscayne_25
- Track 16 : BrokMonster_25, JRok_25, McShie_25
- Track 17 : Stem_25, Niffler_25, Nobel_25

- Track 18 : Snuffles_27, TinyTruffula_25, Publix_26, Clownery_25, Trireme_25, Cazares_25, Yami_25, Bullzi2019_26, Slizam_25, TomBrady12_26, Miaurora_25, Lunatic_25, Namsahir_27, PuffyCat_25
- Track 19 : Efeko_27
- Track 20 : Eightball_25
- Track 21 : JooneeDee_26, Bintii_26, MirimarMandM_25, Elspeth_27, HarperAnne_26, Ekko14_26, PoRanda_25, Upsilon_25
- Track 22 : Naby_26
- Track 23 : KillerTomato_25, Concrete_25, BoomRoasted_25, Bri160_25
- Track 24 : Rhogar_25, LionelHutz_25, TeddyBoy_25
- Track 25 : Azizam_25, Oaklynn_26
- Track 26 : BonaeVitae_27
- Track 27 : MasterPitts_27, DaftyDuck_27
- Track 28 : Noelani_25
- Track 29 : Hulk_25
- Track 30 : Gabbspett_26
- Track 31 : Belthelas_25

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

The start number called the most often in the published annotations is 23, it was called in 111 of the 155 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Alucard_25, Anseraureola_25, Aries55_25, Astro16_25, Avvas_25, Azizam_25, Aztec_25, Baine_26, BarBear_25, Belthelas_25, BinkBonk_25, Bintii_26, Biscayne_25, Bodhi17_25, BonaeVitae_27, BoomRoasted_25, Bradley2_25, Bri160_25, BrokMonster_25, Bullzi2019_26, Burgy_25, BurtonThePup_25, Cayde6_26, Cazares_25, Charbie_25, Chatham_25, Cheesecake_25, Ciel_25, Clownery_25, Concrete_25, DaftyDuck_27, Danimal_25, Danno_25, Dongwon_25, Dooby_25, Duggie_25, EdEric_25, Efeko_27, Eightball_25, Ekko14_26, Elspeth_27, Erin_25, Gabbspett_26, Gardevoir_25, Gillker_25, Godfather_25, GoldenBlanche_26, Goobery_25, HarperAnne_26, Hernandez44_25, Horacetta_25, Hulk_25, JRok_25, Jahseh_25, JaimeB_25, Jannah_25, Jerky_25, JoBros_25, JooneeDee_26, Josuke_25, Kaijohn_25, KayPaulus_25, Kevanna_25, KillerTomato_25, Kojax4_25, KyriosFaba_25, LaviMo_25, Leafy_25, LemonPepper_26, LionelHutz_25, Livingwater_25, Loca_25, Lola20_25, Lunatic_25, Luxx_25, Majesty_25, ManAs_25, Maneater_27, MasterPitts_27, McShie_25, MelBee03_25, Miaurora_25, Minima_25, MirimarMandM_25, MrGreen_25, Naby_26, Namsahir_27, NeumannU_25, Niffler_25, Nobel_25, Noelani_25, Oaklynn_26, Octopus_25, Otwor_25, Owens_25, PaoPu_25, Picnic_25, PoRanda_25, Pondwater_25, Publix_26, Puddles3_26, PuffyCat_25, Quaker_25, Rhogar_25, Rhysand_25, RoscoWindex_27, Sage7_28, SantasSleigh_25, Sara_25, Scamander_25, Scrunchy_25, SeaWolves_25, Sippinontea_25, Slentz_25, Slizam_25, Snuffles_27, Stem_25, TeddyBoy_25, TimoTea_25, TinyTruffula_25, TomBrady12_26, Trireme_25, Upsilon_25, Vanisius_25, VitulaEligans_25, Witch_25, Wolfpack_25, Yami_25, Yasuo_25, YertPhresh_25, Yubaba_25,

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

-

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

- Adaia_28, Arby_26, Arielagos_23, Atraxa_23, Azathoth_26, Blair_26, CGermain_26, Chestnut_27, Copper_26, Courtney3_26, Decurro_26, Dewayne_26, Elkhorn_26, Guntur_26, Hunnie_26, Inspire2_26, Kels_23, KylieMac_27, Laila_28, Link_26, Lore_26, LouisXIV_26, Maggie_26, Mariposa_26, Massimo_26, Moloch_26, MooKitty_25, Muttie_26, Prospero_26, Ronnie_26, Sandman_26, Saphira_27, SerialPhiller_23, Seume_26, Sourignavong_27, Sputnik_23, StewieGriff_26, Stratus_26, Swenson_26, Taj14_26, TinoCrisci_26, Toulouse_25, TymAbreu_26, Yank_26,

Summary by start number:

Start 22:

- Found in 38 of 175 (21.7%) of genes in pham
- Manual Annotations of this start: 37 of 155
- Called 97.4% of time when present
- Phage (with cluster) where this start called: Arby_26 (AN), Azathoth_26 (AN), Blair_26 (AN), CGermain_26 (AN), Chestnut_27 (AN), Copper_26 (AN), Courtney3_26 (AN), Decurro_26 (AN), Dewayne_26 (AN), Elkhorn_26 (AN), Guntur_26 (AN), Hunnie_26 (AN), Inspire2_26 (AN), KylieMac_27 (AN), Laila_28 (AN), Link_26 (AN), Lore_26 (AN), LouisXIV_26 (AN), Maggie_26 (AN), Mariposa_26 (AN), Massimo_26 (AN), Moloch_26 (AN), Muttie_26 (AN), Prospero_26 (AN), Ronnie_26 (AN), Sandman_26 (AN), Saphira_27 (AN), Seume_26 (AN), Sourignavong_27 (AN), StewieGriff_26 (AN), Stratus_26 (AN), Swenson_26 (AN), Taj14_26 (AN), TinoCrisci_26 (AN), Toulouse_25 (AN), TymAbreu_26 (AN), Yank_26 (AN),

Start 23:

- Found in 131 of 175 (74.9%) of genes in pham
- Manual Annotations of this start: 111 of 155
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Alucard_25 (EE), Anseraureola_25 (EE), Aries55_25 (EE), Astro16_25 (EE), Avvas_25 (EE), Azizam_25 (EE), Aztec_25 (EE), Baine_26 (EE), BarBear_25 (EE), Belthelas_25 (EE), BinkBonk_25 (EE), Bintii_26 (EE), Biscayne_25 (EE), Bodhi17_25 (EE), BonaeVitae_27 (EE), BoomRoasted_25 (EE), Bradley2_25 (EE), Bri160_25 (EE), BrokMonster_25 (EE), Bullzi2019_26 (EE), Burgy_25 (EE), BurtonThePup_25 (EE), Cayde6_26 (EE), Cazares_25 (EE), Charbie_25 (EE), Chatham_25 (EE), Cheesecake_25 (EE), Ciel_25 (EE), Clownery_25 (EE), Concrete_25 (EE), DaftyDuck_27 (EE), Danimal_25 (EE), Danno_25 (EE), Dongwon_25 (EE), Dooby_25 (EE), Duggie_25 (EE), EdElric_25 (EE), Efeko_27 (EE), Eightball_25 (EE), Ekko14_26 (EE), Elspeth_27 (EE), Erin_25 (EE), Gabbspett_26 (EE), Gardevoir_25 (EE), Gillker_25 (EE), Godfather_25 (EE), GoldenBlanche_26 (EE), Goobery_25 (EE), HarperAnne_26 (EE), Hernandez44_25 (EE), Horacetta_25 (EE), Hulk_25 (EE), JRok_25 (EE), Jahseh_25 (EE), JaimeB_25 (EE), Jannah_25 (EE), Jerky_25 (EE), JoBros_25 (EE), JooneeDee_26 (EE), Josuke_25 (EE), Kaijohn_25 (EE), KayPaulus_25 (EE), Kevanna_25 (EE), KillerTomato_25 (EE), Kojax4_25 (EE), KyriosFaba_25 (EE), LaviMo_25 (EE), Leafy_25 (EE), LemonPepper_26 (EE), LionelHutz_25 (EE), Livingwater_25 (EE), Loca_25 (EE), Lola20_25 (EE), Lunatic_25 (EE), Luxx_25 (EE), Majesty_25 (EE), ManAs_25 (EE), Maneater_27 (EE), MasterPitts_27 (EE), McShie_25 (EE), MelBee03_25 (EE), Miaurora_25 (EE), Minima_25 (EE), MirimarMandM_25 (EE), MrGreen_25 (EE), Naby_26 (EE), Namsahir_27 (EE),

NeumannU_25 (EE), Niffler_25 (EE), Nobel_25 (EE), Noelani_25 (EE), Oaklynn_26 (EE), Octopus_25 (EE), Otwor_25 (EE), Owens_25 (EE), PaoPu_25 (EE), Picnic_25 (EE), PoRanda_25 (EE), Pondwater_25 (EE), Publix_26 (EE), Puddles3_26 (EE), PuffyCat_25 (EE), Quaker_25 (EE), Rhogar_25 (EE), Rhysand_25 (EE), RoscoWindex_27 (EE), Sage7_28 (EE), SantasSleigh_25 (EE), Sara_25 (EE), Scamander_25 (EE), Scrunchy_25 (EE), SeaWolves_25 (EE), Sippinontea_25 (EE), Slentz_25 (EE), Slizam_25 (EE), Snuffles_27 (EE), Stem_25 (EE), TeddyBoy_25 (EE), TimoTea_25 (EE), TinyTruffula_25 (EE), TomBrady12_26 (EE), Trireme_25 (EE), Upsilon_25 (EE), Vanisius_25 (EE), VitulaEligans_25 (EE), Witch_25 (EE), Wolfpack_25 (EE), Yami_25 (EE), Yasuo_25 (EE), YertPhresh_25 (EE), Yubaba_25 (EE),

Start 25:

- Found in 4 of 175 (2.3%) of genes in pham
- Manual Annotations of this start: 3 of 155
- Called 75.0% of time when present
- Phage (with cluster) where this start called: Adaia_28 (AX), MooKitty_25 (AX), Sputnik_23 (AX),

Start 26:

- Found in 2 of 175 (1.1%) of genes in pham
- Manual Annotations of this start: 1 of 155
- Called 50.0% of time when present
- Phage (with cluster) where this start called: Atraxa_23 (AX),

Start 30:

- Found in 40 of 175 (22.9%) of genes in pham
- Manual Annotations of this start: 3 of 155
- Called 7.5% of time when present
- Phage (with cluster) where this start called: Arielagos_23 (AN), Kels_23 (AN), SerialPhiller_23 (AN),

Summary by clusters:

There are 3 clusters represented in this pham: EE, AX, AN,

Info for manual annotations of cluster AN:

- Start number 22 was manually annotated 37 times for cluster AN.
- Start number 30 was manually annotated 3 times for cluster AN.

Info for manual annotations of cluster AX:

- Start number 25 was manually annotated 3 times for cluster AX.
- Start number 26 was manually annotated 1 time for cluster AX.

Info for manual annotations of cluster EE:

- Start number 23 was manually annotated 111 times for cluster EE.

Gene Information:

Gene: Adaia_28 Start: 15533, Stop: 15820, Start Num: 25

Candidate Starts for Adaia_28:

(16, 15470), (17, 15476), (18, 15500), (Start: 25 @15533 has 3 MA's), (28, 15575), (35, 15653),

Gene: Alucard_25 Start: 16990, Stop: 17289, Start Num: 23

Candidate Starts for Alucard_25:

(Start: 23 @16990 has 111 MA's), (35, 17119), (36, 17122), (38, 17185), (40, 17233), (41, 17242), (43, 17278),

Gene: Anseraureola_25 Start: 17052, Stop: 17351, Start Num: 23

Candidate Starts for Anseraureola_25:

(12, 16950), (Start: 23 @17052 has 111 MA's), (35, 17181), (36, 17184), (38, 17247), (40, 17295), (41, 17304), (43, 17340),

Gene: Arby_26 Start: 15263, Stop: 15529, Start Num: 22

Candidate Starts for Arby_26:

(Start: 22 @15263 has 37 MA's), (Start: 30 @15317 has 3 MA's), (36, 15392), (39, 15476),

Gene: Arielagos_23 Start: 15059, Stop: 15271, Start Num: 30

Candidate Starts for Arielagos_23:

(13, 14903), (24, 15008), (29, 15053), (Start: 30 @15059 has 3 MA's),

Gene: Aries55_25 Start: 17079, Stop: 17378, Start Num: 23

Candidate Starts for Aries55_25:

(12, 16977), (Start: 23 @17079 has 111 MA's), (35, 17208), (36, 17211), (38, 17274), (40, 17322), (41, 17331), (43, 17367),

Gene: Astro16_25 Start: 17072, Stop: 17371, Start Num: 23

Candidate Starts for Astro16_25:

(Start: 23 @17072 has 111 MA's), (35, 17201), (36, 17204), (38, 17267), (40, 17315), (41, 17324), (43, 17360),

Gene: Atraxa_23 Start: 14644, Stop: 14904, Start Num: 26

Candidate Starts for Atraxa_23:

(9, 14467), (11, 14491), (Start: 25 @14623 has 3 MA's), (Start: 26 @14644 has 1 MA's), (28, 14665), (33, 14716), (34, 14734), (37, 14755), (42, 14875),

Gene: Avvas_25 Start: 17079, Stop: 17378, Start Num: 23

Candidate Starts for Avvas_25:

(12, 16977), (Start: 23 @17079 has 111 MA's), (35, 17208), (36, 17211), (38, 17274), (40, 17322), (41, 17331), (43, 17367),

Gene: Azathoth_26 Start: 15263, Stop: 15529, Start Num: 22

Candidate Starts for Azathoth_26:

(Start: 22 @15263 has 37 MA's), (Start: 30 @15317 has 3 MA's), (36, 15392), (39, 15476),

Gene: Azizam_25 Start: 17012, Stop: 17311, Start Num: 23

Candidate Starts for Azizam_25:

(3, 16631), (6, 16640), (12, 16910), (Start: 23 @17012 has 111 MA's), (35, 17141), (36, 17144), (38, 17207), (40, 17255), (41, 17264), (43, 17300),

Gene: Aztec_25 Start: 16995, Stop: 17294, Start Num: 23

Candidate Starts for Aztec_25:

(Start: 23 @16995 has 111 MA's), (35, 17124), (36, 17127), (38, 17190), (40, 17238), (41, 17247), (43, 17283),

Gene: Baine_26 Start: 17015, Stop: 17314, Start Num: 23

Candidate Starts for Baine_26:

(12, 16913), (Start: 23 @17015 has 111 MA's), (35, 17144), (36, 17147), (38, 17210), (40, 17258), (41, 17267), (43, 17303),

Gene: BarBear_25 Start: 17072, Stop: 17371, Start Num: 23

Candidate Starts for BarBear_25:

(Start: 23 @17072 has 111 MA's), (35, 17201), (36, 17204), (38, 17267), (40, 17315), (41, 17324), (43, 17360),

Gene: Belthelas_25 Start: 17128, Stop: 17427, Start Num: 23

Candidate Starts for Belthelas_25:

(12, 17026), (Start: 23 @17128 has 111 MA's), (35, 17257), (36, 17260), (38, 17323), (40, 17371), (41, 17380), (43, 17416),

Gene: BinkBonk_25 Start: 17072, Stop: 17371, Start Num: 23

Candidate Starts for BinkBonk_25:

(Start: 23 @17072 has 111 MA's), (35, 17201), (36, 17204), (38, 17267), (40, 17315), (41, 17324), (43, 17360),

Gene: Bintii_26 Start: 17094, Stop: 17393, Start Num: 23

Candidate Starts for Bintii_26:

(12, 16992), (Start: 23 @17094 has 111 MA's), (35, 17223), (36, 17226), (38, 17289), (40, 17337), (41, 17346), (43, 17382),

Gene: Biscayne_25 Start: 17155, Stop: 17454, Start Num: 23

Candidate Starts for Biscayne_25:

(12, 17053), (14, 17077), (Start: 23 @17155 has 111 MA's), (35, 17284), (36, 17287), (38, 17350), (40, 17398), (41, 17407), (43, 17443),

Gene: Blair_26 Start: 15263, Stop: 15529, Start Num: 22

Candidate Starts for Blair_26:

(Start: 22 @15263 has 37 MA's), (29, 15311), (Start: 30 @15317 has 3 MA's), (36, 15392),

Gene: Bodhi17_25 Start: 17109, Stop: 17408, Start Num: 23

Candidate Starts for Bodhi17_25:

(12, 17007), (Start: 23 @17109 has 111 MA's), (35, 17238), (36, 17241), (38, 17304), (40, 17352), (41, 17361), (43, 17397),

Gene: BonaeVitae_27 Start: 17082, Stop: 17384, Start Num: 23

Candidate Starts for BonaeVitae_27:

(12, 16983), (Start: 23 @17082 has 111 MA's), (35, 17211), (38, 17277), (40, 17325), (41, 17334),

Gene: BoomRoasted_25 Start: 17082, Stop: 17381, Start Num: 23

Candidate Starts for BoomRoasted_25:

(12, 16980), (Start: 23 @17082 has 111 MA's), (35, 17211), (36, 17214), (38, 17277), (40, 17325), (41, 17334), (43, 17370),

Gene: Bradley2_25 Start: 16994, Stop: 17293, Start Num: 23

Candidate Starts for Bradley2_25:

(12, 16892), (Start: 23 @16994 has 111 MA's), (35, 17123), (36, 17126), (38, 17189), (40, 17237), (41, 17246), (43, 17282),

Gene: Bri160_25 Start: 17069, Stop: 17368, Start Num: 23

Candidate Starts for Bri160_25:

(12, 16967), (Start: 23 @17069 has 111 MA's), (35, 17198), (36, 17201), (38, 17264), (40, 17312), (41, 17321), (43, 17357),

Gene: BrokMonster_25 Start: 17060, Stop: 17359, Start Num: 23

Candidate Starts for BrokMonster_25:

(1, 16586), (2, 16658), (12, 16958), (Start: 23 @17060 has 111 MA's), (35, 17189), (36, 17192), (38, 17255), (40, 17303), (41, 17312), (43, 17348),

Gene: Bullzi2019_26 Start: 16770, Stop: 17069, Start Num: 23

Candidate Starts for Bullzi2019_26:

(12, 16668), (Start: 23 @16770 has 111 MA's), (35, 16899), (36, 16902), (38, 16965), (40, 17013), (41, 17022),

Gene: Burgy_25 Start: 17080, Stop: 17379, Start Num: 23

Candidate Starts for Burgy_25:

(12, 16978), (Start: 23 @17080 has 111 MA's), (35, 17209), (36, 17212), (38, 17275), (40, 17323), (41, 17332), (43, 17368),

Gene: BurtonThePup_25 Start: 17072, Stop: 17371, Start Num: 23

Candidate Starts for BurtonThePup_25:

(Start: 23 @17072 has 111 MA's), (35, 17201), (36, 17204), (38, 17267), (40, 17315), (41, 17324), (43, 17360),

Gene: CGermain_26 Start: 15263, Stop: 15529, Start Num: 22

Candidate Starts for CGermain_26:

(Start: 22 @15263 has 37 MA's), (Start: 30 @15317 has 3 MA's), (36, 15392), (39, 15476),

Gene: Cayde6_26 Start: 17015, Stop: 17314, Start Num: 23

Candidate Starts for Cayde6_26:

(12, 16913), (Start: 23 @17015 has 111 MA's), (35, 17144), (36, 17147), (38, 17210), (40, 17258), (41, 17267), (43, 17303),

Gene: Cazares_25 Start: 16542, Stop: 16841, Start Num: 23

Candidate Starts for Cazares_25:

(12, 16440), (Start: 23 @16542 has 111 MA's), (35, 16671), (36, 16674), (38, 16737), (40, 16785), (41, 16794),

Gene: Charbie_25 Start: 17055, Stop: 17354, Start Num: 23

Candidate Starts for Charbie_25:

(12, 16953), (Start: 23 @17055 has 111 MA's), (35, 17184), (36, 17187), (38, 17250), (40, 17298), (41, 17307), (43, 17343),

Gene: Chatham_25 Start: 16989, Stop: 17288, Start Num: 23

Candidate Starts for Chatham_25:

(Start: 23 @16989 has 111 MA's), (35, 17118), (36, 17121), (38, 17184), (40, 17232), (41, 17241), (43, 17277),

Gene: Cheesecake_25 Start: 17080, Stop: 17379, Start Num: 23

Candidate Starts for Cheesecake_25:

(12, 16978), (Start: 23 @17080 has 111 MA's), (35, 17209), (36, 17212), (38, 17275), (40, 17323), (41, 17332), (43, 17368),

Gene: Chestnut_27 Start: 15263, Stop: 15529, Start Num: 22

Candidate Starts for Chestnut_27:

(Start: 22 @15263 has 37 MA's), (Start: 30 @15317 has 3 MA's), (36, 15392), (39, 15476),

Gene: Ciel_25 Start: 17072, Stop: 17371, Start Num: 23

Candidate Starts for Ciel_25:

(Start: 23 @17072 has 111 MA's), (35, 17201), (36, 17204), (38, 17267), (40, 17315), (41, 17324), (43, 17360),

Gene: Clownery_25 Start: 16668, Stop: 16967, Start Num: 23

Candidate Starts for Clownery_25:

(12, 16566), (Start: 23 @16668 has 111 MA's), (35, 16797), (36, 16800), (38, 16863), (40, 16911), (41, 16920),

Gene: Concrete_25 Start: 17059, Stop: 17358, Start Num: 23

Candidate Starts for Concrete_25:

(12, 16957), (Start: 23 @17059 has 111 MA's), (35, 17188), (36, 17191), (38, 17254), (40, 17302), (41, 17311), (43, 17347),

Gene: Copper_26 Start: 15263, Stop: 15529, Start Num: 22

Candidate Starts for Copper_26:

(Start: 22 @15263 has 37 MA's), (Start: 30 @15317 has 3 MA's), (36, 15392), (39, 15476),

Gene: Courtney3_26 Start: 15263, Stop: 15529, Start Num: 22

Candidate Starts for Courtney3_26:

(Start: 22 @15263 has 37 MA's), (Start: 30 @15317 has 3 MA's), (36, 15392), (39, 15476),

Gene: DaftyDuck_27 Start: 17012, Stop: 17311, Start Num: 23

Candidate Starts for DaftyDuck_27:

(12, 16910), (Start: 23 @17012 has 111 MA's), (35, 17141), (36, 17144), (38, 17207), (40, 17255), (41, 17264),

Gene: Danimal_25 Start: 16991, Stop: 17290, Start Num: 23

Candidate Starts for Danimal_25:

(12, 16889), (Start: 23 @16991 has 111 MA's), (35, 17120), (36, 17123), (38, 17186), (40, 17234), (41, 17243), (43, 17279),

Gene: Danno_25 Start: 17079, Stop: 17378, Start Num: 23

Candidate Starts for Danno_25:

(12, 16977), (Start: 23 @17079 has 111 MA's), (35, 17208), (36, 17211), (38, 17274), (40, 17322), (41, 17331), (43, 17367),

Gene: Decurro_26 Start: 15231, Stop: 15497, Start Num: 22

Candidate Starts for Decurro_26:

(Start: 22 @15231 has 37 MA's), (Start: 30 @15285 has 3 MA's), (36, 15360), (39, 15444),

Gene: Dewayne_26 Start: 15263, Stop: 15529, Start Num: 22

Candidate Starts for Dewayne_26:

(Start: 22 @15263 has 37 MA's), (Start: 30 @15317 has 3 MA's), (36, 15392), (39, 15476),

Gene: Dongwon_25 Start: 16989, Stop: 17288, Start Num: 23

Candidate Starts for Dongwon_25:

(Start: 23 @16989 has 111 MA's), (35, 17118), (36, 17121), (38, 17184), (40, 17232), (41, 17241), (43, 17277),

Gene: Dooby_25 Start: 16989, Stop: 17288, Start Num: 23

Candidate Starts for Dooby_25:

(Start: 23 @16989 has 111 MA's), (35, 17118), (36, 17121), (38, 17184), (40, 17232), (41, 17241), (43, 17277),

Gene: Douggie_25 Start: 17065, Stop: 17364, Start Num: 23

Candidate Starts for Douggie_25:

(12, 16963), (Start: 23 @17065 has 111 MA's), (35, 17194), (36, 17197), (38, 17260), (40, 17308), (41, 17317), (43, 17353),

Gene: EdElric_25 Start: 16989, Stop: 17288, Start Num: 23

Candidate Starts for EdElric_25:

(12, 16887), (Start: 23 @16989 has 111 MA's), (35, 17118), (36, 17121), (38, 17184), (40, 17232), (41, 17241), (43, 17277),

Gene: Efeke_27 Start: 16867, Stop: 17157, Start Num: 23

Candidate Starts for Efeke_27:

(Start: 23 @16867 has 111 MA's), (35, 16996), (36, 16999), (38, 17062), (40, 17110),

Gene: Eightball_25 Start: 17066, Stop: 17365, Start Num: 23

Candidate Starts for Eightball_25:

(12, 16964), (Start: 23 @17066 has 111 MA's), (35, 17195), (36, 17198), (38, 17261), (40, 17309), (41, 17318), (43, 17354),

Gene: Ekko14_26 Start: 16744, Stop: 17043, Start Num: 23

Candidate Starts for Ekko14_26:

(12, 16642), (Start: 23 @16744 has 111 MA's), (35, 16873), (36, 16876), (38, 16939), (40, 16987), (41, 16996), (43, 17032),

Gene: Elkhorn_26 Start: 15263, Stop: 15529, Start Num: 22

Candidate Starts for Elkhorn_26:

(Start: 22 @15263 has 37 MA's), (29, 15311), (Start: 30 @15317 has 3 MA's), (36, 15392),

Gene: Elspeth_27 Start: 16744, Stop: 17043, Start Num: 23

Candidate Starts for Elspeth_27:

(12, 16642), (Start: 23 @16744 has 111 MA's), (35, 16873), (36, 16876), (38, 16939), (40, 16987), (41, 16996), (43, 17032),

Gene: Erin_25 Start: 16987, Stop: 17286, Start Num: 23

Candidate Starts for Erin_25:

(Start: 23 @16987 has 111 MA's), (35, 17116), (36, 17119), (38, 17182), (40, 17230), (41, 17239), (43, 17275),

Gene: Gabbspett_26 Start: 17109, Stop: 17408, Start Num: 23

Candidate Starts for Gabbspett_26:

(12, 17007), (Start: 23 @17109 has 111 MA's), (35, 17238), (36, 17241), (38, 17304), (40, 17352), (41, 17361), (43, 17397),

Gene: Gardevoir_25 Start: 17023, Stop: 17322, Start Num: 23

Candidate Starts for Gardevoir_25:

(Start: 23 @17023 has 111 MA's), (35, 17152), (36, 17155), (38, 17218), (40, 17266), (41, 17275), (43, 17311),

Gene: Gillker_25 Start: 16988, Stop: 17287, Start Num: 23

Candidate Starts for Gillker_25:

(12, 16886), (Start: 23 @16988 has 111 MA's), (35, 17117), (36, 17120), (38, 17183), (40, 17231), (41, 17240), (43, 17276),

Gene: Godfather_25 Start: 17079, Stop: 17378, Start Num: 23

Candidate Starts for Godfather_25:

(12, 16977), (Start: 23 @17079 has 111 MA's), (35, 17208), (36, 17211), (38, 17274), (40, 17322), (41, 17331), (43, 17367),

Gene: GoldenBlanche_26 Start: 16989, Stop: 17288, Start Num: 23

Candidate Starts for GoldenBlanche_26:

(Start: 23 @16989 has 111 MA's), (35, 17118), (36, 17121), (38, 17184), (40, 17232), (41, 17241), (43, 17277),

Gene: Goobery_25 Start: 17072, Stop: 17371, Start Num: 23

Candidate Starts for Goobery_25:

(Start: 23 @17072 has 111 MA's), (35, 17201), (36, 17204), (38, 17267), (40, 17315), (41, 17324), (43, 17360),

Gene: Guntur_26 Start: 15263, Stop: 15529, Start Num: 22

Candidate Starts for Guntur_26:

(Start: 22 @15263 has 37 MA's), (Start: 30 @15317 has 3 MA's), (36, 15392), (39, 15476),

Gene: HarperAnne_26 Start: 16743, Stop: 17042, Start Num: 23

Candidate Starts for HarperAnne_26:

(12, 16641), (Start: 23 @16743 has 111 MA's), (35, 16872), (36, 16875), (38, 16938), (40, 16986), (41, 16995), (43, 17031),

Gene: Hernandez44_25 Start: 17104, Stop: 17403, Start Num: 23

Candidate Starts for Hernandez44_25:

(Start: 23 @17104 has 111 MA's), (35, 17233), (36, 17236), (38, 17299), (40, 17347), (41, 17356), (43, 17392),

Gene: Horacetta_25 Start: 16989, Stop: 17288, Start Num: 23

Candidate Starts for Horacetta_25:

(Start: 23 @16989 has 111 MA's), (35, 17118), (36, 17121), (38, 17184), (40, 17232), (41, 17241), (43, 17277),

Gene: Hulk_25 Start: 17022, Stop: 17321, Start Num: 23

Candidate Starts for Hulk_25:

(4, 16653), (7, 16662), (12, 16920), (Start: 23 @17022 has 111 MA's), (35, 17151), (36, 17154), (38, 17217), (40, 17265), (41, 17274), (43, 17310),

Gene: Hunnie_26 Start: 15263, Stop: 15529, Start Num: 22

Candidate Starts for Hunnie_26:

(Start: 22 @15263 has 37 MA's), (Start: 30 @15317 has 3 MA's), (36, 15392), (39, 15476),

Gene: Inspire2_26 Start: 15263, Stop: 15529, Start Num: 22

Candidate Starts for Inspire2_26:

(Start: 22 @15263 has 37 MA's), (Start: 30 @15317 has 3 MA's), (36, 15392), (39, 15476),

Gene: JRok_25 Start: 17009, Stop: 17308, Start Num: 23

Candidate Starts for JRok_25:

(1, 16535), (2, 16607), (12, 16907), (Start: 23 @17009 has 111 MA's), (35, 17138), (36, 17141), (38, 17204), (40, 17252), (41, 17261), (43, 17297),

Gene: Jahseh_25 Start: 16995, Stop: 17294, Start Num: 23

Candidate Starts for Jahseh_25:

(12, 16893), (Start: 23 @16995 has 111 MA's), (35, 17124), (36, 17127), (38, 17190), (40, 17238), (41, 17247), (43, 17283),

Gene: JaimeB_25 Start: 17072, Stop: 17371, Start Num: 23

Candidate Starts for JaimeB_25:

(Start: 23 @17072 has 111 MA's), (35, 17201), (36, 17204), (38, 17267), (40, 17315), (41, 17324), (43, 17360),

Gene: Jannah_25 Start: 17055, Stop: 17354, Start Num: 23

Candidate Starts for Jannah_25:

(Start: 23 @17055 has 111 MA's), (35, 17184), (36, 17187), (38, 17250), (40, 17298), (41, 17307), (43, 17343),

Gene: Jerky_25 Start: 17154, Stop: 17453, Start Num: 23

Candidate Starts for Jerky_25:

(12, 17052), (Start: 23 @17154 has 111 MA's), (35, 17283), (36, 17286), (38, 17349), (40, 17397), (41, 17406), (43, 17442),

Gene: JoBros_25 Start: 16990, Stop: 17289, Start Num: 23

Candidate Starts for JoBros_25:

(Start: 23 @16990 has 111 MA's), (35, 17119), (36, 17122), (38, 17185), (40, 17233), (41, 17242), (43, 17278),

Gene: JooneeDee_26 Start: 17094, Stop: 17393, Start Num: 23

Candidate Starts for JooneeDee_26:

(12, 16992), (Start: 23 @17094 has 111 MA's), (35, 17223), (36, 17226), (38, 17289), (40, 17337), (41, 17346), (43, 17382),

Gene: Josuke_25 Start: 17080, Stop: 17379, Start Num: 23

Candidate Starts for Josuke_25:

(12, 16978), (Start: 23 @17080 has 111 MA's), (35, 17209), (36, 17212), (38, 17275), (40, 17323), (41, 17332), (43, 17368),

Gene: Kaijohn_25 Start: 17052, Stop: 17351, Start Num: 23

Candidate Starts for Kaijohn_25:

(12, 16950), (Start: 23 @17052 has 111 MA's), (35, 17181), (36, 17184), (38, 17247), (40, 17295), (41, 17304), (43, 17340),

Gene: KayPaulus_25 Start: 17082, Stop: 17381, Start Num: 23

Candidate Starts for KayPaulus_25:

(12, 16980), (Start: 23 @17082 has 111 MA's), (35, 17211), (36, 17214), (38, 17277), (40, 17325), (41, 17334), (43, 17370),

Gene: Kels_23 Start: 14592, Stop: 14804, Start Num: 30

Candidate Starts for Kels_23:

(19, 14523), (Start: 22 @14538 has 37 MA's), (29, 14586), (Start: 30 @14592 has 3 MA's), (31, 14628), (39, 14751),

Gene: Kevanna_25 Start: 17068, Stop: 17367, Start Num: 23

Candidate Starts for Kevanna_25:

(12, 16966), (Start: 23 @17068 has 111 MA's), (35, 17197), (36, 17200), (38, 17263), (40, 17311), (41, 17320), (43, 17356),

Gene: KillerTomato_25 Start: 17069, Stop: 17368, Start Num: 23

Candidate Starts for KillerTomato_25:

(12, 16967), (Start: 23 @17069 has 111 MA's), (35, 17198), (36, 17201), (38, 17264), (40, 17312), (41, 17321), (43, 17357),

Gene: Kojax4_25 Start: 17079, Stop: 17378, Start Num: 23

Candidate Starts for Kojax4_25:

(12, 16977), (Start: 23 @17079 has 111 MA's), (35, 17208), (36, 17211), (38, 17274), (40, 17322), (41, 17331), (43, 17367),

Gene: KylieMac_27 Start: 15247, Stop: 15513, Start Num: 22

Candidate Starts for KylieMac_27:

(Start: 22 @15247 has 37 MA's), (29, 15295), (Start: 30 @15301 has 3 MA's), (36, 15376),

Gene: KyriosFaba_25 Start: 16989, Stop: 17288, Start Num: 23

Candidate Starts for KyriosFaba_25:

(12, 16887), (Start: 23 @16989 has 111 MA's), (35, 17118), (36, 17121), (38, 17184), (40, 17232), (41, 17241), (43, 17277),

Gene: Laila_28 Start: 15263, Stop: 15529, Start Num: 22

Candidate Starts for Laila_28:

(Start: 22 @15263 has 37 MA's), (29, 15311), (Start: 30 @15317 has 3 MA's), (36, 15392),

Gene: LaviMo_25 Start: 17080, Stop: 17379, Start Num: 23

Candidate Starts for LaviMo_25:

(12, 16978), (Start: 23 @17080 has 111 MA's), (35, 17209), (36, 17212), (38, 17275), (40, 17323), (41, 17332), (43, 17368),

Gene: Leafy_25 Start: 17034, Stop: 17333, Start Num: 23

Candidate Starts for Leafy_25:

(12, 16932), (Start: 23 @17034 has 111 MA's), (35, 17163), (36, 17166), (38, 17229), (40, 17277), (41, 17286), (43, 17322),

Gene: LemonPepper_26 Start: 16989, Stop: 17288, Start Num: 23

Candidate Starts for LemonPepper_26:

(Start: 23 @16989 has 111 MA's), (35, 17118), (36, 17121), (38, 17184), (40, 17232), (41, 17241), (43, 17277),

Gene: Link_26 Start: 15228, Stop: 15494, Start Num: 22

Candidate Starts for Link_26:

(Start: 22 @15228 has 37 MA's), (Start: 30 @15282 has 3 MA's), (36, 15357), (39, 15441),

Gene: LionelHutz_25 Start: 17075, Stop: 17374, Start Num: 23
Candidate Starts for LionelHutz_25:
(12, 16973), (Start: 23 @17075 has 111 MA's), (35, 17204), (36, 17207), (38, 17270), (40, 17318), (41, 17327), (43, 17363),

Gene: Livingwater_25 Start: 17077, Stop: 17376, Start Num: 23
Candidate Starts for Livingwater_25:
(12, 16975), (Start: 23 @17077 has 111 MA's), (35, 17206), (36, 17209), (38, 17272), (40, 17320), (41, 17329), (43, 17365),

Gene: Loca_25 Start: 17102, Stop: 17401, Start Num: 23
Candidate Starts for Loca_25:
(12, 17000), (Start: 23 @17102 has 111 MA's), (35, 17231), (36, 17234), (38, 17297), (40, 17345), (41, 17354), (43, 17390),

Gene: Lola20_25 Start: 17015, Stop: 17314, Start Num: 23
Candidate Starts for Lola20_25:
(12, 16913), (Start: 23 @17015 has 111 MA's), (35, 17144), (36, 17147), (38, 17210), (40, 17258), (41, 17267), (43, 17303),

Gene: Lore_26 Start: 15263, Stop: 15529, Start Num: 22
Candidate Starts for Lore_26:
(Start: 22 @15263 has 37 MA's), (29, 15311), (Start: 30 @15317 has 3 MA's), (36, 15392),

Gene: LouisXIV_26 Start: 15263, Stop: 15529, Start Num: 22
Candidate Starts for LouisXIV_26:
(Start: 22 @15263 has 37 MA's), (Start: 30 @15317 has 3 MA's), (36, 15392), (39, 15476),

Gene: Lunatic_25 Start: 16542, Stop: 16841, Start Num: 23
Candidate Starts for Lunatic_25:
(12, 16440), (Start: 23 @16542 has 111 MA's), (35, 16671), (36, 16674), (38, 16737), (40, 16785), (41, 16794),

Gene: Luxx_25 Start: 17090, Stop: 17389, Start Num: 23
Candidate Starts for Luxx_25:
(Start: 23 @17090 has 111 MA's), (35, 17219), (36, 17222), (38, 17285), (40, 17333), (41, 17342), (43, 17378),

Gene: Maggie_26 Start: 15263, Stop: 15529, Start Num: 22
Candidate Starts for Maggie_26:
(Start: 22 @15263 has 37 MA's), (Start: 30 @15317 has 3 MA's), (36, 15392), (39, 15476),

Gene: Majesty_25 Start: 17071, Stop: 17370, Start Num: 23
Candidate Starts for Majesty_25:
(Start: 23 @17071 has 111 MA's), (35, 17200), (36, 17203), (38, 17266), (40, 17314), (41, 17323), (43, 17359),

Gene: ManAs_25 Start: 16989, Stop: 17288, Start Num: 23
Candidate Starts for ManAs_25:
(Start: 23 @16989 has 111 MA's), (35, 17118), (36, 17121), (38, 17184), (40, 17232), (41, 17241), (43, 17277),

Gene: Maneater_27 Start: 17054, Stop: 17353, Start Num: 23

Candidate Starts for Maneater_27:

(12, 16952), (Start: 23 @17054 has 111 MA's), (35, 17183), (36, 17186), (38, 17249), (40, 17297), (41, 17306), (43, 17342),

Gene: Mariposa_26 Start: 15263, Stop: 15529, Start Num: 22

Candidate Starts for Mariposa_26:

(Start: 22 @15263 has 37 MA's), (Start: 30 @15317 has 3 MA's), (36, 15392), (39, 15476),

Gene: Massimo_26 Start: 15263, Stop: 15529, Start Num: 22

Candidate Starts for Massimo_26:

(Start: 22 @15263 has 37 MA's), (Start: 30 @15317 has 3 MA's), (36, 15392), (39, 15476),

Gene: MasterPitts_27 Start: 17012, Stop: 17311, Start Num: 23

Candidate Starts for MasterPitts_27:

(12, 16910), (Start: 23 @17012 has 111 MA's), (35, 17141), (36, 17144), (38, 17207), (40, 17255), (41, 17264),

Gene: McShie_25 Start: 17061, Stop: 17360, Start Num: 23

Candidate Starts for McShie_25:

(1, 16587), (2, 16659), (12, 16959), (Start: 23 @17061 has 111 MA's), (35, 17190), (36, 17193), (38, 17256), (40, 17304), (41, 17313), (43, 17349),

Gene: MelBee03_25 Start: 17068, Stop: 17367, Start Num: 23

Candidate Starts for MelBee03_25:

(12, 16966), (Start: 23 @17068 has 111 MA's), (35, 17197), (36, 17200), (38, 17263), (40, 17311), (41, 17320), (43, 17356),

Gene: Miaurora_25 Start: 16659, Stop: 16958, Start Num: 23

Candidate Starts for Miaurora_25:

(12, 16557), (Start: 23 @16659 has 111 MA's), (35, 16788), (36, 16791), (38, 16854), (40, 16902), (41, 16911),

Gene: Minima_25 Start: 16989, Stop: 17288, Start Num: 23

Candidate Starts for Minima_25:

(Start: 23 @16989 has 111 MA's), (35, 17118), (36, 17121), (38, 17184), (40, 17232), (41, 17241), (43, 17277),

Gene: MirimarMandM_25 Start: 17137, Stop: 17436, Start Num: 23

Candidate Starts for MirimarMandM_25:

(12, 17035), (Start: 23 @17137 has 111 MA's), (35, 17266), (36, 17269), (38, 17332), (40, 17380), (41, 17389), (43, 17425),

Gene: Moloch_26 Start: 15337, Stop: 15603, Start Num: 22

Candidate Starts for Moloch_26:

(Start: 22 @15337 has 37 MA's), (Start: 30 @15391 has 3 MA's), (36, 15466), (39, 15550),

Gene: MooKitty_25 Start: 15668, Stop: 15949, Start Num: 25

Candidate Starts for MooKitty_25:

(18, 15635), (20, 15650), (21, 15653), (Start: 25 @15668 has 3 MA's), (27, 15701), (32, 15758), (42, 15920),

Gene: MrGreen_25 Start: 17048, Stop: 17347, Start Num: 23

Candidate Starts for MrGreen_25:

(12, 16946), (Start: 23 @17048 has 111 MA's), (35, 17177), (36, 17180), (38, 17243), (40, 17291), (41, 17300), (43, 17336),

Gene: Muttlie_26 Start: 15231, Stop: 15497, Start Num: 22

Candidate Starts for Muttlie_26:

(Start: 22 @15231 has 37 MA's), (Start: 30 @15285 has 3 MA's), (36, 15360), (39, 15444),

Gene: Naby_26 Start: 17079, Stop: 17381, Start Num: 23

Candidate Starts for Naby_26:

(5, 16722), (12, 16980), (Start: 23 @17079 has 111 MA's), (35, 17208), (38, 17274), (40, 17322), (41, 17331),

Gene: Namsahir_27 Start: 16803, Stop: 17102, Start Num: 23

Candidate Starts for Namsahir_27:

(12, 16701), (Start: 23 @16803 has 111 MA's), (35, 16932), (36, 16935), (38, 16998), (40, 17046), (41, 17055),

Gene: NeumannU_25 Start: 17072, Stop: 17371, Start Num: 23

Candidate Starts for NeumannU_25:

(Start: 23 @17072 has 111 MA's), (35, 17201), (36, 17204), (38, 17267), (40, 17315), (41, 17324), (43, 17360),

Gene: Niffler_25 Start: 16650, Stop: 16949, Start Num: 23

Candidate Starts for Niffler_25:

(12, 16548), (Start: 23 @16650 has 111 MA's), (35, 16779), (36, 16782), (38, 16845), (40, 16893), (41, 16902),

Gene: Nobel_25 Start: 16676, Stop: 16975, Start Num: 23

Candidate Starts for Nobel_25:

(12, 16574), (Start: 23 @16676 has 111 MA's), (35, 16805), (36, 16808), (38, 16871), (40, 16919), (41, 16928),

Gene: Noelani_25 Start: 16975, Stop: 17274, Start Num: 23

Candidate Starts for Noelani_25:

(8, 16711), (12, 16873), (14, 16897), (Start: 23 @16975 has 111 MA's), (36, 17107), (38, 17170), (40, 17218), (41, 17227), (43, 17263),

Gene: Oaklynn_26 Start: 17012, Stop: 17311, Start Num: 23

Candidate Starts for Oaklynn_26:

(3, 16631), (6, 16640), (12, 16910), (Start: 23 @17012 has 111 MA's), (35, 17141), (36, 17144), (38, 17207), (40, 17255), (41, 17264), (43, 17300),

Gene: Octopus_25 Start: 16995, Stop: 17294, Start Num: 23

Candidate Starts for Octopus_25:

(Start: 23 @16995 has 111 MA's), (35, 17124), (36, 17127), (38, 17190), (40, 17238), (41, 17247), (43, 17283),

Gene: Otwor_25 Start: 17081, Stop: 17380, Start Num: 23

Candidate Starts for Otwor_25:

(12, 16979), (Start: 23 @17081 has 111 MA's), (35, 17210), (36, 17213), (38, 17276), (40, 17324), (41, 17333), (43, 17369),

Gene: Owens_25 Start: 17072, Stop: 17371, Start Num: 23

Candidate Starts for Owens_25:

(Start: 23 @17072 has 111 MA's), (35, 17201), (36, 17204), (38, 17267), (40, 17315), (41, 17324), (43, 17360),

Gene: PaoPu_25 Start: 16989, Stop: 17288, Start Num: 23

Candidate Starts for PaoPu_25:

(Start: 23 @16989 has 111 MA's), (35, 17118), (36, 17121), (38, 17184), (40, 17232), (41, 17241), (43, 17277),

Gene: Picnic_25 Start: 16989, Stop: 17288, Start Num: 23

Candidate Starts for Picnic_25:

(Start: 23 @16989 has 111 MA's), (35, 17118), (36, 17121), (38, 17184), (40, 17232), (41, 17241), (43, 17277),

Gene: PoRanda_25 Start: 17137, Stop: 17436, Start Num: 23

Candidate Starts for PoRanda_25:

(12, 17035), (Start: 23 @17137 has 111 MA's), (35, 17266), (36, 17269), (38, 17332), (40, 17380), (41, 17389), (43, 17425),

Gene: Pondwater_25 Start: 16989, Stop: 17288, Start Num: 23

Candidate Starts for Pondwater_25:

(Start: 23 @16989 has 111 MA's), (35, 17118), (36, 17121), (38, 17184), (40, 17232), (41, 17241), (43, 17277),

Gene: Prospero_26 Start: 15263, Stop: 15529, Start Num: 22

Candidate Starts for Prospero_26:

(Start: 22 @15263 has 37 MA's), (Start: 30 @15317 has 3 MA's), (36, 15392), (39, 15476),

Gene: Publix_26 Start: 16803, Stop: 17102, Start Num: 23

Candidate Starts for Publix_26:

(12, 16701), (Start: 23 @16803 has 111 MA's), (35, 16932), (36, 16935), (38, 16998), (40, 17046), (41, 17055),

Gene: Puddles3_26 Start: 16989, Stop: 17288, Start Num: 23

Candidate Starts for Puddles3_26:

(Start: 23 @16989 has 111 MA's), (35, 17118), (36, 17121), (38, 17184), (40, 17232), (41, 17241), (43, 17277),

Gene: PuffyCat_25 Start: 16593, Stop: 16892, Start Num: 23

Candidate Starts for PuffyCat_25:

(12, 16491), (Start: 23 @16593 has 111 MA's), (35, 16722), (36, 16725), (38, 16788), (40, 16836), (41, 16845),

Gene: Quaker_25 Start: 17077, Stop: 17376, Start Num: 23

Candidate Starts for Quaker_25:

(12, 16975), (Start: 23 @17077 has 111 MA's), (35, 17206), (36, 17209), (38, 17272), (40, 17320), (41, 17329), (43, 17365),

Gene: Rhogar_25 Start: 17075, Stop: 17374, Start Num: 23

Candidate Starts for Rhogar_25:

(12, 16973), (Start: 23 @17075 has 111 MA's), (35, 17204), (36, 17207), (38, 17270), (40, 17318), (41, 17327), (43, 17363),

Gene: Rhysand_25 Start: 17080, Stop: 17379, Start Num: 23

Candidate Starts for Rhysand_25:

(12, 16978), (Start: 23 @17080 has 111 MA's), (35, 17209), (36, 17212), (38, 17275), (40, 17323), (41, 17332), (43, 17368),

Gene: Ronnie_26 Start: 15263, Stop: 15529, Start Num: 22

Candidate Starts for Ronnie_26:

(Start: 22 @15263 has 37 MA's), (Start: 30 @15317 has 3 MA's), (36, 15392), (39, 15476),

Gene: RoscoWindex_27 Start: 17080, Stop: 17379, Start Num: 23

Candidate Starts for RoscoWindex_27:

(12, 16978), (Start: 23 @17080 has 111 MA's), (35, 17209), (36, 17212), (38, 17275), (40, 17323), (41, 17332), (43, 17368),

Gene: Sage7_28 Start: 17079, Stop: 17378, Start Num: 23

Candidate Starts for Sage7_28:

(12, 16977), (Start: 23 @17079 has 111 MA's), (35, 17208), (36, 17211), (38, 17274), (40, 17322), (41, 17331), (43, 17367),

Gene: Sandman_26 Start: 15337, Stop: 15603, Start Num: 22

Candidate Starts for Sandman_26:

(Start: 22 @15337 has 37 MA's), (Start: 30 @15391 has 3 MA's), (36, 15466), (39, 15550),

Gene: SantasSleigh_25 Start: 17103, Stop: 17402, Start Num: 23

Candidate Starts for SantasSleigh_25:

(12, 17001), (Start: 23 @17103 has 111 MA's), (35, 17232), (36, 17235), (38, 17298), (40, 17346), (41, 17355), (43, 17391),

Gene: Saphira_27 Start: 15256, Stop: 15522, Start Num: 22

Candidate Starts for Saphira_27:

(Start: 22 @15256 has 37 MA's), (29, 15304), (Start: 30 @15310 has 3 MA's), (36, 15385),

Gene: Sara_25 Start: 16989, Stop: 17288, Start Num: 23

Candidate Starts for Sara_25:

(Start: 23 @16989 has 111 MA's), (35, 17118), (36, 17121), (38, 17184), (40, 17232), (41, 17241), (43, 17277),

Gene: Scamander_25 Start: 17079, Stop: 17378, Start Num: 23

Candidate Starts for Scamander_25:

(12, 16977), (Start: 23 @17079 has 111 MA's), (35, 17208), (36, 17211), (38, 17274), (40, 17322), (41, 17331), (43, 17367),

Gene: Scrunchy_25 Start: 17072, Stop: 17371, Start Num: 23

Candidate Starts for Scrunchy_25:

(Start: 23 @17072 has 111 MA's), (35, 17201), (36, 17204), (38, 17267), (40, 17315), (41, 17324), (43, 17360),

Gene: SeaWolves_25 Start: 16989, Stop: 17288, Start Num: 23

Candidate Starts for SeaWolves_25:

(Start: 23 @16989 has 111 MA's), (35, 17118), (36, 17121), (38, 17184), (40, 17232), (41, 17241), (43, 17277),

Gene: SerialPhiller_23 Start: 15059, Stop: 15271, Start Num: 30

Candidate Starts for SerialPhiller_23:
(13, 14903), (24, 15008), (29, 15053), (Start: 30 @15059 has 3 MA's),

Gene: Seume_26 Start: 15026, Stop: 15292, Start Num: 22
Candidate Starts for Seume_26:
(Start: 22 @15026 has 37 MA's), (Start: 30 @15080 has 3 MA's), (36, 15155), (39, 15239),

Gene: Sippinontea_25 Start: 17100, Stop: 17399, Start Num: 23
Candidate Starts for Sippinontea_25:
(12, 16998), (Start: 23 @17100 has 111 MA's), (35, 17229), (36, 17232), (38, 17295), (40, 17343), (41, 17352), (43, 17388),

Gene: Slentz_25 Start: 17072, Stop: 17371, Start Num: 23
Candidate Starts for Slentz_25:
(Start: 23 @17072 has 111 MA's), (35, 17201), (36, 17204), (38, 17267), (40, 17315), (41, 17324), (43, 17360),

Gene: Slizam_25 Start: 16598, Stop: 16897, Start Num: 23
Candidate Starts for Slizam_25:
(12, 16496), (Start: 23 @16598 has 111 MA's), (35, 16727), (36, 16730), (38, 16793), (40, 16841), (41, 16850),

Gene: Snuffles_27 Start: 16951, Stop: 17250, Start Num: 23
Candidate Starts for Snuffles_27:
(12, 16849), (Start: 23 @16951 has 111 MA's), (35, 17080), (36, 17083), (38, 17146), (40, 17194), (41, 17203),

Gene: Sourignavong_27 Start: 15332, Stop: 15598, Start Num: 22
Candidate Starts for Sourignavong_27:
(Start: 22 @15332 has 37 MA's), (Start: 30 @15386 has 3 MA's), (36, 15461), (39, 15545),

Gene: Sputnik_23 Start: 14623, Stop: 14904, Start Num: 25
Candidate Starts for Sputnik_23:
(9, 14467), (11, 14491), (Start: 25 @14623 has 3 MA's), (Start: 26 @14644 has 1 MA's), (28, 14665), (33, 14716), (34, 14734), (37, 14755), (42, 14875),

Gene: Stem_25 Start: 16608, Stop: 16907, Start Num: 23
Candidate Starts for Stem_25:
(12, 16506), (Start: 23 @16608 has 111 MA's), (35, 16737), (36, 16740), (38, 16803), (40, 16851), (41, 16860),

Gene: StewieGriff_26 Start: 15263, Stop: 15529, Start Num: 22
Candidate Starts for StewieGriff_26:
(Start: 22 @15263 has 37 MA's), (29, 15311), (Start: 30 @15317 has 3 MA's), (36, 15392),

Gene: Stratus_26 Start: 15337, Stop: 15603, Start Num: 22
Candidate Starts for Stratus_26:
(Start: 22 @15337 has 37 MA's), (Start: 30 @15391 has 3 MA's), (36, 15466), (39, 15550),

Gene: Swenson_26 Start: 15387, Stop: 15653, Start Num: 22
Candidate Starts for Swenson_26:
(10, 15264), (14, 15312), (15, 15321), (Start: 22 @15387 has 37 MA's), (29, 15435), (Start: 30 @15441 has 3 MA's), (36, 15516),

Gene: Taj14_26 Start: 15253, Stop: 15519, Start Num: 22

Candidate Starts for Taj14_26:

(Start: 22 @15253 has 37 MA's), (29, 15301), (Start: 30 @15307 has 3 MA's), (36, 15382),

Gene: TeddyBoy_25 Start: 17076, Stop: 17375, Start Num: 23

Candidate Starts for TeddyBoy_25:

(12, 16974), (Start: 23 @17076 has 111 MA's), (35, 17205), (36, 17208), (38, 17271), (40, 17319), (41, 17328), (43, 17364),

Gene: TimoTea_25 Start: 17054, Stop: 17353, Start Num: 23

Candidate Starts for TimoTea_25:

(12, 16952), (Start: 23 @17054 has 111 MA's), (35, 17183), (36, 17186), (38, 17249), (40, 17297), (41, 17306), (43, 17342),

Gene: TinoCrisci_26 Start: 15263, Stop: 15529, Start Num: 22

Candidate Starts for TinoCrisci_26:

(Start: 22 @15263 has 37 MA's), (Start: 30 @15317 has 3 MA's), (36, 15392), (39, 15476),

Gene: TinyTruffula_25 Start: 16677, Stop: 16976, Start Num: 23

Candidate Starts for TinyTruffula_25:

(12, 16575), (Start: 23 @16677 has 111 MA's), (35, 16806), (36, 16809), (38, 16872), (40, 16920), (41, 16929),

Gene: TomBrady12_26 Start: 16780, Stop: 17079, Start Num: 23

Candidate Starts for TomBrady12_26:

(12, 16678), (Start: 23 @16780 has 111 MA's), (35, 16909), (36, 16912), (38, 16975), (40, 17023), (41, 17032),

Gene: Toulouse_25 Start: 15026, Stop: 15292, Start Num: 22

Candidate Starts for Toulouse_25:

(Start: 22 @15026 has 37 MA's), (Start: 30 @15080 has 3 MA's), (36, 15155), (39, 15239),

Gene: Trireme_25 Start: 16657, Stop: 16956, Start Num: 23

Candidate Starts for Trireme_25:

(12, 16555), (Start: 23 @16657 has 111 MA's), (35, 16786), (36, 16789), (38, 16852), (40, 16900), (41, 16909),

Gene: TymAbreu_26 Start: 15263, Stop: 15529, Start Num: 22

Candidate Starts for TymAbreu_26:

(Start: 22 @15263 has 37 MA's), (Start: 30 @15317 has 3 MA's), (36, 15392), (39, 15476),

Gene: Upsilon_25 Start: 17137, Stop: 17436, Start Num: 23

Candidate Starts for Upsilon_25:

(12, 17035), (Start: 23 @17137 has 111 MA's), (35, 17266), (36, 17269), (38, 17332), (40, 17380), (41, 17389), (43, 17425),

Gene: Vanisius_25 Start: 17080, Stop: 17379, Start Num: 23

Candidate Starts for Vanisius_25:

(12, 16978), (Start: 23 @17080 has 111 MA's), (35, 17209), (36, 17212), (38, 17275), (40, 17323), (41, 17332), (43, 17368),

Gene: VitulaEligans_25 Start: 17161, Stop: 17460, Start Num: 23

Candidate Starts for VitulaEligans_25:

(12, 17059), (Start: 23 @17161 has 111 MA's), (35, 17290), (36, 17293), (38, 17356), (40, 17404), (41, 17413), (43, 17449),

Gene: Witch_25 Start: 16990, Stop: 17289, Start Num: 23

Candidate Starts for Witch_25:

(Start: 23 @16990 has 111 MA's), (35, 17119), (36, 17122), (38, 17185), (40, 17233), (41, 17242), (43, 17278),

Gene: Wolfpack_25 Start: 17082, Stop: 17381, Start Num: 23

Candidate Starts for Wolfpack_25:

(12, 16980), (Start: 23 @17082 has 111 MA's), (35, 17211), (36, 17214), (38, 17277), (40, 17325), (41, 17334), (43, 17370),

Gene: Yami_25 Start: 16551, Stop: 16850, Start Num: 23

Candidate Starts for Yami_25:

(12, 16449), (Start: 23 @16551 has 111 MA's), (35, 16680), (36, 16683), (38, 16746), (40, 16794), (41, 16803),

Gene: Yank_26 Start: 15231, Stop: 15497, Start Num: 22

Candidate Starts for Yank_26:

(Start: 22 @15231 has 37 MA's), (Start: 30 @15285 has 3 MA's), (36, 15360), (39, 15444),

Gene: Yasuo_25 Start: 17060, Stop: 17359, Start Num: 23

Candidate Starts for Yasuo_25:

(12, 16958), (Start: 23 @17060 has 111 MA's), (35, 17189), (36, 17192), (38, 17255), (40, 17303), (41, 17312), (43, 17348),

Gene: YertPhresh_25 Start: 16989, Stop: 17288, Start Num: 23

Candidate Starts for YertPhresh_25:

(Start: 23 @16989 has 111 MA's), (35, 17118), (36, 17121), (38, 17184), (40, 17232), (41, 17241), (43, 17277),

Gene: Yubaba_25 Start: 17023, Stop: 17322, Start Num: 23

Candidate Starts for Yubaba_25:

(Start: 23 @17023 has 111 MA's), (35, 17152), (36, 17155), (38, 17218), (40, 17266), (41, 17275), (43, 17311),