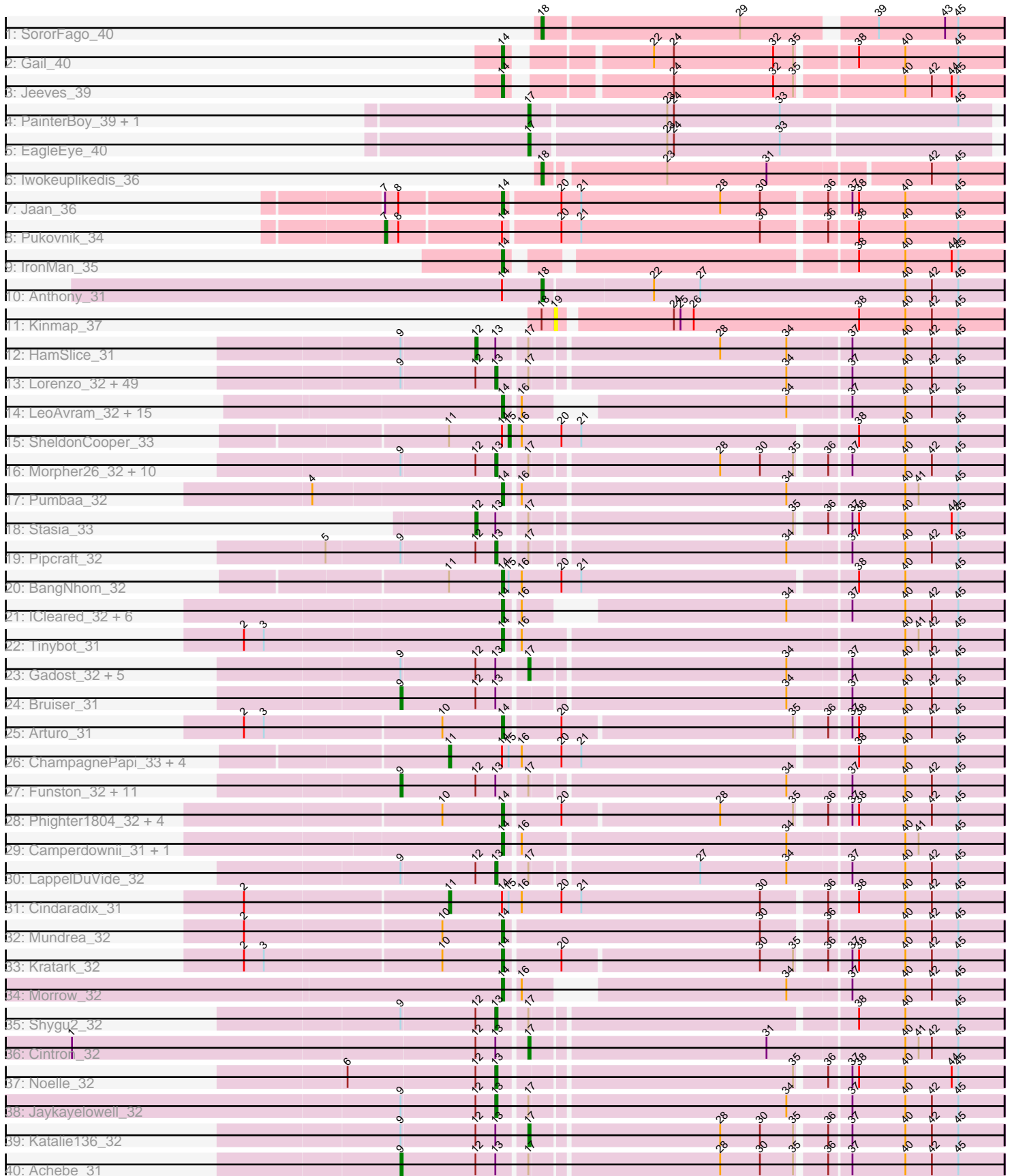


Pham 193800



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 193800 Report

This analysis was run 11/02/24 on database version 579.

Pham number 193800 has 146 members, 2 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 : Iwokeuplikedis_36
- Track 7 : Jaan_36
- Track 8 : Pukovnik_34
- Track 9 : IronMan_35
- Track 10 : Anthony_31
- Track 11 : Kinmap_37
- 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_32, 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, Rosa24_31
- Track 30 : LappelDuVide_32
- Track 31 : Cindaradix_31
- Track 32 : Mundrea_32
- Track 33 : Kratak_32
- Track 34 : Morrow_32
- Track 35 : Shygu2_32
- Track 36 : Cintron_32
- Track 37 : Noelle_32
- Track 38 : Jaykayelowell_32
- Track 39 : Katalie136_32
- Track 40 : 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 13, it was called in 66 of the 144 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, Floean_32, Flux_32, Happiness_32, Holli_32, Houdini22_32, Iceman_33, Jaykayelowell_32, JetBlade_32, Kyee_32, LappelDuVide_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, 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, 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:

- 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, Kamy_32, Kinmap_37, Koreni_31, Kratark_32, Kremtemulon_32, LHTSCC_33, LeoAvram_32, LittleGuy_32, LochMonster_32, Lucyedi_39, Maxo_32, Medusa_32, Melvin_32, 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, Rosa24_31, SheldonCooper_33, SororFago_40, Sparxx_32, TinaFeyge_32, Tinybot_31, TroyPia_32, Ulysses_31,

Summary by start number:

Start 7:

- Found in 2 of 146 (1.4%) of genes in pham
- Manual Annotations of this start: 1 of 144
- Called 50.0% of time when present
- Phage (with cluster) where this start called: Pukovnik_34 (A2),

Start 9:

- Found in 87 of 146 (59.6%) of genes in pham
- Manual Annotations of this start: 14 of 144
- 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 11:

- Found in 8 of 146 (5.5%) of genes in pham
- Manual Annotations of this start: 6 of 144
- 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 12:

- Found in 90 of 146 (61.6%) of genes in pham
- Manual Annotations of this start: 2 of 144
- Called 2.2% of time when present
- Phage (with cluster) where this start called: HamSlice_31 (A4), Stasia_33 (A4),

Start 13:

- Found in 90 of 146 (61.6%) of genes in pham
- Manual Annotations of this start: 66 of 144
- Called 73.3% 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),

LappelDuVide_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), 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 14:

- Found in 50 of 146 (34.2%) of genes in pham
- Manual Annotations of this start: 40 of 144
- Called 82.0% 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_32 (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), Rosa24_31 (A4), Sparxx_32 (A4), TinaFeyge_32 (A4), Tinybot_31 (A4), TroyPia_32 (A4), Ulysses_31 (A4),

Start 15:

- Found in 8 of 146 (5.5%) of genes in pham
- Manual Annotations of this start: 1 of 144
- Called 12.5% of time when present
- Phage (with cluster) where this start called: SheldonCooper_33 (A4),

Start 17:

- Found in 91 of 146 (62.3%) of genes in pham
- Manual Annotations of this start: 11 of 144
- Called 12.1% of time when present
- Phage (with cluster) where this start called: Annyong_32 (A4), Cintron_32 (A4), EagleEye_40 (A16), Gadost_32 (A4), Katalie136_32 (A4), Kingmustik0402_32 (A4), Lucyedi_39 (A16), PainterBoy_39 (A16), Skipitt_32 (A4), Thanksgivukkah_32 (A4), Wander_32 (A4),

Start 18:

- Found in 4 of 146 (2.7%) of genes in pham
- Manual Annotations of this start: 3 of 144
- Called 75.0% of time when present
- Phage (with cluster) where this start called: Anthony_31 (A20), Iwokeuplikedis_36 (A2), SororFago_40 (A14),

Start 19:

- 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: Kinmap_37 (A21),

Summary by clusters:

There are 6 clusters represented in this pham: A20, A14, A16, A21, A2, A4,

Info for manual annotations of cluster A14:

- Start number 14 was manually annotated 2 times for cluster A14.
- Start number 18 was manually annotated 1 time for cluster A14.

Info for manual annotations of cluster A16:

- Start number 17 was manually annotated 3 times for cluster A16.

Info for manual annotations of cluster A2:

- Start number 7 was manually annotated 1 time for cluster A2.
- Start number 14 was manually annotated 2 times for cluster A2.
- Start number 18 was manually annotated 1 time for cluster A2.

Info for manual annotations of cluster A20:

- Start number 18 was manually annotated 1 time for cluster A20.

Info for manual annotations of cluster A4:

- Start number 9 was manually annotated 14 times for cluster A4.
- Start number 11 was manually annotated 6 times for cluster A4.
- Start number 12 was manually annotated 2 times for cluster A4.
- Start number 13 was manually annotated 66 times for cluster A4.
- Start number 14 was manually annotated 36 times for cluster A4.
- Start number 15 was manually annotated 1 time for cluster A4.
- Start number 17 was manually annotated 8 times for cluster A4.

Gene Information:

Gene: AbbysRanger_32 Start: 25121, Stop: 24906, Start Num: 13

Candidate Starts for AbbysRanger_32:

(Start: 9 @25163 has 14 MA's), (Start: 12 @25130 has 2 MA's), (Start: 13 @25121 has 66 MA's), (Start: 17 @25109 has 11 MA's), (28, 25028), (30, 25010), (35, 24995), (36, 24983), (37, 24974), (40, 24950), (42, 24938), (45, 24926),

Gene: Abdiel_31 Start: 25079, Stop: 24879, Start Num: 14

Candidate Starts for Abdiel_31:

(Start: 14 @25079 has 40 MA's), (16, 25073), (34, 24974), (37, 24947), (40, 24923), (42, 24911), (45, 24899),

Gene: Achebe_31 Start: 25146, Stop: 24889, Start Num: 9

Candidate Starts for Achebe_31:

(Start: 9 @25146 has 14 MA's), (Start: 12 @25113 has 2 MA's), (Start: 13 @25104 has 66 MA's), (Start: 17 @25092 has 11 MA's), (28, 25011), (30, 24993), (35, 24978), (36, 24966), (37, 24957), (40, 24933), (42, 24921), (45, 24909),

Gene: Albee_32 Start: 25097, Stop: 24879, Start Num: 13

Candidate Starts for Albee_32:

(Start: 9 @25139 has 14 MA's), (Start: 12 @25106 has 2 MA's), (Start: 13 @25097 has 66 MA's),
(Start: 17 @25085 has 11 MA's), (34, 24974), (37, 24947), (40, 24923), (42, 24911), (45, 24899),

Gene: Alberto7_33 Start: 25381, Stop: 25181, Start Num: 14

Candidate Starts for Alberto7_33:

(Start: 14 @25381 has 40 MA's), (16, 25375), (34, 25276), (37, 25249), (40, 25225), (42, 25213), (45, 25201),

Gene: Annyong_32 Start: 25086, Stop: 24880, Start Num: 17

Candidate Starts for Annyong_32:

(Start: 9 @25140 has 14 MA's), (Start: 12 @25107 has 2 MA's), (Start: 13 @25098 has 66 MA's),
(Start: 17 @25086 has 11 MA's), (34, 24975), (37, 24948), (40, 24924), (42, 24912), (45, 24900),

Gene: Anthony_31 Start: 23189, Stop: 22983, Start Num: 18

Candidate Starts for Anthony_31:

(Start: 14 @23207 has 40 MA's), (Start: 18 @23189 has 3 MA's), (22, 23141), (27, 23120), (40, 23027), (42, 23015), (45, 23003),

Gene: Arturo_31 Start: 25198, Stop: 24983, Start Num: 14

Candidate Starts for Arturo_31:

(2, 25312), (3, 25303), (10, 25225), (Start: 14 @25198 has 40 MA's), (20, 25174), (35, 25072), (36, 25060), (37, 25051), (38, 25048), (40, 25027), (42, 25015), (45, 25003),

Gene: Avle17_32 Start: 25097, Stop: 24879, Start Num: 13

Candidate Starts for Avle17_32:

(Start: 9 @25139 has 14 MA's), (Start: 12 @25106 has 2 MA's), (Start: 13 @25097 has 66 MA's),
(Start: 17 @25085 has 11 MA's), (34, 24974), (37, 24947), (40, 24923), (42, 24911), (45, 24899),

Gene: Baby16_32 Start: 25108, Stop: 24890, Start Num: 13

Candidate Starts for Baby16_32:

(Start: 9 @25150 has 14 MA's), (Start: 12 @25117 has 2 MA's), (Start: 13 @25108 has 66 MA's),
(Start: 17 @25096 has 11 MA's), (34, 24985), (37, 24958), (40, 24934), (42, 24922), (45, 24910),

Gene: Backyardigan_32 Start: 25116, Stop: 24901, Start Num: 13

Candidate Starts for Backyardigan_32:

(Start: 9 @25158 has 14 MA's), (Start: 12 @25125 has 2 MA's), (Start: 13 @25116 has 66 MA's),
(Start: 17 @25104 has 11 MA's), (28, 25023), (30, 25005), (35, 24990), (36, 24978), (37, 24969), (40, 24945), (42, 24933), (45, 24921),

Gene: Badger_32 Start: 25105, Stop: 24890, Start Num: 13

Candidate Starts for Badger_32:

(Start: 9 @25147 has 14 MA's), (Start: 12 @25114 has 2 MA's), (Start: 13 @25105 has 66 MA's),
(Start: 17 @25093 has 11 MA's), (28, 25012), (30, 24994), (35, 24979), (36, 24967), (37, 24958), (40, 24934), (42, 24922), (45, 24910),

Gene: BangNhom_32 Start: 25416, Stop: 25195, Start Num: 14

Candidate Starts for BangNhom_32:

(Start: 11 @25440 has 6 MA's), (Start: 14 @25416 has 40 MA's), (Start: 15 @25413 has 1 MA's), (16, 25407), (20, 25389), (21, 25380), (38, 25260), (40, 25239), (45, 25215),

Gene: Bartimeaus_32 Start: 25099, Stop: 24881, Start Num: 13

Candidate Starts for Bartimeaus_32:

(Start: 9 @25141 has 14 MA's), (Start: 12 @25108 has 2 MA's), (Start: 13 @25099 has 66 MA's),
(Start: 17 @25087 has 11 MA's), (34, 24976), (37, 24949), (40, 24925), (42, 24913), (45, 24901),

Gene: BellusTerra_32 Start: 25078, Stop: 24878, Start Num: 14

Candidate Starts for BellusTerra_32:

(Start: 14 @25078 has 40 MA's), (16, 25072), (34, 24973), (37, 24946), (40, 24922), (42, 24910), (45, 24898),

Gene: Blackmoor_32 Start: 25099, Stop: 24881, Start Num: 13

Candidate Starts for Blackmoor_32:

(Start: 9 @25141 has 14 MA's), (Start: 12 @25108 has 2 MA's), (Start: 13 @25099 has 66 MA's),
(Start: 17 @25087 has 11 MA's), (34, 24976), (37, 24949), (40, 24925), (42, 24913), (45, 24901),

Gene: Bombshell_32 Start: 25139, Stop: 24879, Start Num: 9

Candidate Starts for Bombshell_32:

(Start: 9 @25139 has 14 MA's), (Start: 12 @25106 has 2 MA's), (Start: 13 @25097 has 66 MA's),
(Start: 17 @25085 has 11 MA's), (34, 24974), (37, 24947), (40, 24923), (42, 24911), (45, 24899),

Gene: Broseidon_32 Start: 25099, Stop: 24881, Start Num: 13

Candidate Starts for Broseidon_32:

(Start: 9 @25141 has 14 MA's), (Start: 12 @25108 has 2 MA's), (Start: 13 @25099 has 66 MA's),
(Start: 17 @25087 has 11 MA's), (34, 24976), (37, 24949), (40, 24925), (42, 24913), (45, 24901),

Gene: Bruiser_31 Start: 25139, Stop: 24879, Start Num: 9

Candidate Starts for Bruiser_31:

(Start: 9 @25139 has 14 MA's), (Start: 12 @25106 has 2 MA's), (Start: 13 @25097 has 66 MA's), (34, 24974), (37, 24947), (40, 24923), (42, 24911), (45, 24899),

Gene: BubbleTrouble_32 Start: 25139, Stop: 24879, Start Num: 9

Candidate Starts for BubbleTrouble_32:

(Start: 9 @25139 has 14 MA's), (Start: 12 @25106 has 2 MA's), (Start: 13 @25097 has 66 MA's),
(Start: 17 @25085 has 11 MA's), (34, 24974), (37, 24947), (40, 24923), (42, 24911), (45, 24899),

Gene: Bumblebee11_32 Start: 25107, Stop: 24892, Start Num: 13

Candidate Starts for Bumblebee11_32:

(Start: 9 @25149 has 14 MA's), (Start: 12 @25116 has 2 MA's), (Start: 13 @25107 has 66 MA's),
(Start: 17 @25095 has 11 MA's), (28, 25014), (30, 24996), (35, 24981), (36, 24969), (37, 24960), (40, 24936), (42, 24924), (45, 24912),

Gene: Burger_31 Start: 25097, Stop: 24879, Start Num: 13

Candidate Starts for Burger_31:

(Start: 9 @25139 has 14 MA's), (Start: 12 @25106 has 2 MA's), (Start: 13 @25097 has 66 MA's),
(Start: 17 @25085 has 11 MA's), (34, 24974), (37, 24947), (40, 24923), (42, 24911), (45, 24899),

Gene: Caelakin_32 Start: 25097, Stop: 24879, Start Num: 13

Candidate Starts for Caelakin_32:

(Start: 9 @25139 has 14 MA's), (Start: 12 @25106 has 2 MA's), (Start: 13 @25097 has 66 MA's),
(Start: 17 @25085 has 11 MA's), (34, 24974), (37, 24947), (40, 24923), (42, 24911), (45, 24899),

Gene: Camperdownii_31 Start: 24716, Stop: 24498, Start Num: 14

Candidate Starts for Camperdownii_31:

(Start: 14 @24716 has 40 MA's), (16, 24710), (34, 24593), (40, 24542), (41, 24536), (45, 24518),

Gene: CentreCat_32 Start: 25100, Stop: 24882, Start Num: 13

Candidate Starts for CentreCat_32:

(Start: 9 @25142 has 14 MA's), (Start: 12 @25109 has 2 MA's), (Start: 13 @25100 has 66 MA's), (Start: 17 @25088 has 11 MA's), (34, 24977), (37, 24950), (40, 24926), (42, 24914), (45, 24902),

Gene: Cerulean_33 Start: 25441, Stop: 25196, Start Num: 11

Candidate Starts for Cerulean_33:

(Start: 11 @25441 has 6 MA's), (Start: 14 @25417 has 40 MA's), (Start: 15 @25414 has 1 MA's), (16, 25408), (20, 25390), (21, 25381), (38, 25261), (40, 25240), (45, 25216),

Gene: ChampagnePapi_33 Start: 25440, Stop: 25195, Start Num: 11

Candidate Starts for ChampagnePapi_33:

(Start: 11 @25440 has 6 MA's), (Start: 14 @25416 has 40 MA's), (Start: 15 @25413 has 1 MA's), (16, 25407), (20, 25389), (21, 25380), (38, 25260), (40, 25239), (45, 25215),

Gene: Chaph_32 Start: 25108, Stop: 24890, Start Num: 13

Candidate Starts for Chaph_32:

(Start: 9 @25150 has 14 MA's), (Start: 12 @25117 has 2 MA's), (Start: 13 @25108 has 66 MA's), (Start: 17 @25096 has 11 MA's), (34, 24985), (37, 24958), (40, 24934), (42, 24922), (45, 24910),

Gene: Cici_32 Start: 25101, Stop: 24886, Start Num: 13

Candidate Starts for Cici_32:

(Start: 9 @25143 has 14 MA's), (Start: 12 @25110 has 2 MA's), (Start: 13 @25101 has 66 MA's), (Start: 17 @25089 has 11 MA's), (28, 25008), (30, 24990), (35, 24975), (36, 24963), (37, 24954), (40, 24930), (42, 24918), (45, 24906),

Gene: Cindaradix_31 Start: 24847, Stop: 24602, Start Num: 11

Candidate Starts for Cindaradix_31:

(2, 24937), (Start: 11 @24847 has 6 MA's), (Start: 14 @24823 has 40 MA's), (Start: 15 @24820 has 1 MA's), (16, 24814), (20, 24796), (21, 24787), (30, 24706), (36, 24679), (38, 24667), (40, 24646), (42, 24634), (45, 24622),

Gene: Cintron_32 Start: 25133, Stop: 24927, Start Num: 17

Candidate Starts for Cintron_32:

(1, 25334), (Start: 12 @25154 has 2 MA's), (Start: 13 @25145 has 66 MA's), (Start: 17 @25133 has 11 MA's), (31, 25031), (40, 24971), (41, 24965), (42, 24959), (45, 24947),

Gene: Citius_32 Start: 25112, Stop: 24894, Start Num: 13

Candidate Starts for Citius_32:

(Start: 9 @25154 has 14 MA's), (Start: 12 @25121 has 2 MA's), (Start: 13 @25112 has 66 MA's), (Start: 17 @25100 has 11 MA's), (34, 24989), (37, 24962), (40, 24938), (42, 24926), (45, 24914),

Gene: Clarenza_32 Start: 25136, Stop: 24876, Start Num: 9

Candidate Starts for Clarenza_32:

(Start: 9 @25136 has 14 MA's), (Start: 12 @25103 has 2 MA's), (Start: 13 @25094 has 66 MA's), (Start: 17 @25082 has 11 MA's), (34, 24971), (37, 24944), (40, 24920), (42, 24908), (45, 24896),

Gene: Cocoaberry_32 Start: 25101, Stop: 24883, Start Num: 13

Candidate Starts for Cocoaberry_32:

(Start: 9 @25143 has 14 MA's), (Start: 12 @25110 has 2 MA's), (Start: 13 @25101 has 66 MA's), (Start: 17 @25089 has 11 MA's), (34, 24978), (37, 24951), (40, 24927), (42, 24915), (45, 24903),

Gene: Commander_32 Start: 25079, Stop: 24879, Start Num: 14

Candidate Starts for Commander_32:

(Start: 14 @25079 has 40 MA's), (16, 25073), (34, 24974), (37, 24947), (40, 24923), (42, 24911), (45, 24899),

Gene: Connomayer_32 Start: 25097, Stop: 24879, Start Num: 13

Candidate Starts for Connomayer_32:

(Start: 9 @25139 has 14 MA's), (Start: 12 @25106 has 2 MA's), (Start: 13 @25097 has 66 MA's), (Start: 17 @25085 has 11 MA's), (34, 24974), (37, 24947), (40, 24923), (42, 24911), (45, 24899),

Gene: Datway_32 Start: 25116, Stop: 24901, Start Num: 13

Candidate Starts for Datway_32:

(Start: 9 @25158 has 14 MA's), (Start: 12 @25125 has 2 MA's), (Start: 13 @25116 has 66 MA's), (Start: 17 @25104 has 11 MA's), (28, 25023), (30, 25005), (35, 24990), (36, 24978), (37, 24969), (40, 24945), (42, 24933), (45, 24921),

Gene: Deano_32 Start: 25105, Stop: 24887, Start Num: 13

Candidate Starts for Deano_32:

(Start: 9 @25147 has 14 MA's), (Start: 12 @25114 has 2 MA's), (Start: 13 @25105 has 66 MA's), (Start: 17 @25093 has 11 MA's), (34, 24982), (37, 24955), (40, 24931), (42, 24919), (45, 24907),

Gene: Dhanush_32 Start: 25100, Stop: 24882, Start Num: 13

Candidate Starts for Dhanush_32:

(Start: 9 @25142 has 14 MA's), (Start: 12 @25109 has 2 MA's), (Start: 13 @25100 has 66 MA's), (Start: 17 @25088 has 11 MA's), (34, 24977), (37, 24950), (40, 24926), (42, 24914), (45, 24902),

Gene: DirtyDunning_32 Start: 25082, Stop: 24867, Start Num: 14

Candidate Starts for DirtyDunning_32:

(10, 25109), (Start: 14 @25082 has 40 MA's), (20, 25058), (28, 24989), (35, 24956), (36, 24944), (37, 24935), (38, 24932), (40, 24911), (42, 24899), (45, 24887),

Gene: Druantia_32 Start: 25100, Stop: 24882, Start Num: 13

Candidate Starts for Druantia_32:

(Start: 9 @25142 has 14 MA's), (Start: 12 @25109 has 2 MA's), (Start: 13 @25100 has 66 MA's), (Start: 17 @25088 has 11 MA's), (34, 24977), (37, 24950), (40, 24926), (42, 24914), (45, 24902),

Gene: Eagle_31 Start: 25126, Stop: 24881, Start Num: 11

Candidate Starts for Eagle_31:

(Start: 11 @25126 has 6 MA's), (Start: 14 @25102 has 40 MA's), (Start: 15 @25099 has 1 MA's), (16, 25093), (20, 25075), (21, 25066), (38, 24946), (40, 24925), (45, 24901),

Gene: EagleEye_40 Start: 27446, Stop: 27649, Start Num: 17

Candidate Starts for EagleEye_40:

(Start: 17 @27446 has 11 MA's), (23, 27506), (24, 27509), (33, 27557),

Gene: Eapen_32 Start: 25095, Stop: 24877, Start Num: 13

Candidate Starts for Eapen_32:

(Start: 9 @25137 has 14 MA's), (Start: 12 @25104 has 2 MA's), (Start: 13 @25095 has 66 MA's), (Start: 17 @25083 has 11 MA's), (34, 24972), (37, 24945), (40, 24921), (42, 24909), (45, 24897),

Gene: Eris_31 Start: 25139, Stop: 24879, Start Num: 9

Candidate Starts for Eris_31:

(Start: 9 @25139 has 14 MA's), (Start: 12 @25106 has 2 MA's), (Start: 13 @25097 has 66 MA's), (Start: 17 @25085 has 11 MA's), (34, 24974), (37, 24947), (40, 24923), (42, 24911), (45, 24899),

Gene: Eros_32 Start: 25099, Stop: 24881, Start Num: 13

Candidate Starts for Eros_32:

(Start: 9 @25141 has 14 MA's), (Start: 12 @25108 has 2 MA's), (Start: 13 @25099 has 66 MA's),
(Start: 17 @25087 has 11 MA's), (34, 24976), (37, 24949), (40, 24925), (42, 24913), (45, 24901),

Gene: Eurydice_32 Start: 25077, Stop: 24877, Start Num: 14

Candidate Starts for Eurydice_32:

(Start: 14 @25077 has 40 MA's), (16, 25071), (34, 24972), (37, 24945), (40, 24921), (42, 24909), (45,
24897),

Gene: Florean_32 Start: 25096, Stop: 24878, Start Num: 13

Candidate Starts for Florean_32:

(Start: 9 @25138 has 14 MA's), (Start: 12 @25105 has 2 MA's), (Start: 13 @25096 has 66 MA's),
(Start: 17 @25084 has 11 MA's), (34, 24973), (37, 24946), (40, 24922), (42, 24910), (45, 24898),

Gene: Flux_32 Start: 25099, Stop: 24881, Start Num: 13

Candidate Starts for Flux_32:

(Start: 9 @25141 has 14 MA's), (Start: 12 @25108 has 2 MA's), (Start: 13 @25099 has 66 MA's),
(Start: 17 @25087 has 11 MA's), (34, 24976), (37, 24949), (40, 24925), (42, 24913), (45, 24901),

Gene: Funston_32 Start: 25139, Stop: 24879, Start Num: 9

Candidate Starts for Funston_32:

(Start: 9 @25139 has 14 MA's), (Start: 12 @25106 has 2 MA's), (Start: 13 @25097 has 66 MA's),
(Start: 17 @25085 has 11 MA's), (34, 24974), (37, 24947), (40, 24923), (42, 24911), (45, 24899),

Gene: Gadost_32 Start: 25089, Stop: 24883, Start Num: 17

Candidate Starts for Gadost_32:

(Start: 9 @25143 has 14 MA's), (Start: 12 @25110 has 2 MA's), (Start: 13 @25101 has 66 MA's),
(Start: 17 @25089 has 11 MA's), (34, 24978), (37, 24951), (40, 24927), (42, 24915), (45, 24903),

Gene: Gail_40 Start: 28919, Stop: 29125, Start Num: 14

Candidate Starts for Gail_40:

(Start: 14 @28919 has 40 MA's), (22, 28973), (24, 28982), (32, 29027), (35, 29036), (38, 29060), (40,
29081), (45, 29105),

Gene: HamSlice_31 Start: 25104, Stop: 24877, Start Num: 12

Candidate Starts for HamSlice_31:

(Start: 9 @25137 has 14 MA's), (Start: 12 @25104 has 2 MA's), (Start: 13 @25095 has 66 MA's),
(Start: 17 @25083 has 11 MA's), (28, 25002), (34, 24972), (37, 24945), (40, 24921), (42, 24909), (45,
24897),

Gene: Happiness_32 Start: 25102, Stop: 24884, Start Num: 13

Candidate Starts for Happiness_32:

(Start: 9 @25144 has 14 MA's), (Start: 12 @25111 has 2 MA's), (Start: 13 @25102 has 66 MA's),
(Start: 17 @25090 has 11 MA's), (34, 24979), (37, 24952), (40, 24928), (42, 24916), (45, 24904),

Gene: Holli_32 Start: 24887, Stop: 24669, Start Num: 13

Candidate Starts for Holli_32:

(Start: 9 @24929 has 14 MA's), (Start: 12 @24896 has 2 MA's), (Start: 13 @24887 has 66 MA's),
(Start: 17 @24875 has 11 MA's), (34, 24764), (37, 24737), (40, 24713), (42, 24701), (45, 24689),

Gene: Houdini22_32 Start: 25101, Stop: 24883, Start Num: 13

Candidate Starts for Houdini22_32:

(Start: 9 @25143 has 14 MA's), (Start: 12 @25110 has 2 MA's), (Start: 13 @25101 has 66 MA's),
(Start: 17 @25089 has 11 MA's), (34, 24978), (37, 24951), (40, 24927), (42, 24915), (45, 24903),

Gene: ICleared_32 Start: 25076, Stop: 24876, Start Num: 14

Candidate Starts for ICleared_32:

(Start: 14 @25076 has 40 MA's), (16, 25070), (34, 24971), (37, 24944), (40, 24920), (42, 24908), (45,
24896),

Gene: Iceman_33 Start: 25386, Stop: 25168, Start Num: 13

Candidate Starts for Iceman_33:

(Start: 9 @25428 has 14 MA's), (Start: 12 @25395 has 2 MA's), (Start: 13 @25386 has 66 MA's),
(Start: 17 @25374 has 11 MA's), (34, 25263), (37, 25236), (40, 25212), (42, 25200), (45, 25188),

Gene: Iracema64_33 Start: 25397, Stop: 25182, Start Num: 14

Candidate Starts for Iracema64_33:

(10, 25424), (Start: 14 @25397 has 40 MA's), (20, 25373), (28, 25304), (35, 25271), (36, 25259), (37,
25250), (38, 25247), (40, 25226), (42, 25214), (45, 25202),

Gene: IronMan_35 Start: 26874, Stop: 26668, Start Num: 14

Candidate Starts for IronMan_35:

(Start: 14 @26874 has 40 MA's), (38, 26733), (40, 26712), (44, 26691), (45, 26688),

Gene: Iwokeuplikedis_36 Start: 27079, Stop: 27276, Start Num: 18

Candidate Starts for Iwokeuplikedis_36:

(Start: 18 @27079 has 3 MA's), (23, 27130), (31, 27175), (42, 27244), (45, 27256),

Gene: Jaan_36 Start: 27278, Stop: 27060, Start Num: 14

Candidate Starts for Jaan_36:

(Start: 7 @27329 has 1 MA's), (8, 27323), (Start: 14 @27278 has 40 MA's), (20, 27254), (21, 27245),
(28, 27182), (30, 27164), (36, 27137), (37, 27128), (38, 27125), (40, 27104), (45, 27080),

Gene: Jaykayelowell_32 Start: 25093, Stop: 24875, Start Num: 13

Candidate Starts for Jaykayelowell_32:

(Start: 9 @25135 has 14 MA's), (Start: 12 @25102 has 2 MA's), (Start: 13 @25093 has 66 MA's),
(Start: 17 @25081 has 11 MA's), (34, 24970), (37, 24943), (40, 24919), (42, 24907), (45, 24895),

Gene: Jeeves_39 Start: 27596, Stop: 27802, Start Num: 14

Candidate Starts for Jeeves_39:

(Start: 14 @27596 has 40 MA's), (24, 27659), (32, 27704), (35, 27713), (40, 27758), (42, 27770), (44,
27779), (45, 27782),

Gene: JetBlade_32 Start: 25094, Stop: 24876, Start Num: 13

Candidate Starts for JetBlade_32:

(Start: 9 @25136 has 14 MA's), (Start: 12 @25103 has 2 MA's), (Start: 13 @25094 has 66 MA's),
(Start: 17 @25082 has 11 MA's), (34, 24971), (37, 24944), (40, 24920), (42, 24908), (45, 24896),

Gene: JoongJeon_32 Start: 25139, Stop: 24879, Start Num: 9

Candidate Starts for JoongJeon_32:

(Start: 9 @25139 has 14 MA's), (Start: 12 @25106 has 2 MA's), (Start: 13 @25097 has 66 MA's),
(Start: 17 @25085 has 11 MA's), (34, 24974), (37, 24947), (40, 24923), (42, 24911), (45, 24899),

Gene: KFPoly_32 Start: 25136, Stop: 24876, Start Num: 9

Candidate Starts for KFPoly_32:

(Start: 9 @25136 has 14 MA's), (Start: 12 @25103 has 2 MA's), (Start: 13 @25094 has 66 MA's),
(Start: 17 @25082 has 11 MA's), (34, 24971), (37, 24944), (40, 24920), (42, 24908), (45, 24896),

Gene: Kamy_32 Start: 25079, Stop: 24879, Start Num: 14

Candidate Starts for Kamy_32:

(Start: 14 @25079 has 40 MA's), (16, 25073), (34, 24974), (37, 24947), (40, 24923), (42, 24911), (45,
24899),

Gene: Katalie136_32 Start: 25095, Stop: 24892, Start Num: 17

Candidate Starts for Katalie136_32:

(Start: 9 @25149 has 14 MA's), (Start: 12 @25116 has 2 MA's), (Start: 13 @25107 has 66 MA's),
(Start: 17 @25095 has 11 MA's), (28, 25014), (30, 24996), (35, 24981), (36, 24969), (37, 24960), (40,
24936), (42, 24924), (45, 24912),

Gene: Kingmustik0402_32 Start: 25077, Stop: 24871, Start Num: 17

Candidate Starts for Kingmustik0402_32:

(Start: 9 @25131 has 14 MA's), (Start: 12 @25098 has 2 MA's), (Start: 13 @25089 has 66 MA's),
(Start: 17 @25077 has 11 MA's), (34, 24966), (37, 24939), (40, 24915), (42, 24903), (45, 24891),

Gene: Kinmap_37 Start: 27332, Stop: 27529, Start Num: 19

Candidate Starts for Kinmap_37:

(Start: 18 @27326 has 3 MA's), (19, 27332), (24, 27380), (25, 27383), (26, 27389), (38, 27464), (40,
27485), (42, 27497), (45, 27509),

Gene: Koreni_31 Start: 24725, Stop: 24525, Start Num: 14

Candidate Starts for Koreni_31:

(Start: 14 @24725 has 40 MA's), (16, 24719), (34, 24620), (37, 24593), (40, 24569), (42, 24557), (45,
24545),

Gene: Kratak_32 Start: 25081, Stop: 24866, Start Num: 14

Candidate Starts for Kratak_32:

(2, 25195), (3, 25186), (10, 25108), (Start: 14 @25081 has 40 MA's), (20, 25057), (30, 24970), (35,
24955), (36, 24943), (37, 24934), (38, 24931), (40, 24910), (42, 24898), (45, 24886),

Gene: Kremtemulon_32 Start: 25131, Stop: 24931, Start Num: 14

Candidate Starts for Kremtemulon_32:

(Start: 14 @25131 has 40 MA's), (16, 25125), (34, 25026), (37, 24999), (40, 24975), (42, 24963), (45,
24951),

Gene: Kyee_32 Start: 25095, Stop: 24877, Start Num: 13

Candidate Starts for Kyee_32:

(Start: 9 @25137 has 14 MA's), (Start: 12 @25104 has 2 MA's), (Start: 13 @25095 has 66 MA's),
(Start: 17 @25083 has 11 MA's), (34, 24972), (37, 24945), (40, 24921), (42, 24909), (45, 24897),

Gene: LHTSCC_33 Start: 25440, Stop: 25195, Start Num: 11

Candidate Starts for LHTSCC_33:

(Start: 11 @25440 has 6 MA's), (Start: 14 @25416 has 40 MA's), (Start: 15 @25413 has 1 MA's), (16,
25407), (20, 25389), (21, 25380), (38, 25260), (40, 25239), (45, 25215),

Gene: LappelDuVide_32 Start: 25096, Stop: 24878, Start Num: 13

Candidate Starts for LappelDuVide_32:

(Start: 9 @25138 has 14 MA's), (Start: 12 @25105 has 2 MA's), (Start: 13 @25096 has 66 MA's),
(Start: 17 @25084 has 11 MA's), (27, 25012), (34, 24973), (37, 24946), (40, 24922), (42, 24910), (45,
24898),

Gene: Lemur_32 Start: 25136, Stop: 24876, Start Num: 9

Candidate Starts for Lemur_32:

(Start: 9 @25136 has 14 MA's), (Start: 12 @25103 has 2 MA's), (Start: 13 @25094 has 66 MA's),
(Start: 17 @25082 has 11 MA's), (34, 24971), (37, 24944), (40, 24920), (42, 24908), (45, 24896),

Gene: LeoAvram_32 Start: 25077, Stop: 24877, Start Num: 14

Candidate Starts for LeoAvram_32:

(Start: 14 @25077 has 40 MA's), (16, 25071), (34, 24972), (37, 24945), (40, 24921), (42, 24909), (45,
24897),

Gene: LittleB_32 Start: 25098, Stop: 24880, Start Num: 13

Candidate Starts for LittleB_32:

(Start: 9 @25140 has 14 MA's), (Start: 12 @25107 has 2 MA's), (Start: 13 @25098 has 66 MA's),
(Start: 17 @25086 has 11 MA's), (34, 24975), (37, 24948), (40, 24924), (42, 24912), (45, 24900),

Gene: LittleGuy_32 Start: 25026, Stop: 24826, Start Num: 14

Candidate Starts for LittleGuy_32:

(Start: 14 @25026 has 40 MA's), (16, 25020), (34, 24921), (37, 24894), (40, 24870), (42, 24858), (45,
24846),

Gene: LochMonster_32 Start: 25061, Stop: 24846, Start Num: 14

Candidate Starts for LochMonster_32:

(10, 25088), (Start: 14 @25061 has 40 MA's), (20, 25037), (28, 24968), (35, 24935), (36, 24923), (37,
24914), (38, 24911), (40, 24890), (42, 24878), (45, 24866),

Gene: Lorenzo_32 Start: 25097, Stop: 24879, Start Num: 13

Candidate Starts for Lorenzo_32:

(Start: 9 @25139 has 14 MA's), (Start: 12 @25106 has 2 MA's), (Start: 13 @25097 has 66 MA's),
(Start: 17 @25085 has 11 MA's), (34, 24974), (37, 24947), (40, 24923), (42, 24911), (45, 24899),

Gene: Lucyedi_39 Start: 27447, Stop: 27650, Start Num: 17

Candidate Starts for Lucyedi_39:

(Start: 17 @27447 has 11 MA's), (23, 27507), (24, 27510), (33, 27558), (45, 27636),

Gene: Lunsford_33 Start: 25136, Stop: 24876, Start Num: 9

Candidate Starts for Lunsford_33:

(Start: 9 @25136 has 14 MA's), (Start: 12 @25103 has 2 MA's), (Start: 13 @25094 has 66 MA's),
(Start: 17 @25082 has 11 MA's), (34, 24971), (37, 24944), (40, 24920), (42, 24908), (45, 24896),

Gene: Maverick_32 Start: 25139, Stop: 24879, Start Num: 9

Candidate Starts for Maverick_32:

(Start: 9 @25139 has 14 MA's), (Start: 12 @25106 has 2 MA's), (Start: 13 @25097 has 66 MA's),
(Start: 17 @25085 has 11 MA's), (34, 24974), (37, 24947), (40, 24923), (42, 24911), (45, 24899),

Gene: Maxo_32 Start: 25079, Stop: 24879, Start Num: 14

Candidate Starts for Maxo_32:

(Start: 14 @25079 has 40 MA's), (16, 25073), (34, 24974), (37, 24947), (40, 24923), (42, 24911), (45,
24899),

Gene: Mazhar510_32 Start: 25098, Stop: 24880, Start Num: 13

Candidate Starts for Mazhar510_32:

(Start: 9 @25140 has 14 MA's), (Start: 12 @25107 has 2 MA's), (Start: 13 @25098 has 66 MA's), (Start: 17 @25086 has 11 MA's), (34, 24975), (37, 24948), (40, 24924), (42, 24912), (45, 24900),

Gene: Medusa_32 Start: 25080, Stop: 24880, Start Num: 14

Candidate Starts for Medusa_32:

(Start: 14 @25080 has 40 MA's), (16, 25074), (34, 24975), (37, 24948), (40, 24924), (42, 24912), (45, 24900),

Gene: MeeZee_32 Start: 25097, Stop: 24879, Start Num: 13

Candidate Starts for MeeZee_32:

(Start: 9 @25139 has 14 MA's), (Start: 12 @25106 has 2 MA's), (Start: 13 @25097 has 66 MA's), (Start: 17 @25085 has 11 MA's), (34, 24974), (37, 24947), (40, 24923), (42, 24911), (45, 24899),

Gene: Melvin_32 Start: 25078, Stop: 24878, Start Num: 14

Candidate Starts for Melvin_32:

(Start: 14 @25078 has 40 MA's), (16, 25072), (34, 24973), (37, 24946), (40, 24922), (42, 24910), (45, 24898),

Gene: Morpher26_32 Start: 25107, Stop: 24892, Start Num: 13

Candidate Starts for Morpher26_32:

(Start: 9 @25149 has 14 MA's), (Start: 12 @25116 has 2 MA's), (Start: 13 @25107 has 66 MA's), (Start: 17 @25095 has 11 MA's), (28, 25014), (30, 24996), (35, 24981), (36, 24969), (37, 24960), (40, 24936), (42, 24924), (45, 24912),

Gene: Morrow_32 Start: 25083, Stop: 24883, Start Num: 14

Candidate Starts for Morrow_32:

(Start: 14 @25083 has 40 MA's), (16, 25077), (34, 24978), (37, 24951), (40, 24927), (42, 24915), (45, 24903),

Gene: Mundrea_32 Start: 25060, Stop: 24842, Start Num: 14

Candidate Starts for Mundrea_32:

(2, 25174), (10, 25087), (Start: 14 @25060 has 40 MA's), (30, 24946), (36, 24919), (40, 24886), (42, 24874), (45, 24862),

Gene: Nebs_32 Start: 25077, Stop: 24877, Start Num: 14

Candidate Starts for Nebs_32:

(Start: 14 @25077 has 40 MA's), (16, 25071), (34, 24972), (37, 24945), (40, 24921), (42, 24909), (45, 24897),

Gene: Nemo27_32 Start: 25138, Stop: 24878, Start Num: 9

Candidate Starts for Nemo27_32:

(Start: 9 @25138 has 14 MA's), (Start: 12 @25105 has 2 MA's), (Start: 13 @25096 has 66 MA's), (Start: 17 @25084 has 11 MA's), (34, 24973), (37, 24946), (40, 24922), (42, 24910), (45, 24898),

Gene: Noelle_32 Start: 25174, Stop: 24959, Start Num: 13

Candidate Starts for Noelle_32:

(6, 25240), (Start: 12 @25183 has 2 MA's), (Start: 13 @25174 has 66 MA's), (35, 25048), (36, 25036), (37, 25027), (38, 25024), (40, 25003), (44, 24982), (45, 24979),

Gene: NorthStar_32 Start: 25097, Stop: 24879, Start Num: 13

Candidate Starts for NorthStar_32:

(Start: 9 @25139 has 14 MA's), (Start: 12 @25106 has 2 MA's), (Start: 13 @25097 has 66 MA's),
(Start: 17 @25085 has 11 MA's), (34, 24974), (37, 24947), (40, 24923), (42, 24911), (45, 24899),

Gene: NotAPhaseMom_32 Start: 25101, Stop: 24883, Start Num: 13

Candidate Starts for NotAPhaseMom_32:

(Start: 9 @25143 has 14 MA's), (Start: 12 @25110 has 2 MA's), (Start: 13 @25101 has 66 MA's),
(Start: 17 @25089 has 11 MA's), (34, 24978), (37, 24951), (40, 24927), (42, 24915), (45, 24903),

Gene: Nyxis_32 Start: 25020, Stop: 24820, Start Num: 14

Candidate Starts for Nyxis_32:

(Start: 14 @25020 has 40 MA's), (16, 25014), (34, 24915), (37, 24888), (40, 24864), (42, 24852), (45,
24840),

Gene: OKaNui_33 Start: 25150, Stop: 24932, Start Num: 13

Candidate Starts for OKaNui_33:

(Start: 9 @25192 has 14 MA's), (Start: 12 @25159 has 2 MA's), (Start: 13 @25150 has 66 MA's),
(Start: 17 @25138 has 11 MA's), (34, 25027), (37, 25000), (40, 24976), (42, 24964), (45, 24952),

Gene: Obama12_33 Start: 25442, Stop: 25197, Start Num: 11

Candidate Starts for Obama12_33:

(Start: 11 @25442 has 6 MA's), (Start: 14 @25418 has 40 MA's), (Start: 15 @25415 has 1 MA's), (16,
25409), (20, 25391), (21, 25382), (38, 25262), (40, 25241), (45, 25217),

Gene: Ohfah_32 Start: 25077, Stop: 24877, Start Num: 14

Candidate Starts for Ohfah_32:

(Start: 14 @25077 has 40 MA's), (16, 25071), (34, 24972), (37, 24945), (40, 24921), (42, 24909), (45,
24897),

Gene: PainterBoy_39 Start: 27383, Stop: 27586, Start Num: 17

Candidate Starts for PainterBoy_39:

(Start: 17 @27383 has 11 MA's), (23, 27443), (24, 27446), (33, 27494), (45, 27572),

Gene: Palestino_31 Start: 25139, Stop: 24879, Start Num: 9

Candidate Starts for Palestino_31:

(Start: 9 @25139 has 14 MA's), (Start: 12 @25106 has 2 MA's), (Start: 13 @25097 has 66 MA's),
(Start: 17 @25085 has 11 MA's), (34, 24974), (37, 24947), (40, 24923), (42, 24911), (45, 24899),

Gene: Peaches_32 Start: 25096, Stop: 24878, Start Num: 13

Candidate Starts for Peaches_32:

(Start: 9 @25138 has 14 MA's), (Start: 12 @25105 has 2 MA's), (Start: 13 @25096 has 66 MA's),
(Start: 17 @25084 has 11 MA's), (34, 24973), (37, 24946), (40, 24922), (42, 24910), (45, 24898),

Gene: Perplexer_32 Start: 25104, Stop: 24889, Start Num: 13

Candidate Starts for Perplexer_32:

(Start: 9 @25146 has 14 MA's), (Start: 12 @25113 has 2 MA's), (Start: 13 @25104 has 66 MA's),
(Start: 17 @25092 has 11 MA's), (28, 25011), (30, 24993), (35, 24978), (36, 24966), (37, 24957), (40,
24933), (42, 24921), (45, 24909),

Gene: PeterPeter_32 Start: 25097, Stop: 24879, Start Num: 13

Candidate Starts for PeterPeter_32:

(Start: 9 @25139 has 14 MA's), (Start: 12 @25106 has 2 MA's), (Start: 13 @25097 has 66 MA's),
(Start: 17 @25085 has 11 MA's), (34, 24974), (37, 24947), (40, 24923), (42, 24911), (45, 24899),

Gene: PetiteSangsue_32 Start: 25107, Stop: 24892, Start Num: 13

Candidate Starts for PetiteSangsue_32:

(Start: 9 @25149 has 14 MA's), (Start: 12 @25116 has 2 MA's), (Start: 13 @25107 has 66 MA's), (Start: 17 @25095 has 11 MA's), (28, 25014), (30, 24996), (35, 24981), (36, 24969), (37, 24960), (40, 24936), (42, 24924), (45, 24912),

Gene: Phacado_32 Start: 25096, Stop: 24878, Start Num: 13

Candidate Starts for Phacado_32:

(Start: 9 @25138 has 14 MA's), (Start: 12 @25105 has 2 MA's), (Start: 13 @25096 has 66 MA's), (Start: 17 @25084 has 11 MA's), (34, 24973), (37, 24946), (40, 24922), (42, 24910), (45, 24898),

Gene: Phelipe_32 Start: 25080, Stop: 24880, Start Num: 14

Candidate Starts for Phelipe_32:

(Start: 14 @25080 has 40 MA's), (16, 25074), (34, 24975), (37, 24948), (40, 24924), (42, 24912), (45, 24900),

Gene: Phighter1804_32 Start: 25064, Stop: 24849, Start Num: 14

Candidate Starts for Phighter1804_32:

(10, 25091), (Start: 14 @25064 has 40 MA's), (20, 25040), (28, 24971), (35, 24938), (36, 24926), (37, 24917), (38, 24914), (40, 24893), (42, 24881), (45, 24869),

Gene: Phontbonne_32 Start: 25021, Stop: 24821, Start Num: 14

Candidate Starts for Phontbonne_32:

(Start: 14 @25021 has 40 MA's), (16, 25015), (34, 24916), (37, 24889), (40, 24865), (42, 24853), (45, 24841),

Gene: Pipcraft_32 Start: 25097, Stop: 24879, Start Num: 13

Candidate Starts for Pipcraft_32:

(5, 25172), (Start: 9 @25139 has 14 MA's), (Start: 12 @25106 has 2 MA's), (Start: 13 @25097 has 66 MA's), (Start: 17 @25085 has 11 MA's), (34, 24974), (37, 24947), (40, 24923), (42, 24911), (45, 24899),

Gene: Polymorphads_32 Start: 25077, Stop: 24877, Start Num: 14

Candidate Starts for Polymorphads_32:

(Start: 14 @25077 has 40 MA's), (16, 25071), (34, 24972), (37, 24945), (40, 24921), (42, 24909), (45, 24897),

Gene: Pukovnik_34 Start: 26424, Stop: 26155, Start Num: 7

Candidate Starts for Pukovnik_34:

(Start: 7 @26424 has 1 MA's), (8, 26418), (Start: 14 @26373 has 40 MA's), (20, 26349), (21, 26340), (30, 26259), (36, 26232), (38, 26220), (40, 26199), (45, 26175),

Gene: Pumbaa_32 Start: 25072, Stop: 24854, Start Num: 14

Candidate Starts for Pumbaa_32:

(4, 25156), (Start: 14 @25072 has 40 MA's), (16, 25066), (34, 24949), (40, 24898), (41, 24892), (45, 24874),

Gene: Relief_32 Start: 25097, Stop: 24879, Start Num: 13

Candidate Starts for Relief_32:

(Start: 9 @25139 has 14 MA's), (Start: 12 @25106 has 2 MA's), (Start: 13 @25097 has 66 MA's), (Start: 17 @25085 has 11 MA's), (34, 24974), (37, 24947), (40, 24923), (42, 24911), (45, 24899),

Gene: Romney_32 Start: 25097, Stop: 24879, Start Num: 13

Candidate Starts for Romney_32:

(Start: 9 @25139 has 14 MA's), (Start: 12 @25106 has 2 MA's), (Start: 13 @25097 has 66 MA's),
(Start: 17 @25085 has 11 MA's), (34, 24974), (37, 24947), (40, 24923), (42, 24911), (45, 24899),

Gene: Roosevelt_32 Start: 25099, Stop: 24881, Start Num: 13

Candidate Starts for Roosevelt_32:

(Start: 9 @25141 has 14 MA's), (Start: 12 @25108 has 2 MA's), (Start: 13 @25099 has 66 MA's),
(Start: 17 @25087 has 11 MA's), (34, 24976), (37, 24949), (40, 24925), (42, 24913), (45, 24901),

Gene: Rosa24_31 Start: 25071, Stop: 24853, Start Num: 14

Candidate Starts for Rosa24_31:

(Start: 14 @25071 has 40 MA's), (16, 25065), (34, 24948), (40, 24897), (41, 24891), (45, 24873),

Gene: Ruin_32 Start: 25093, Stop: 24875, Start Num: 13

Candidate Starts for Ruin_32:

(Start: 9 @25135 has 14 MA's), (Start: 12 @25102 has 2 MA's), (Start: 13 @25093 has 66 MA's),
(Start: 17 @25081 has 11 MA's), (34, 24970), (37, 24943), (40, 24919), (42, 24907), (45, 24895),

Gene: Sabertooth_32 Start: 25096, Stop: 24878, Start Num: 13

Candidate Starts for Sabertooth_32:

(Start: 9 @25138 has 14 MA's), (Start: 12 @25105 has 2 MA's), (Start: 13 @25096 has 66 MA's),
(Start: 17 @25084 has 11 MA's), (34, 24973), (37, 24946), (40, 24922), (42, 24910), (45, 24898),

Gene: Scamp_32 Start: 25099, Stop: 24881, Start Num: 13

Candidate Starts for Scamp_32:

(Start: 9 @25141 has 14 MA's), (Start: 12 @25108 has 2 MA's), (Start: 13 @25099 has 66 MA's),
(Start: 17 @25087 has 11 MA's), (34, 24976), (37, 24949), (40, 24925), (42, 24913), (45, 24901),

Gene: Shaka_32 Start: 25097, Stop: 24879, Start Num: 13

Candidate Starts for Shaka_32:

(Start: 9 @25139 has 14 MA's), (Start: 12 @25106 has 2 MA's), (Start: 13 @25097 has 66 MA's),
(Start: 17 @25085 has 11 MA's), (34, 24974), (37, 24947), (40, 24923), (42, 24911), (45, 24899),

Gene: SheldonCooper_33 Start: 25414, Stop: 25196, Start Num: 15

Candidate Starts for SheldonCooper_33:

(Start: 11 @25441 has 6 MA's), (Start: 14 @25417 has 40 MA's), (Start: 15 @25414 has 1 MA's), (16,
25408), (20, 25390), (21, 25381), (38, 25261), (40, 25240), (45, 25216),

Gene: Shygu2_32 Start: 25091, Stop: 24876, Start Num: 13

Candidate Starts for Shygu2_32:

(Start: 9 @25133 has 14 MA's), (Start: 12 @25100 has 2 MA's), (Start: 13 @25091 has 66 MA's),
(Start: 17 @25079 has 11 MA's), (38, 24941), (40, 24920), (45, 24896),

Gene: Skipitt_32 Start: 25082, Stop: 24876, Start Num: 17

Candidate Starts for Skipitt_32:

(Start: 9 @25136 has 14 MA's), (Start: 12 @25103 has 2 MA's), (Start: 13 @25094 has 66 MA's),
(Start: 17 @25082 has 11 MA's), (34, 24971), (37, 24944), (40, 24920), (42, 24908), (45, 24896),

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

Candidate Starts for SororFago_40:

(Start: 18 @29178 has 3 MA's), (29, 29265), (39, 29319), (43, 29349), (45, 29355),

Gene: Sparxx_32 Start: 25078, Stop: 24878, Start Num: 14

Candidate Starts for Sparxx_32:

(Start: 14 @25078 has 40 MA's), (16, 25072), (34, 24973), (37, 24946), (40, 24922), (42, 24910), (45, 24898),

Gene: Spino_32 Start: 25097, Stop: 24879, Start Num: 13

Candidate Starts for Spino_32:

(Start: 9 @25139 has 14 MA's), (Start: 12 @25106 has 2 MA's), (Start: 13 @25097 has 66 MA's), (Start: 17 @25085 has 11 MA's), (34, 24974), (37, 24947), (40, 24923), (42, 24911), (45, 24899),

Gene: Stasia_33 Start: 25530, Stop: 25306, Start Num: 12

Candidate Starts for Stasia_33:

(Start: 12 @25530 has 2 MA's), (Start: 13 @25521 has 66 MA's), (Start: 17 @25509 has 11 MA's), (35, 25395), (36, 25383), (37, 25374), (38, 25371), (40, 25350), (44, 25329), (45, 25326),

Gene: Taquarus_32 Start: 25100, Stop: 24882, Start Num: 13

Candidate Starts for Taquarus_32:

(Start: 9 @25142 has 14 MA's), (Start: 12 @25109 has 2 MA's), (Start: 13 @25100 has 66 MA's), (Start: 17 @25088 has 11 MA's), (34, 24977), (37, 24950), (40, 24926), (42, 24914), (45, 24902),

Gene: Thanksgivukkah_32 Start: 25086, Stop: 24880, Start Num: 17

Candidate Starts for Thanksgivukkah_32:

(Start: 9 @25140 has 14 MA's), (Start: 12 @25107 has 2 MA's), (Start: 13 @25098 has 66 MA's), (Start: 17 @25086 has 11 MA's), (34, 24975), (37, 24948), (40, 24924), (42, 24912), (45, 24900),

Gene: TinaFeyge_32 Start: 25076, Stop: 24876, Start Num: 14

Candidate Starts for TinaFeyge_32:

(Start: 14 @25076 has 40 MA's), (16, 25070), (34, 24971), (37, 24944), (40, 24920), (42, 24908), (45, 24896),

Gene: Tinybot_31 Start: 25073, Stop: 24855, Start Num: 14

Candidate Starts for Tinybot_31:

(2, 25187), (3, 25178), (Start: 14 @25073 has 40 MA's), (16, 25067), (40, 24899), (41, 24893), (42, 24887), (45, 24875),

Gene: TiroTheta9_32 Start: 25094, Stop: 24876, Start Num: 13

Candidate Starts for TiroTheta9_32:

(Start: 9 @25136 has 14 MA's), (Start: 12 @25103 has 2 MA's), (Start: 13 @25094 has 66 MA's), (Start: 17 @25082 has 11 MA's), (34, 24971), (37, 24944), (40, 24920), (42, 24908), (45, 24896),

Gene: TroyPia_32 Start: 25079, Stop: 24879, Start Num: 14

Candidate Starts for TroyPia_32:

(Start: 14 @25079 has 40 MA's), (16, 25073), (34, 24974), (37, 24947), (40, 24923), (42, 24911), (45, 24899),

Gene: TygerBlood_32 Start: 25097, Stop: 24879, Start Num: 13

Candidate Starts for TygerBlood_32:

(Start: 9 @25139 has 14 MA's), (Start: 12 @25106 has 2 MA's), (Start: 13 @25097 has 66 MA's), (Start: 17 @25085 has 11 MA's), (34, 24974), (37, 24947), (40, 24923), (42, 24911), (45, 24899),

Gene: Ulysses_31 Start: 24807, Stop: 24592, Start Num: 14

Candidate Starts for Ulysses_31:

(10, 24834), (Start: 14 @24807 has 40 MA's), (20, 24783), (28, 24714), (35, 24681), (36, 24669), (37, 24660), (38, 24657), (40, 24636), (42, 24624), (45, 24612),

Gene: Wander_32 Start: 25085, Stop: 24879, Start Num: 17

Candidate Starts for Wander_32:

(Start: 9 @25139 has 14 MA's), (Start: 12 @25106 has 2 MA's), (Start: 13 @25097 has 66 MA's),
(Start: 17 @25085 has 11 MA's), (34, 24974), (37, 24947), (40, 24923), (42, 24911), (45, 24899),

Gene: Wilbur_32 Start: 25097, Stop: 24879, Start Num: 13

Candidate Starts for Wilbur_32:

(Start: 9 @25139 has 14 MA's), (Start: 12 @25106 has 2 MA's), (Start: 13 @25097 has 66 MA's),
(Start: 17 @25085 has 11 MA's), (34, 24974), (37, 24947), (40, 24923), (42, 24911), (45, 24899),

Gene: Wile_32 Start: 25117, Stop: 24902, Start Num: 13

Candidate Starts for Wile_32:

(Start: 9 @25159 has 14 MA's), (Start: 12 @25126 has 2 MA's), (Start: 13 @25117 has 66 MA's),
(Start: 17 @25105 has 11 MA's), (28, 25024), (30, 25006), (35, 24991), (36, 24979), (37, 24970), (40,
24946), (42, 24934), (45, 24922),

Gene: Wizard007_32 Start: 25102, Stop: 24884, Start Num: 13

Candidate Starts for Wizard007_32:

(Start: 9 @25144 has 14 MA's), (Start: 12 @25111 has 2 MA's), (Start: 13 @25102 has 66 MA's),
(Start: 17 @25090 has 11 MA's), (34, 24979), (37, 24952), (40, 24928), (42, 24916), (45, 24904),

Gene: Xena_32 Start: 25104, Stop: 24889, Start Num: 13

Candidate Starts for Xena_32:

(Start: 9 @25146 has 14 MA's), (Start: 12 @25113 has 2 MA's), (Start: 13 @25104 has 66 MA's),
(Start: 17 @25092 has 11 MA's), (28, 25011), (30, 24993), (35, 24978), (36, 24966), (37, 24957), (40,
24933), (42, 24921), (45, 24909),

Gene: YoSam321_32 Start: 25094, Stop: 24876, Start Num: 13

Candidate Starts for YoSam321_32:

(Start: 9 @25136 has 14 MA's), (Start: 12 @25103 has 2 MA's), (Start: 13 @25094 has 66 MA's),
(Start: 17 @25082 has 11 MA's), (34, 24971), (37, 24944), (40, 24920), (42, 24908), (45, 24896),