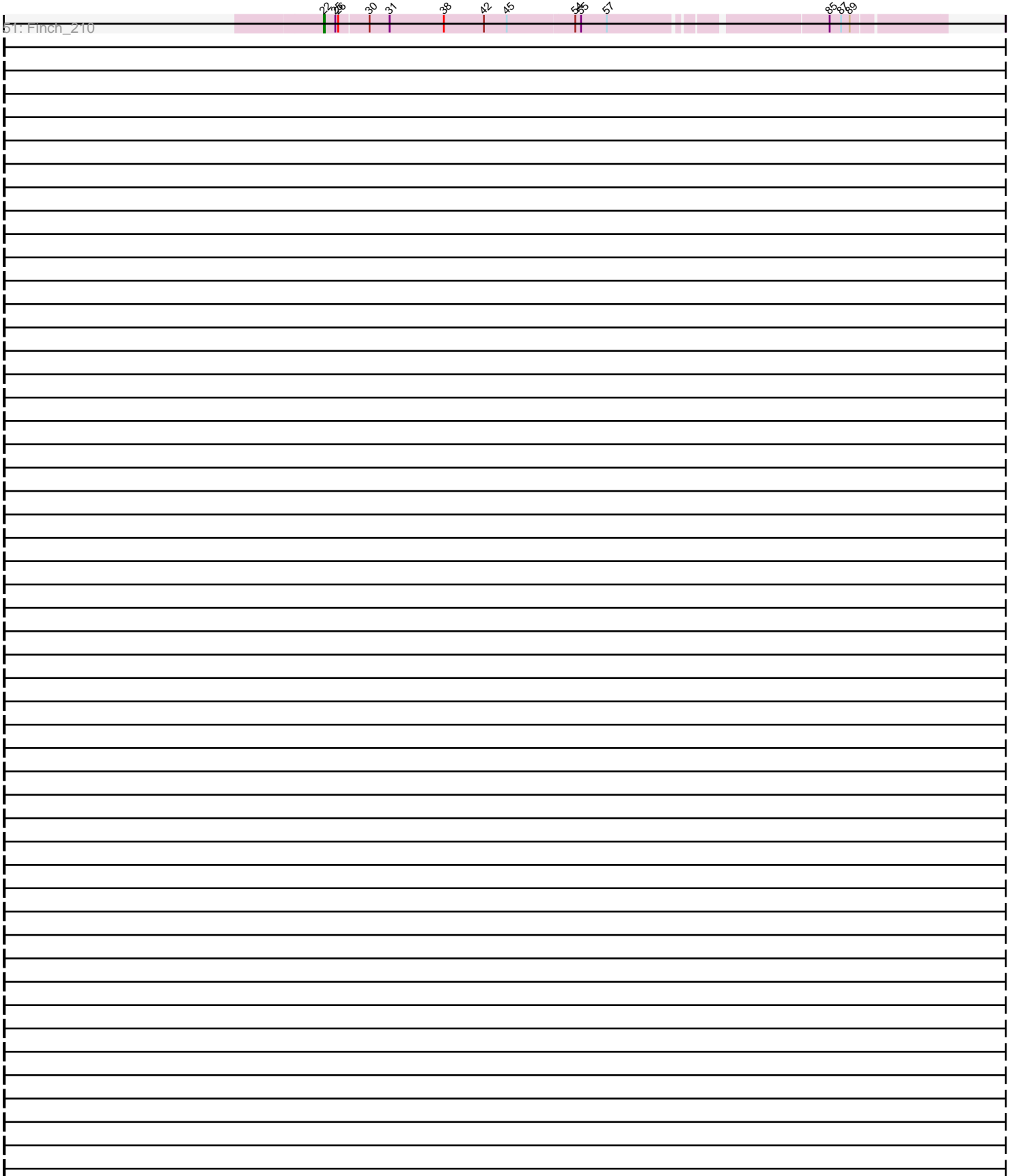


Pham 215973



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 215973 Report

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

Pham number 215973 has 121 members, 21 are drafts.

Phages represented in each track:

- Track 1 : Causa_2, StAugustine_2
- Track 2 : Wheelbite_5
- Track 3 : Waltz_5
- Track 4 : Laroye_5, Salgado_5
- Track 5 : Shrooms_5
- Track 6 : Kovu_5
- Track 7 : Edmundo_4
- Track 8 : LiSara_5
- Track 9 : ApoKipo_4
- Track 10 : Blocker23_1, Laurie_1, Tres_1
- Track 11 : Rosebush_1, Hedgerow_1, Boyle_1, Faze9_1, Brownie5_1, Coffee_1, FrenchFry_1, Tinciduntolum_1, West99_1
- Track 12 : LilSmirk_1
- Track 13 : PrinceCharming_1
- Track 14 : Kheth_1
- Track 15 : Eaglehorse_1
- Track 16 : ItsyBitsy1_1, Lars_1, Ares_1, Calamitous_1, Qyrzula_1, Glass_1, Rhinoforte_1, LizLemon_1, Arbitrator_1, Holeinone_1
- Track 17 : MasterPo_1, Lephleur_1
- Track 18 : Godines_1
- Track 19 : Allegro_1
- Track 20 : Kaleb_1
- Track 21 : Opia_1
- Track 22 : Sabella_1
- Track 23 : Phantasmagoria_1
- Track 24 : Kolhan_1
- Track 25 : Bananafish_1
- Track 26 : TA17A_1
- Track 27 : Vic9_00001
- Track 28 : Audrey_1
- Track 29 : Briakila_1, Phlyer_1, Philly_1, Devonte_1, ChaChing_1, OrangeOswald_1, Gadget_1, Neos5_1, MmasiCarm_1, GlenHope_1, SynergyX_1, Rita1961_1, Heathcliff_1, Marley1013_1, Baloo_1, RomaT_1, Pipefish_1, RagingRooster_1, Nozo_1, Obutu_1, Compostia_1, Yinz_1, Chandler_1, Athena_1, Gervas_1, HarveySr_1, Abingghost_1, Deenasa_1, Akoma_1, LestyG_1, Daisy_1, Corofin_1, Shenandoah_1

- Track 30 : Chalmers_1, Yahalom_1, Marlia_1, Bernardo_1, Morty007_1, Tydolla_1, Phaedrus_1, Kamiyu_1, Glubnar_1, SwainyDoc_1
- Track 31 : Kronus_1, Halfpint_1, Phayeta_1, Mortcellus_1, Casbah_1
- Track 32 : Ben11_1
- Track 33 : Jackstina_1
- Track 34 : SlippinJimmy_1
- Track 35 : Chentzyk_1, Olivio_1
- Track 36 : TinyTerror_1
- Track 37 : Saguaro_1
- Track 38 : PenguinLover67_1
- Track 39 : Quesadilla_1
- Track 40 : CRB2_1
- Track 41 : AksarBAT_1
- Track 42 : NHagos_1
- Track 43 : Evaa_1
- Track 44 : Sour_1
- Track 45 : Coldpizza_81
- Track 46 : Wrackline_71
- Track 47 : Hilltopfarm_1
- Track 48 : Typha_1, AuntGwenStacy_1, Faiyaz_1
- Track 49 : Bipper_1
- Track 50 : Cracklewink_1
- Track 51 : Finch_210

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

The start number called the most often in the published annotations is 12, it was called in 38 of the 100 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Abinghost_1, Akoma_1, Athena_1, Audrey_1, Baloo_1, Briakila_1, Casbah_1, ChaChing_1, Chandler_1, Compostia_1, Corofin_1, Daisy_1, Deenasa_1, Devonte_1, Gadget_1, Gervas_1, GlenHope_1, Halfpint_1, HarveySr_1, Heathcliff_1, Kronus_1, LestyG_1, Marley1013_1, MmasiCarm_1, Mortcellus_1, Neos5_1, Nozo_1, Obutu_1, OrangeOswald_1, Phayeta_1, Philly_1, Phlyer_1, Pipefish_1, RagingRooster_1, Rita1961_1, RomaT_1, Shenandoah_1, SynergyX_1, Yinz_1,

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

- Ben11_1, Bernardo_1, Chalmers_1, Chentzyk_1, Glubnar_1, Jackstina_1, Kamiyu_1, Marlia_1, Morty007_1, Olivio_1, Phaedrus_1, SlippinJimmy_1, SwainyDoc_1, TinyTerror_1, Tydolla_1, Yahalom_1,

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

- AksarBAT_1, Allegro_1, ApoKipo_4, Arbiter_1, Ares_1, AuntGwenStacy_1, Bananafish_1, Bipper_1, Blocker23_1, Boyle_1, Brownie5_1, CRB2_1, Calamitous_1, Causa_2, Coffee_1, Coldpizza_81, Cracklewink_1, Eaglehorse_1, Edmundo_4, Evaa_1, Faiyaz_1, Faze9_1, Finch_210, FrenchFry_1, Glass_1, Godines_1, Hedgerow_1, Hilltopfarm_1, Holeinone_1, ItsyBitsy1_1, Kaleb_1, Kheth_1, Kolhan_1, Kovu_5, Laroye_5, Lars_1, Laurie_1, Lephleur_1, LiSara_5, LilSmirk_1, LizLemon_1, MasterPo_1, NHagos_1, Opia_1, PenguinLover67_1,

Phantasmagoria_1, PrinceCharming_1, Quesadilla_1, Qyrzula_1, Rhinoforte_1, Rosebush_1, Sabella_1, Saguaro_1, Salgado_5, Shrooms_5, Sour_1, StAugustine_2, TA17A_1, Tinciduntolum_1, Tres_1, Typha_1, Vic9_00001, Waltz_5, West99_1, Wheelbite_5, Wrackline_71,

Summary by start number:

Start 3:

- Found in 38 of 121 (31.4%) of genes in pham
- Manual Annotations of this start: 30 of 100
- Called 78.9% of time when present
- Phage (with cluster) where this start called: Arbitrator_1 (B2), Ares_1 (B2), Blocker23_1 (B2), Boyle_1 (B2), Brownie5_1 (B2), Calamitous_1 (B2), Coffee_1 (B2), Eaglehorse_1 (B2), Faze9_1 (B2), FrenchFry_1 (B2), Glass_1 (B2), Godines_1 (B2), Hedgerow_1 (B2), Holeinone_1 (B2), ItsyBitsy1_1 (B2), Kheth_1 (B2), Lars_1 (B2), Laurie_1 (B2), Lephleur_1 (B2), LizLemon_1 (B2), MasterPo_1 (B2), Opia_1 (B2), Phantasmagoria_1 (B2), Qyrzula_1 (B2), Rhinoforte_1 (B2), Rosebush_1 (B2), TA17A_1 (B2), Tinciduntolum_1 (B2), Tres_1 (B2), West99_1 (B2),

Start 5:

- Found in 14 of 121 (11.6%) of genes in pham
- Manual Annotations of this start: 1 of 100
- Called 21.4% of time when present
- Phage (with cluster) where this start called: Bananafish_1 (B2), Kolhan_1 (B2), PrinceCharming_1 (B2),

Start 6:

- Found in 38 of 121 (31.4%) of genes in pham
- Manual Annotations of this start: 2 of 100
- Called 5.3% of time when present
- Phage (with cluster) where this start called: Allegro_1 (B2), Sabella_1 (B2),

Start 7:

- Found in 1 of 121 (0.8%) of genes in pham
- Manual Annotations of this start: 1 of 100
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Saguaro_1 (B7),

Start 10:

- Found in 6 of 121 (5.0%) of genes in pham
- Manual Annotations of this start: 2 of 100
- Called 50.0% of time when present
- Phage (with cluster) where this start called: ApoKipo_4 (AL), Shrooms_5 (AL), Waltz_5 (AL),

Start 12:

- Found in 55 of 121 (45.5%) of genes in pham
- Manual Annotations of this start: 38 of 100
- Called 70.9% of time when present
- Phage (with cluster) where this start called: Abinghost_1 (B3), Akoma_1 (B3), Athena_1 (B3), Audrey_1 (B3), Baloo_1 (B3), Briakila_1 (B3), Casbah_1 (B3), ChaChing_1 (B3), Chandler_1 (B3), Compostia_1 (B3), Corofin_1 (B3), Daisy_1 (B3), Deenasa_1 (B3), Devonte_1 (B3), Gadget_1 (B3), Gervas_1 (B3), GlenHope_1 (B3),

Halfpint_1 (B3), HarveySr_1 (B3), Heathcliff_1 (B3), Kronus_1 (B3), LestyG_1 (B3), Marley1013_1 (B3), MmasiCarm_1 (B3), Mortcellus_1 (B3), Neos5_1 (B3), Nozo_1 (B3), Obutu_1 (B3), OrangeOswald_1 (B3), Phayeta_1 (B3), Philly_1 (B3), Phlyer_1 (B3), Pipefish_1 (B3), RagingRooster_1 (B3), Rita1961_1 (B3), RomaT_1 (B3), Shenandoah_1 (B3), SynergyX_1 (B3), Yinz_1 (B3),

Start 13:

- Found in 38 of 121 (31.4%) of genes in pham
- Manual Annotations of this start: 1 of 100
- Called 7.9% of time when present
- Phage (with cluster) where this start called: Kaleb_1 (B2), LilSmirk_1 (B2), Vic9_00001 (B2),

Start 14:

- Found in 6 of 121 (5.0%) of genes in pham
- Manual Annotations of this start: 4 of 100
- Called 100.0% of time when present
- Phage (with cluster) where this start called: AuntGwenStacy_1 (Y), Bipper_1 (Y), Cracklewink_1 (Y), Faiyaz_1 (Y), Hilltopfarm_1 (Y), Typha_1 (Y),

Start 15:

- Found in 3 of 121 (2.5%) of genes in pham
- Manual Annotations of this start: 1 of 100
- Called 66.7% of time when present
- Phage (with cluster) where this start called: Coldpizza_81 (DR), NHagos_1 (DR),

Start 16:

- Found in 62 of 121 (51.2%) of genes in pham
- Manual Annotations of this start: 3 of 100
- Called 6.5% of time when present
- Phage (with cluster) where this start called: Jackstina_1 (B3), Laroye_5 (AL), Salgado_5 (AL), SlippinJimmy_1 (B3),

Start 17:

- Found in 9 of 121 (7.4%) of genes in pham
- Manual Annotations of this start: 1 of 100
- Called 22.2% of time when present
- Phage (with cluster) where this start called: AksarBAT_1 (DR), Evaa_1 (DR),

Start 18:

- Found in 4 of 121 (3.3%) of genes in pham
- Manual Annotations of this start: 3 of 100
- Called 75.0% of time when present
- Phage (with cluster) where this start called: CRB2_1 (B9), PenguinLover67_1 (B9), Quesadilla_1 (B9),

Start 20:

- Found in 9 of 121 (7.4%) of genes in pham
- Manual Annotations of this start: 4 of 100
- Called 44.4% of time when present
- Phage (with cluster) where this start called: Edmundo_4 (AL), Kovu_5 (AL), LiSara_5 (AL), Wheelbite_5 (AL),

Start 22:

- Found in 2 of 121 (1.7%) of genes in pham
- Manual Annotations of this start: 2 of 100
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Finch_210 (singleton), Sour_1 (DR),

Start 25:

- Found in 2 of 121 (1.7%) of genes in pham
- No Manual Annotations of this start.
- Called 50.0% of time when present
- Phage (with cluster) where this start called: Wrackline_71 (GF),

Start 27:

- Found in 57 of 121 (47.1%) of genes in pham
- Manual Annotations of this start: 1 of 100
- Called 8.8% of time when present
- Phage (with cluster) where this start called: Causa_2 (AI), Chentzyk_1 (B3), Olivio_1 (B3), StAugustine_2 (AI), TinyTerror_1 (B3),

Start 28:

- Found in 102 of 121 (84.3%) of genes in pham
- Manual Annotations of this start: 6 of 100
- Called 10.8% of time when present
- Phage (with cluster) where this start called: Ben11_1 (B3), Bernardo_1 (B3), Chalmers_1 (B3), Glubnar_1 (B3), Kamiyu_1 (B3), Marlia_1 (B3), Morty007_1 (B3), Phaedrus_1 (B3), SwainyDoc_1 (B3), Tydolla_1 (B3), Yahalom_1 (B3),

Summary by clusters:

There are 10 clusters represented in this pham: singleton, AI, AL, GF, B7, B2, B3, Y, DR, B9,

Info for manual annotations of cluster AI:

- Start number 27 was manually annotated 1 time for cluster AI.

Info for manual annotations of cluster AL:

- Start number 10 was manually annotated 2 times for cluster AL.
- Start number 16 was manually annotated 2 times for cluster AL.
- Start number 20 was manually annotated 4 times for cluster AL.

Info for manual annotations of cluster B2:

- Start number 3 was manually annotated 30 times for cluster B2.
- Start number 5 was manually annotated 1 time for cluster B2.
- Start number 6 was manually annotated 2 times for cluster B2.
- Start number 13 was manually annotated 1 time for cluster B2.

Info for manual annotations of cluster B3:

- Start number 12 was manually annotated 38 times for cluster B3.
- Start number 16 was manually annotated 1 time for cluster B3.
- Start number 28 was manually annotated 6 times for cluster B3.

Info for manual annotations of cluster B7:

- Start number 7 was manually annotated 1 time for cluster B7.

Info for manual annotations of cluster B9:

- Start number 18 was manually annotated 3 times for cluster B9.

Info for manual annotations of cluster DR:

- Start number 15 was manually annotated 1 time for cluster DR.
- Start number 17 was manually annotated 1 time for cluster DR.
- Start number 22 was manually annotated 1 time for cluster DR.

Info for manual annotations of cluster Y:

- Start number 14 was manually annotated 4 times for cluster Y.

Gene Information:

Gene: Abinghost_1 Start: 1, Stop: 693, Start Num: 12

Candidate Starts for Abinghost_1:

(Start: 12 @1 has 38 MA's), (Start: 16 @22 has 3 MA's), (Start: 27 @64 has 1 MA's), (Start: 28 @73 has 6 MA's), (36, 151), (39, 175), (42, 214), (47, 253), (53, 307), (55, 313), (57, 340), (76, 478), (82, 541),

Gene: Akoma_1 Start: 1, Stop: 693, Start Num: 12

Candidate Starts for Akoma_1:

(Start: 12 @1 has 38 MA's), (Start: 16 @22 has 3 MA's), (Start: 27 @64 has 1 MA's), (Start: 28 @73 has 6 MA's), (36, 151), (39, 175), (42, 214), (47, 253), (53, 307), (55, 313), (57, 340), (76, 478), (82, 541),

Gene: AksarBAT_1 Start: 10, Stop: 633, Start Num: 17

Candidate Starts for AksarBAT_1:

(Start: 15 @1 has 1 MA's), (Start: 17 @10 has 1 MA's), (32, 103), (33, 109), (39, 154), (42, 193), (45, 217), (55, 292), (71, 424), (79, 463), (89, 547), (96, 580), (102, 619), (103, 622), (105, 628),

Gene: Allegro_1 Start: 76, Stop: 792, Start Num: 6

Candidate Starts for Allegro_1:

(Start: 3 @1 has 30 MA's), (Start: 6 @76 has 2 MA's), (Start: 13 @133 has 1 MA's), (21, 172), (23, 181), (Start: 28 @202 has 6 MA's), (42, 343), (43, 346), (45, 367), (46, 373), (50, 421), (55, 436), (57, 463), (59, 469), (72, 583), (73, 589), (74, 592), (75, 595), (85, 679),

Gene: ApoKipo_4 Start: 3182, Stop: 3832, Start Num: 10

Candidate Starts for ApoKipo_4:

(Start: 10 @3182 has 2 MA's), (Start: 16 @3209 has 3 MA's), (Start: 20 @3227 has 4 MA's), (Start: 28 @3257 has 6 MA's), (32, 3308), (40, 3362), (55, 3473), (70, 3602), (83, 3680), (104, 3809), (105, 3812),

Gene: Arbiter_1 Start: 1, Stop: 792, Start Num: 3

Candidate Starts for Arbiter_1:

(Start: 3 @1 has 30 MA's), (Start: 6 @76 has 2 MA's), (Start: 13 @133 has 1 MA's), (21, 172), (23, 181), (Start: 28 @202 has 6 MA's), (42, 343), (43, 346), (45, 367), (46, 373), (50, 421), (55, 436), (57, 463), (59, 469), (72, 583), (73, 589), (85, 679),

Gene: Ares_1 Start: 1, Stop: 792, Start Num: 3

Candidate Starts for Ares_1:

(Start: 3 @1 has 30 MA's), (Start: 6 @76 has 2 MA's), (Start: 13 @133 has 1 MA's), (21, 172), (23, 181), (Start: 28 @202 has 6 MA's), (42, 343), (43, 346), (45, 367), (46, 373), (50, 421), (55, 436), (57, 463), (59, 469), (72, 583), (73, 589), (85, 679),

Gene: Athena_1 Start: 1, Stop: 693, Start Num: 12

Candidate Starts for Athena_1:

(Start: 12 @1 has 38 MA's), (Start: 16 @22 has 3 MA's), (Start: 27 @64 has 1 MA's), (Start: 28 @73 has 6 MA's), (36, 151), (39, 175), (42, 214), (47, 253), (53, 307), (55, 313), (57, 340), (76, 478), (82, 541),

Gene: Audrey_1 Start: 1, Stop: 693, Start Num: 12

Candidate Starts for Audrey_1:

(Start: 12 @1 has 38 MA's), (Start: 16 @22 has 3 MA's), (Start: 27 @64 has 1 MA's), (Start: 28 @73 has 6 MA's), (39, 175), (47, 253), (53, 307), (55, 313), (57, 340), (76, 478), (82, 541),

Gene: AuntGwenStacy_1 Start: 202, Stop: 861, Start Num: 14

Candidate Starts for AuntGwenStacy_1:

(Start: 14 @202 has 4 MA's), (21, 235), (24, 247), (37, 352), (38, 364), (39, 367), (42, 406), (43, 409), (45, 430), (47, 445), (55, 481), (64, 559), (78, 652), (91, 760), (93, 763), (94, 766), (100, 814), (108, 850),

Gene: Baloo_1 Start: 1, Stop: 693, Start Num: 12

Candidate Starts for Baloo_1:

(Start: 12 @1 has 38 MA's), (Start: 16 @22 has 3 MA's), (Start: 27 @64 has 1 MA's), (Start: 28 @73 has 6 MA's), (36, 151), (39, 175), (42, 214), (47, 253), (53, 307), (55, 313), (57, 340), (76, 478), (82, 541),

Gene: Bananafish_1 Start: 37, Stop: 792, Start Num: 5

Candidate Starts for Bananafish_1:

(Start: 3 @1 has 30 MA's), (Start: 5 @37 has 1 MA's), (Start: 6 @76 has 2 MA's), (Start: 13 @133 has 1 MA's), (21, 172), (23, 181), (Start: 28 @202 has 6 MA's), (42, 343), (45, 367), (46, 373), (50, 421), (55, 436), (57, 463), (59, 469), (72, 583), (73, 589), (85, 679),

Gene: Ben11_1 Start: 73, Stop: 699, Start Num: 28

Candidate Starts for Ben11_1:

(Start: 12 @1 has 38 MA's), (Start: 16 @22 has 3 MA's), (Start: 27 @64 has 1 MA's), (Start: 28 @73 has 6 MA's), (36, 151), (39, 175), (42, 214), (47, 253), (53, 307), (55, 313), (57, 340), (76, 478), (82, 541), (109, 694),

Gene: Bernardo_1 Start: 73, Stop: 693, Start Num: 28

Candidate Starts for Bernardo_1:

(Start: 12 @1 has 38 MA's), (Start: 16 @22 has 3 MA's), (Start: 27 @64 has 1 MA's), (Start: 28 @73 has 6 MA's), (36, 151), (39, 175), (42, 214), (47, 253), (53, 307), (55, 313), (57, 340), (76, 478), (82, 541),

Gene: Bipper_1 Start: 202, Stop: 861, Start Num: 14

Candidate Starts for Bipper_1:

(2, 25), (Start: 14 @202 has 4 MA's), (24, 247), (29, 271), (37, 352), (38, 364), (39, 367), (42, 406), (45, 430), (52, 472), (55, 481), (64, 559), (67, 571), (93, 763), (94, 766), (100, 814), (107, 844),

Gene: Blocker23_1 Start: 1, Stop: 792, Start Num: 3

Candidate Starts for Blocker23_1:

(Start: 3 @1 has 30 MA's), (Start: 5 @37 has 1 MA's), (Start: 6 @76 has 2 MA's), (Start: 13 @133 has 1 MA's), (21, 172), (23, 181), (Start: 28 @202 has 6 MA's), (42, 343), (43, 346), (45, 367), (46, 373), (50, 421), (55, 436), (57, 463), (59, 469), (72, 583), (73, 589), (85, 679),

Gene: Boyle_1 Start: 1, Stop: 792, Start Num: 3

Candidate Starts for Boyle_1:

(Start: 3 @1 has 30 MA's), (Start: 6 @76 has 2 MA's), (Start: 13 @133 has 1 MA's), (21, 172), (23, 181), (Start: 28 @202 has 6 MA's), (42, 343), (43, 346), (45, 367), (46, 373), (50, 421), (55, 436), (57, 463), (59, 469), (72, 583), (73, 589), (74, 592), (75, 595), (85, 679),

Gene: Briakila_1 Start: 1, Stop: 693, Start Num: 12

Candidate Starts for Briakila_1:

(Start: 12 @1 has 38 MA's), (Start: 16 @22 has 3 MA's), (Start: 27 @64 has 1 MA's), (Start: 28 @73 has 6 MA's), (36, 151), (39, 175), (42, 214), (47, 253), (53, 307), (55, 313), (57, 340), (76, 478), (82, 541),

Gene: Brownie5_1 Start: 1, Stop: 792, Start Num: 3

Candidate Starts for Brownie5_1:

(Start: 3 @1 has 30 MA's), (Start: 6 @76 has 2 MA's), (Start: 13 @133 has 1 MA's), (21, 172), (23, 181), (Start: 28 @202 has 6 MA's), (42, 343), (43, 346), (45, 367), (46, 373), (50, 421), (55, 436), (57, 463), (59, 469), (72, 583), (73, 589), (74, 592), (75, 595), (85, 679),

Gene: CRB2_1 Start: 1, Stop: 633, Start Num: 18

Candidate Starts for CRB2_1:

(Start: 18 @1 has 3 MA's), (42, 187), (57, 313), (58, 316), (73, 433), (99, 601),

Gene: Calamitous_1 Start: 1, Stop: 792, Start Num: 3

Candidate Starts for Calamitous_1:

(Start: 3 @1 has 30 MA's), (Start: 6 @76 has 2 MA's), (Start: 13 @133 has 1 MA's), (21, 172), (23, 181), (Start: 28 @202 has 6 MA's), (42, 343), (43, 346), (45, 367), (46, 373), (50, 421), (55, 436), (57, 463), (59, 469), (72, 583), (73, 589), (85, 679),

Gene: Casbah_1 Start: 1, Stop: 699, Start Num: 12

Candidate Starts for Casbah_1:

(Start: 12 @1 has 38 MA's), (Start: 16 @22 has 3 MA's), (Start: 27 @64 has 1 MA's), (Start: 28 @73 has 6 MA's), (36, 151), (39, 175), (42, 214), (47, 253), (53, 307), (55, 313), (57, 340), (76, 478), (82, 541), (109, 694),

Gene: Causa_2 Start: 428, Stop: 1015, Start Num: 27

Candidate Starts for Causa_2:

(Start: 10 @359 has 2 MA's), (23, 416), (24, 419), (Start: 27 @428 has 1 MA's), (Start: 28 @437 has 6 MA's), (40, 542), (42, 578), (48, 626), (50, 662), (56, 689), (61, 740), (76, 836), (99, 989),

Gene: ChaChing_1 Start: 1, Stop: 693, Start Num: 12

Candidate Starts for ChaChing_1:

(Start: 12 @1 has 38 MA's), (Start: 16 @22 has 3 MA's), (Start: 27 @64 has 1 MA's), (Start: 28 @73 has 6 MA's), (36, 151), (39, 175), (42, 214), (47, 253), (53, 307), (55, 313), (57, 340), (76, 478), (82, 541),

Gene: Chalmers_1 Start: 73, Stop: 693, Start Num: 28

Candidate Starts for Chalmers_1:

(Start: 12 @1 has 38 MA's), (Start: 16 @22 has 3 MA's), (Start: 27 @64 has 1 MA's), (Start: 28 @73 has 6 MA's), (36, 151), (39, 175), (42, 214), (47, 253), (53, 307), (55, 313), (57, 340), (76, 478), (82,

541),

Gene: Chandler_1 Start: 1, Stop: 693, Start Num: 12

Candidate Starts for Chandler_1:

(Start: 12 @1 has 38 MA's), (Start: 16 @22 has 3 MA's), (Start: 27 @64 has 1 MA's), (Start: 28 @73 has 6 MA's), (36, 151), (39, 175), (42, 214), (47, 253), (53, 307), (55, 313), (57, 340), (76, 478), (82, 541),

Gene: Chentzyk_1 Start: 64, Stop: 699, Start Num: 27

Candidate Starts for Chentzyk_1:

(Start: 12 @1 has 38 MA's), (Start: 16 @22 has 3 MA's), (Start: 27 @64 has 1 MA's), (Start: 28 @73 has 6 MA's), (36, 151), (39, 175), (42, 214), (47, 253), (53, 307), (55, 313), (57, 340), (76, 478), (82, 541), (109, 694),

Gene: Coffee_1 Start: 1, Stop: 792, Start Num: 3

Candidate Starts for Coffee_1:

(Start: 3 @1 has 30 MA's), (Start: 6 @76 has 2 MA's), (Start: 13 @133 has 1 MA's), (21, 172), (23, 181), (Start: 28 @202 has 6 MA's), (42, 343), (43, 346), (45, 367), (46, 373), (50, 421), (55, 436), (57, 463), (59, 469), (72, 583), (73, 589), (74, 592), (75, 595), (85, 679),

Gene: Coldpizza_81 Start: 61643, Stop: 699, Start Num: 15

Candidate Starts for Coldpizza_81:

(9, 61613), (Start: 15 @61643 has 1 MA's), (Start: 17 @61652 has 1 MA's), (32, 61751), (35, 61772), (55, 61940), (67, 62030), (71, 62072), (88, 62189), (94, 62222), (98, 62243), (102, 62279), (111, 62342),

Gene: Compostia_1 Start: 1, Stop: 693, Start Num: 12

Candidate Starts for Compostia_1:

(Start: 12 @1 has 38 MA's), (Start: 16 @22 has 3 MA's), (Start: 27 @64 has 1 MA's), (Start: 28 @73 has 6 MA's), (36, 151), (39, 175), (42, 214), (47, 253), (53, 307), (55, 313), (57, 340), (76, 478), (82, 541),

Gene: Corofin_1 Start: 1, Stop: 693, Start Num: 12

Candidate Starts for Corofin_1:

(Start: 12 @1 has 38 MA's), (Start: 16 @22 has 3 MA's), (Start: 27 @64 has 1 MA's), (Start: 28 @73 has 6 MA's), (36, 151), (39, 175), (42, 214), (47, 253), (53, 307), (55, 313), (57, 340), (76, 478), (82, 541),

Gene: Cracklewink_1 Start: 202, Stop: 861, Start Num: 14

Candidate Starts for Cracklewink_1:

(2, 25), (Start: 14 @202 has 4 MA's), (24, 247), (29, 271), (35, 337), (37, 352), (38, 364), (39, 367), (42, 406), (45, 430), (52, 472), (55, 481), (64, 559), (67, 571), (93, 763), (94, 766), (100, 814), (107, 844),

Gene: Daisy_1 Start: 1, Stop: 693, Start Num: 12

Candidate Starts for Daisy_1:

(Start: 12 @1 has 38 MA's), (Start: 16 @22 has 3 MA's), (Start: 27 @64 has 1 MA's), (Start: 28 @73 has 6 MA's), (36, 151), (39, 175), (42, 214), (47, 253), (53, 307), (55, 313), (57, 340), (76, 478), (82, 541),

Gene: Deenasa_1 Start: 1, Stop: 693, Start Num: 12

Candidate Starts for Deenasa_1:

(Start: 12 @1 has 38 MA's), (Start: 16 @22 has 3 MA's), (Start: 27 @64 has 1 MA's), (Start: 28 @73 has 6 MA's), (36, 151), (39, 175), (42, 214), (47, 253), (53, 307), (55, 313), (57, 340), (76, 478), (82,

541),

Gene: Devonte_1 Start: 1, Stop: 693, Start Num: 12

Candidate Starts for Devonte_1:

(Start: 12 @1 has 38 MA's), (Start: 16 @22 has 3 MA's), (Start: 27 @64 has 1 MA's), (Start: 28 @73 has 6 MA's), (36, 151), (39, 175), (42, 214), (47, 253), (53, 307), (55, 313), (57, 340), (76, 478), (82, 541),

Gene: Eaglehorse_1 Start: 1, Stop: 792, Start Num: 3

Candidate Starts for Eaglehorse_1:

(Start: 3 @1 has 30 MA's), (Start: 6 @76 has 2 MA's), (Start: 13 @133 has 1 MA's), (21, 172), (23, 181), (Start: 28 @202 has 6 MA's), (42, 343), (45, 367), (46, 373), (50, 421), (55, 436), (57, 463), (59, 469), (72, 583), (73, 589), (85, 679),

Gene: Edmundo_4 Start: 3516, Stop: 4121, Start Num: 20

Candidate Starts for Edmundo_4:

(Start: 16 @3498 has 3 MA's), (Start: 17 @3501 has 1 MA's), (Start: 20 @3516 has 4 MA's), (Start: 28 @3546 has 6 MA's), (32, 3597), (41, 3657), (50, 3747), (53, 3756), (81, 3951), (84, 3972), (106, 4104),

Gene: Evaa_1 Start: 1, Stop: 699, Start Num: 17

Candidate Starts for Evaa_1:

(Start: 17 @1 has 1 MA's), (42, 190), (57, 316), (67, 379), (78, 457), (84, 517), (88, 538), (95, 577), (110, 676), (111, 691),

Gene: Faiyaz_1 Start: 202, Stop: 861, Start Num: 14

Candidate Starts for Faiyaz_1:

(Start: 14 @202 has 4 MA's), (21, 235), (24, 247), (37, 352), (38, 364), (39, 367), (42, 406), (43, 409), (45, 430), (47, 445), (55, 481), (64, 559), (78, 652), (91, 760), (93, 763), (94, 766), (100, 814), (108, 850),

Gene: Faze9_1 Start: 1, Stop: 792, Start Num: 3

Candidate Starts for Faze9_1:

(Start: 3 @1 has 30 MA's), (Start: 6 @76 has 2 MA's), (Start: 13 @133 has 1 MA's), (21, 172), (23, 181), (Start: 28 @202 has 6 MA's), (42, 343), (43, 346), (45, 367), (46, 373), (50, 421), (55, 436), (57, 463), (59, 469), (72, 583), (73, 589), (74, 592), (75, 595), (85, 679),

Gene: Finch_210 Start: 122277, Stop: 122888, Start Num: 22

Candidate Starts for Finch_210:

(Start: 22 @122277 has 2 MA's), (25, 122289), (26, 122292), (30, 122322), (31, 122343), (38, 122400), (42, 122442), (45, 122466), (54, 122535), (55, 122541), (57, 122568), (85, 122775), (87, 122787), (89, 122796),

Gene: FrenchFry_1 Start: 1, Stop: 792, Start Num: 3

Candidate Starts for FrenchFry_1:

(Start: 3 @1 has 30 MA's), (Start: 6 @76 has 2 MA's), (Start: 13 @133 has 1 MA's), (21, 172), (23, 181), (Start: 28 @202 has 6 MA's), (42, 343), (43, 346), (45, 367), (46, 373), (50, 421), (55, 436), (57, 463), (59, 469), (72, 583), (73, 589), (74, 592), (75, 595), (85, 679),

Gene: Gadget_1 Start: 1, Stop: 693, Start Num: 12

Candidate Starts for Gadget_1:

(Start: 12 @1 has 38 MA's), (Start: 16 @22 has 3 MA's), (Start: 27 @64 has 1 MA's), (Start: 28 @73 has 6 MA's), (36, 151), (39, 175), (42, 214), (47, 253), (53, 307), (55, 313), (57, 340), (76, 478), (82, 541),

Gene: Gervas_1 Start: 1, Stop: 693, Start Num: 12

Candidate Starts for Gervas_1:

(Start: 12 @1 has 38 MA's), (Start: 16 @22 has 3 MA's), (Start: 27 @64 has 1 MA's), (Start: 28 @73 has 6 MA's), (36, 151), (39, 175), (42, 214), (47, 253), (53, 307), (55, 313), (57, 340), (76, 478), (82, 541),

Gene: Glass_1 Start: 1, Stop: 792, Start Num: 3

Candidate Starts for Glass_1:

(Start: 3 @1 has 30 MA's), (Start: 6 @76 has 2 MA's), (Start: 13 @133 has 1 MA's), (21, 172), (23, 181), (Start: 28 @202 has 6 MA's), (42, 343), (43, 346), (45, 367), (46, 373), (50, 421), (55, 436), (57, 463), (59, 469), (72, 583), (73, 589), (85, 679),

Gene: GlenHope_1 Start: 1, Stop: 693, Start Num: 12

Candidate Starts for GlenHope_1:

(Start: 12 @1 has 38 MA's), (Start: 16 @22 has 3 MA's), (Start: 27 @64 has 1 MA's), (Start: 28 @73 has 6 MA's), (36, 151), (39, 175), (42, 214), (47, 253), (53, 307), (55, 313), (57, 340), (76, 478), (82, 541),

Gene: Glubnar_1 Start: 73, Stop: 693, Start Num: 28

Candidate Starts for Glubnar_1:

(Start: 12 @1 has 38 MA's), (Start: 16 @22 has 3 MA's), (Start: 27 @64 has 1 MA's), (Start: 28 @73 has 6 MA's), (36, 151), (39, 175), (42, 214), (47, 253), (53, 307), (55, 313), (57, 340), (76, 478), (82, 541),

Gene: Godines_1 Start: 1, Stop: 792, Start Num: 3

Candidate Starts for Godines_1:

(Start: 3 @1 has 30 MA's), (4, 28), (Start: 5 @37 has 1 MA's), (Start: 6 @76 has 2 MA's), (Start: 13 @133 has 1 MA's), (21, 172), (23, 181), (42, 343), (45, 367), (46, 373), (50, 421), (55, 436), (57, 463), (59, 469), (72, 583), (73, 589), (75, 595), (85, 679),

Gene: Halfpint_1 Start: 1, Stop: 699, Start Num: 12

Candidate Starts for Halfpint_1:

(Start: 12 @1 has 38 MA's), (Start: 16 @22 has 3 MA's), (Start: 27 @64 has 1 MA's), (Start: 28 @73 has 6 MA's), (36, 151), (39, 175), (42, 214), (47, 253), (53, 307), (55, 313), (57, 340), (76, 478), (82, 541), (109, 694),

Gene: HarveySr_1 Start: 1, Stop: 693, Start Num: 12

Candidate Starts for HarveySr_1:

(Start: 12 @1 has 38 MA's), (Start: 16 @22 has 3 MA's), (Start: 27 @64 has 1 MA's), (Start: 28 @73 has 6 MA's), (36, 151), (39, 175), (42, 214), (47, 253), (53, 307), (55, 313), (57, 340), (76, 478), (82, 541),

Gene: Heathcliff_1 Start: 1, Stop: 693, Start Num: 12

Candidate Starts for Heathcliff_1:

(Start: 12 @1 has 38 MA's), (Start: 16 @22 has 3 MA's), (Start: 27 @64 has 1 MA's), (Start: 28 @73 has 6 MA's), (36, 151), (39, 175), (42, 214), (47, 253), (53, 307), (55, 313), (57, 340), (76, 478), (82, 541),

Gene: Hedgerow_1 Start: 1, Stop: 792, Start Num: 3

Candidate Starts for Hedgerow_1:

(Start: 3 @1 has 30 MA's), (Start: 6 @76 has 2 MA's), (Start: 13 @133 has 1 MA's), (21, 172), (23, 181), (Start: 28 @202 has 6 MA's), (42, 343), (43, 346), (45, 367), (46, 373), (50, 421), (55, 436), (57,

463), (59, 469), (72, 583), (73, 589), (74, 592), (75, 595), (85, 679),

Gene: Hilltopfarm_1 Start: 202, Stop: 861, Start Num: 14

Candidate Starts for Hilltopfarm_1:

(Start: 14 @202 has 4 MA's), (21, 235), (24, 247), (37, 352), (39, 367), (42, 406), (43, 409), (45, 430), (47, 445), (55, 481), (64, 559), (67, 571), (78, 652), (91, 760), (93, 763), (94, 766), (100, 814), (108, 850),

Gene: Holeinone_1 Start: 1, Stop: 792, Start Num: 3

Candidate Starts for Holeinone_1:

(Start: 3 @1 has 30 MA's), (Start: 6 @76 has 2 MA's), (Start: 13 @133 has 1 MA's), (21, 172), (23, 181), (Start: 28 @202 has 6 MA's), (42, 343), (43, 346), (45, 367), (46, 373), (50, 421), (55, 436), (57, 463), (59, 469), (72, 583), (73, 589), (85, 679),

Gene: ItsyBitsy1_1 Start: 1, Stop: 792, Start Num: 3

Candidate Starts for ItsyBitsy1_1:

(Start: 3 @1 has 30 MA's), (Start: 6 @76 has 2 MA's), (Start: 13 @133 has 1 MA's), (21, 172), (23, 181), (Start: 28 @202 has 6 MA's), (42, 343), (43, 346), (45, 367), (46, 373), (50, 421), (55, 436), (57, 463), (59, 469), (72, 583), (73, 589), (85, 679),

Gene: Jackstina_1 Start: 22, Stop: 693, Start Num: 16

Candidate Starts for Jackstina_1:

(Start: 12 @1 has 38 MA's), (Start: 16 @22 has 3 MA's), (Start: 27 @64 has 1 MA's), (Start: 28 @73 has 6 MA's), (36, 151), (39, 175), (42, 214), (53, 307), (55, 313), (57, 340), (76, 478), (82, 541),

Gene: Kaleb_1 Start: 133, Stop: 792, Start Num: 13

Candidate Starts for Kaleb_1:

(Start: 3 @1 has 30 MA's), (Start: 6 @76 has 2 MA's), (Start: 13 @133 has 1 MA's), (21, 172), (23, 181), (Start: 28 @202 has 6 MA's), (42, 343), (43, 346), (45, 367), (46, 373), (50, 421), (55, 436), (57, 463), (59, 469), (72, 583), (73, 589), (74, 592), (75, 595), (85, 679),

Gene: Kamiyu_1 Start: 73, Stop: 693, Start Num: 28

Candidate Starts for Kamiyu_1:

(Start: 12 @1 has 38 MA's), (Start: 16 @22 has 3 MA's), (Start: 27 @64 has 1 MA's), (Start: 28 @73 has 6 MA's), (36, 151), (39, 175), (42, 214), (47, 253), (53, 307), (55, 313), (57, 340), (76, 478), (82, 541),

Gene: Kheth_1 Start: 1, Stop: 792, Start Num: 3

Candidate Starts for Kheth_1:

(Start: 3 @1 has 30 MA's), (Start: 5 @37 has 1 MA's), (Start: 6 @76 has 2 MA's), (Start: 13 @133 has 1 MA's), (21, 172), (23, 181), (Start: 28 @202 has 6 MA's), (42, 343), (45, 367), (46, 373), (50, 421), (55, 436), (57, 463), (59, 469), (72, 583), (73, 589), (85, 679),

Gene: Kolhan_1 Start: 37, Stop: 792, Start Num: 5

Candidate Starts for Kolhan_1:

(Start: 3 @1 has 30 MA's), (Start: 5 @37 has 1 MA's), (Start: 6 @76 has 2 MA's), (Start: 13 @133 has 1 MA's), (21, 172), (23, 181), (Start: 28 @202 has 6 MA's), (42, 343), (43, 346), (45, 367), (46, 373), (50, 421), (55, 436), (57, 463), (59, 469), (72, 583), (73, 589), (85, 679),

Gene: Kovu_5 Start: 3470, Stop: 4075, Start Num: 20

Candidate Starts for Kovu_5:

(Start: 10 @3425 has 2 MA's), (Start: 16 @3452 has 3 MA's), (Start: 20 @3470 has 4 MA's), (Start: 28 @3500 has 6 MA's), (32, 3551), (39, 3602), (51, 3704), (55, 3716), (70, 3845), (83, 3923), (104, 4052),

(105, 4055),

Gene: Kronus_1 Start: 1, Stop: 699, Start Num: 12

Candidate Starts for Kronus_1:

(Start: 12 @1 has 38 MA's), (Start: 16 @22 has 3 MA's), (Start: 27 @64 has 1 MA's), (Start: 28 @73 has 6 MA's), (36, 151), (39, 175), (42, 214), (47, 253), (53, 307), (55, 313), (57, 340), (76, 478), (82, 541), (109, 694),

Gene: Laroye_5 Start: 3276, Stop: 3899, Start Num: 16

Candidate Starts for Laroye_5:

(Start: 16 @3276 has 3 MA's), (Start: 17 @3279 has 1 MA's), (Start: 20 @3294 has 4 MA's), (Start: 28 @3324 has 6 MA's), (32, 3375), (39, 3426), (41, 3435), (50, 3525), (53, 3534), (55, 3540), (57, 3567), (81, 3729), (84, 3750), (106, 3882),

Gene: Lars_1 Start: 1, Stop: 792, Start Num: 3

Candidate Starts for Lars_1:

(Start: 3 @1 has 30 MA's), (Start: 6 @76 has 2 MA's), (Start: 13 @133 has 1 MA's), (21, 172), (23, 181), (Start: 28 @202 has 6 MA's), (42, 343), (43, 346), (45, 367), (46, 373), (50, 421), (55, 436), (57, 463), (59, 469), (72, 583), (73, 589), (85, 679),

Gene: Laurie_1 Start: 1, Stop: 792, Start Num: 3

Candidate Starts for Laurie_1:

(Start: 3 @1 has 30 MA's), (Start: 5 @37 has 1 MA's), (Start: 6 @76 has 2 MA's), (Start: 13 @133 has 1 MA's), (21, 172), (23, 181), (Start: 28 @202 has 6 MA's), (42, 343), (43, 346), (45, 367), (46, 373), (50, 421), (55, 436), (57, 463), (59, 469), (72, 583), (73, 589), (85, 679),

Gene: Lephleur_1 Start: 1, Stop: 792, Start Num: 3

Candidate Starts for Lephleur_1:

(Start: 3 @1 has 30 MA's), (4, 28), (Start: 5 @37 has 1 MA's), (Start: 6 @76 has 2 MA's), (Start: 13 @133 has 1 MA's), (21, 172), (23, 181), (Start: 28 @202 has 6 MA's), (42, 343), (43, 346), (45, 367), (46, 373), (50, 421), (55, 436), (57, 463), (59, 469), (72, 583), (73, 589), (85, 679),

Gene: LestyG_1 Start: 1, Stop: 693, Start Num: 12

Candidate Starts for LestyG_1:

(Start: 12 @1 has 38 MA's), (Start: 16 @22 has 3 MA's), (Start: 27 @64 has 1 MA's), (Start: 28 @73 has 6 MA's), (36, 151), (39, 175), (42, 214), (47, 253), (53, 307), (55, 313), (57, 340), (76, 478), (82, 541),

Gene: LiSara_5 Start: 3325, Stop: 3930, Start Num: 20

Candidate Starts for LiSara_5:

(11, 3286), (Start: 16 @3307 has 3 MA's), (Start: 17 @3310 has 1 MA's), (Start: 20 @3325 has 4 MA's), (Start: 28 @3355 has 6 MA's), (32, 3406), (39, 3457), (41, 3466), (50, 3556), (53, 3565), (55, 3571), (57, 3598), (81, 3760), (84, 3781), (106, 3913),

Gene: LilSmirk_1 Start: 133, Stop: 792, Start Num: 13

Candidate Starts for LilSmirk_1:

(Start: 3 @1 has 30 MA's), (Start: 6 @76 has 2 MA's), (Start: 13 @133 has 1 MA's), (21, 172), (23, 181), (Start: 28 @202 has 6 MA's), (42, 343), (43, 346), (45, 367), (46, 373), (50, 421), (55, 436), (57, 463), (59, 469), (60, 490), (72, 583), (73, 589), (85, 679),

Gene: LizLemon_1 Start: 1, Stop: 792, Start Num: 3

Candidate Starts for LizLemon_1:

(Start: 3 @1 has 30 MA's), (Start: 6 @76 has 2 MA's), (Start: 13 @133 has 1 MA's), (21, 172), (23, 181), (Start: 28 @202 has 6 MA's), (42, 343), (43, 346), (45, 367), (46, 373), (50, 421), (55, 436), (57, 463), (59, 469), (72, 583), (73, 589), (85, 679),

Gene: Marley1013_1 Start: 1, Stop: 693, Start Num: 12

Candidate Starts for Marley1013_1:

(Start: 12 @1 has 38 MA's), (Start: 16 @22 has 3 MA's), (Start: 27 @64 has 1 MA's), (Start: 28 @73 has 6 MA's), (36, 151), (39, 175), (42, 214), (47, 253), (53, 307), (55, 313), (57, 340), (76, 478), (82, 541),

Gene: Marlia_1 Start: 73, Stop: 693, Start Num: 28

Candidate Starts for Marlia_1:

(Start: 12 @1 has 38 MA's), (Start: 16 @22 has 3 MA's), (Start: 27 @64 has 1 MA's), (Start: 28 @73 has 6 MA's), (36, 151), (39, 175), (42, 214), (47, 253), (53, 307), (55, 313), (57, 340), (76, 478), (82, 541),

Gene: MasterPo_1 Start: 1, Stop: 792, Start Num: 3

Candidate Starts for MasterPo_1:

(Start: 3 @1 has 30 MA's), (4, 28), (Start: 5 @37 has 1 MA's), (Start: 6 @76 has 2 MA's), (Start: 13 @133 has 1 MA's), (21, 172), (23, 181), (Start: 28 @202 has 6 MA's), (42, 343), (43, 346), (45, 367), (46, 373), (50, 421), (55, 436), (57, 463), (59, 469), (72, 583), (73, 589), (85, 679),

Gene: MmasiCarm_1 Start: 1, Stop: 693, Start Num: 12

Candidate Starts for MmasiCarm_1:

(Start: 12 @1 has 38 MA's), (Start: 16 @22 has 3 MA's), (Start: 27 @64 has 1 MA's), (Start: 28 @73 has 6 MA's), (36, 151), (39, 175), (42, 214), (47, 253), (53, 307), (55, 313), (57, 340), (76, 478), (82, 541),

Gene: Mortcellus_1 Start: 1, Stop: 699, Start Num: 12

Candidate Starts for Mortcellus_1:

(Start: 12 @1 has 38 MA's), (Start: 16 @22 has 3 MA's), (Start: 27 @64 has 1 MA's), (Start: 28 @73 has 6 MA's), (36, 151), (39, 175), (42, 214), (47, 253), (53, 307), (55, 313), (57, 340), (76, 478), (82, 541), (109, 694),

Gene: Morty007_1 Start: 73, Stop: 693, Start Num: 28

Candidate Starts for Morty007_1:

(Start: 12 @1 has 38 MA's), (Start: 16 @22 has 3 MA's), (Start: 27 @64 has 1 MA's), (Start: 28 @73 has 6 MA's), (36, 151), (39, 175), (42, 214), (47, 253), (53, 307), (55, 313), (57, 340), (76, 478), (82, 541),

Gene: NHagos_1 Start: 1, Stop: 633, Start Num: 15

Candidate Starts for NHagos_1:

(Start: 15 @1 has 1 MA's), (Start: 17 @10 has 1 MA's), (32, 103), (33, 109), (39, 154), (42, 193), (45, 217), (55, 292), (71, 424), (79, 463), (89, 547), (96, 580), (102, 619), (103, 622), (105, 628),

Gene: Neos5_1 Start: 1, Stop: 693, Start Num: 12

Candidate Starts for Neos5_1:

(Start: 12 @1 has 38 MA's), (Start: 16 @22 has 3 MA's), (Start: 27 @64 has 1 MA's), (Start: 28 @73 has 6 MA's), (36, 151), (39, 175), (42, 214), (47, 253), (53, 307), (55, 313), (57, 340), (76, 478), (82, 541),

Gene: Nozo_1 Start: 1, Stop: 693, Start Num: 12

Candidate Starts for Nozo_1:

(Start: 12 @1 has 38 MA's), (Start: 16 @22 has 3 MA's), (Start: 27 @64 has 1 MA's), (Start: 28 @73 has 6 MA's), (36, 151), (39, 175), (42, 214), (47, 253), (53, 307), (55, 313), (57, 340), (76, 478), (82, 541),

Gene: Obutu_1 Start: 1, Stop: 693, Start Num: 12

Candidate Starts for Obutu_1:

(Start: 12 @1 has 38 MA's), (Start: 16 @22 has 3 MA's), (Start: 27 @64 has 1 MA's), (Start: 28 @73 has 6 MA's), (36, 151), (39, 175), (42, 214), (47, 253), (53, 307), (55, 313), (57, 340), (76, 478), (82, 541),

Gene: Olivio_1 Start: 64, Stop: 699, Start Num: 27

Candidate Starts for Olivio_1:

(Start: 12 @1 has 38 MA's), (Start: 16 @22 has 3 MA's), (Start: 27 @64 has 1 MA's), (Start: 28 @73 has 6 MA's), (36, 151), (39, 175), (42, 214), (47, 253), (53, 307), (55, 313), (57, 340), (76, 478), (82, 541), (109, 694),

Gene: Opia_1 Start: 1, Stop: 792, Start Num: 3

Candidate Starts for Opia_1:

(Start: 3 @1 has 30 MA's), (Start: 5 @37 has 1 MA's), (Start: 6 @76 has 2 MA's), (Start: 13 @133 has 1 MA's), (21, 172), (23, 181), (Start: 28 @202 has 6 MA's), (42, 343), (43, 346), (45, 367), (46, 373), (50, 421), (55, 436), (57, 463), (59, 469), (72, 583), (73, 589), (74, 592), (75, 595), (85, 679),

Gene: OrangeOswald_1 Start: 1, Stop: 693, Start Num: 12

Candidate Starts for OrangeOswald_1:

(Start: 12 @1 has 38 MA's), (Start: 16 @22 has 3 MA's), (Start: 27 @64 has 1 MA's), (Start: 28 @73 has 6 MA's), (36, 151), (39, 175), (42, 214), (47, 253), (53, 307), (55, 313), (57, 340), (76, 478), (82, 541),

Gene: PenguinLover67_1 Start: 1, Stop: 633, Start Num: 18

Candidate Starts for PenguinLover67_1:

(Start: 18 @1 has 3 MA's), (42, 187), (56, 298), (57, 313), (58, 316), (73, 433), (99, 601),

Gene: Phaedrus_1 Start: 73, Stop: 693, Start Num: 28

Candidate Starts for Phaedrus_1:

(Start: 12 @1 has 38 MA's), (Start: 16 @22 has 3 MA's), (Start: 27 @64 has 1 MA's), (Start: 28 @73 has 6 MA's), (36, 151), (39, 175), (42, 214), (47, 253), (53, 307), (55, 313), (57, 340), (76, 478), (82, 541),

Gene: Phantasmagoria_1 Start: 1, Stop: 792, Start Num: 3

Candidate Starts for Phantasmagoria_1:

(Start: 3 @1 has 30 MA's), (Start: 5 @37 has 1 MA's), (Start: 6 @76 has 2 MA's), (Start: 13 @133 has 1 MA's), (21, 172), (23, 181), (Start: 28 @202 has 6 MA's), (42, 343), (43, 346), (45, 367), (46, 373), (50, 421), (55, 436), (57, 463), (59, 469), (73, 589), (75, 595), (85, 679),

Gene: Phayeta_1 Start: 1, Stop: 699, Start Num: 12

Candidate Starts for Phayeta_1:

(Start: 12 @1 has 38 MA's), (Start: 16 @22 has 3 MA's), (Start: 27 @64 has 1 MA's), (Start: 28 @73 has 6 MA's), (36, 151), (39, 175), (42, 214), (47, 253), (53, 307), (55, 313), (57, 340), (76, 478), (82, 541), (109, 694),

Gene: Philly_1 Start: 1, Stop: 693, Start Num: 12

Candidate Starts for Philly_1:

(Start: 12 @1 has 38 MA's), (Start: 16 @22 has 3 MA's), (Start: 27 @64 has 1 MA's), (Start: 28 @73 has 6 MA's), (36, 151), (39, 175), (42, 214), (47, 253), (53, 307), (55, 313), (57, 340), (76, 478), (82, 541),

Gene: Phlyer_1 Start: 1, Stop: 693, Start Num: 12

Candidate Starts for Phlyer_1:

(Start: 12 @1 has 38 MA's), (Start: 16 @22 has 3 MA's), (Start: 27 @64 has 1 MA's), (Start: 28 @73 has 6 MA's), (36, 151), (39, 175), (42, 214), (47, 253), (53, 307), (55, 313), (57, 340), (76, 478), (82, 541),

Gene: Pipefish_1 Start: 1, Stop: 693, Start Num: 12

Candidate Starts for Pipefish_1:

(Start: 12 @1 has 38 MA's), (Start: 16 @22 has 3 MA's), (Start: 27 @64 has 1 MA's), (Start: 28 @73 has 6 MA's), (36, 151), (39, 175), (42, 214), (47, 253), (53, 307), (55, 313), (57, 340), (76, 478), (82, 541),

Gene: PrinceCharming_1 Start: 37, Stop: 792, Start Num: 5

Candidate Starts for PrinceCharming_1:

(Start: 3 @1 has 30 MA's), (4, 28), (Start: 5 @37 has 1 MA's), (Start: 6 @76 has 2 MA's), (Start: 13 @133 has 1 MA's), (21, 172), (23, 181), (42, 343), (45, 367), (46, 373), (50, 421), (55, 436), (57, 463), (59, 469), (67, 526), (73, 589), (75, 595), (85, 679),

Gene: Quesadilla_1 Start: 1, Stop: 633, Start Num: 18

Candidate Starts for Quesadilla_1:

(Start: 18 @1 has 3 MA's), (32, 97), (42, 187), (49, 265), (57, 313), (73, 433),

Gene: Qyrzula_1 Start: 1, Stop: 792, Start Num: 3

Candidate Starts for Qyrzula_1:

(Start: 3 @1 has 30 MA's), (Start: 6 @76 has 2 MA's), (Start: 13 @133 has 1 MA's), (21, 172), (23, 181), (Start: 28 @202 has 6 MA's), (42, 343), (43, 346), (45, 367), (46, 373), (50, 421), (55, 436), (57, 463), (59, 469), (72, 583), (73, 589), (85, 679),

Gene: RagingRooster_1 Start: 1, Stop: 693, Start Num: 12

Candidate Starts for RagingRooster_1:

(Start: 12 @1 has 38 MA's), (Start: 16 @22 has 3 MA's), (Start: 27 @64 has 1 MA's), (Start: 28 @73 has 6 MA's), (36, 151), (39, 175), (42, 214), (47, 253), (53, 307), (55, 313), (57, 340), (76, 478), (82, 541),

Gene: Rhinoforte_1 Start: 1, Stop: 792, Start Num: 3

Candidate Starts for Rhinoforte_1:

(Start: 3 @1 has 30 MA's), (Start: 6 @76 has 2 MA's), (Start: 13 @133 has 1 MA's), (21, 172), (23, 181), (Start: 28 @202 has 6 MA's), (42, 343), (43, 346), (45, 367), (46, 373), (50, 421), (55, 436), (57, 463), (59, 469), (72, 583), (73, 589), (85, 679),

Gene: Rita1961_1 Start: 1, Stop: 693, Start Num: 12

Candidate Starts for Rita1961_1:

(Start: 12 @1 has 38 MA's), (Start: 16 @22 has 3 MA's), (Start: 27 @64 has 1 MA's), (Start: 28 @73 has 6 MA's), (36, 151), (39, 175), (42, 214), (47, 253), (53, 307), (55, 313), (57, 340), (76, 478), (82, 541),

Gene: RomaT_1 Start: 1, Stop: 693, Start Num: 12

Candidate Starts for RomaT_1:

(Start: 12 @1 has 38 MA's), (Start: 16 @22 has 3 MA's), (Start: 27 @64 has 1 MA's), (Start: 28 @73 has 6 MA's), (36, 151), (39, 175), (42, 214), (47, 253), (53, 307), (55, 313), (57, 340), (76, 478), (82, 541),

Gene: Rosebush_1 Start: 1, Stop: 792, Start Num: 3

Candidate Starts for Rosebush_1:

(Start: 3 @1 has 30 MA's), (Start: 6 @76 has 2 MA's), (Start: 13 @133 has 1 MA's), (21, 172), (23, 181), (Start: 28 @202 has 6 MA's), (42, 343), (43, 346), (45, 367), (46, 373), (50, 421), (55, 436), (57, 463), (59, 469), (72, 583), (73, 589), (74, 592), (75, 595), (85, 679),

Gene: Sabella_1 Start: 76, Stop: 792, Start Num: 6

Candidate Starts for Sabella_1:

(Start: 3 @1 has 30 MA's), (Start: 5 @37 has 1 MA's), (Start: 6 @76 has 2 MA's), (Start: 13 @133 has 1 MA's), (21, 172), (23, 181), (Start: 28 @202 has 6 MA's), (42, 343), (45, 367), (46, 373), (50, 421), (55, 436), (57, 463), (59, 469), (72, 583), (73, 589), (85, 679),

Gene: Saguaro_1 Start: 1, Stop: 735, Start Num: 7

Candidate Starts for Saguaro_1:

(Start: 7 @1 has 1 MA's), (8, 28), (Start: 18 @79 has 3 MA's), (34, 187), (42, 265), (50, 349), (53, 358), (55, 364), (56, 376), (57, 391), (58, 394), (65, 445), (75, 517), (90, 625), (101, 700),

Gene: Salgado_5 Start: 3284, Stop: 3907, Start Num: 16

Candidate Starts for Salgado_5:

(Start: 16 @3284 has 3 MA's), (Start: 17 @3287 has 1 MA's), (Start: 20 @3302 has 4 MA's), (Start: 28 @3332 has 6 MA's), (32, 3383), (39, 3434), (41, 3443), (50, 3533), (53, 3542), (55, 3548), (57, 3575), (81, 3737), (84, 3758), (106, 3890),

Gene: Shenandoah_1 Start: 1, Stop: 693, Start Num: 12

Candidate Starts for Shenandoah_1:

(Start: 12 @1 has 38 MA's), (Start: 16 @22 has 3 MA's), (Start: 27 @64 has 1 MA's), (Start: 28 @73 has 6 MA's), (36, 151), (39, 175), (42, 214), (47, 253), (53, 307), (55, 313), (57, 340), (76, 478), (82, 541),

Gene: Shrooms_5 Start: 3310, Stop: 3960, Start Num: 10

Candidate Starts for Shrooms_5:

(1, 3046), (Start: 10 @3310 has 2 MA's), (Start: 20 @3355 has 4 MA's), (Start: 28 @3385 has 6 MA's), (32, 3436), (38, 3484), (39, 3487), (53, 3595), (55, 3601), (86, 3826), (97, 3889),

Gene: SlippinJimmy_1 Start: 22, Stop: 693, Start Num: 16

Candidate Starts for SlippinJimmy_1:

(Start: 12 @1 has 38 MA's), (Start: 16 @22 has 3 MA's), (Start: 27 @64 has 1 MA's), (Start: 28 @73 has 6 MA's), (36, 151), (39, 175), (42, 214), (47, 253), (53, 307), (55, 313), (57, 340), (76, 478), (82, 541),

Gene: Sour_1 Start: 1, Stop: 615, Start Num: 22

Candidate Starts for Sour_1:

(Start: 22 @1 has 2 MA's), (39, 130), (42, 169), (45, 193), (55, 268), (57, 295), (73, 415), (99, 583),

Gene: StAugustine_2 Start: 428, Stop: 1015, Start Num: 27

Candidate Starts for StAugustine_2:

(Start: 10 @359 has 2 MA's), (23, 416), (24, 419), (Start: 27 @428 has 1 MA's), (Start: 28 @437 has 6 MA's), (40, 542), (42, 578), (48, 626), (50, 662), (56, 689), (61, 740), (76, 836), (99, 989),

Gene: SwainyDoc_1 Start: 73, Stop: 693, Start Num: 28

Candidate Starts for SwainyDoc_1:

(Start: 12 @1 has 38 MA's), (Start: 16 @22 has 3 MA's), (Start: 27 @64 has 1 MA's), (Start: 28 @73 has 6 MA's), (36, 151), (39, 175), (42, 214), (47, 253), (53, 307), (55, 313), (57, 340), (76, 478), (82, 541),

Gene: SynergyX_1 Start: 1, Stop: 693, Start Num: 12

Candidate Starts for SynergyX_1:

(Start: 12 @1 has 38 MA's), (Start: 16 @22 has 3 MA's), (Start: 27 @64 has 1 MA's), (Start: 28 @73 has 6 MA's), (36, 151), (39, 175), (42, 214), (47, 253), (53, 307), (55, 313), (57, 340), (76, 478), (82, 541),

Gene: TA17A_1 Start: 1, Stop: 792, Start Num: 3

Candidate Starts for TA17A_1:

(Start: 3 @1 has 30 MA's), (Start: 5 @37 has 1 MA's), (Start: 6 @76 has 2 MA's), (Start: 13 @133 has 1 MA's), (21, 172), (23, 181), (Start: 28 @202 has 6 MA's), (42, 343), (45, 367), (46, 373), (50, 421), (55, 436), (57, 463), (59, 469), (72, 583), (73, 589), (85, 679), (86, 688),

Gene: Tinciduntolum_1 Start: 1, Stop: 792, Start Num: 3

Candidate Starts for Tinciduntolum_1:

(Start: 3 @1 has 30 MA's), (Start: 6 @76 has 2 MA's), (Start: 13 @133 has 1 MA's), (21, 172), (23, 181), (Start: 28 @202 has 6 MA's), (42, 343), (43, 346), (45, 367), (46, 373), (50, 421), (55, 436), (57, 463), (59, 469), (72, 583), (73, 589), (74, 592), (75, 595), (85, 679),

Gene: TinyTerror_1 Start: 64, Stop: 693, Start Num: 27

Candidate Starts for TinyTerror_1:

(Start: 12 @1 has 38 MA's), (Start: 16 @22 has 3 MA's), (Start: 27 @64 has 1 MA's), (Start: 28 @73 has 6 MA's), (36, 151), (39, 175), (42, 214), (47, 253), (53, 307), (55, 313), (57, 340), (76, 478), (82, 541),

Gene: Tres_1 Start: 1, Stop: 792, Start Num: 3

Candidate Starts for Tres_1:

(Start: 3 @1 has 30 MA's), (Start: 5 @37 has 1 MA's), (Start: 6 @76 has 2 MA's), (Start: 13 @133 has 1 MA's), (21, 172), (23, 181), (Start: 28 @202 has 6 MA's), (42, 343), (43, 346), (45, 367), (46, 373), (50, 421), (55, 436), (57, 463), (59, 469), (72, 583), (73, 589), (85, 679),

Gene: Tydolla_1 Start: 73, Stop: 693, Start Num: 28

Candidate Starts for Tydolla_1:

(Start: 12 @1 has 38 MA's), (Start: 16 @22 has 3 MA's), (Start: 27 @64 has 1 MA's), (Start: 28 @73 has 6 MA's), (36, 151), (39, 175), (42, 214), (47, 253), (53, 307), (55, 313), (57, 340), (76, 478), (82, 541),

Gene: Typha_1 Start: 202, Stop: 861, Start Num: 14

Candidate Starts for Typha_1:

(Start: 14 @202 has 4 MA's), (21, 235), (24, 247), (37, 352), (38, 364), (39, 367), (42, 406), (43, 409), (45, 430), (47, 445), (55, 481), (64, 559), (78, 652), (91, 760), (93, 763), (94, 766), (100, 814), (108, 850),

Gene: Vic9_00001 Start: 133, Stop: 792, Start Num: 13

Candidate Starts for Vic9_00001:

(Start: 3 @1 has 30 MA's), (Start: 6 @76 has 2 MA's), (Start: 13 @133 has 1 MA's), (21, 172), (23, 181), (Start: 28 @202 has 6 MA's), (42, 343), (45, 367), (46, 373), (50, 421), (55, 436), (57, 463), (59, 469), (72, 583), (73, 589), (85, 679),

Gene: Waltz_5 Start: 3398, Stop: 4048, Start Num: 10

Candidate Starts for Waltz_5:

(Start: 10 @3398 has 2 MA's), (Start: 20 @3443 has 4 MA's), (Start: 28 @3473 has 6 MA's), (32, 3524), (38, 3572), (53, 3683), (55, 3689), (97, 3977),

Gene: West99_1 Start: 1, Stop: 792, Start Num: 3

Candidate Starts for West99_1:

(Start: 3 @1 has 30 MA's), (Start: 6 @76 has 2 MA's), (Start: 13 @133 has 1 MA's), (21, 172), (23, 181), (Start: 28 @202 has 6 MA's), (42, 343), (43, 346), (45, 367), (46, 373), (50, 421), (55, 436), (57, 463), (59, 469), (72, 583), (73, 589), (74, 592), (75, 595), (85, 679),

Gene: Wheelbite_5 Start: 3393, Stop: 3998, Start Num: 20

Candidate Starts for Wheelbite_5:

(Start: 16 @3375 has 3 MA's), (Start: 17 @3378 has 1 MA's), (Start: 20 @3393 has 4 MA's), (Start: 28 @3423 has 6 MA's), (32, 3474), (41, 3534), (53, 3633), (81, 3828), (84, 3849), (106, 3981),

Gene: Wrackline_71 Start: 37846, Stop: 38481, Start Num: 25

Candidate Starts for Wrackline_71:

(19, 37825), (25, 37846), (29, 37867), (32, 37912), (40, 37966), (42, 38002), (44, 38020), (53, 38071), (57, 38104), (62, 38149), (63, 38152), (66, 38164), (68, 38191), (69, 38221), (71, 38230), (73, 38245), (77, 38263), (80, 38308), (83, 38329), (84, 38332), (86, 38347), (92, 38389),

Gene: Yahalom_1 Start: 73, Stop: 693, Start Num: 28

Candidate Starts for Yahalom_1:

(Start: 12 @1 has 38 MA's), (Start: 16 @22 has 3 MA's), (Start: 27 @64 has 1 MA's), (Start: 28 @73 has 6 MA's), (36, 151), (39, 175), (42, 214), (47, 253), (53, 307), (55, 313), (57, 340), (76, 478), (82, 541),

Gene: Yinz_1 Start: 1, Stop: 693, Start Num: 12

Candidate Starts for Yinz_1:

(Start: 12 @1 has 38 MA's), (Start: 16 @22 has 3 MA's), (Start: 27 @64 has 1 MA's), (Start: 28 @73 has 6 MA's), (36, 151), (39, 175), (42, 214), (47, 253), (53, 307), (55, 313), (57, 340), (76, 478), (82, 541),