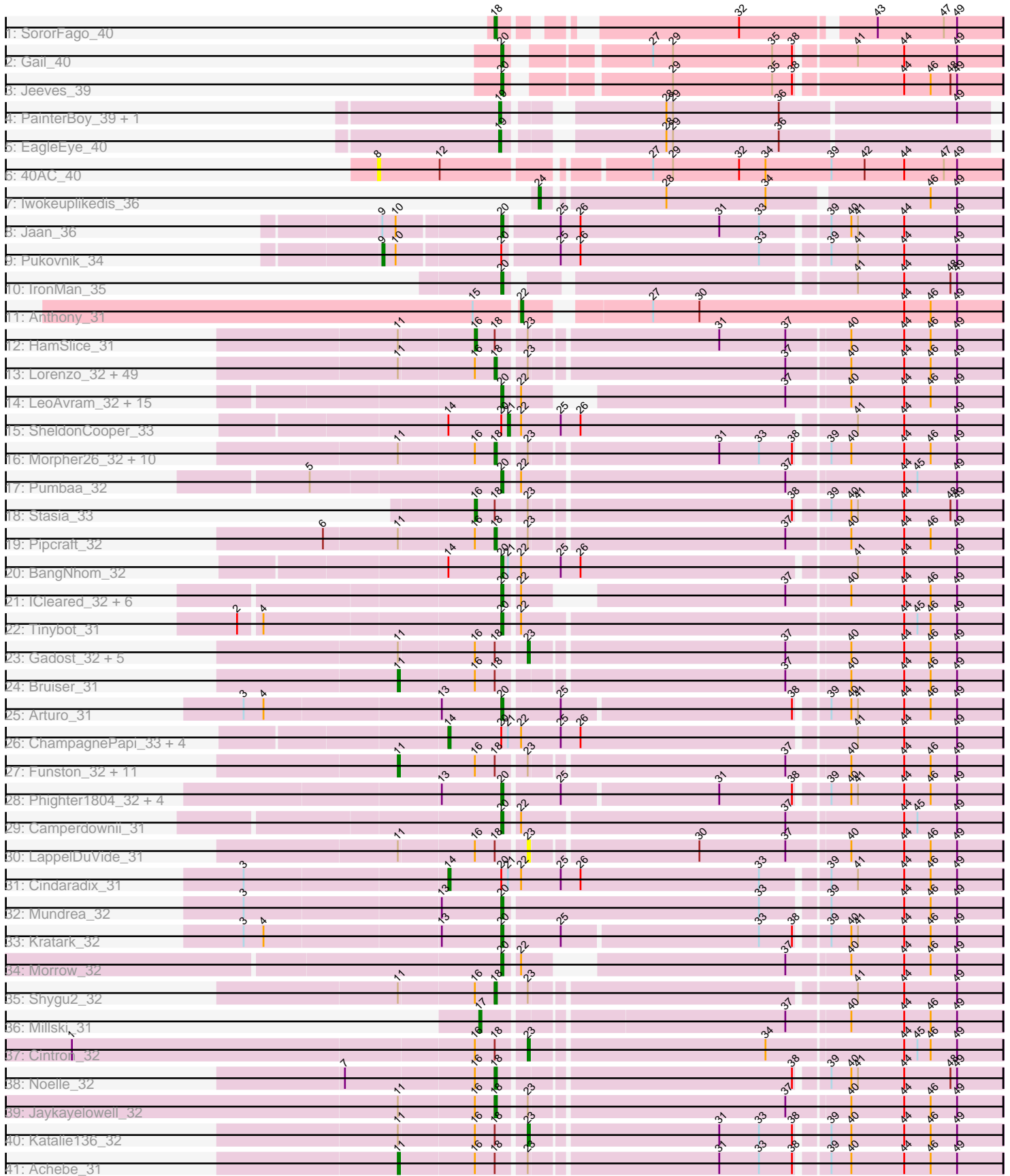


Pham 163408



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 163408 Report

This analysis was run 05/04/24 on database version 560.

Pham number 163408 has 146 members, 3 are drafts.

Phages represented in each track:

- Track 1 : SororFago_40
- Track 2 : Gail_40
- Track 3 : Jeeves_39
- Track 4 : PainterBoy_39, Lucyedi_39
- Track 5 : EagleEye_40
- Track 6 : 40AC_40
- Track 7 : Iwokeuplikedis_36
- Track 8 : Jaan_36
- Track 9 : Pukovnik_34
- Track 10 : IronMan_35
- Track 11 : Anthony_31
- Track 12 : HamSlice_31
- Track 13 : Lorenzo_32, Florean_32, Cocoaberry_32, Bartimeaus_32, Avle17_32, Dhanush_32, Wilbur_32, Eapen_32, Wizard007_32, Taquarus_32, Relief_32, Kyee_32, CentreCat_32, Ruin_32, TygerBlood_32, Albee_32, Citius_32, Flux_32, NotAPhaseMom_32, Caelakin_32, LittleB_32, Chaph_32, Burger_31, Druantia_32, TiroTheta9_32, Iceman_33, Sabertooth_32, Blackmoor_32, Houdini22_32, Happiness_32, Phacado_32, NorthStar_32, Mazhar510_32, Scamp_32, OKaNui_33, Eros_32, Romney_32, PeterPeter_32, Baby16_32, MeeZee_32, Shaka_32, Deano_32, YoSam321_32, Spino_32, Holli_32, Roosevelt_32, Broseidon_32, Connomayer_32, JetBlade_32, Peaches_32
- Track 14 : LeoAvram_32, TroyPia_32, TinaFeyge_32, Maxo_32, Commander_32, BellusTerra_32, Eurydice_32, Nebs_32, Medusa_32, Sparxx_32, Kampy_32, Polymorphads_32, Melvin_32, Abdiel_31, Ohfah_32, Phelipe_32
- Track 15 : SheldonCooper_33
- Track 16 : Morpher26_32, Perplexer_32, Datway_32, PetiteSangsue_32, Badger_32, Wile_32, Backyardigan_32, Xena_32, Bumblebee11_32, AbbysRanger_32, Cici_32
- Track 17 : Pumbaa_32
- Track 18 : Stasia_33
- Track 19 : Pipcraft_32
- Track 20 : BangNhom_32
- Track 21 : ICleared_32, Alberto7_33, Koreni_31, LittleGuy_32, Kremtemulon_31, Phontbonne_32, Nyxis_32
- Track 22 : Tinybot_31
- Track 23 : Gadost_32, Thanksgivukkah_32, Annyong_32, Wander_32, Skipitt_32, Kingmustik0402_32

- Track 24 : Bruiser_31
- Track 25 : Arturo_31
- Track 26 : ChampagnePapi_33, Cerulean_33, Eagle_31, Obama12_33, LHTSCC_33
- Track 27 : Funston_32, Nemo27_32, JoongJeon_32, Lemur_32, Eris_31, Lunsford_33, KFPoly_32, Maverick_32, Clarenza_32, BubbleTrouble_32, Palestino_31, Bombshell_32
- Track 28 : Phighter1804_32, Ulysses_31, DirtyDunning_32, Iracema64_33, LochMonster_32
- Track 29 : Camperdownii_31
- Track 30 : LappelDuVide_31
- Track 31 : Cindaradix_31
- Track 32 : Mundrea_32
- Track 33 : Kratak_32
- Track 34 : Morrow_32
- Track 35 : Shygu2_32
- Track 36 : Millski_31
- Track 37 : Cintron_32
- Track 38 : Noelle_32
- Track 39 : Jaykayelowell_32
- Track 40 : Katalie136_32
- Track 41 : Achebe_31

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

The start number called the most often in the published annotations is 18, it was called in 66 of the 143 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

• AbbysRanger_32, Albee_32, Avle17_32, Baby16_32, Backyardigan_32, Badger_32, Bartimeaus_32, Blackmoor_32, Broseidon_32, Bumblebee11_32, Burger_31, Caelakin_32, CentreCat_32, Chaph_32, Cici_32, Citius_32, CocoaBerry_32, Connomayer_32, Datway_32, Deano_32, Dhanush_32, Druantia_32, Eapen_32, Eros_32, Florean_32, Flux_32, Happiness_32, Holli_32, Houdini22_32, Iceman_33, Jaykayelowell_32, JetBlade_32, Kyee_32, LittleB_32, Lorenzo_32, Mazhar510_32, MeeZee_32, Morpher26_32, Noelle_32, NorthStar_32, NotAPhaseMom_32, OKaNui_33, Peaches_32, Perplexer_32, PeterPeter_32, PetiteSangsue_32, Phacado_32, Pipcraft_32, Relief_32, Romney_32, Roosevelt_32, Ruin_32, Sabertooth_32, Scamp_32, Shaka_32, Shygu2_32, SororFago_40, Spino_32, Taquarus_32, TiroTheta9_32, TygerBlood_32, Wilbur_32, Wile_32, Wizard007_32, Xena_32, YoSam321_32,

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

• Achebe_31, Annyong_32, Bombshell_32, Bruiser_31, BubbleTrouble_32, Cintron_32, Clarenza_32, Eris_31, Funston_32, Gadost_32, HamSlice_31, JoongJeon_32, KFPoly_32, Katalie136_32, Kingmustik0402_32, LappelDuVide_31, Lemur_32, Lunsford_33, Maverick_32, Nemo27_32, Palestino_31, Skipitt_32, Stasia_33, Thanksgivukkah_32, Wander_32,

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

- 40AC_40, Abdiel_31, Alberto7_33, Anthony_31, Arturo_31, BangNhom_32, BellusTerra_32, Camperdownii_31, Cerulean_33, ChampagnePapi_33, Cindaradix_31, Commander_32, DirtyDunning_32, EagleEye_40, Eagle_31, Eurydice_32, Gail_40, ICleared_32, Iracema64_33, IronMan_35, Iwokeuplikedis_36, Jaan_36, Jeeves_39, Kampy_32, Koreni_31, Kratark_32, Kremtemulon_31, LHTSCC_33, LeoAvram_32, LittleGuy_32, LochMonster_32, Lucyedi_39, Maxo_32, Medusa_32, Melvin_32, Millski_31, Morrow_32, Mundrea_32, Nebs_32, Nyxis_32, Obama12_33, Ohfah_32, PainterBoy_39, Phelipe_32, Phighter1804_32, Phontbonne_32, Polymorphads_32, Pukovnik_34, Pumbaa_32, SheldonCooper_33, Sparxx_32, TinaFeyge_32, Tinybot_31, TroyPia_32, Ulysses_31,

Summary by start number:

Start 8:

- Found in 1 of 146 (0.7%) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: 40AC_40 (A17),

Start 9:

- Found in 2 of 146 (1.4%) of genes in pham
- Manual Annotations of this start: 1 of 143
- Called 50.0% of time when present
- Phage (with cluster) where this start called: Pukovnik_34 (A2),

Start 11:

- Found in 87 of 146 (59.6%) of genes in pham
- Manual Annotations of this start: 14 of 143
- Called 16.1% of time when present
- Phage (with cluster) where this start called: Achebe_31 (A4), Bombshell_32 (A4), Bruiser_31 (A4), BubbleTrouble_32 (A4), Clarenza_32 (A4), Eris_31 (A4), Funston_32 (A4), JoongJeon_32 (A4), KFPoly_32 (A4), Lemur_32 (A4), Lunsford_33 (A4), Maverick_32 (A4), Nemo27_32 (A4), Palestino_31 (A4),

Start 14:

- Found in 8 of 146 (5.5%) of genes in pham
- Manual Annotations of this start: 6 of 143
- Called 75.0% of time when present
- Phage (with cluster) where this start called: Cerulean_33 (A4), ChampagnePapi_33 (A4), Cindaradix_31 (A4), Eagle_31 (A4), LHTSCC_33 (A4), Obama12_33 (A4),

Start 16:

- Found in 90 of 146 (61.6%) of genes in pham
- Manual Annotations of this start: 2 of 143
- Called 2.2% of time when present
- Phage (with cluster) where this start called: HamSlice_31 (A4), Stasia_33 (A4),

Start 17:

- Found in 1 of 146 (0.7%) of genes in pham
- Manual Annotations of this start: 1 of 143
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Millski_31 (A4),

Start 18:

- Found in 91 of 146 (62.3%) of genes in pham
- Manual Annotations of this start: 66 of 143
- Called 72.5% of time when present
- Phage (with cluster) where this start called: AbbysRanger_32 (A4), Albee_32 (A4), Avle17_32 (A4), Baby16_32 (A4), Backyardigan_32 (A4), Badger_32 (A4), Bartimeaus_32 (A4), Blackmoor_32 (A4), Broseidon_32 (A4), Bumblebee11_32 (A4), Burger_31 (A4), Caelakin_32 (A4), CentreCat_32 (A4), Chaph_32 (A4), Cici_32 (A4), Citius_32 (A4), Cocoaberry_32 (A4), Connomayer_32 (A4), Datway_32 (A4), Deano_32 (A4), Dhanush_32 (A4), Druantia_32 (A4), Eapen_32 (A4), Eros_32 (A4), Florean_32 (A4), Flux_32 (A4), Happiness_32 (A4), Holli_32 (A4), Houdini22_32 (A4), Iceman_33 (A4), Jaykayelowell_32 (A4), JetBlade_32 (A4), Kyee_32 (A4), LittleB_32 (A4), Lorenzo_32 (A4), Mazhar510_32 (A4), MeeZee_32 (A4), Morpher26_32 (A4), Noelle_32 (A4), NorthStar_32 (A4), NotAPhaseMom_32 (A4), OKaNui_33 (A4), Peaches_32 (A4), Perplexer_32 (A4), PeterPeter_32 (A4), PetiteSangsue_32 (A4), Phacado_32 (A4), Pipcraft_32 (A4), Relief_32 (A4), Romney_32 (A4), Roosevelt_32 (A4), Ruin_32 (A4), Sabertooth_32 (A4), Scamp_32 (A4), Shaka_32 (A4), Shygu2_32 (A4), SororFago_40 (A14), Spino_32 (A4), Taquarus_32 (A4), TiroTheta9_32 (A4), TygerBlood_32 (A4), Wilbur_32 (A4), Wile_32 (A4), Wizard007_32 (A4), Xena_32 (A4), YoSam321_32 (A4),

Start 19:

- Found in 3 of 146 (2.1%) of genes in pham
- Manual Annotations of this start: 3 of 143
- Called 100.0% of time when present
- Phage (with cluster) where this start called: EagleEye_40 (A16), Lucyedi_39 (A16), PainterBoy_39 (A16),

Start 20:

- Found in 48 of 146 (32.9%) of genes in pham
- Manual Annotations of this start: 39 of 143
- Called 83.3% of time when present
- Phage (with cluster) where this start called: Abdiel_31 (A4), Alberto7_33 (A4), Arturo_31 (A4), BangNhom_32 (A4), BellusTerra_32 (A4), Camperdownii_31 (A4), Commander_32 (A4), DirtyDunning_32 (A4), Eurydice_32 (A4), Gail_40 (A14), ICleared_32 (A4), Iracema64_33 (A4), IronMan_35 (A2), Jaan_36 (A2), Jeeves_39 (A14), Kamy_32 (A4), Koreni_31 (A4), Kratark_32 (A4), Kremtemulon_31 (A4), LeoAvram_32 (A4), LittleGuy_32 (A4), LochMonster_32 (A4), Maxo_32 (A4), Medusa_32 (A4), Melvin_32 (A4), Morrow_32 (A4), Mundrea_32 (A4), Nebs_32 (A4), Nyxis_32 (A4), Ohfah_32 (A4), Phelipe_32 (A4), Phighter1804_32 (A4), Phontbonne_32 (A4), Polymorphads_32 (A4), Pumbaa_32 (A4), Sparxx_32 (A4), TinaFeyge_32 (A4), Tinybot_31 (A4), TroyPia_32 (A4), Ulysses_31 (A4),

Start 21:

- Found in 8 of 146 (5.5%) of genes in pham
- Manual Annotations of this start: 1 of 143
- Called 12.5% of time when present
- Phage (with cluster) where this start called: SheldonCooper_33 (A4),

Start 22:

- Found in 36 of 146 (24.7%) of genes in pham
- Manual Annotations of this start: 1 of 143
- Called 2.8% of time when present

- Phage (with cluster) where this start called: Anthony_31 (A20),

Start 23:

- Found in 88 of 146 (60.3%) of genes in pham
- Manual Annotations of this start: 8 of 143
- Called 10.2% of time when present
- Phage (with cluster) where this start called: Annyong_32 (A4), Cintron_32 (A4), Gadost_32 (A4), Katalie136_32 (A4), Kingmustik0402_32 (A4), LappelDuVide_31 (A4), Skipitt_32 (A4), Thanksgivukkah_32 (A4), Wander_32 (A4),

Start 24:

- Found in 1 of 146 (0.7%) of genes in pham
- Manual Annotations of this start: 1 of 143
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Iwokeuplikedis_36 (A2),

Summary by clusters:

There are 6 clusters represented in this pham: A20, A14, A17, A16, A2, A4,

Info for manual annotations of cluster A14:

- Start number 18 was manually annotated 1 time for cluster A14.
- Start number 20 was manually annotated 2 times for cluster A14.

Info for manual annotations of cluster A16:

- Start number 19 was manually annotated 3 times for cluster A16.

Info for manual annotations of cluster A2:

- Start number 9 was manually annotated 1 time for cluster A2.
- Start number 20 was manually annotated 2 times for cluster A2.
- Start number 24 was manually annotated 1 time for cluster A2.

Info for manual annotations of cluster A20:

- Start number 22 was manually annotated 1 time for cluster A20.

Info for manual annotations of cluster A4:

- Start number 11 was manually annotated 14 times for cluster A4.
- Start number 14 was manually annotated 6 times for cluster A4.
- Start number 16 was manually annotated 2 times for cluster A4.
- Start number 17 was manually annotated 1 time for cluster A4.
- Start number 18 was manually annotated 65 times for cluster A4.
- Start number 20 was manually annotated 35 times for cluster A4.
- Start number 21 was manually annotated 1 time for cluster A4.
- Start number 23 was manually annotated 8 times for cluster A4.

Gene Information:

Gene: 40AC_40 Start: 29229, Stop: 29498, Start Num: 8

Candidate Starts for 40AC_40:

(8, 29229), (12, 29256), (27, 29340), (29, 29349), (32, 29379), (34, 29391), (39, 29421), (42, 29436), (44, 29454), (47, 29472), (49, 29478),

Gene: AbbysRanger_32 Start: 25121, Stop: 24906, Start Num: 18

Candidate Starts for AbbysRanger_32:

(Start: 11 @25163 has 14 MA's), (Start: 16 @25130 has 2 MA's), (Start: 18 @25121 has 66 MA's), (Start: 23 @25109 has 8 MA's), (31, 25028), (33, 25010), (38, 24995), (39, 24983), (40, 24974), (44, 24950), (46, 24938), (49, 24926),

Gene: Abdiel_31 Start: 25079, Stop: 24879, Start Num: 20

Candidate Starts for Abdiel_31:

(Start: 20 @25079 has 39 MA's), (Start: 22 @25073 has 1 MA's), (37, 24974), (40, 24947), (44, 24923), (46, 24911), (49, 24899),

Gene: Achebe_31 Start: 25146, Stop: 24889, Start Num: 11

Candidate Starts for Achebe_31:

(Start: 11 @25146 has 14 MA's), (Start: 16 @25113 has 2 MA's), (Start: 18 @25104 has 66 MA's), (Start: 23 @25092 has 8 MA's), (31, 25011), (33, 24993), (38, 24978), (39, 24966), (40, 24957), (44, 24933), (46, 24921), (49, 24909),

Gene: Albee_32 Start: 25097, Stop: 24879, Start Num: 18

Candidate Starts for Albee_32:

(Start: 11 @25139 has 14 MA's), (Start: 16 @25106 has 2 MA's), (Start: 18 @25097 has 66 MA's), (Start: 23 @25085 has 8 MA's), (37, 24974), (40, 24947), (44, 24923), (46, 24911), (49, 24899),

Gene: Alberto7_33 Start: 25381, Stop: 25181, Start Num: 20

Candidate Starts for Alberto7_33:

(Start: 20 @25381 has 39 MA's), (Start: 22 @25375 has 1 MA's), (37, 25276), (40, 25249), (44, 25225), (46, 25213), (49, 25201),

Gene: Annyong_32 Start: 25086, Stop: 24880, Start Num: 23

Candidate Starts for Annyong_32:

(Start: 11 @25140 has 14 MA's), (Start: 16 @25107 has 2 MA's), (Start: 18 @25098 has 66 MA's), (Start: 23 @25086 has 8 MA's), (37, 24975), (40, 24948), (44, 24924), (46, 24912), (49, 24900),

Gene: Anthony_31 Start: 23189, Stop: 22983, Start Num: 22

Candidate Starts for Anthony_31:

(15, 23207), (Start: 22 @23189 has 1 MA's), (27, 23141), (30, 23120), (44, 23027), (46, 23015), (49, 23003),

Gene: Arturo_31 Start: 25198, Stop: 24983, Start Num: 20

Candidate Starts for Arturo_31:

(3, 25312), (4, 25303), (13, 25225), (Start: 20 @25198 has 39 MA's), (25, 25174), (38, 25072), (39, 25060), (40, 25051), (41, 25048), (44, 25027), (46, 25015), (49, 25003),

Gene: Avle17_32 Start: 25097, Stop: 24879, Start Num: 18

Candidate Starts for Avle17_32:

(Start: 11 @25139 has 14 MA's), (Start: 16 @25106 has 2 MA's), (Start: 18 @25097 has 66 MA's), (Start: 23 @25085 has 8 MA's), (37, 24974), (40, 24947), (44, 24923), (46, 24911), (49, 24899),

Gene: Baby16_32 Start: 25108, Stop: 24890, Start Num: 18

Candidate Starts for Baby16_32:

(Start: 11 @25150 has 14 MA's), (Start: 16 @25117 has 2 MA's), (Start: 18 @25108 has 66 MA's),
(Start: 23 @25096 has 8 MA's), (37, 24985), (40, 24958), (44, 24934), (46, 24922), (49, 24910),

Gene: Backyardigan_32 Start: 25116, Stop: 24901, Start Num: 18

Candidate Starts for Backyardigan_32:

(Start: 11 @25158 has 14 MA's), (Start: 16 @25125 has 2 MA's), (Start: 18 @25116 has 66 MA's),
(Start: 23 @25104 has 8 MA's), (31, 25023), (33, 25005), (38, 24990), (39, 24978), (40, 24969), (44,
24945), (46, 24933), (49, 24921),

Gene: Badger_32 Start: 25105, Stop: 24890, Start Num: 18

Candidate Starts for Badger_32:

(Start: 11 @25147 has 14 MA's), (Start: 16 @25114 has 2 MA's), (Start: 18 @25105 has 66 MA's),
(Start: 23 @25093 has 8 MA's), (31, 25012), (33, 24994), (38, 24979), (39, 24967), (40, 24958), (44,
24934), (46, 24922), (49, 24910),

Gene: BangNhom_32 Start: 25416, Stop: 25195, Start Num: 20

Candidate Starts for BangNhom_32:

(Start: 14 @25440 has 6 MA's), (Start: 20 @25416 has 39 MA's), (Start: 21 @25413 has 1 MA's),
(Start: 22 @25407 has 1 MA's), (25, 25389), (26, 25380), (41, 25260), (44, 25239), (49, 25215),

Gene: Bartimeaus_32 Start: 25099, Stop: 24881, Start Num: 18

Candidate Starts for Bartimeaus_32:

(Start: 11 @25141 has 14 MA's), (Start: 16 @25108 has 2 MA's), (Start: 18 @25099 has 66 MA's),
(Start: 23 @25087 has 8 MA's), (37, 24976), (40, 24949), (44, 24925), (46, 24913), (49, 24901),

Gene: BellusTerra_32 Start: 25078, Stop: 24878, Start Num: 20

Candidate Starts for BellusTerra_32:

(Start: 20 @25078 has 39 MA's), (Start: 22 @25072 has 1 MA's), (37, 24973), (40, 24946), (44,
24922), (46, 24910), (49, 24898),

Gene: Blackmoor_32 Start: 25099, Stop: 24881, Start Num: 18

Candidate Starts for Blackmoor_32:

(Start: 11 @25141 has 14 MA's), (Start: 16 @25108 has 2 MA's), (Start: 18 @25099 has 66 MA's),
(Start: 23 @25087 has 8 MA's), (37, 24976), (40, 24949), (44, 24925), (46, 24913), (49, 24901),

Gene: Bombshell_32 Start: 25139, Stop: 24879, Start Num: 11

Candidate Starts for Bombshell_32:

(Start: 11 @25139 has 14 MA's), (Start: 16 @25106 has 2 MA's), (Start: 18 @25097 has 66 MA's),
(Start: 23 @25085 has 8 MA's), (37, 24974), (40, 24947), (44, 24923), (46, 24911), (49, 24899),

Gene: Broseidon_32 Start: 25099, Stop: 24881, Start Num: 18

Candidate Starts for Broseidon_32:

(Start: 11 @25141 has 14 MA's), (Start: 16 @25108 has 2 MA's), (Start: 18 @25099 has 66 MA's),
(Start: 23 @25087 has 8 MA's), (37, 24976), (40, 24949), (44, 24925), (46, 24913), (49, 24901),

Gene: Bruiser_31 Start: 25139, Stop: 24879, Start Num: 11

Candidate Starts for Bruiser_31:

(Start: 11 @25139 has 14 MA's), (Start: 16 @25106 has 2 MA's), (Start: 18 @25097 has 66 MA's),
(37, 24974), (40, 24947), (44, 24923), (46, 24911), (49, 24899),

Gene: BubbleTrouble_32 Start: 25139, Stop: 24879, Start Num: 11

Candidate Starts for BubbleTrouble_32:

(Start: 11 @25139 has 14 MA's), (Start: 16 @25106 has 2 MA's), (Start: 18 @25097 has 66 MA's),
(Start: 23 @25085 has 8 MA's), (37, 24974), (40, 24947), (44, 24923), (46, 24911), (49, 24899),

Gene: Bumblebee11_32 Start: 25107, Stop: 24892, Start Num: 18

Candidate Starts for Bumblebee11_32:

(Start: 11 @25149 has 14 MA's), (Start: 16 @25116 has 2 MA's), (Start: 18 @25107 has 66 MA's),
(Start: 23 @25095 has 8 MA's), (31, 25014), (33, 24996), (38, 24981), (39, 24969), (40, 24960), (44,
24936), (46, 24924), (49, 24912),

Gene: Burger_31 Start: 25097, Stop: 24879, Start Num: 18

Candidate Starts for Burger_31:

(Start: 11 @25139 has 14 MA's), (Start: 16 @25106 has 2 MA's), (Start: 18 @25097 has 66 MA's),
(Start: 23 @25085 has 8 MA's), (37, 24974), (40, 24947), (44, 24923), (46, 24911), (49, 24899),

Gene: Caelakin_32 Start: 25097, Stop: 24879, Start Num: 18

Candidate Starts for Caelakin_32:

(Start: 11 @25139 has 14 MA's), (Start: 16 @25106 has 2 MA's), (Start: 18 @25097 has 66 MA's),
(Start: 23 @25085 has 8 MA's), (37, 24974), (40, 24947), (44, 24923), (46, 24911), (49, 24899),

Gene: Camperdownii_31 Start: 24716, Stop: 24498, Start Num: 20

Candidate Starts for Camperdownii_31:

(Start: 20 @24716 has 39 MA's), (Start: 22 @24710 has 1 MA's), (37, 24593), (44, 24542), (45,
24536), (49, 24518),

Gene: CentreCat_32 Start: 25100, Stop: 24882, Start Num: 18

Candidate Starts for CentreCat_32:

(Start: 11 @25142 has 14 MA's), (Start: 16 @25109 has 2 MA's), (Start: 18 @25100 has 66 MA's),
(Start: 23 @25088 has 8 MA's), (37, 24977), (40, 24950), (44, 24926), (46, 24914), (49, 24902),

Gene: Cerulean_33 Start: 25441, Stop: 25196, Start Num: 14

Candidate Starts for Cerulean_33:

(Start: 14 @25441 has 6 MA's), (Start: 20 @25417 has 39 MA's), (Start: 21 @25414 has 1 MA's),
(Start: 22 @25408 has 1 MA's), (25, 25390), (26, 25381), (41, 25261), (44, 25240), (49, 25216),

Gene: ChampagnePapi_33 Start: 25440, Stop: 25195, Start Num: 14

Candidate Starts for ChampagnePapi_33:

(Start: 14 @25440 has 6 MA's), (Start: 20 @25416 has 39 MA's), (Start: 21 @25413 has 1 MA's),
(Start: 22 @25407 has 1 MA's), (25, 25389), (26, 25380), (41, 25260), (44, 25239), (49, 25215),

Gene: Chaph_32 Start: 25108, Stop: 24890, Start Num: 18

Candidate Starts for Chaph_32:

(Start: 11 @25150 has 14 MA's), (Start: 16 @25117 has 2 MA's), (Start: 18 @25108 has 66 MA's),
(Start: 23 @25096 has 8 MA's), (37, 24985), (40, 24958), (44, 24934), (46, 24922), (49, 24910),

Gene: Cici_32 Start: 25101, Stop: 24886, Start Num: 18

Candidate Starts for Cici_32:

(Start: 11 @25143 has 14 MA's), (Start: 16 @25110 has 2 MA's), (Start: 18 @25101 has 66 MA's),
(Start: 23 @25089 has 8 MA's), (31, 25008), (33, 24990), (38, 24975), (39, 24963), (40, 24954), (44,
24930), (46, 24918), (49, 24906),

Gene: Cindaradix_31 Start: 24847, Stop: 24602, Start Num: 14

Candidate Starts for Cindaradix_31:

(3, 24937), (Start: 14 @24847 has 6 MA's), (Start: 20 @24823 has 39 MA's), (Start: 21 @24820 has 1 MA's), (Start: 22 @24814 has 1 MA's), (25, 24796), (26, 24787), (33, 24706), (39, 24679), (41, 24667), (44, 24646), (46, 24634), (49, 24622),

Gene: Cintron_32 Start: 25133, Stop: 24927, Start Num: 23

Candidate Starts for Cintron_32:

(1, 25334), (Start: 16 @25154 has 2 MA's), (Start: 18 @25145 has 66 MA's), (Start: 23 @25133 has 8 MA's), (34, 25031), (44, 24971), (45, 24965), (46, 24959), (49, 24947),

Gene: Citius_32 Start: 25112, Stop: 24894, Start Num: 18

Candidate Starts for Citius_32:

(Start: 11 @25154 has 14 MA's), (Start: 16 @25121 has 2 MA's), (Start: 18 @25112 has 66 MA's), (Start: 23 @25100 has 8 MA's), (37, 24989), (40, 24962), (44, 24938), (46, 24926), (49, 24914),

Gene: Clarenza_32 Start: 25136, Stop: 24876, Start Num: 11

Candidate Starts for Clarenza_32:

(Start: 11 @25136 has 14 MA's), (Start: 16 @25103 has 2 MA's), (Start: 18 @25094 has 66 MA's), (Start: 23 @25082 has 8 MA's), (37, 24971), (40, 24944), (44, 24920), (46, 24908), (49, 24896),

Gene: Cocoaberry_32 Start: 25101, Stop: 24883, Start Num: 18

Candidate Starts for Cocoaberry_32:

(Start: 11 @25143 has 14 MA's), (Start: 16 @25110 has 2 MA's), (Start: 18 @25101 has 66 MA's), (Start: 23 @25089 has 8 MA's), (37, 24978), (40, 24951), (44, 24927), (46, 24915), (49, 24903),

Gene: Commander_32 Start: 25079, Stop: 24879, Start Num: 20

Candidate Starts for Commander_32:

(Start: 20 @25079 has 39 MA's), (Start: 22 @25073 has 1 MA's), (37, 24974), (40, 24947), (44, 24923), (46, 24911), (49, 24899),

Gene: Connomayer_32 Start: 25097, Stop: 24879, Start Num: 18

Candidate Starts for Connomayer_32:

(Start: 11 @25139 has 14 MA's), (Start: 16 @25106 has 2 MA's), (Start: 18 @25097 has 66 MA's), (Start: 23 @25085 has 8 MA's), (37, 24974), (40, 24947), (44, 24923), (46, 24911), (49, 24899),

Gene: Datway_32 Start: 25116, Stop: 24901, Start Num: 18

Candidate Starts for Datway_32:

(Start: 11 @25158 has 14 MA's), (Start: 16 @25125 has 2 MA's), (Start: 18 @25116 has 66 MA's), (Start: 23 @25104 has 8 MA's), (31, 25023), (33, 25005), (38, 24990), (39, 24978), (40, 24969), (44, 24945), (46, 24933), (49, 24921),

Gene: Deano_32 Start: 25105, Stop: 24887, Start Num: 18

Candidate Starts for Deano_32:

(Start: 11 @25147 has 14 MA's), (Start: 16 @25114 has 2 MA's), (Start: 18 @25105 has 66 MA's), (Start: 23 @25093 has 8 MA's), (37, 24982), (40, 24955), (44, 24931), (46, 24919), (49, 24907),

Gene: Dhanush_32 Start: 25100, Stop: 24882, Start Num: 18

Candidate Starts for Dhanush_32:

(Start: 11 @25142 has 14 MA's), (Start: 16 @25109 has 2 MA's), (Start: 18 @25100 has 66 MA's), (Start: 23 @25088 has 8 MA's), (37, 24977), (40, 24950), (44, 24926), (46, 24914), (49, 24902),

Gene: DirtyDunning_32 Start: 25082, Stop: 24867, Start Num: 20

Candidate Starts for DirtyDunning_32:

(13, 25109), (Start: 20 @25082 has 39 MA's), (25, 25058), (31, 24989), (38, 24956), (39, 24944), (40, 24935), (41, 24932), (44, 24911), (46, 24899), (49, 24887),

Gene: Druantia_32 Start: 25100, Stop: 24882, Start Num: 18

Candidate Starts for Druantia_32:

(Start: 11 @25142 has 14 MA's), (Start: 16 @25109 has 2 MA's), (Start: 18 @25100 has 66 MA's), (Start: 23 @25088 has 8 MA's), (37, 24977), (40, 24950), (44, 24926), (46, 24914), (49, 24902),

Gene: Eagle_31 Start: 25126, Stop: 24881, Start Num: 14

Candidate Starts for Eagle_31:

(Start: 14 @25126 has 6 MA's), (Start: 20 @25102 has 39 MA's), (Start: 21 @25099 has 1 MA's), (Start: 22 @25093 has 1 MA's), (25, 25075), (26, 25066), (41, 24946), (44, 24925), (49, 24901),

Gene: EagleEye_40 Start: 27446, Stop: 27649, Start Num: 19

Candidate Starts for EagleEye_40:

(Start: 19 @27446 has 3 MA's), (28, 27506), (29, 27509), (36, 27557),

Gene: Eapen_32 Start: 25095, Stop: 24877, Start Num: 18

Candidate Starts for Eapen_32:

(Start: 11 @25137 has 14 MA's), (Start: 16 @25104 has 2 MA's), (Start: 18 @25095 has 66 MA's), (Start: 23 @25083 has 8 MA's), (37, 24972), (40, 24945), (44, 24921), (46, 24909), (49, 24897),

Gene: Eris_31 Start: 25139, Stop: 24879, Start Num: 11

Candidate Starts for Eris_31:

(Start: 11 @25139 has 14 MA's), (Start: 16 @25106 has 2 MA's), (Start: 18 @25097 has 66 MA's), (Start: 23 @25085 has 8 MA's), (37, 24974), (40, 24947), (44, 24923), (46, 24911), (49, 24899),

Gene: Eros_32 Start: 25099, Stop: 24881, Start Num: 18

Candidate Starts for Eros_32:

(Start: 11 @25141 has 14 MA's), (Start: 16 @25108 has 2 MA's), (Start: 18 @25099 has 66 MA's), (Start: 23 @25087 has 8 MA's), (37, 24976), (40, 24949), (44, 24925), (46, 24913), (49, 24901),

Gene: Eurydice_32 Start: 25077, Stop: 24877, Start Num: 20

Candidate Starts for Eurydice_32:

(Start: 20 @25077 has 39 MA's), (Start: 22 @25071 has 1 MA's), (37, 24972), (40, 24945), (44, 24921), (46, 24909), (49, 24897),

Gene: Florean_32 Start: 25096, Stop: 24878, Start Num: 18

Candidate Starts for Florean_32:

(Start: 11 @25138 has 14 MA's), (Start: 16 @25105 has 2 MA's), (Start: 18 @25096 has 66 MA's), (Start: 23 @25084 has 8 MA's), (37, 24973), (40, 24946), (44, 24922), (46, 24910), (49, 24898),

Gene: Flux_32 Start: 25099, Stop: 24881, Start Num: 18

Candidate Starts for Flux_32:

(Start: 11 @25141 has 14 MA's), (Start: 16 @25108 has 2 MA's), (Start: 18 @25099 has 66 MA's), (Start: 23 @25087 has 8 MA's), (37, 24976), (40, 24949), (44, 24925), (46, 24913), (49, 24901),

Gene: Funston_32 Start: 25139, Stop: 24879, Start Num: 11

Candidate Starts for Funston_32:

(Start: 11 @25139 has 14 MA's), (Start: 16 @25106 has 2 MA's), (Start: 18 @25097 has 66 MA's), (Start: 23 @25085 has 8 MA's), (37, 24974), (40, 24947), (44, 24923), (46, 24911), (49, 24899),

Gene: Gadost_32 Start: 25089, Stop: 24883, Start Num: 23

Candidate Starts for Gadost_32:

(Start: 11 @25143 has 14 MA's), (Start: 16 @25110 has 2 MA's), (Start: 18 @25101 has 66 MA's),
(Start: 23 @25089 has 8 MA's), (37, 24978), (40, 24951), (44, 24927), (46, 24915), (49, 24903),

Gene: Gail_40 Start: 28919, Stop: 29125, Start Num: 20

Candidate Starts for Gail_40:

(Start: 20 @28919 has 39 MA's), (27, 28973), (29, 28982), (35, 29027), (38, 29036), (41, 29060), (44, 29081), (49, 29105),

Gene: HamSlice_31 Start: 25104, Stop: 24877, Start Num: 16

Candidate Starts for HamSlice_31:

(Start: 11 @25137 has 14 MA's), (Start: 16 @25104 has 2 MA's), (Start: 18 @25095 has 66 MA's),
(Start: 23 @25083 has 8 MA's), (31, 25002), (37, 24972), (40, 24945), (44, 24921), (46, 24909), (49, 24897),

Gene: Happiness_32 Start: 25102, Stop: 24884, Start Num: 18

Candidate Starts for Happiness_32:

(Start: 11 @25144 has 14 MA's), (Start: 16 @25111 has 2 MA's), (Start: 18 @25102 has 66 MA's),
(Start: 23 @25090 has 8 MA's), (37, 24979), (40, 24952), (44, 24928), (46, 24916), (49, 24904),

Gene: Holli_32 Start: 24887, Stop: 24669, Start Num: 18

Candidate Starts for Holli_32:

(Start: 11 @24929 has 14 MA's), (Start: 16 @24896 has 2 MA's), (Start: 18 @24887 has 66 MA's),
(Start: 23 @24875 has 8 MA's), (37, 24764), (40, 24737), (44, 24713), (46, 24701), (49, 24689),

Gene: Houdini22_32 Start: 25101, Stop: 24883, Start Num: 18

Candidate Starts for Houdini22_32:

(Start: 11 @25143 has 14 MA's), (Start: 16 @25110 has 2 MA's), (Start: 18 @25101 has 66 MA's),
(Start: 23 @25089 has 8 MA's), (37, 24978), (40, 24951), (44, 24927), (46, 24915), (49, 24903),

Gene: ICleared_32 Start: 25076, Stop: 24876, Start Num: 20

Candidate Starts for ICleared_32:

(Start: 20 @25076 has 39 MA's), (Start: 22 @25070 has 1 MA's), (37, 24971), (40, 24944), (44, 24920), (46, 24908), (49, 24896),

Gene: Iceman_33 Start: 25386, Stop: 25168, Start Num: 18

Candidate Starts for Iceman_33:

(Start: 11 @25428 has 14 MA's), (Start: 16 @25395 has 2 MA's), (Start: 18 @25386 has 66 MA's),
(Start: 23 @25374 has 8 MA's), (37, 25263), (40, 25236), (44, 25212), (46, 25200), (49, 25188),

Gene: Iracema64_33 Start: 25397, Stop: 25182, Start Num: 20

Candidate Starts for Iracema64_33:

(13, 25424), (Start: 20 @25397 has 39 MA's), (25, 25373), (31, 25304), (38, 25271), (39, 25259), (40, 25250), (41, 25247), (44, 25226), (46, 25214), (49, 25202),

Gene: IronMan_35 Start: 26874, Stop: 26668, Start Num: 20

Candidate Starts for IronMan_35:

(Start: 20 @26874 has 39 MA's), (41, 26733), (44, 26712), (48, 26691), (49, 26688),

Gene: Iwokeuplikedis_36 Start: 27079, Stop: 27276, Start Num: 24

Candidate Starts for Iwokeuplikedis_36:

(Start: 24 @27079 has 1 MA's), (28, 27130), (34, 27175), (46, 27244), (49, 27256),

Gene: Jaan_36 Start: 27278, Stop: 27060, Start Num: 20

Candidate Starts for Jaan_36:

(Start: 9 @27329 has 1 MA's), (10, 27323), (Start: 20 @27278 has 39 MA's), (25, 27254), (26, 27245), (31, 27182), (33, 27164), (39, 27137), (40, 27128), (41, 27125), (44, 27104), (49, 27080),

Gene: Jaykayelowell_32 Start: 25093, Stop: 24875, Start Num: 18

Candidate Starts for Jaykayelowell_32:

(Start: 11 @25135 has 14 MA's), (Start: 16 @25102 has 2 MA's), (Start: 18 @25093 has 66 MA's), (Start: 23 @25081 has 8 MA's), (37, 24970), (40, 24943), (44, 24919), (46, 24907), (49, 24895),

Gene: Jeeves_39 Start: 27596, Stop: 27802, Start Num: 20

Candidate Starts for Jeeves_39:

(Start: 20 @27596 has 39 MA's), (29, 27659), (35, 27704), (38, 27713), (44, 27758), (46, 27770), (48, 27779), (49, 27782),

Gene: JetBlade_32 Start: 25094, Stop: 24876, Start Num: 18

Candidate Starts for JetBlade_32:

(Start: 11 @25136 has 14 MA's), (Start: 16 @25103 has 2 MA's), (Start: 18 @25094 has 66 MA's), (Start: 23 @25082 has 8 MA's), (37, 24971), (40, 24944), (44, 24920), (46, 24908), (49, 24896),

Gene: JoongJeon_32 Start: 25139, Stop: 24879, Start Num: 11

Candidate Starts for JoongJeon_32:

(Start: 11 @25139 has 14 MA's), (Start: 16 @25106 has 2 MA's), (Start: 18 @25097 has 66 MA's), (Start: 23 @25085 has 8 MA's), (37, 24974), (40, 24947), (44, 24923), (46, 24911), (49, 24899),

Gene: KFPoly_32 Start: 25136, Stop: 24876, Start Num: 11

Candidate Starts for KFPoly_32:

(Start: 11 @25136 has 14 MA's), (Start: 16 @25103 has 2 MA's), (Start: 18 @25094 has 66 MA's), (Start: 23 @25082 has 8 MA's), (37, 24971), (40, 24944), (44, 24920), (46, 24908), (49, 24896),

Gene: Kampy_32 Start: 25079, Stop: 24879, Start Num: 20

Candidate Starts for Kampy_32:

(Start: 20 @25079 has 39 MA's), (Start: 22 @25073 has 1 MA's), (37, 24974), (40, 24947), (44, 24923), (46, 24911), (49, 24899),

Gene: Katalie136_32 Start: 25095, Stop: 24892, Start Num: 23

Candidate Starts for Katalie136_32:

(Start: 11 @25149 has 14 MA's), (Start: 16 @25116 has 2 MA's), (Start: 18 @25107 has 66 MA's), (Start: 23 @25095 has 8 MA's), (31, 25014), (33, 24996), (38, 24981), (39, 24969), (40, 24960), (44, 24936), (46, 24924), (49, 24912),

Gene: Kingmustik0402_32 Start: 25077, Stop: 24871, Start Num: 23

Candidate Starts for Kingmustik0402_32:

(Start: 11 @25131 has 14 MA's), (Start: 16 @25098 has 2 MA's), (Start: 18 @25089 has 66 MA's), (Start: 23 @25077 has 8 MA's), (37, 24966), (40, 24939), (44, 24915), (46, 24903), (49, 24891),

Gene: Koreni_31 Start: 24725, Stop: 24525, Start Num: 20

Candidate Starts for Koreni_31:

(Start: 20 @24725 has 39 MA's), (Start: 22 @24719 has 1 MA's), (37, 24620), (40, 24593), (44, 24569), (46, 24557), (49, 24545),

Gene: Kratark_32 Start: 25081, Stop: 24866, Start Num: 20

Candidate Starts for Kratark_32:

(3, 25195), (4, 25186), (13, 25108), (Start: 20 @25081 has 39 MA's), (25, 25057), (33, 24970), (38, 24955), (39, 24943), (40, 24934), (41, 24931), (44, 24910), (46, 24898), (49, 24886),

Gene: Kremtemulon_31 Start: 25131, Stop: 24931, Start Num: 20

Candidate Starts for Kremtemulon_31:

(Start: 20 @25131 has 39 MA's), (Start: 22 @25125 has 1 MA's), (37, 25026), (40, 24999), (44, 24975), (46, 24963), (49, 24951),

Gene: Kyee_32 Start: 25095, Stop: 24877, Start Num: 18

Candidate Starts for Kyee_32:

(Start: 11 @25137 has 14 MA's), (Start: 16 @25104 has 2 MA's), (Start: 18 @25095 has 66 MA's), (Start: 23 @25083 has 8 MA's), (37, 24972), (40, 24945), (44, 24921), (46, 24909), (49, 24897),

Gene: LHTSCC_33 Start: 25440, Stop: 25195, Start Num: 14

Candidate Starts for LHTSCC_33:

(Start: 14 @25440 has 6 MA's), (Start: 20 @25416 has 39 MA's), (Start: 21 @25413 has 1 MA's), (Start: 22 @25407 has 1 MA's), (25, 25389), (26, 25380), (41, 25260), (44, 25239), (49, 25215),

Gene: LappelDuVide_31 Start: 25084, Stop: 24878, Start Num: 23

Candidate Starts for LappelDuVide_31:

(Start: 11 @25138 has 14 MA's), (Start: 16 @25105 has 2 MA's), (Start: 18 @25096 has 66 MA's), (Start: 23 @25084 has 8 MA's), (30, 25012), (37, 24973), (40, 24946), (44, 24922), (46, 24910), (49, 24898),

Gene: Lemur_32 Start: 25136, Stop: 24876, Start Num: 11

Candidate Starts for Lemur_32:

(Start: 11 @25136 has 14 MA's), (Start: 16 @25103 has 2 MA's), (Start: 18 @25094 has 66 MA's), (Start: 23 @25082 has 8 MA's), (37, 24971), (40, 24944), (44, 24920), (46, 24908), (49, 24896),

Gene: LeoAvram_32 Start: 25077, Stop: 24877, Start Num: 20

Candidate Starts for LeoAvram_32:

(Start: 20 @25077 has 39 MA's), (Start: 22 @25071 has 1 MA's), (37, 24972), (40, 24945), (44, 24921), (46, 24909), (49, 24897),

Gene: LittleB_32 Start: 25098, Stop: 24880, Start Num: 18

Candidate Starts for LittleB_32:

(Start: 11 @25140 has 14 MA's), (Start: 16 @25107 has 2 MA's), (Start: 18 @25098 has 66 MA's), (Start: 23 @25086 has 8 MA's), (37, 24975), (40, 24948), (44, 24924), (46, 24912), (49, 24900),

Gene: LittleGuy_32 Start: 25026, Stop: 24826, Start Num: 20

Candidate Starts for LittleGuy_32:

(Start: 20 @25026 has 39 MA's), (Start: 22 @25020 has 1 MA's), (37, 24921), (40, 24894), (44, 24870), (46, 24858), (49, 24846),

Gene: LochMonster_32 Start: 25061, Stop: 24846, Start Num: 20

Candidate Starts for LochMonster_32:

(13, 25088), (Start: 20 @25061 has 39 MA's), (25, 25037), (31, 24968), (38, 24935), (39, 24923), (40, 24914), (41, 24911), (44, 24890), (46, 24878), (49, 24866),

Gene: Lorenzo_32 Start: 25097, Stop: 24879, Start Num: 18

Candidate Starts for Lorenzo_32:

(Start: 11 @25139 has 14 MA's), (Start: 16 @25106 has 2 MA's), (Start: 18 @25097 has 66 MA's), (Start: 23 @25085 has 8 MA's), (37, 24974), (40, 24947), (44, 24923), (46, 24911), (49, 24899),

Gene: Lucyedi_39 Start: 27447, Stop: 27650, Start Num: 19

Candidate Starts for Lucyedi_39:

(Start: 19 @27447 has 3 MA's), (28, 27507), (29, 27510), (36, 27558), (49, 27636),

Gene: Lunsford_33 Start: 25136, Stop: 24876, Start Num: 11

Candidate Starts for Lunsford_33:

(Start: 11 @25136 has 14 MA's), (Start: 16 @25103 has 2 MA's), (Start: 18 @25094 has 66 MA's),
(Start: 23 @25082 has 8 MA's), (37, 24971), (40, 24944), (44, 24920), (46, 24908), (49, 24896),

Gene: Maverick_32 Start: 25139, Stop: 24879, Start Num: 11

Candidate Starts for Maverick_32:

(Start: 11 @25139 has 14 MA's), (Start: 16 @25106 has 2 MA's), (Start: 18 @25097 has 66 MA's),
(Start: 23 @25085 has 8 MA's), (37, 24974), (40, 24947), (44, 24923), (46, 24911), (49, 24899),

Gene: Maxo_32 Start: 25079, Stop: 24879, Start Num: 20

Candidate Starts for Maxo_32:

(Start: 20 @25079 has 39 MA's), (Start: 22 @25073 has 1 MA's), (37, 24974), (40, 24947), (44,
24923), (46, 24911), (49, 24899),

Gene: Mazhar510_32 Start: 25098, Stop: 24880, Start Num: 18

Candidate Starts for Mazhar510_32:

(Start: 11 @25140 has 14 MA's), (Start: 16 @25107 has 2 MA's), (Start: 18 @25098 has 66 MA's),
(Start: 23 @25086 has 8 MA's), (37, 24975), (40, 24948), (44, 24924), (46, 24912), (49, 24900),

Gene: Medusa_32 Start: 25080, Stop: 24880, Start Num: 20

Candidate Starts for Medusa_32:

(Start: 20 @25080 has 39 MA's), (Start: 22 @25074 has 1 MA's), (37, 24975), (40, 24948), (44,
24924), (46, 24912), (49, 24900),

Gene: MeeZee_32 Start: 25097, Stop: 24879, Start Num: 18

Candidate Starts for MeeZee_32:

(Start: 11 @25139 has 14 MA's), (Start: 16 @25106 has 2 MA's), (Start: 18 @25097 has 66 MA's),
(Start: 23 @25085 has 8 MA's), (37, 24974), (40, 24947), (44, 24923), (46, 24911), (49, 24899),

Gene: Melvin_32 Start: 25078, Stop: 24878, Start Num: 20

Candidate Starts for Melvin_32:

(Start: 20 @25078 has 39 MA's), (Start: 22 @25072 has 1 MA's), (37, 24973), (40, 24946), (44,
24922), (46, 24910), (49, 24898),

Gene: Millski_31 Start: 25108, Stop: 24884, Start Num: 17

Candidate Starts for Millski_31:

(Start: 17 @25108 has 1 MA's), (37, 24979), (40, 24952), (44, 24928), (46, 24916), (49, 24904),

Gene: Morpher26_32 Start: 25107, Stop: 24892, Start Num: 18

Candidate Starts for Morpher26_32:

(Start: 11 @25149 has 14 MA's), (Start: 16 @25116 has 2 MA's), (Start: 18 @25107 has 66 MA's),
(Start: 23 @25095 has 8 MA's), (31, 25014), (33, 24996), (38, 24981), (39, 24969), (40, 24960), (44,
24936), (46, 24924), (49, 24912),

Gene: Morrow_32 Start: 25083, Stop: 24883, Start Num: 20

Candidate Starts for Morrow_32:

(Start: 20 @25083 has 39 MA's), (Start: 22 @25077 has 1 MA's), (37, 24978), (40, 24951), (44, 24927), (46, 24915), (49, 24903),

Gene: Mundrea_32 Start: 25060, Stop: 24842, Start Num: 20

Candidate Starts for Mundrea_32:

(3, 25174), (13, 25087), (Start: 20 @25060 has 39 MA's), (33, 24946), (39, 24919), (44, 24886), (46, 24874), (49, 24862),

Gene: Nebs_32 Start: 25077, Stop: 24877, Start Num: 20

Candidate Starts for Nebs_32:

(Start: 20 @25077 has 39 MA's), (Start: 22 @25071 has 1 MA's), (37, 24972), (40, 24945), (44, 24921), (46, 24909), (49, 24897),

Gene: Nemo27_32 Start: 25138, Stop: 24878, Start Num: 11

Candidate Starts for Nemo27_32:

(Start: 11 @25138 has 14 MA's), (Start: 16 @25105 has 2 MA's), (Start: 18 @25096 has 66 MA's), (Start: 23 @25084 has 8 MA's), (37, 24973), (40, 24946), (44, 24922), (46, 24910), (49, 24898),

Gene: Noelle_32 Start: 25174, Stop: 24959, Start Num: 18

Candidate Starts for Noelle_32:

(7, 25240), (Start: 16 @25183 has 2 MA's), (Start: 18 @25174 has 66 MA's), (38, 25048), (39, 25036), (40, 25027), (41, 25024), (44, 25003), (48, 24982), (49, 24979),

Gene: NorthStar_32 Start: 25097, Stop: 24879, Start Num: 18

Candidate Starts for NorthStar_32:

(Start: 11 @25139 has 14 MA's), (Start: 16 @25106 has 2 MA's), (Start: 18 @25097 has 66 MA's), (Start: 23 @25085 has 8 MA's), (37, 24974), (40, 24947), (44, 24923), (46, 24911), (49, 24899),

Gene: NotAPhaseMom_32 Start: 25101, Stop: 24883, Start Num: 18

Candidate Starts for NotAPhaseMom_32:

(Start: 11 @25143 has 14 MA's), (Start: 16 @25110 has 2 MA's), (Start: 18 @25101 has 66 MA's), (Start: 23 @25089 has 8 MA's), (37, 24978), (40, 24951), (44, 24927), (46, 24915), (49, 24903),

Gene: Nyxis_32 Start: 25020, Stop: 24820, Start Num: 20

Candidate Starts for Nyxis_32:

(Start: 20 @25020 has 39 MA's), (Start: 22 @25014 has 1 MA's), (37, 24915), (40, 24888), (44, 24864), (46, 24852), (49, 24840),

Gene: OKaNui_33 Start: 25150, Stop: 24932, Start Num: 18

Candidate Starts for OKaNui_33:

(Start: 11 @25192 has 14 MA's), (Start: 16 @25159 has 2 MA's), (Start: 18 @25150 has 66 MA's), (Start: 23 @25138 has 8 MA's), (37, 25027), (40, 25000), (44, 24976), (46, 24964), (49, 24952),

Gene: Obama12_33 Start: 25442, Stop: 25197, Start Num: 14

Candidate Starts for Obama12_33:

(Start: 14 @25442 has 6 MA's), (Start: 20 @25418 has 39 MA's), (Start: 21 @25415 has 1 MA's), (Start: 22 @25409 has 1 MA's), (25, 25391), (26, 25382), (41, 25262), (44, 25241), (49, 25217),

Gene: Ohfah_32 Start: 25077, Stop: 24877, Start Num: 20

Candidate Starts for Ohfah_32:

(Start: 20 @25077 has 39 MA's), (Start: 22 @25071 has 1 MA's), (37, 24972), (40, 24945), (44, 24921), (46, 24909), (49, 24897),

Gene: PainterBoy_39 Start: 27383, Stop: 27586, Start Num: 19

Candidate Starts for PainterBoy_39:

(Start: 19 @27383 has 3 MA's), (28, 27443), (29, 27446), (36, 27494), (49, 27572),

Gene: Palestino_31 Start: 25139, Stop: 24879, Start Num: 11

Candidate Starts for Palestino_31:

(Start: 11 @25139 has 14 MA's), (Start: 16 @25106 has 2 MA's), (Start: 18 @25097 has 66 MA's),
(Start: 23 @25085 has 8 MA's), (37, 24974), (40, 24947), (44, 24923), (46, 24911), (49, 24899),

Gene: Peaches_32 Start: 25096, Stop: 24878, Start Num: 18

Candidate Starts for Peaches_32:

(Start: 11 @25138 has 14 MA's), (Start: 16 @25105 has 2 MA's), (Start: 18 @25096 has 66 MA's),
(Start: 23 @25084 has 8 MA's), (37, 24973), (40, 24946), (44, 24922), (46, 24910), (49, 24898),

Gene: Perplexer_32 Start: 25104, Stop: 24889, Start Num: 18

Candidate Starts for Perplexer_32:

(Start: 11 @25146 has 14 MA's), (Start: 16 @25113 has 2 MA's), (Start: 18 @25104 has 66 MA's),
(Start: 23 @25092 has 8 MA's), (31, 25011), (33, 24993), (38, 24978), (39, 24966), (40, 24957), (44,
24933), (46, 24921), (49, 24909),

Gene: PeterPeter_32 Start: 25097, Stop: 24879, Start Num: 18

Candidate Starts for PeterPeter_32:

(Start: 11 @25139 has 14 MA's), (Start: 16 @25106 has 2 MA's), (Start: 18 @25097 has 66 MA's),
(Start: 23 @25085 has 8 MA's), (37, 24974), (40, 24947), (44, 24923), (46, 24911), (49, 24899),

Gene: PetiteSangsue_32 Start: 25107, Stop: 24892, Start Num: 18

Candidate Starts for PetiteSangsue_32:

(Start: 11 @25149 has 14 MA's), (Start: 16 @25116 has 2 MA's), (Start: 18 @25107 has 66 MA's),
(Start: 23 @25095 has 8 MA's), (31, 25014), (33, 24996), (38, 24981), (39, 24969), (40, 24960), (44,
24936), (46, 24924), (49, 24912),

Gene: Phacado_32 Start: 25096, Stop: 24878, Start Num: 18

Candidate Starts for Phacado_32:

(Start: 11 @25138 has 14 MA's), (Start: 16 @25105 has 2 MA's), (Start: 18 @25096 has 66 MA's),
(Start: 23 @25084 has 8 MA's), (37, 24973), (40, 24946), (44, 24922), (46, 24910), (49, 24898),

Gene: Phelipe_32 Start: 25080, Stop: 24880, Start Num: 20

Candidate Starts for Phelipe_32:

(Start: 20 @25080 has 39 MA's), (Start: 22 @25074 has 1 MA's), (37, 24975), (40, 24948), (44,
24924), (46, 24912), (49, 24900),

Gene: Phighter1804_32 Start: 25064, Stop: 24849, Start Num: 20

Candidate Starts for Phighter1804_32:

(13, 25091), (Start: 20 @25064 has 39 MA's), (25, 25040), (31, 24971), (38, 24938), (39, 24926), (40,
24917), (41, 24914), (44, 24893), (46, 24881), (49, 24869),

Gene: Phontbonne_32 Start: 25021, Stop: 24821, Start Num: 20

Candidate Starts for Phontbonne_32:

(Start: 20 @25021 has 39 MA's), (Start: 22 @25015 has 1 MA's), (37, 24916), (40, 24889), (44,
24865), (46, 24853), (49, 24841),

Gene: Pipcraft_32 Start: 25097, Stop: 24879, Start Num: 18

Candidate Starts for Pipcraft_32:

(6, 25172), (Start: 11 @25139 has 14 MA's), (Start: 16 @25106 has 2 MA's), (Start: 18 @25097 has 66 MA's), (Start: 23 @25085 has 8 MA's), (37, 24974), (40, 24947), (44, 24923), (46, 24911), (49, 24899),

Gene: Polymorphads_32 Start: 25077, Stop: 24877, Start Num: 20

Candidate Starts for Polymorphads_32:

(Start: 20 @25077 has 39 MA's), (Start: 22 @25071 has 1 MA's), (37, 24972), (40, 24945), (44, 24921), (46, 24909), (49, 24897),

Gene: Pukovnik_34 Start: 26424, Stop: 26155, Start Num: 9

Candidate Starts for Pukovnik_34:

(Start: 9 @26424 has 1 MA's), (10, 26418), (Start: 20 @26373 has 39 MA's), (25, 26349), (26, 26340), (33, 26259), (39, 26232), (41, 26220), (44, 26199), (49, 26175),

Gene: Pumbaa_32 Start: 25072, Stop: 24854, Start Num: 20

Candidate Starts for Pumbaa_32:

(5, 25156), (Start: 20 @25072 has 39 MA's), (Start: 22 @25066 has 1 MA's), (37, 24949), (44, 24898), (45, 24892), (49, 24874),

Gene: Relief_32 Start: 25097, Stop: 24879, Start Num: 18

Candidate Starts for Relief_32:

(Start: 11 @25139 has 14 MA's), (Start: 16 @25106 has 2 MA's), (Start: 18 @25097 has 66 MA's), (Start: 23 @25085 has 8 MA's), (37, 24974), (40, 24947), (44, 24923), (46, 24911), (49, 24899),

Gene: Romney_32 Start: 25097, Stop: 24879, Start Num: 18

Candidate Starts for Romney_32:

(Start: 11 @25139 has 14 MA's), (Start: 16 @25106 has 2 MA's), (Start: 18 @25097 has 66 MA's), (Start: 23 @25085 has 8 MA's), (37, 24974), (40, 24947), (44, 24923), (46, 24911), (49, 24899),

Gene: Roosevelt_32 Start: 25099, Stop: 24881, Start Num: 18

Candidate Starts for Roosevelt_32:

(Start: 11 @25141 has 14 MA's), (Start: 16 @25108 has 2 MA's), (Start: 18 @25099 has 66 MA's), (Start: 23 @25087 has 8 MA's), (37, 24976), (40, 24949), (44, 24925), (46, 24913), (49, 24901),

Gene: Ruin_32 Start: 25093, Stop: 24875, Start Num: 18

Candidate Starts for Ruin_32:

(Start: 11 @25135 has 14 MA's), (Start: 16 @25102 has 2 MA's), (Start: 18 @25093 has 66 MA's), (Start: 23 @25081 has 8 MA's), (37, 24970), (40, 24943), (44, 24919), (46, 24907), (49, 24895),

Gene: Sabertooth_32 Start: 25096, Stop: 24878, Start Num: 18

Candidate Starts for Sabertooth_32:

(Start: 11 @25138 has 14 MA's), (Start: 16 @25105 has 2 MA's), (Start: 18 @25096 has 66 MA's), (Start: 23 @25084 has 8 MA's), (37, 24973), (40, 24946), (44, 24922), (46, 24910), (49, 24898),

Gene: Scamp_32 Start: 25099, Stop: 24881, Start Num: 18

Candidate Starts for Scamp_32:

(Start: 11 @25141 has 14 MA's), (Start: 16 @25108 has 2 MA's), (Start: 18 @25099 has 66 MA's), (Start: 23 @25087 has 8 MA's), (37, 24976), (40, 24949), (44, 24925), (46, 24913), (49, 24901),

Gene: Shaka_32 Start: 25097, Stop: 24879, Start Num: 18

Candidate Starts for Shaka_32:

(Start: 11 @25139 has 14 MA's), (Start: 16 @25106 has 2 MA's), (Start: 18 @25097 has 66 MA's), (Start: 23 @25085 has 8 MA's), (37, 24974), (40, 24947), (44, 24923), (46, 24911), (49, 24899),

Gene: SheldonCooper_33 Start: 25414, Stop: 25196, Start Num: 21

Candidate Starts for SheldonCooper_33:

(Start: 14 @25441 has 6 MA's), (Start: 20 @25417 has 39 MA's), (Start: 21 @25414 has 1 MA's),
(Start: 22 @25408 has 1 MA's), (25, 25390), (26, 25381), (41, 25261), (44, 25240), (49, 25216),

Gene: Shygu2_32 Start: 25091, Stop: 24876, Start Num: 18

Candidate Starts for Shygu2_32:

(Start: 11 @25133 has 14 MA's), (Start: 16 @25100 has 2 MA's), (Start: 18 @25091 has 66 MA's),
(Start: 23 @25079 has 8 MA's), (41, 24941), (44, 24920), (49, 24896),

Gene: Skipitt_32 Start: 25082, Stop: 24876, Start Num: 23

Candidate Starts for Skipitt_32:

(Start: 11 @25136 has 14 MA's), (Start: 16 @25103 has 2 MA's), (Start: 18 @25094 has 66 MA's),
(Start: 23 @25082 has 8 MA's), (37, 24971), (40, 24944), (44, 24920), (46, 24908), (49, 24896),

Gene: SororFago_40 Start: 29178, Stop: 29375, Start Num: 18

Candidate Starts for SororFago_40:

(Start: 18 @29178 has 66 MA's), (32, 29265), (43, 29319), (47, 29349), (49, 29355),

Gene: Sparxx_32 Start: 25078, Stop: 24878, Start Num: 20

Candidate Starts for Sparxx_32:

(Start: 20 @25078 has 39 MA's), (Start: 22 @25072 has 1 MA's), (37, 24973), (40, 24946), (44,
24922), (46, 24910), (49, 24898),

Gene: Spino_32 Start: 25097, Stop: 24879, Start Num: 18

Candidate Starts for Spino_32:

(Start: 11 @25139 has 14 MA's), (Start: 16 @25106 has 2 MA's), (Start: 18 @25097 has 66 MA's),
(Start: 23 @25085 has 8 MA's), (37, 24974), (40, 24947), (44, 24923), (46, 24911), (49, 24899),

Gene: Stasia_33 Start: 25530, Stop: 25306, Start Num: 16

Candidate Starts for Stasia_33:

(Start: 16 @25530 has 2 MA's), (Start: 18 @25521 has 66 MA's), (Start: 23 @25509 has 8 MA's), (38,
25395), (39, 25383), (40, 25374), (41, 25371), (44, 25350), (48, 25329), (49, 25326),

Gene: Taquarus_32 Start: 25100, Stop: 24882, Start Num: 18

Candidate Starts for Taquarus_32:

(Start: 11 @25142 has 14 MA's), (Start: 16 @25109 has 2 MA's), (Start: 18 @25100 has 66 MA's),
(Start: 23 @25088 has 8 MA's), (37, 24977), (40, 24950), (44, 24926), (46, 24914), (49, 24902),

Gene: Thanksgivukkah_32 Start: 25086, Stop: 24880, Start Num: 23

Candidate Starts for Thanksgivukkah_32:

(Start: 11 @25140 has 14 MA's), (Start: 16 @25107 has 2 MA's), (Start: 18 @25098 has 66 MA's),
(Start: 23 @25086 has 8 MA's), (37, 24975), (40, 24948), (44, 24924), (46, 24912), (49, 24900),

Gene: TinaFeyge_32 Start: 25076, Stop: 24876, Start Num: 20

Candidate Starts for TinaFeyge_32:

(Start: 20 @25076 has 39 MA's), (Start: 22 @25070 has 1 MA's), (37, 24971), (40, 24944), (44,
24920), (46, 24908), (49, 24896),

Gene: Tinybot_31 Start: 25073, Stop: 24855, Start Num: 20

Candidate Starts for Tinybot_31:

(2, 25187), (4, 25178), (Start: 20 @25073 has 39 MA's), (Start: 22 @25067 has 1 MA's), (44, 24899), (45, 24893), (46, 24887), (49, 24875),

Gene: TiroTheta9_32 Start: 25094, Stop: 24876, Start Num: 18

Candidate Starts for TiroTheta9_32:

(Start: 11 @25136 has 14 MA's), (Start: 16 @25103 has 2 MA's), (Start: 18 @25094 has 66 MA's), (Start: 23 @25082 has 8 MA's), (37, 24971), (40, 24944), (44, 24920), (46, 24908), (49, 24896),

Gene: TroyPia_32 Start: 25079, Stop: 24879, Start Num: 20

Candidate Starts for TroyPia_32:

(Start: 20 @25079 has 39 MA's), (Start: 22 @25073 has 1 MA's), (37, 24974), (40, 24947), (44, 24923), (46, 24911), (49, 24899),

Gene: TygerBlood_32 Start: 25097, Stop: 24879, Start Num: 18

Candidate Starts for TygerBlood_32:

(Start: 11 @25139 has 14 MA's), (Start: 16 @25106 has 2 MA's), (Start: 18 @25097 has 66 MA's), (Start: 23 @25085 has 8 MA's), (37, 24974), (40, 24947), (44, 24923), (46, 24911), (49, 24899),

Gene: Ulysses_31 Start: 24807, Stop: 24592, Start Num: 20

Candidate Starts for Ulysses_31:

(13, 24834), (Start: 20 @24807 has 39 MA's), (25, 24783), (31, 24714), (38, 24681), (39, 24669), (40, 24660), (41, 24657), (44, 24636), (46, 24624), (49, 24612),

Gene: Wander_32 Start: 25085, Stop: 24879, Start Num: 23

Candidate Starts for Wander_32:

(Start: 11 @25139 has 14 MA's), (Start: 16 @25106 has 2 MA's), (Start: 18 @25097 has 66 MA's), (Start: 23 @25085 has 8 MA's), (37, 24974), (40, 24947), (44, 24923), (46, 24911), (49, 24899),

Gene: Wilbur_32 Start: 25097, Stop: 24879, Start Num: 18

Candidate Starts for Wilbur_32:

(Start: 11 @25139 has 14 MA's), (Start: 16 @25106 has 2 MA's), (Start: 18 @25097 has 66 MA's), (Start: 23 @25085 has 8 MA's), (37, 24974), (40, 24947), (44, 24923), (46, 24911), (49, 24899),

Gene: Wile_32 Start: 25117, Stop: 24902, Start Num: 18

Candidate Starts for Wile_32:

(Start: 11 @25159 has 14 MA's), (Start: 16 @25126 has 2 MA's), (Start: 18 @25117 has 66 MA's), (Start: 23 @25105 has 8 MA's), (31, 25024), (33, 25006), (38, 24991), (39, 24979), (40, 24970), (44, 24946), (46, 24934), (49, 24922),

Gene: Wizard007_32 Start: 25102, Stop: 24884, Start Num: 18

Candidate Starts for Wizard007_32:

(Start: 11 @25144 has 14 MA's), (Start: 16 @25111 has 2 MA's), (Start: 18 @25102 has 66 MA's), (Start: 23 @25090 has 8 MA's), (37, 24979), (40, 24952), (44, 24928), (46, 24916), (49, 24904),

Gene: Xena_32 Start: 25104, Stop: 24889, Start Num: 18

Candidate Starts for Xena_32:

(Start: 11 @25146 has 14 MA's), (Start: 16 @25113 has 2 MA's), (Start: 18 @25104 has 66 MA's), (Start: 23 @25092 has 8 MA's), (31, 25011), (33, 24993), (38, 24978), (39, 24966), (40, 24957), (44, 24933), (46, 24921), (49, 24909),

Gene: YoSam321_32 Start: 25094, Stop: 24876, Start Num: 18

Candidate Starts for YoSam321_32:

(Start: 11 @25136 has 14 MA's), (Start: 16 @25103 has 2 MA's), (Start: 18 @25094 has 66 MA's),
(Start: 23 @25082 has 8 MA's), (37, 24971), (40, 24944), (44, 24920), (46, 24908), (49, 24896),