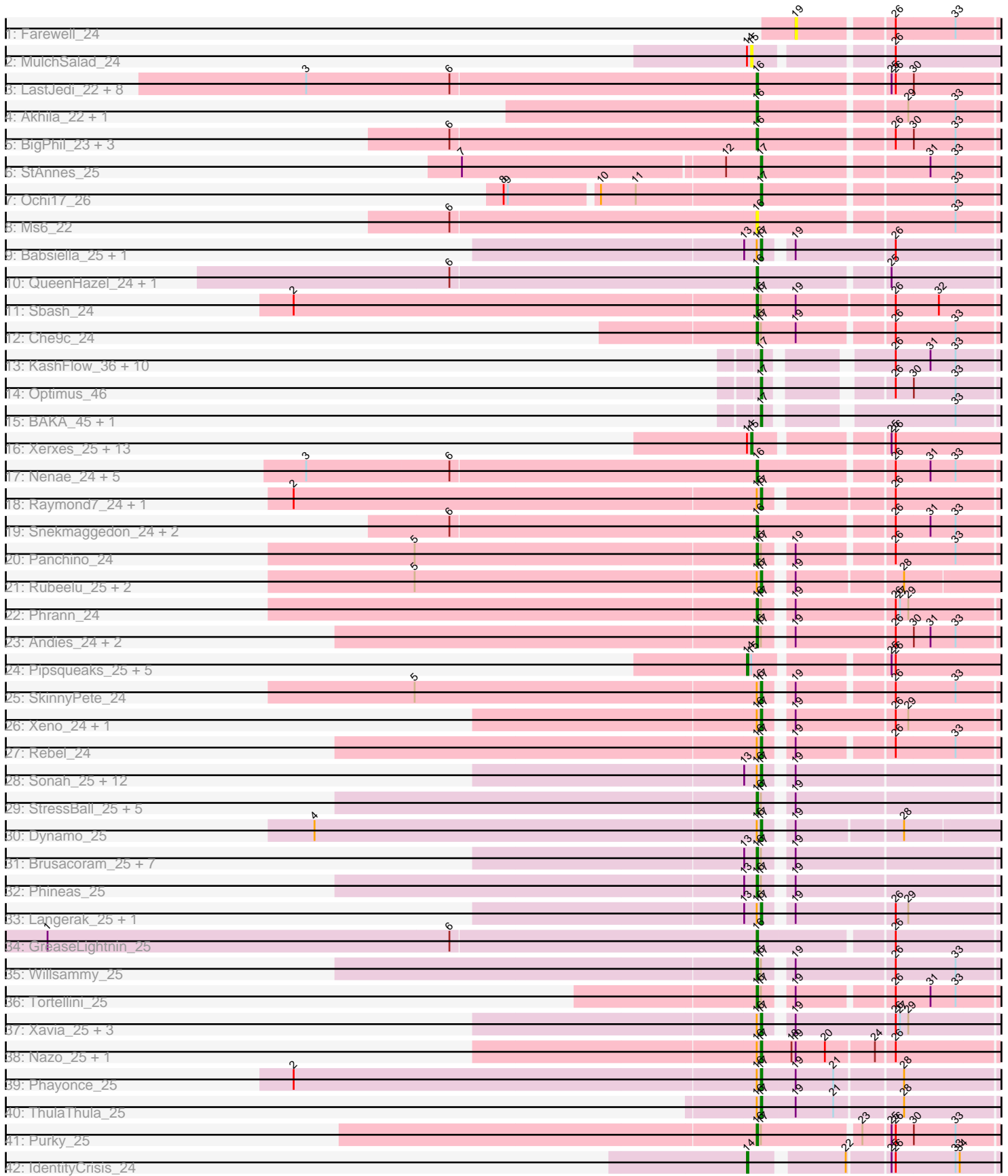


Pham 157699



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 157699 Report

This analysis was run 04/13/24 on database version 558.

Pham number 157699 has 127 members, 12 are drafts.

Phages represented in each track:

- Track 1 : Farewell_24
- Track 2 : MulchSalad_24
- Track 3 : LastJedi_22, Koella_22, Phloss_24, Fulbright_24, Brocalys_23, Squirty_23, Pippy_22, Crumble_22, Clifton_22
- Track 4 : Akhila_22, MilanaBonita_22
- Track 5 : BigPhil_23, Cerasum_23, Velveteen_23, Sarma624_23
- Track 6 : StAnnes_25
- Track 7 : Ochi17_26
- Track 8 : Ms6_22
- Track 9 : Babsiella_25, HC_25
- Track 10 : QueenHazel_24, Xula_23
- Track 11 : Sbash_24
- Track 12 : Che9c_24
- Track 13 : KashFlow_36, Lucky2013_42, Porcelain_41, Courthouse_42, Superphikiman_42, Hannaconda_39, MiaZeal_42, Ariel_42, LittleE_48, DmpstrDiver_43, Squint_41
- Track 14 : Optimus_46
- Track 15 : BAKA_45, Omega_47
- Track 16 : Xerxes_25, Silvy_25, Parmesanjohn_25, Duplicity_25, Bosection6_25, Journey_26, Charlie_25, Melville_25, LilSpotty_28, Gex_25, Smurph_25, Aggie_25, Tapioca_25, Magsby_25
- Track 17 : Nенаe_24, PhancyPhin_24, Purgamenstris_24, Redi_24, BabeRuth_24, ShrimpFriedEgg_24
- Track 18 : Raymond7_24, MichelleMyBell_25
- Track 19 : Snekmaggedon_24, SpongeBob_24, Jamie19_24
- Track 20 : Panchino_24
- Track 21 : Rubeelu_25, Kevin1_25, Butters_25
- Track 22 : Phrann_24
- Track 23 : Andies_24, Shweta_24, Scitech_24
- Track 24 : Pipsqueaks_25, Carcharodon_25, Chewbacca_25, Schnauzer_25, Philonius_25, Silvafighter_25
- Track 25 : SkinnyPete_24
- Track 26 : Xeno_24, Techage_25
- Track 27 : Rebel_24
- Track 28 : Sonah_25, Venti_25, Polkaroo_25, StevieRay_25, FirstPlacePfu_25, Bunnies_25, Vidya_25, Jebeks_25, Donovan_25, Ksquared_25, Phegasus_25, Juniormint_25, Fishburne_25

- Track 29 : StressBall_25, Glaske_25, KilKor_25, Phalm_25, Megiddo_25, CactusJack_25
- Track 30 : Dynamo_25
- Track 31 : Brusacoram_25, Arib1_25, Mangethe_25, Necropolis_25, Majeke_25, Thespis_25, Malithi_25, Zilizebeth_25
- Track 32 : Phineas_25
- Track 33 : Langerak_25, HUHilltop_25
- Track 34 : GreaseLightnin_25
- Track 35 : Willsammy_25
- Track 36 : Tortellini_25
- Track 37 : Xavia_25, Atcoo_25, Camster_25, Kari_25
- Track 38 : Nazo_25, BigNuz_25
- Track 39 : Phayonce_25
- Track 40 : ThulaThula_25
- Track 41 : Purky_25
- Track 42 : IdentityCrisis_24

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

The start number called the most often in the published annotations is 16, it was called in 50 of the 115 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Akhila_22, Andies_24, Arib1_25, BabeRuth_24, BigPhil_23, Brocalys_23, Brusacoram_25, CactusJack_25, Cerasum_23, Che9c_24, Clifton_22, Crumble_22, Fulbright_24, Glaske_25, GreaseLightnin_25, Jamie19_24, KilKor_25, Koella_22, LastJedi_22, Majeke_25, Malithi_25, Mangethe_25, Megiddo_25, MilanaBonita_22, Ms6_22, Necropolis_25, Nenae_24, Panchino_24, Phalm_25, PhancyPhin_24, Phineas_25, Phloss_24, Phrann_24, Pippy_22, Purgamenstris_24, Purky_25, QueenHazel_24, Redi_24, Sarma624_23, Sbash_24, Scitech_24, ShrimpFriedEgg_24, Shweta_24, Snekmaggon_24, SpongeBob_24, Squirty_23, StressBall_25, Thespis_25, Tortellini_25, Velveteen_23, Willsammy_25, Xula_23, Zilizebeth_25,

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

- Atcoo_25, Babsiella_25, BigNuz_25, Bunnies_25, Butters_25, Camster_25, Donovan_25, Dynamo_25, FirstPlacePfu_25, Fishburne_25, HC_25, HUHilltop_25, Jebeks_25, Juniormint_25, Kari_25, Kevin1_25, Ksquared_25, Langerak_25, MichelleMyBell_25, Nazo_25, Phayonce_25, Phegasus_25, Polkaroo_25, Raymond7_24, Rebel_24, Rubeelu_25, SkinnyPete_24, Sonah_25, StevieRay_25, Techage_25, ThulaThula_25, Venti_25, Vidya_25, Xavia_25, Xeno_24,

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

- Aggie_25, Ariel_42, BAKA_45, Bosection6_25, Carcharodon_25, Charlie_25, Chewbacca_25, Courthouse_42, DmpstrDiver_43, Duplicity_25, Farewell_24, Gex_25, Hannaconda_39, IdentityCrisis_24, Journey_26, KashFlow_36, LilSpotty_28, LittleE_48, Lucky2013_42, Magsby_25, Melville_25, MiaZeal_42, MulchSalad_24, Ochi17_26, Omega_47, Optimus_46, Parmesanjohn_25, Philonius_25, Pipsqueaks_25, Porcelain_41, Schnauzer_25, Silvafighter_25, Silvy_25, Smurph_25, Squint_41, StAnnes_25, Superphikiman_42, Tapioca_25,

Xerxes_25,

Summary by start number:

Start 14:

- Found in 22 of 127 (17.3%) of genes in pham
- Manual Annotations of this start: 7 of 115
- Called 31.8% of time when present
- Phage (with cluster) where this start called: Carcharodon_25 (N), Chewbacca_25 (N), IdentityCrisis_24 (singleton), Philonius_25 (N), Pipsqueaks_25 (N), Schnauzer_25 (N), Silvafighter_25 (N),

Start 15:

- Found in 21 of 127 (16.5%) of genes in pham
- Manual Annotations of this start: 10 of 115
- Called 71.4% of time when present
- Phage (with cluster) where this start called: Aggie_25 (N), Bosection6_25 (N), Charlie_25 (N), Duplicity_25 (N), Gex_25 (N), Journey_26 (N), LilSpotty_28 (singleton), Magsby_25 (N), Melville_25 (N), MulchSalad_24 (F), Parmesanjohn_25 (N), Silvy_25 (N), Smurph_25 (N), Tapioca_25 (N), Xerxes_25 (N),

Start 16:

- Found in 88 of 127 (69.3%) of genes in pham
- Manual Annotations of this start: 50 of 115
- Called 60.2% of time when present
- Phage (with cluster) where this start called: Akhila_22 (F1), Andies_24 (N), Arib1_25 (P1), BabeRuth_24 (N), BigPhil_23 (F1), Brocalys_23 (F1), Brusacoram_25 (P1), CactusJack_25 (P1), Cerasum_23 (F1), Che9c_24 (I2), Clifton_22 (F1), Crumble_22 (F1), Fulbright_24 (N), Glaske_25 (P1), GreaseLightnin_25 (P1), Jamie19_24 (N), KilKor_25 (P1), Koella_22 (F1), LastJedi_22 (F1), Majeke_25 (P1), Malithi_25 (P1), Mangethe_25 (P1), Megiddo_25 (P1), MilanaBonita_22 (F1), Ms6_22 (F1), Necropolis_25 (P1), Nenae_24 (N), Panchino_24 (N), Phalm_25 (P1), PhancyPhin_24 (N), Phineas_25 (P1), Phloss_24 (N), Phrann_24 (N), Pippy_22 (F1), Purgamenstris_24 (N), Purky_25 (P6), QueenHazel_24 (I1), Redi_24 (N), Sarma624_23 (F1), Sbash_24 (I2), Scitech_24 (N), ShrimpFriedEgg_24 (N), Shweta_24 (N), Snekmaggon_24 (N), SpongeBob_24 (N), Squirty_23 (F3), StressBall_25 (P1), Thespis_25 (P1), Tortellini_25 (P2), Velveteen_23 (F1), Willsammy_25 (P1), Xula_23 (I1), Zilizebeth_25 (P1),

Start 17:

- Found in 76 of 127 (59.8%) of genes in pham
- Manual Annotations of this start: 48 of 115
- Called 67.1% of time when present
- Phage (with cluster) where this start called: Ariel_42 (J), Atcoo_25 (P1), BAKA_45 (J), Babsiella_25 (I1), BigNuz_25 (P4), Bunnies_25 (P1), Butters_25 (N), Camster_25 (P1), Courthouse_42 (J), DmpstrDiver_43 (J), Donovan_25 (P1), Dynamo_25 (P1), FirstPlacePfu_25 (P1), Fishburne_25 (P1), HC_25 (I1), HUHilltop_25 (P1), Hannaconda_39 (J), Jebeks_25 (P1), Juniormint_25 (P1), Kari_25 (P1), KashFlow_36 (J), Kevin1_25 (N), Ksquared_25 (P1), Langerak_25 (P1), LittleE_48 (J), Lucky2013_42 (J), MiaZeal_42 (J), MichelleMyBell_25 (N), Nazo_25 (P4), Ochi17_26 (F1), Omega_47 (J), Optimus_46 (J), Phayonce_25 (P5), Phegasus_25 (P1), Polkaroo_25 (P1), Porcelain_41 (J), Raymond7_24 (N), Rebel_24 (N), Rubeelu_25 (N), SkinnyPete_24 (N), Sonah_25 (P1), Squint_41 (J), StAnnes_25

(F1), StevieRay_25 (P1), Superphikiman_42 (J), Techage_25 (P1), ThulaThula_25 (P5), Venti_25 (P1), Vidya_25 (P1), Xavia_25 (P3), Xeno_24 (N),

Start 19:

- Found in 58 of 127 (45.7%) of genes in pham
- No Manual Annotations of this start.
- Called 1.7% of time when present
- Phage (with cluster) where this start called: Farewell_24 (AF),

Summary by clusters:

There are 15 clusters represented in this pham: P2, P3, singleton, I2, P6, P4, F1, I1, J, F3, N, P1, F, AF, P5,

Info for manual annotations of cluster F1:

- Start number 16 was manually annotated 11 times for cluster F1.
- Start number 17 was manually annotated 2 times for cluster F1.

Info for manual annotations of cluster F3:

- Start number 16 was manually annotated 1 time for cluster F3.

Info for manual annotations of cluster I1:

- Start number 16 was manually annotated 2 times for cluster I1.
- Start number 17 was manually annotated 2 times for cluster I1.

Info for manual annotations of cluster I2:

- Start number 16 was manually annotated 2 times for cluster I2.

Info for manual annotations of cluster J:

- Start number 17 was manually annotated 14 times for cluster J.

Info for manual annotations of cluster N:

- Start number 14 was manually annotated 6 times for cluster N.
- Start number 15 was manually annotated 9 times for cluster N.
- Start number 16 was manually annotated 15 times for cluster N.
- Start number 17 was manually annotated 8 times for cluster N.

Info for manual annotations of cluster P1:

- Start number 16 was manually annotated 17 times for cluster P1.
- Start number 17 was manually annotated 17 times for cluster P1.

Info for manual annotations of cluster P2:

- Start number 16 was manually annotated 1 time for cluster P2.

Info for manual annotations of cluster P3:

- Start number 17 was manually annotated 1 time for cluster P3.

Info for manual annotations of cluster P4:

- Start number 17 was manually annotated 2 times for cluster P4.

Info for manual annotations of cluster P5:

- Start number 17 was manually annotated 2 times for cluster P5.

Info for manual annotations of cluster P6:

- Start number 16 was manually annotated 1 time for cluster P6.

Gene Information:

Gene: Aggie_25 Start: 22170, Stop: 22349, Start Num: 15

Candidate Starts for Aggie_25:

(Start: 14 @22167 has 7 MA's), (Start: 15 @22170 has 10 MA's), (25, 22254), (26, 22257),

Gene: Akhila_22 Start: 21918, Stop: 22094, Start Num: 16

Candidate Starts for Akhila_22:

(Start: 16 @21918 has 50 MA's), (29, 22017), (33, 22050),

Gene: Andies_24 Start: 21768, Stop: 21941, Start Num: 16

Candidate Starts for Andies_24:

(Start: 16 @21768 has 50 MA's), (Start: 17 @21771 has 48 MA's), (19, 21786), (26, 21855), (30, 21867), (31, 21879), (33, 21897),

Gene: Arib1_25 Start: 22882, Stop: 23055, Start Num: 16

Candidate Starts for Arib1_25:

(13, 22873), (Start: 16 @22882 has 50 MA's), (Start: 17 @22885 has 48 MA's), (19, 22900),

Gene: Ariel_42 Start: 34845, Stop: 35006, Start Num: 17

Candidate Starts for Ariel_42:

(Start: 17 @34845 has 48 MA's), (26, 34920), (31, 34944), (33, 34962),

Gene: Atcoo_25 Start: 23373, Stop: 23543, Start Num: 17

Candidate Starts for Atcoo_25:

(Start: 16 @23370 has 50 MA's), (Start: 17 @23373 has 48 MA's), (19, 23388), (26, 23457), (27, 23460), (29, 23466),

Gene: BAKA_45 Start: 38282, Stop: 38443, Start Num: 17

Candidate Starts for BAKA_45:

(Start: 17 @38282 has 48 MA's), (33, 38399),

Gene: BabeRuth_24 Start: 21647, Stop: 21823, Start Num: 16

Candidate Starts for BabeRuth_24:

(3, 21329), (6, 21431), (Start: 16 @21647 has 50 MA's), (26, 21737), (31, 21761), (33, 21779),

Gene: Babsiella_25 Start: 22893, Stop: 23063, Start Num: 17

Candidate Starts for Babsiella_25:

(13, 22881), (Start: 16 @22890 has 50 MA's), (Start: 17 @22893 has 48 MA's), (19, 22908), (26, 22977),

Gene: BigNuz_25 Start: 23510, Stop: 23683, Start Num: 17

Candidate Starts for BigNuz_25:

(Start: 16 @23507 has 50 MA's), (Start: 17 @23510 has 48 MA's), (18, 23531), (19, 23534), (20, 23552), (24, 23585), (26, 23597),

Gene: BigPhil_23 Start: 21863, Stop: 22039, Start Num: 16

Candidate Starts for BigPhil_23:

(6, 21647), (Start: 16 @21863 has 50 MA's), (26, 21953), (30, 21965), (33, 21995),

Gene: Bosection6_25 Start: 22169, Stop: 22348, Start Num: 15

Candidate Starts for Bosection6_25:

(Start: 14 @22166 has 7 MA's), (Start: 15 @22169 has 10 MA's), (25, 22253), (26, 22256),

Gene: Brocalys_23 Start: 21674, Stop: 21850, Start Num: 16

Candidate Starts for Brocalys_23:

(3, 21356), (6, 21458), (Start: 16 @21674 has 50 MA's), (25, 21761), (26, 21764), (30, 21776),

Gene: Brusacoram_25 Start: 22876, Stop: 23049, Start Num: 16

Candidate Starts for Brusacoram_25:

(13, 22867), (Start: 16 @22876 has 50 MA's), (Start: 17 @22879 has 48 MA's), (19, 22894),

Gene: Bunnies_25 Start: 22901, Stop: 23071, Start Num: 17

Candidate Starts for Bunnies_25:

(13, 22889), (Start: 16 @22898 has 50 MA's), (Start: 17 @22901 has 48 MA's), (19, 22916),

Gene: Butters_25 Start: 21584, Stop: 21754, Start Num: 17

Candidate Starts for Butters_25:

(5, 21341), (Start: 16 @21581 has 50 MA's), (Start: 17 @21584 has 48 MA's), (19, 21599), (28, 21671),

Gene: CactusJack_25 Start: 23141, Stop: 23314, Start Num: 16

Candidate Starts for CactusJack_25:

(Start: 16 @23141 has 50 MA's), (Start: 17 @23144 has 48 MA's), (19, 23159),

Gene: Camster_25 Start: 22914, Stop: 23081, Start Num: 17

Candidate Starts for Camster_25:

(Start: 16 @22911 has 50 MA's), (Start: 17 @22914 has 48 MA's), (19, 22929), (26, 22995), (27, 22998), (29, 23004),

Gene: Carcharodon_25 Start: 22166, Stop: 22348, Start Num: 14

Candidate Starts for Carcharodon_25:

(Start: 14 @22166 has 7 MA's), (Start: 15 @22169 has 10 MA's), (25, 22253), (26, 22256),

Gene: Cerasum_23 Start: 21863, Stop: 22039, Start Num: 16

Candidate Starts for Cerasum_23:

(6, 21647), (Start: 16 @21863 has 50 MA's), (26, 21953), (30, 21965), (33, 21995),

Gene: Charlie_25 Start: 22169, Stop: 22348, Start Num: 15

Candidate Starts for Charlie_25:

(Start: 14 @22166 has 7 MA's), (Start: 15 @22169 has 10 MA's), (25, 22253), (26, 22256),

Gene: Che9c_24 Start: 23013, Stop: 23189, Start Num: 16

Candidate Starts for Che9c_24:

(Start: 16 @23013 has 50 MA's), (Start: 17 @23016 has 48 MA's), (19, 23040), (26, 23103), (33, 23145),

Gene: Chewbacca_25 Start: 22166, Stop: 22348, Start Num: 14

Candidate Starts for Chewbacca_25:

(Start: 14 @22166 has 7 MA's), (Start: 15 @22169 has 10 MA's), (25, 22253), (26, 22256),

Gene: Clifton_22 Start: 21987, Stop: 22163, Start Num: 16

Candidate Starts for Clifton_22:

(3, 21669), (6, 21771), (Start: 16 @21987 has 50 MA's), (25, 22074), (26, 22077), (30, 22089),

Gene: Courthouse_42 Start: 35249, Stop: 35410, Start Num: 17

Candidate Starts for Courthouse_42:

(Start: 17 @35249 has 48 MA's), (26, 35324), (31, 35348), (33, 35366),

Gene: Crumble_22 Start: 22034, Stop: 22210, Start Num: 16

Candidate Starts for Crumble_22:

(3, 21716), (6, 21818), (Start: 16 @22034 has 50 MA's), (25, 22121), (26, 22124), (30, 22136),

Gene: DmpstrDiver_43 Start: 37897, Stop: 38058, Start Num: 17

Candidate Starts for DmpstrDiver_43:

(Start: 17 @37897 has 48 MA's), (26, 37972), (31, 37996), (33, 38014),

Gene: Donovan_25 Start: 22868, Stop: 23038, Start Num: 17

Candidate Starts for Donovan_25:

(13, 22856), (Start: 16 @22865 has 50 MA's), (Start: 17 @22868 has 48 MA's), (19, 22883),

Gene: Duplicity_25 Start: 22169, Stop: 22348, Start Num: 15

Candidate Starts for Duplicity_25:

(Start: 14 @22166 has 7 MA's), (Start: 15 @22169 has 10 MA's), (25, 22253), (26, 22256),

Gene: Dynamo_25 Start: 23268, Stop: 23438, Start Num: 17

Candidate Starts for Dynamo_25:

(4, 22953), (Start: 16 @23265 has 50 MA's), (Start: 17 @23268 has 48 MA's), (19, 23283), (28, 23355),

Gene: Farewell_24 Start: 23918, Stop: 24067, Start Num: 19

Candidate Starts for Farewell_24:

(19, 23918), (26, 23981), (33, 24023),

Gene: FirstPlacePfu_25 Start: 22879, Stop: 23049, Start Num: 17

Candidate Starts for FirstPlacePfu_25:

(13, 22867), (Start: 16 @22876 has 50 MA's), (Start: 17 @22879 has 48 MA's), (19, 22894),

Gene: Fishburne_25 Start: 22879, Stop: 23049, Start Num: 17

Candidate Starts for Fishburne_25:

(13, 22867), (Start: 16 @22876 has 50 MA's), (Start: 17 @22879 has 48 MA's), (19, 22894),

Gene: Fulbright_24 Start: 21973, Stop: 22146, Start Num: 16

Candidate Starts for Fulbright_24:

(3, 21655), (6, 21757), (Start: 16 @21973 has 50 MA's), (25, 22057), (26, 22060), (30, 22072),

Gene: Gex_25 Start: 22165, Stop: 22344, Start Num: 15

Candidate Starts for Gex_25:

(Start: 14 @22162 has 7 MA's), (Start: 15 @22165 has 10 MA's), (25, 22249), (26, 22252),

Gene: Glaske_25 Start: 23141, Stop: 23314, Start Num: 16

Candidate Starts for Glaske_25:

(Start: 16 @23141 has 50 MA's), (Start: 17 @23144 has 48 MA's), (19, 23159),

Gene: GreaseLightnin_25 Start: 23125, Stop: 23301, Start Num: 16

Candidate Starts for GreaseLightnin_25:

(1, 22621), (6, 22909), (Start: 16 @23125 has 50 MA's), (26, 23215),

Gene: HC_25 Start: 22949, Stop: 23119, Start Num: 17

Candidate Starts for HC_25:

(13, 22937), (Start: 16 @22946 has 50 MA's), (Start: 17 @22949 has 48 MA's), (19, 22964), (26, 23033),

Gene: HUHilltop_25 Start: 22879, Stop: 23049, Start Num: 17

Candidate Starts for HUHilltop_25:

(13, 22867), (Start: 16 @22876 has 50 MA's), (Start: 17 @22879 has 48 MA's), (19, 22894), (26, 22963), (29, 22972),

Gene: Hannaconda_39 Start: 33830, Stop: 33991, Start Num: 17

Candidate Starts for Hannaconda_39:

(Start: 17 @33830 has 48 MA's), (26, 33905), (31, 33929), (33, 33947),

Gene: IdentityCrisis_24 Start: 20626, Stop: 20802, Start Num: 14

Candidate Starts for IdentityCrisis_24:

(Start: 14 @20626 has 7 MA's), (22, 20686), (25, 20713), (26, 20716), (33, 20758), (34, 20761),

Gene: Jamie19_24 Start: 21647, Stop: 21823, Start Num: 16

Candidate Starts for Jamie19_24:

(6, 21431), (Start: 16 @21647 has 50 MA's), (26, 21737), (31, 21761), (33, 21779),

Gene: Jebeks_25 Start: 22864, Stop: 23034, Start Num: 17

Candidate Starts for Jebeks_25:

(13, 22852), (Start: 16 @22861 has 50 MA's), (Start: 17 @22864 has 48 MA's), (19, 22879),

Gene: Journey_26 Start: 22169, Stop: 22348, Start Num: 15

Candidate Starts for Journey_26:

(Start: 14 @22166 has 7 MA's), (Start: 15 @22169 has 10 MA's), (25, 22253), (26, 22256),

Gene: Juniormint_25 Start: 22923, Stop: 23093, Start Num: 17

Candidate Starts for Juniormint_25:

(13, 22911), (Start: 16 @22920 has 50 MA's), (Start: 17 @22923 has 48 MA's), (19, 22938),

Gene: Kari_25 Start: 22879, Stop: 23046, Start Num: 17

Candidate Starts for Kari_25:

(Start: 16 @22876 has 50 MA's), (Start: 17 @22879 has 48 MA's), (19, 22894), (26, 22960), (27, 22963), (29, 22969),

Gene: KashFlow_36 Start: 33451, Stop: 33612, Start Num: 17

Candidate Starts for KashFlow_36:

(Start: 17 @33451 has 48 MA's), (26, 33526), (31, 33550), (33, 33568),

Gene: Kevin1_25 Start: 21582, Stop: 21752, Start Num: 17

Candidate Starts for Kevin1_25:

(5, 21339), (Start: 16 @21579 has 50 MA's), (Start: 17 @21582 has 48 MA's), (19, 21597), (28, 21669),

Gene: KilKor_25 Start: 23141, Stop: 23314, Start Num: 16

Candidate Starts for KilKor_25:

(Start: 16 @23141 has 50 MA's), (Start: 17 @23144 has 48 MA's), (19, 23159),

Gene: Koella_22 Start: 21999, Stop: 22175, Start Num: 16

Candidate Starts for Koella_22:

(3, 21681), (6, 21783), (Start: 16 @21999 has 50 MA's), (25, 22086), (26, 22089), (30, 22101),

Gene: Ksquared_25 Start: 22901, Stop: 23071, Start Num: 17

Candidate Starts for Ksquared_25:

(13, 22889), (Start: 16 @22898 has 50 MA's), (Start: 17 @22901 has 48 MA's), (19, 22916),

Gene: Langerak_25 Start: 22863, Stop: 23033, Start Num: 17

Candidate Starts for Langerak_25:

(13, 22851), (Start: 16 @22860 has 50 MA's), (Start: 17 @22863 has 48 MA's), (19, 22878), (26, 22947), (29, 22956),

Gene: LastJedi_22 Start: 22030, Stop: 22206, Start Num: 16

Candidate Starts for LastJedi_22:

(3, 21712), (6, 21814), (Start: 16 @22030 has 50 MA's), (25, 22117), (26, 22120), (30, 22132),

Gene: LilSpotty_28 Start: 23137, Stop: 23316, Start Num: 15

Candidate Starts for LilSpotty_28:

(Start: 14 @23134 has 7 MA's), (Start: 15 @23137 has 10 MA's), (25, 23221), (26, 23224),

Gene: LittleE_48 Start: 39362, Stop: 39508, Start Num: 17

Candidate Starts for LittleE_48:

(Start: 17 @39362 has 48 MA's), (26, 39422), (31, 39446), (33, 39464),

Gene: Lucky2013_42 Start: 35376, Stop: 35537, Start Num: 17

Candidate Starts for Lucky2013_42:

(Start: 17 @35376 has 48 MA's), (26, 35451), (31, 35475), (33, 35493),

Gene: Magsby_25 Start: 22166, Stop: 22345, Start Num: 15

Candidate Starts for Magsby_25:

(Start: 14 @22163 has 7 MA's), (Start: 15 @22166 has 10 MA's), (25, 22250), (26, 22253),

Gene: Majeke_25 Start: 22882, Stop: 23055, Start Num: 16

Candidate Starts for Majeke_25:

(13, 22873), (Start: 16 @22882 has 50 MA's), (Start: 17 @22885 has 48 MA's), (19, 22900),

Gene: Malithi_25 Start: 22801, Stop: 22974, Start Num: 16

Candidate Starts for Malithi_25:

(13, 22792), (Start: 16 @22801 has 50 MA's), (Start: 17 @22804 has 48 MA's), (19, 22819),

Gene: Mangethe_25 Start: 22882, Stop: 23055, Start Num: 16

Candidate Starts for Mangethe_25:

(13, 22873), (Start: 16 @22882 has 50 MA's), (Start: 17 @22885 has 48 MA's), (19, 22900),

Gene: Megiddo_25 Start: 23141, Stop: 23314, Start Num: 16

Candidate Starts for Megiddo_25:

(Start: 16 @23141 has 50 MA's), (Start: 17 @23144 has 48 MA's), (19, 23159),

Gene: Melville_25 Start: 22169, Stop: 22348, Start Num: 15

Candidate Starts for Melville_25:

(Start: 14 @22166 has 7 MA's), (Start: 15 @22169 has 10 MA's), (25, 22253), (26, 22256),

Gene: MiaZeal_42 Start: 35060, Stop: 35221, Start Num: 17

Candidate Starts for MiaZeal_42:

(Start: 17 @35060 has 48 MA's), (26, 35135), (31, 35159), (33, 35177),

Gene: MichelleMyBell_25 Start: 21653, Stop: 21820, Start Num: 17

Candidate Starts for MichelleMyBell_25:

(2, 21323), (Start: 16 @21650 has 50 MA's), (Start: 17 @21653 has 48 MA's), (26, 21734),

Gene: MilanaBonita_22 Start: 21918, Stop: 22094, Start Num: 16

Candidate Starts for MilanaBonita_22:

(Start: 16 @21918 has 50 MA's), (29, 22017), (33, 22050),

Gene: Ms6_22 Start: 21500, Stop: 21676, Start Num: 16

Candidate Starts for Ms6_22:

(6, 21284), (Start: 16 @21500 has 50 MA's), (33, 21632),

Gene: MulchSalad_24 Start: 21938, Stop: 22111, Start Num: 15

Candidate Starts for MulchSalad_24:

(Start: 14 @21935 has 7 MA's), (Start: 15 @21938 has 10 MA's), (26, 22025),

Gene: Nazo_25 Start: 23510, Stop: 23686, Start Num: 17

Candidate Starts for Nazo_25:

(Start: 16 @23507 has 50 MA's), (Start: 17 @23510 has 48 MA's), (18, 23531), (19, 23534), (20, 23555), (24, 23588), (26, 23600),

Gene: Necropolis_25 Start: 22876, Stop: 23049, Start Num: 16

Candidate Starts for Necropolis_25:

(13, 22867), (Start: 16 @22876 has 50 MA's), (Start: 17 @22879 has 48 MA's), (19, 22894),

Gene: Nenae_24 Start: 21647, Stop: 21823, Start Num: 16

Candidate Starts for Nenae_24:

(3, 21329), (6, 21431), (Start: 16 @21647 has 50 MA's), (26, 21737), (31, 21761), (33, 21779),

Gene: Ochi17_26 Start: 25511, Stop: 25684, Start Num: 17

Candidate Starts for Ochi17_26:

(8, 25340), (9, 25343), (10, 25403), (11, 25427), (Start: 17 @25511 has 48 MA's), (33, 25640),

Gene: Omega_47 Start: 39998, Stop: 40156, Start Num: 17

Candidate Starts for Omega_47:

(Start: 17 @39998 has 48 MA's), (33, 40112),

Gene: Optimus_46 Start: 39166, Stop: 39324, Start Num: 17

Candidate Starts for Optimus_46:

(Start: 17 @39166 has 48 MA's), (26, 39238), (30, 39250), (33, 39280),

Gene: Panchino_24 Start: 21760, Stop: 21927, Start Num: 16

Candidate Starts for Panchino_24:

(5, 21520), (Start: 16 @21760 has 50 MA's), (Start: 17 @21763 has 48 MA's), (19, 21778), (26, 21841), (33, 21883),

Gene: Parmesanjohn_25 Start: 22169, Stop: 22348, Start Num: 15

Candidate Starts for Parmesanjohn_25:

(Start: 14 @22166 has 7 MA's), (Start: 15 @22169 has 10 MA's), (25, 22253), (26, 22256),

Gene: Phalm_25 Start: 23141, Stop: 23314, Start Num: 16

Candidate Starts for Phalm_25:

(Start: 16 @23141 has 50 MA's), (Start: 17 @23144 has 48 MA's), (19, 23159),

Gene: PhancyPhin_24 Start: 21644, Stop: 21820, Start Num: 16

Candidate Starts for PhancyPhin_24:

(3, 21326), (6, 21428), (Start: 16 @21644 has 50 MA's), (26, 21734), (31, 21758), (33, 21776),

Gene: Phayonce_25 Start: 23436, Stop: 23615, Start Num: 17

Candidate Starts for Phayonce_25:

(2, 23106), (Start: 16 @23433 has 50 MA's), (Start: 17 @23436 has 48 MA's), (19, 23460), (21, 23487), (28, 23532),

Gene: Phegasus_25 Start: 22885, Stop: 23055, Start Num: 17

Candidate Starts for Phegasus_25:

(13, 22873), (Start: 16 @22882 has 50 MA's), (Start: 17 @22885 has 48 MA's), (19, 22900),

Gene: Philonius_25 Start: 22166, Stop: 22348, Start Num: 14

Candidate Starts for Philonius_25:

(Start: 14 @22166 has 7 MA's), (Start: 15 @22169 has 10 MA's), (25, 22253), (26, 22256),

Gene: Phineas_25 Start: 23247, Stop: 23420, Start Num: 16

Candidate Starts for Phineas_25:

(13, 23238), (Start: 16 @23247 has 50 MA's), (Start: 17 @23250 has 48 MA's), (19, 23265),

Gene: Phloss_24 Start: 21976, Stop: 22149, Start Num: 16

Candidate Starts for Phloss_24:

(3, 21658), (6, 21760), (Start: 16 @21976 has 50 MA's), (25, 22060), (26, 22063), (30, 22075),

Gene: Phrann_24 Start: 22023, Stop: 22196, Start Num: 16

Candidate Starts for Phrann_24:

(Start: 16 @22023 has 50 MA's), (Start: 17 @22026 has 48 MA's), (19, 22041), (26, 22110), (27, 22113), (29, 22119),

Gene: Pippy_22 Start: 22026, Stop: 22202, Start Num: 16

Candidate Starts for Pippy_22:

(3, 21708), (6, 21810), (Start: 16 @22026 has 50 MA's), (25, 22113), (26, 22116), (30, 22128),

Gene: Pipsqueaks_25 Start: 22166, Stop: 22348, Start Num: 14

Candidate Starts for Pipsqueaks_25:

(Start: 14 @22166 has 7 MA's), (Start: 15 @22169 has 10 MA's), (25, 22253), (26, 22256),

Gene: Polkaroo_25 Start: 22895, Stop: 23065, Start Num: 17

Candidate Starts for Polkaroo_25:

(13, 22883), (Start: 16 @22892 has 50 MA's), (Start: 17 @22895 has 48 MA's), (19, 22910),

Gene: Porcelain_41 Start: 35060, Stop: 35221, Start Num: 17
Candidate Starts for Porcelain_41:
(Start: 17 @35060 has 48 MA's), (26, 35135), (31, 35159), (33, 35177),

Gene: Purgamenstris_24 Start: 21647, Stop: 21823, Start Num: 16
Candidate Starts for Purgamenstris_24:
(3, 21329), (6, 21431), (Start: 16 @21647 has 50 MA's), (26, 21737), (31, 21761), (33, 21779),

Gene: Purky_25 Start: 23130, Stop: 23306, Start Num: 16
Candidate Starts for Purky_25:
(Start: 16 @23130 has 50 MA's), (Start: 17 @23133 has 48 MA's), (23, 23199), (25, 23217), (26, 23220), (30, 23232), (33, 23262),

Gene: QueenHazel_24 Start: 23056, Stop: 23232, Start Num: 16
Candidate Starts for QueenHazel_24:
(6, 22840), (Start: 16 @23056 has 50 MA's), (25, 23143),

Gene: Raymond7_24 Start: 22039, Stop: 22206, Start Num: 17
Candidate Starts for Raymond7_24:
(2, 21709), (Start: 16 @22036 has 50 MA's), (Start: 17 @22039 has 48 MA's), (26, 22120),

Gene: Rebel_24 Start: 21448, Stop: 21612, Start Num: 17
Candidate Starts for Rebel_24:
(Start: 16 @21445 has 50 MA's), (Start: 17 @21448 has 48 MA's), (19, 21463), (26, 21526), (33, 21568),

Gene: Redi_24 Start: 21647, Stop: 21823, Start Num: 16
Candidate Starts for Redi_24:
(3, 21329), (6, 21431), (Start: 16 @21647 has 50 MA's), (26, 21737), (31, 21761), (33, 21779),

Gene: Rubeelu_25 Start: 21584, Stop: 21754, Start Num: 17
Candidate Starts for Rubeelu_25:
(5, 21341), (Start: 16 @21581 has 50 MA's), (Start: 17 @21584 has 48 MA's), (19, 21599), (28, 21671),

Gene: Sarma624_23 Start: 21863, Stop: 22039, Start Num: 16
Candidate Starts for Sarma624_23:
(6, 21647), (Start: 16 @21863 has 50 MA's), (26, 21953), (30, 21965), (33, 21995),

Gene: Sbash_24 Start: 23052, Stop: 23234, Start Num: 16
Candidate Starts for Sbash_24:
(2, 22725), (Start: 16 @23052 has 50 MA's), (Start: 17 @23055 has 48 MA's), (19, 23079), (26, 23145), (32, 23175),

Gene: Schnauzer_25 Start: 22166, Stop: 22348, Start Num: 14
Candidate Starts for Schnauzer_25:
(Start: 14 @22166 has 7 MA's), (Start: 15 @22169 has 10 MA's), (25, 22253), (26, 22256),

Gene: Scitech_24 Start: 21768, Stop: 21941, Start Num: 16
Candidate Starts for Scitech_24:
(Start: 16 @21768 has 50 MA's), (Start: 17 @21771 has 48 MA's), (19, 21786), (26, 21855), (30, 21867), (31, 21879), (33, 21897),

Gene: ShrimpFriedEgg_24 Start: 21647, Stop: 21823, Start Num: 16
Candidate Starts for ShrimpFriedEgg_24:
(3, 21329), (6, 21431), (Start: 16 @21647 has 50 MA's), (26, 21737), (31, 21761), (33, 21779),

Gene: Shweta_24 Start: 21778, Stop: 21951, Start Num: 16
Candidate Starts for Shweta_24:
(Start: 16 @21778 has 50 MA's), (Start: 17 @21781 has 48 MA's), (19, 21796), (26, 21865), (30, 21877), (31, 21889), (33, 21907),

Gene: Silvafighter_25 Start: 22166, Stop: 22348, Start Num: 14
Candidate Starts for Silvafighter_25:
(Start: 14 @22166 has 7 MA's), (Start: 15 @22169 has 10 MA's), (25, 22253), (26, 22256),

Gene: Silvy_25 Start: 22170, Stop: 22349, Start Num: 15
Candidate Starts for Silvy_25:
(Start: 14 @22167 has 7 MA's), (Start: 15 @22170 has 10 MA's), (25, 22254), (26, 22257),

Gene: SkinnyPete_24 Start: 21787, Stop: 21951, Start Num: 17
Candidate Starts for SkinnyPete_24:
(5, 21544), (Start: 16 @21784 has 50 MA's), (Start: 17 @21787 has 48 MA's), (19, 21802), (26, 21865), (33, 21907),

Gene: Smurph_25 Start: 22169, Stop: 22348, Start Num: 15
Candidate Starts for Smurph_25:
(Start: 14 @22166 has 7 MA's), (Start: 15 @22169 has 10 MA's), (25, 22253), (26, 22256),

Gene: Snekmaggedon_24 Start: 21647, Stop: 21823, Start Num: 16
Candidate Starts for Snekmaggedon_24:
(6, 21431), (Start: 16 @21647 has 50 MA's), (26, 21737), (31, 21761), (33, 21779),

Gene: Sonah_25 Start: 22869, Stop: 23039, Start Num: 17
Candidate Starts for Sonah_25:
(13, 22857), (Start: 16 @22866 has 50 MA's), (Start: 17 @22869 has 48 MA's), (19, 22884),

Gene: SpongeBob_24 Start: 21647, Stop: 21823, Start Num: 16
Candidate Starts for SpongeBob_24:
(6, 21431), (Start: 16 @21647 has 50 MA's), (26, 21737), (31, 21761), (33, 21779),

Gene: Squint_41 Start: 35179, Stop: 35340, Start Num: 17
Candidate Starts for Squint_41:
(Start: 17 @35179 has 48 MA's), (26, 35254), (31, 35278), (33, 35296),

Gene: Squirty_23 Start: 21695, Stop: 21868, Start Num: 16
Candidate Starts for Squirty_23:
(3, 21377), (6, 21479), (Start: 16 @21695 has 50 MA's), (25, 21779), (26, 21782), (30, 21794),

Gene: StAnnes_25 Start: 25400, Stop: 25573, Start Num: 17
Candidate Starts for StAnnes_25:
(7, 25196), (12, 25376), (Start: 17 @25400 has 48 MA's), (31, 25511), (33, 25529),

Gene: StevieRay_25 Start: 22870, Stop: 23028, Start Num: 17
Candidate Starts for StevieRay_25:
(13, 22858), (Start: 16 @22867 has 50 MA's), (Start: 17 @22870 has 48 MA's), (19, 22885),

Gene: StressBall_25 Start: 23141, Stop: 23314, Start Num: 16

Candidate Starts for StressBall_25:

(Start: 16 @23141 has 50 MA's), (Start: 17 @23144 has 48 MA's), (19, 23159),

Gene: Superphikiman_42 Start: 35242, Stop: 35403, Start Num: 17

Candidate Starts for Superphikiman_42:

(Start: 17 @35242 has 48 MA's), (26, 35317), (31, 35341), (33, 35359),

Gene: Tapioca_25 Start: 22169, Stop: 22348, Start Num: 15

Candidate Starts for Tapioca_25:

(Start: 14 @22166 has 7 MA's), (Start: 15 @22169 has 10 MA's), (25, 22253), (26, 22256),

Gene: Techage_25 Start: 22870, Stop: 23040, Start Num: 17

Candidate Starts for Techage_25:

(Start: 16 @22867 has 50 MA's), (Start: 17 @22870 has 48 MA's), (19, 22885), (26, 22954), (29, 22963),

Gene: Thespis_25 Start: 22876, Stop: 23049, Start Num: 16

Candidate Starts for Thespis_25:

(13, 22867), (Start: 16 @22876 has 50 MA's), (Start: 17 @22879 has 48 MA's), (19, 22894),

Gene: ThulaThula_25 Start: 23442, Stop: 23621, Start Num: 17

Candidate Starts for ThulaThula_25:

(Start: 16 @23439 has 50 MA's), (Start: 17 @23442 has 48 MA's), (19, 23466), (21, 23493), (28, 23538),

Gene: Tortellini_25 Start: 23480, Stop: 23647, Start Num: 16

Candidate Starts for Tortellini_25:

(Start: 16 @23480 has 50 MA's), (Start: 17 @23483 has 48 MA's), (19, 23498), (26, 23561), (31, 23585), (33, 23603),

Gene: Velveteen_23 Start: 21863, Stop: 22039, Start Num: 16

Candidate Starts for Velveteen_23:

(6, 21647), (Start: 16 @21863 has 50 MA's), (26, 21953), (30, 21965), (33, 21995),

Gene: Venti_25 Start: 22879, Stop: 23049, Start Num: 17

Candidate Starts for Venti_25:

(13, 22867), (Start: 16 @22876 has 50 MA's), (Start: 17 @22879 has 48 MA's), (19, 22894),

Gene: Vidya_25 Start: 22879, Stop: 23049, Start Num: 17

Candidate Starts for Vidya_25:

(13, 22867), (Start: 16 @22876 has 50 MA's), (Start: 17 @22879 has 48 MA's), (19, 22894),

Gene: Willsammy_25 Start: 23145, Stop: 23318, Start Num: 16

Candidate Starts for Willsammy_25:

(Start: 16 @23145 has 50 MA's), (Start: 17 @23148 has 48 MA's), (19, 23163), (26, 23232), (33, 23274),

Gene: Xavia_25 Start: 23502, Stop: 23672, Start Num: 17

Candidate Starts for Xavia_25:

(Start: 16 @23499 has 50 MA's), (Start: 17 @23502 has 48 MA's), (19, 23517), (26, 23586), (27, 23589), (29, 23595),

Gene: Xeno_24 Start: 21783, Stop: 21953, Start Num: 17

Candidate Starts for Xeno_24:

(Start: 16 @21780 has 50 MA's), (Start: 17 @21783 has 48 MA's), (19, 21798), (26, 21867), (29, 21876),

Gene: Xerxes_25 Start: 22166, Stop: 22345, Start Num: 15

Candidate Starts for Xerxes_25:

(Start: 14 @22163 has 7 MA's), (Start: 15 @22166 has 10 MA's), (25, 22250), (26, 22253),

Gene: Xula_23 Start: 22578, Stop: 22754, Start Num: 16

Candidate Starts for Xula_23:

(6, 22362), (Start: 16 @22578 has 50 MA's), (25, 22665),

Gene: Zilizebeth_25 Start: 22876, Stop: 23049, Start Num: 16

Candidate Starts for Zilizebeth_25:

(13, 22867), (Start: 16 @22876 has 50 MA's), (Start: 17 @22879 has 48 MA's), (19, 22894),