





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 162941 Report

This analysis was run 04/28/24 on database version 559.

Pham number 162941 has 218 members, 19 are drafts.

Phages represented in each track:

- Track 1 : Hami1\_27, Beatrix\_25, Teodoridan\_23, BigPaolini\_26
- Track 2 : MetalQZJ\_25, Corvo\_26, MaryBeth\_25, Anglerfish\_26
- Track 3 : AFIS\_25, ILeeKay\_27
- Track 4 : Licorice\_27
- Track 5 : Graduation\_27
- Track 6 : Target\_28, SpikeBT\_27, Marsha\_25, Jerm2\_26, PinkPlastic\_24, Fenn\_26, Carlyle\_27, Pippin\_27, Ringer\_25, Sorpresa\_24, Sandaddy\_24, Squee\_26, Aeneas\_27, JackSparrow\_26, Greg\_27, Mule\_25, Ohno789\_25, Rohr\_26, ShortQueendom\_24, Buttons\_26, Monet\_27, Applejack\_26, Pinto\_28, Fajezeel\_27, Wilkins\_25, Altman\_27, Blue\_25, PhrostyMug\_25, LilBib\_26, Sunshine924\_24, Edtherson\_26, Zeuska\_26
- Track 7 : StrongArm\_24, Bexan\_24, Petp2012\_27
- Track 8 : HermioneGrange\_25, Crispicous1\_24, BaconJack\_27, Seabiscuit\_27, Petruccio\_26, Smeagol\_27, Payneful\_24, Hermia\_28, DreamCatcher\_28, Marchy\_23, Scowl\_26, Zeeculate\_25
- Track 9 : Gompeii16\_25, Bircsak\_25
- Track 10 : Eyeball\_25
- Track 11 : Pita2\_27, PSullivan\_26
- Track 12 : Agaliana\_26
- Track 13 : Turj99\_24, Jorgensen\_25, Makemake\_25, Magnito\_24, Barriga\_25, Gyzlar\_27, Bones\_25, Rutherford\_27, Killigrew\_23, Niza\_27, Naira\_26, Treddle\_27, Fascinus\_24, Seanderson\_26
- Track 14 : Moose\_24, Ruotula\_24, Manatee\_26, Forsytheast\_24, Peterson\_28
- Track 15 : Perseus\_26, Nhonho\_25, KSSJEB\_25, Lesedi\_24, TheloniousMonk\_27, DrFeelGood\_24, Ashballer\_25, U2\_25, Arlo\_24, QTRlifeCrisis\_28, KyMonks1A\_27, Solon\_25, Switzer\_26, Trouble\_26
- Track 16 : DD5\_26, Parliament\_24, Bethlehem\_25, Lockley\_25
- Track 17 : Acme\_27, Ciao\_25
- Track 18 : Mryolo\_24, Magnar\_25
- Track 19 : Lopton\_26, Dulcie\_24
- Track 20 : Kykar\_23
- Track 21 : Norz\_27, Papez\_27
- Track 22 : Euphoria\_25, Michley\_25, TwoPeat\_25, Zephyr\_25
- Track 23 : Museum\_27, PattyP\_27, Burton\_26
- Track 24 : BluSpix\_25, IgnatiusPatJac\_24, Cueylyss\_25, Rhynn\_25
- Track 25 : BigMau\_27, Bob3\_24
- Track 26 : SwissCheese\_26

- Track 27 : StewieG\_24, Froghopper\_26, ConceptII\_27, Bruns\_24, McGuire\_26, Hope4ever\_25
- Track 28 : Watermelon\_27
- Track 29 : GageAP\_27, Pepe\_26, Gwendoluna\_28, Smairt\_26
- Track 30 : Marge\_26, RidgeCB\_25, BPBiebs31\_26, Wheeler\_25, Bigfoot\_24
- Track 31 : STLscum\_26
- Track 32 : PherrisBueller\_26, Dreamboat\_26
- Track 33 : Chanagan\_24
- Track 34 : Big3\_25, MrGordo\_25, Bxb1\_23, BillKnuckles\_26
- Track 35 : Thor\_25, SarFire\_25
- Track 36 : Paphu\_24, HarryOW\_26, Dynamix\_26, Abrogate\_260
- Track 37 : Snazzy\_24
- Track 38 : Alsfro\_29, Lamina13\_25, Pari\_26
- Track 39 : Tasp14\_26, Rubeus\_26
- Track 40 : PascalRango\_24
- Track 41 : KBG\_26, PacerPaul\_25, Ajay\_26
- Track 42 : Briton15\_27, Fushigi\_26, GrecoEtereo\_27, HanShotFirst\_25, Jasper\_26, Marcell\_25, Francis47\_25
- Track 43 : Molly\_26, Traft412\_27
- Track 44 : Espresso\_25
- Track 45 : Arcanine\_26, BeesKnees\_26, Rajelicia\_25
- Track 46 : Alvin\_26
- Track 47 : Oogway\_24
- Track 48 : Violet\_24
- Track 49 : Gandalf20\_26
- Track 50 : A6\_23, BK1\_23
- Track 51 : Tote\_27, Swole\_27, JuliaChild\_27
- Track 52 : JC27\_27
- Track 53 : Dexes\_26
- Track 54 : Ichabod\_26
- Track 55 : Sumter\_24
- Track 56 : Tripl3t\_26
- Track 57 : Pelly\_26, Atkinbua\_27, Homines\_25
- Track 58 : Rufus\_26
- Track 59 : Topgun\_25, CactusRose\_24
- Track 60 : MPlant7149\_24, Slagathor\_26
- Track 61 : Doom\_26
- Track 62 : Sagefire\_26, Nerujay\_26
- Track 63 : Kenmech\_28, Abbyshoes\_26, Dussy\_26
- Track 64 : Maroc7\_24
- Track 65 : Sibs6\_27
- Track 66 : Kanely\_26
- Track 67 : NEHalo\_25, SkiPole\_27
- Track 68 : Paraselene\_24
- Track 69 : Adahisdi\_26
- Track 70 : Kugel\_26
- Track 71 : Sheen\_28
- Track 72 : DroogsArmy\_27, Timshel\_27
- Track 73 : HINdeR\_26

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

The start number called the most often in the published annotations is 2, it was called in 195 of the 199 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- A6\_23, AFIS\_25, Abbyshoes\_26, Abrogate\_260, Acme\_27, Adahisdi\_26, Aeneas\_27, Agaliana\_26, Ajay\_26, Alsfro\_29, Altman\_27, Alvin\_26, Anglerfish\_26, Applejack\_26, Arcanine\_26, Arlo\_24, Ashballer\_25, Atkinbua\_27, BK1\_23, BPBiebs31\_26, BaconJack\_27, Barriga\_25, Beatrix\_25, BeesKnees\_26, Bethlehem\_25, Bexan\_24, Big3\_25, BigMau\_27, BigPaolini\_26, Bigfoot\_24, BillKnuckles\_26, Bircsak\_25, BluSpix\_25, Blue\_25, Bob3\_24, Bones\_25, Briton15\_27, Brunns\_24, Burton\_26, Buttons\_26, Bxb1\_23, CactusRose\_24, Carlyle\_27, Chanagan\_24, Ciao\_25, ConceptII\_27, Corvo\_26, Crispicous1\_24, Cueyllyss\_25, DD5\_26, Dexes\_26, Doom\_26, DrFeelGood\_24, DreamCatcher\_28, Dreamboat\_26, Dulcie\_24, Dussy\_26, Dynamix\_26, Edtherson\_26, Espresso\_25, Euphoria\_25, Eyeball\_25, Fajezeel\_27, Fascinus\_24, Fenn\_26, Forsytheast\_24, Francis47\_25, Froghopper\_26, Fushigi\_26, GageAP\_27, Gandalf20\_26, Gompeii16\_25, Graduation\_27, GrecoEtereo\_27, Greg\_27, Gwendoluna\_28, Gyzlar\_27, Hami1\_27, HanShotFirst\_25, HarryOW\_26, Hermia\_28, HermioneGrange\_25, Homines\_25, Hope4ever\_25, ILeeKay\_27, Ichabod\_26, IgnatiusPatJac\_24, JC27\_27, JackSparrow\_26, Jasper\_26, Jerm2\_26, Jorgensen\_25, JuliaChild\_27, KBG\_26, KSSJEB\_25, Kanely\_26, Kenmech\_28, Killigrew\_23, Kugel\_26, KyMonks1A\_27, Kykar\_23, Lamina13\_25, Lesedi\_24, Licorice\_27, LiBib\_26, Lockley\_25, Lopton\_26, MPlant7149\_24, Magnar\_25, Magnito\_24, Makemake\_25, Manatee\_26, Marcell\_25, Marchy\_23, Marge\_26, Maroc7\_24, Marsha\_25, MaryBeth\_25, McGuire\_26, MetalQZJ\_25, Michley\_25, Molly\_26, Monet\_27, Moose\_24, MrGordo\_25, Mryolo\_24, Mule\_25, Museum\_27, NEHalo\_25, Naira\_26, Nerujay\_26, Nhonho\_25, Niza\_27, Norz\_27, Ohno789\_25, Oogway\_24, PSullivan\_26, PacerPaul\_25, Papez\_27, Paphu\_24, Paraselene\_24, Pari\_26, Parliament\_24, PascalRango\_24, PattyP\_27, Payneful\_24, Pelly\_26, Pepe\_26, Perseus\_26, Peterson\_28, Petp2012\_27, Petruccio\_26, PherrisBueller\_26, PhrostyMug\_25, PinkPlastic\_24, Pinto\_28, Pippin\_27, Pita2\_27, QTRlifeCrisis\_28, Rajelicia\_25, Rhynn\_25, RidgeCB\_25, Ringer\_25, Rohr\_26, Rubeus\_26, Rufus\_26, Ruotula\_24, Rutherford\_27, STLscum\_26, Sagefire\_26, Sandaddy\_24, SarFire\_25, Scowl\_26, Seabiscuit\_27, Seanderson\_26, ShortQueendom\_24, Sibs6\_27, SkiPole\_27, Slagathor\_26, Smairt\_26, Smeagol\_27, Snazzy\_24, Solon\_25, Sorpresa\_24, SpikeBT\_27, Squee\_26, StewieG\_24, StrongArm\_24, Sumter\_24, Sunshine924\_24, SwissCheese\_26, Switzer\_26, Swole\_27, Target\_28, Tasp14\_26, Teodoridan\_23, TheloniousMonk\_27, Thor\_25, Topgun\_25, Tote\_27, Traft412\_27, Treddle\_27, Tripl3t\_26, Trouble\_26, Turj99\_24, TwoPeat\_25, U2\_25, Violet\_24, Watermelon\_27, Wheeler\_25, Wilkins\_25, Zeeculate\_25, Zephyr\_25, Zeuska\_26,

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

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

- DroogsArmy\_27, HINdeR\_26, Sheen\_28, Timshel\_27,

### Summary by start number:

Start 2:

- Found in 214 of 218 ( 98.2% ) of genes in pham
- Manual Annotations of this start: 195 of 199

- Called 100.0% of time when present
- Phage (with cluster) where this start called: A6\_23 (A1), AFIS\_25 (A1), Abbyshoes\_26 (A1), Abrogate\_260 (A1), Acme\_27 (A1), Adahisdi\_26 (A1), Aeneas\_27 (A1), Agaliana\_26 (A1), Ajay\_26 (A1), Alsfro\_29 (A1), Altman\_27 (A1), Alvin\_26 (A1), Anglerfish\_26 (A1), Applejack\_26 (A1), Arcanine\_26 (A1), Arlo\_24 (A1), Ashballer\_25 (A1), Atkinbua\_27 (A1), BK1\_23 (A1), BPBiebs31\_26 (A1), BaconJack\_27 (A1), Barriga\_25 (A1), Beatrix\_25 (A1), BeesKnees\_26 (A1), Bethlehem\_25 (A1), Bexan\_24 (A1), Big3\_25 (A1), BigMau\_27 (A1), BigPaolini\_26 (A1), Bigfoot\_24 (A1), BillKnuckles\_26 (A1), Bircsak\_25 (A1), BluSpix\_25 (A1), Blue\_25 (A1), Bob3\_24 (A1), Bones\_25 (A1), Briton15\_27 (A1), Bruns\_24 (A1), Burton\_26 (A1), Buttons\_26 (A1), Bxb1\_23 (A1), CactusRose\_24 (A1), Carlyle\_27 (A1), Chanagan\_24 (A1), Ciao\_25 (A1), Conceptll\_27 (A1), Corvo\_26 (A1), Crispicious1\_24 (A1), Cueyllyss\_25 (A1), DD5\_26 (A1), Dexes\_26 (A1), Doom\_26 (A1), DrFeelGood\_24 (A1), DreamCatcher\_28 (A1), Dreamboat\_26 (A1), Dulcie\_24 (A1), Dussy\_26 (A1), Dynamix\_26 (A1), Edtherson\_26 (A1), Espresso\_25 (A1), Euphoria\_25 (A1), Eyeball\_25 (A1), Fajezeel\_27 (A1), Fascinus\_24 (A1), Fenn\_26 (A1), Forsytheast\_24 (A1), Francis47\_25 (A1), Froghopper\_26 (A1), Fushigi\_26 (A1), GageAP\_27 (A1), Gandalf20\_26 (A1), Gompeii16\_25 (A1), Graduation\_27 (A1), GrecoEtereo\_27 (A1), Greg\_27 (A1), Gwendoluna\_28 (A1), Gyzlar\_27 (A1), Hami1\_27 (A1), HanShotFirst\_25 (A1), HarryOW\_26 (A1), Hermia\_28 (A1), HermioneGrange\_25 (A1), Homines\_25 (A1), Hope4ever\_25 (A1), ILeeKay\_27 (A1), Ichabod\_26 (A1), IgnatiusPatJac\_24 (A1), JC27\_27 (A1), JackSparrow\_26 (A1), Jasper\_26 (A1), Jerm2\_26 (A1), Jorgensen\_25 (A1), JuliaChild\_27 (A1), KBG\_26 (A1), KSSJEB\_25 (A1), Kanely\_26 (A1), Kenmech\_28 (A1), Killigrew\_23 (A1), Kugel\_26 (A1), KyMonks1A\_27 (A1), Kykar\_23 (A1), Lamina13\_25 (A1), Lesedi\_24 (A1), Licorice\_27 (A1), LilBib\_26 (A1), Lockley\_25 (A1), Lopton\_26 (A1), MPlant7149\_24 (A1), Magnar\_25 (A1), Magnito\_24 (A1), Makemake\_25 (A1), Manatee\_26 (A1), Marcell\_25 (A1), Marchy\_23 (A1), Marge\_26 (A1), Maroc7\_24 (A1), Marsha\_25 (A1), MaryBeth\_25 (A1), McGuire\_26 (A1), MetalQZJ\_25 (A1), Michley\_25 (A1), Molly\_26 (A1), Monet\_27 (A1), Moose\_24 (A1), MrGordo\_25 (A1), Mryolo\_24 (A1), Mule\_25 (A1), Museum\_27 (A1), NEHalo\_25 (A1), Naira\_26 (A1), Nerujay\_26 (A1), Nhonho\_25 (A1), Niza\_27 (A1), Norz\_27 (A1), Ohno789\_25 (A1), Oogway\_24 (A1), PSullivan\_26 (A1), PacerPaul\_25 (A1), Papez\_27 (A1), Paphu\_24 (A1), Paraselene\_24 (A1), Pari\_26 (A1), Parliament\_24 (A1), PascalRango\_24 (A1), PattyP\_27 (A1), Payneful\_24 (A1), Pelly\_26 (A1), Pepe\_26 (A1), Perseus\_26 (A1), Peterson\_28 (A1), Petp2012\_27 (A1), Petruccio\_26 (A1), PherrisBueller\_26 (A1), PhrostyMug\_25 (A1), PinkPlastic\_24 (A1), Pinto\_28 (A1), Pippin\_27 (A1), Pita2\_27 (A1), QTRLifeCrisis\_28 (A1), Rajelicia\_25 (A1), Rhynn\_25 (A1), RidgeCB\_25 (A1), Ringer\_25 (A1), Rohr\_26 (A1), Rubeus\_26 (A1), Rufus\_26 (A1), Ruotula\_24 (A1), Rutherford\_27 (A1), STLscum\_26 (A1), Sagefire\_26 (A1), Sandaddy\_24 (A1), SarFire\_25 (A1), Scowl\_26 (A1), Seabiscuit\_27 (A1), Seanderson\_26 (A1), ShortQueendom\_24 (A1), Sibs6\_27 (A1), SkiPole\_27 (A1), Slagathor\_26 (A1), Smairt\_26 (A1), Smeagol\_27 (A1), Snazzy\_24 (A1), Solon\_25 (A1), Sorpresa\_24 (A1), SpikeBT\_27 (A1), Squee\_26 (A1), StewieG\_24 (A1), StrongArm\_24 (A1), Sumter\_24 (A1), Sunshine924\_24 (A1), SwissCheese\_26 (A1), Switzer\_26 (A1), Swole\_27 (A1), Target\_28 (A1), Tasp14\_26 (A1), Teodoridan\_23 (A1), TheloniousMonk\_27 (A1), Thor\_25 (A1), Topgun\_25 (A1), Tote\_27 (A1), Traft412\_27 (A1), Treddle\_27 (A1), Tripl3t\_26 (A1), Trouble\_26 (A1), Turj99\_24 (A1), TwoPeat\_25 (A1), U2\_25 (A1), Violet\_24 (A1), Watermelon\_27 (A1), Wheeler\_25 (A1), Wilkins\_25 (A1), Zeeculate\_25 (A1), Zephyr\_25 (A1), Zeuska\_26 (A1),

Start 3:

- Found in 4 of 218 ( 1.8% ) of genes in pham

- Manual Annotations of this start: 4 of 199
- Called 100.0% of time when present
- Phage (with cluster) where this start called: DroogsArmy\_27 (A7), HINdeR\_26 (A7), Sheen\_28 (A7), Timshel\_27 (A7),

### Summary by clusters:

There are 2 clusters represented in this pham: A1, A7,

Info for manual annotations of cluster A1:

- Start number 2 was manually annotated 195 times for cluster A1.

Info for manual annotations of cluster A7:

- Start number 3 was manually annotated 4 times for cluster A7.

### Gene Information:

Gene: A6\_23 Start: 18425, Stop: 20482, Start Num: 2

Candidate Starts for A6\_23:

(Start: 2 @18425 has 195 MA's), (5, 18533), (6, 18557), (10, 18635), (13, 18776), (14, 18806), (16, 18848), (20, 18941), (26, 19199), (32, 19391), (38, 19535), (39, 19538), (43, 19574), (46, 19604), (47, 19613), (50, 19703), (54, 19868), (56, 19922), (57, 19973), (59, 20009), (62, 20054), (70, 20177), (74, 20228), (75, 20231), (77, 20303), (79, 20339), (80, 20399), (81, 20405),

Gene: AFIS\_25 Start: 18946, Stop: 21003, Start Num: 2

Candidate Starts for AFIS\_25:

(Start: 2 @18946 has 195 MA's), (5, 19054), (6, 19078), (10, 19156), (14, 19327), (16, 19369), (20, 19462), (26, 19720), (32, 19912), (38, 20056), (39, 20059), (43, 20095), (46, 20125), (47, 20134), (50, 20224), (54, 20389), (56, 20443), (57, 20494), (59, 20530), (60, 20557), (62, 20575), (70, 20698), (74, 20749), (75, 20752), (77, 20824), (79, 20860), (80, 20920), (81, 20926),

Gene: Abbyshoes\_26 Start: 19083, Stop: 21140, Start Num: 2

Candidate Starts for Abbyshoes\_26:

(Start: 2 @19083 has 195 MA's), (5, 19191), (6, 19215), (10, 19293), (13, 19434), (14, 19464), (16, 19506), (20, 19599), (26, 19857), (32, 20049), (38, 20193), (39, 20196), (40, 20202), (43, 20232), (46, 20262), (50, 20361), (54, 20526), (56, 20580), (57, 20631), (59, 20667), (62, 20712), (68, 20820), (70, 20835), (74, 20886), (75, 20889), (77, 20961), (79, 20997), (80, 21057), (81, 21063),

Gene: Abrogate\_260 Start: 19621, Stop: 21678, Start Num: 2

Candidate Starts for Abrogate\_260:

(Start: 2 @19621 has 195 MA's), (5, 19729), (6, 19753), (10, 19831), (13, 19972), (14, 20002), (15, 20029), (16, 20044), (20, 20137), (26, 20395), (32, 20587), (38, 20731), (39, 20734), (43, 20770), (50, 20899), (54, 21064), (56, 21118), (57, 21169), (59, 21205), (62, 21250), (70, 21373), (74, 21424), (75, 21427), (77, 21499), (79, 21535), (80, 21595), (81, 21601),

Gene: Acme\_27 Start: 19184, Stop: 21241, Start Num: 2

Candidate Starts for Acme\_27:

(Start: 2 @19184 has 195 MA's), (6, 19316), (10, 19394), (14, 19565), (16, 19607), (20, 19700), (26, 19958), (32, 20150), (38, 20294), (39, 20297), (43, 20333), (46, 20363), (50, 20462), (54, 20627), (56, 20681), (57, 20732), (59, 20768), (62, 20813), (68, 20921), (70, 20936), (74, 20987), (75, 20990), (77, 21062), (79, 21098), (80, 21158), (81, 21164),

Gene: Adahisdi\_26 Start: 19091, Stop: 21148, Start Num: 2

Candidate Starts for Adahisdi\_26:

(Start: 2 @19091 has 195 MA's), (5, 19199), (6, 19223), (10, 19301), (14, 19472), (15, 19499), (16, 19514), (20, 19607), (26, 19865), (32, 20057), (38, 20201), (39, 20204), (43, 20240), (46, 20270), (47, 20279), (50, 20369), (54, 20534), (56, 20588), (57, 20639), (59, 20675), (62, 20720), (68, 20828), (70, 20843), (74, 20894), (75, 20897), (77, 20969), (79, 21005), (80, 21065), (81, 21071),

Gene: Aeneas\_27 Start: 19198, Stop: 21255, Start Num: 2

Candidate Starts for Aeneas\_27:

(Start: 2 @19198 has 195 MA's), (5, 19306), (6, 19330), (10, 19408), (13, 19549), (14, 19579), (16, 19621), (20, 19714), (26, 19972), (32, 20164), (38, 20308), (39, 20311), (43, 20347), (46, 20377), (50, 20476), (54, 20641), (56, 20695), (57, 20746), (59, 20782), (62, 20827), (68, 20935), (70, 20950), (74, 21001), (75, 21004), (77, 21076), (79, 21112), (80, 21172), (81, 21178),

Gene: Agaliana\_26 Start: 19142, Stop: 21199, Start Num: 2

Candidate Starts for Agaliana\_26:

(Start: 2 @19142 has 195 MA's), (5, 19250), (6, 19274), (10, 19352), (13, 19493), (14, 19523), (16, 19565), (20, 19658), (26, 19916), (32, 20108), (38, 20252), (39, 20255), (43, 20291), (50, 20420), (54, 20585), (56, 20639), (57, 20690), (59, 20726), (62, 20771), (70, 20894), (71, 20900), (74, 20945), (75, 20948), (79, 21056), (80, 21116), (81, 21122),

Gene: Ajay\_26 Start: 19396, Stop: 21453, Start Num: 2

Candidate Starts for Ajay\_26:

(Start: 2 @19396 has 195 MA's), (5, 19504), (6, 19528), (10, 19606), (13, 19747), (14, 19777), (15, 19804), (16, 19819), (26, 20170), (32, 20362), (38, 20506), (39, 20509), (43, 20545), (50, 20674), (54, 20839), (56, 20893), (57, 20944), (59, 20980), (62, 21025), (70, 21148), (74, 21199), (75, 21202), (77, 21274), (79, 21310), (80, 21370), (81, 21376),

Gene: Alsfro\_29 Start: 19629, Stop: 21686, Start Num: 2

Candidate Starts for Alsfro\_29:

(Start: 2 @19629 has 195 MA's), (5, 19737), (6, 19761), (10, 19839), (13, 19980), (14, 20010), (16, 20052), (26, 20403), (32, 20595), (38, 20739), (39, 20742), (43, 20778), (46, 20808), (50, 20907), (54, 21072), (56, 21126), (57, 21177), (59, 21213), (60, 21240), (62, 21258), (68, 21366), (70, 21381), (74, 21432), (75, 21435), (77, 21507), (79, 21543), (80, 21603), (81, 21609),

Gene: Altman\_27 Start: 19687, Stop: 21744, Start Num: 2

Candidate Starts for Altman\_27:

(Start: 2 @19687 has 195 MA's), (5, 19795), (6, 19819), (10, 19897), (13, 20038), (14, 20068), (16, 20110), (20, 20203), (26, 20461), (32, 20653), (38, 20797), (39, 20800), (43, 20836), (46, 20866), (50, 20965), (54, 21130), (56, 21184), (57, 21235), (59, 21271), (62, 21316), (68, 21424), (70, 21439), (74, 21490), (75, 21493), (77, 21565), (79, 21601), (80, 21661), (81, 21667),

Gene: Alvin\_26 Start: 19399, Stop: 21456, Start Num: 2

Candidate Starts for Alvin\_26:

(Start: 2 @19399 has 195 MA's), (5, 19507), (6, 19531), (10, 19609), (13, 19750), (14, 19780), (15, 19807), (16, 19822), (20, 19915), (26, 20173), (32, 20365), (38, 20509), (39, 20512), (43, 20548), (50, 20677), (54, 20842), (56, 20896), (57, 20947), (59, 20983), (62, 21028), (68, 21136), (70, 21151), (74, 21202), (75, 21205), (77, 21277), (79, 21313), (80, 21373),

Gene: Anglerfish\_26 Start: 19578, Stop: 21635, Start Num: 2

Candidate Starts for Anglerfish\_26:



(Start: 2 @19578 has 195 MA's), (5, 19686), (6, 19710), (10, 19788), (13, 19929), (14, 19959), (16, 20001), (20, 20094), (26, 20352), (32, 20544), (38, 20688), (43, 20727), (46, 20757), (50, 20856), (54, 21021), (56, 21075), (57, 21126), (59, 21162), (62, 21207), (68, 21315), (70, 21330), (74, 21381), (75, 21384), (77, 21456), (79, 21492), (80, 21552), (81, 21558),

Gene: Applejack\_26 Start: 18839, Stop: 20896, Start Num: 2

Candidate Starts for Applejack\_26:

(Start: 2 @18839 has 195 MA's), (5, 18947), (6, 18971), (10, 19049), (13, 19190), (14, 19220), (16, 19262), (20, 19355), (26, 19613), (32, 19805), (38, 19949), (39, 19952), (43, 19988), (46, 20018), (50, 20117), (54, 20282), (56, 20336), (57, 20387), (59, 20423), (62, 20468), (68, 20576), (70, 20591), (74, 20642), (75, 20645), (77, 20717), (79, 20753), (80, 20813), (81, 20819),

Gene: Arcanine\_26 Start: 18594, Stop: 20651, Start Num: 2

Candidate Starts for Arcanine\_26:

(Start: 2 @18594 has 195 MA's), (5, 18702), (6, 18726), (10, 18804), (13, 18945), (14, 18975), (16, 19017), (26, 19368), (32, 19560), (38, 19704), (39, 19707), (43, 19743), (50, 19872), (54, 20037), (56, 20091), (57, 20142), (59, 20178), (60, 20205), (62, 20223), (68, 20331), (70, 20346), (74, 20397), (75, 20400), (77, 20472), (79, 20508), (80, 20568), (81, 20574),

Gene: Arlo\_24 Start: 18468, Stop: 20525, Start Num: 2

Candidate Starts for Arlo\_24:

(Start: 2 @18468 has 195 MA's), (5, 18576), (6, 18600), (10, 18678), (13, 18819), (14, 18849), (15, 18876), (16, 18891), (20, 18984), (26, 19242), (32, 19434), (38, 19578), (39, 19581), (43, 19617), (50, 19746), (54, 19911), (56, 19965), (57, 20016), (59, 20052), (62, 20097), (68, 20205), (70, 20220), (74, 20271), (75, 20274), (77, 20346), (79, 20382), (80, 20442), (81, 20448),

Gene: Ashballer\_25 Start: 19339, Stop: 21396, Start Num: 2

Candidate Starts for Ashballer\_25:

(Start: 2 @19339 has 195 MA's), (5, 19447), (6, 19471), (10, 19549), (13, 19690), (14, 19720), (15, 19747), (16, 19762), (20, 19855), (26, 20113), (32, 20305), (38, 20449), (39, 20452), (43, 20488), (50, 20617), (54, 20782), (56, 20836), (57, 20887), (59, 20923), (62, 20968), (68, 21076), (70, 21091), (74, 21142), (75, 21145), (77, 21217), (79, 21253), (80, 21313), (81, 21319),

Gene: Atkinbua\_27 Start: 19292, Stop: 21349, Start Num: 2

Candidate Starts for Atkinbua\_27:

(Start: 2 @19292 has 195 MA's), (5, 19400), (6, 19424), (10, 19502), (14, 19673), (16, 19715), (20, 19808), (26, 20066), (32, 20258), (38, 20402), (39, 20405), (43, 20441), (50, 20570), (54, 20735), (56, 20789), (57, 20840), (59, 20876), (62, 20921), (68, 21029), (70, 21044), (74, 21095), (75, 21098), (77, 21170), (79, 21206), (80, 21266), (81, 21272),

Gene: BK1\_23 Start: 18425, Stop: 20482, Start Num: 2

Candidate Starts for BK1\_23:

(Start: 2 @18425 has 195 MA's), (5, 18533), (6, 18557), (10, 18635), (13, 18776), (14, 18806), (16, 18848), (20, 18941), (26, 19199), (32, 19391), (38, 19535), (39, 19538), (43, 19574), (46, 19604), (47, 19613), (50, 19703), (54, 19868), (56, 19922), (57, 19973), (59, 20009), (62, 20054), (70, 20177), (74, 20228), (75, 20231), (77, 20303), (79, 20339), (80, 20399), (81, 20405),

Gene: BPBiebs31\_26 Start: 19106, Stop: 21163, Start Num: 2

Candidate Starts for BPBiebs31\_26:

(Start: 2 @19106 has 195 MA's), (5, 19214), (6, 19238), (10, 19316), (13, 19457), (14, 19487), (15, 19514), (16, 19529), (20, 19622), (26, 19880), (32, 20072), (38, 20216), (39, 20219), (43, 20255), (46, 20285), (50, 20384), (54, 20549), (56, 20603), (57, 20654), (59, 20690), (62, 20735), (70, 20858), (74, 20909), (75, 20912), (77, 20984), (79, 21020), (80, 21080), (81, 21086),

Gene: BaconJack\_27 Start: 19108, Stop: 21165, Start Num: 2

Candidate Starts for BaconJack\_27:

(Start: 2 @19108 has 195 MA's), (5, 19216), (6, 19240), (10, 19318), (13, 19459), (14, 19489), (15, 19516), (16, 19531), (20, 19624), (26, 19882), (32, 20074), (38, 20218), (39, 20221), (43, 20257), (46, 20287), (50, 20386), (54, 20551), (56, 20605), (57, 20656), (59, 20692), (62, 20737), (68, 20845), (70, 20860), (74, 20911), (75, 20914), (77, 20986), (79, 21022), (80, 21082), (81, 21088),

Gene: Barriga\_25 Start: 18694, Stop: 20751, Start Num: 2

Candidate Starts for Barriga\_25:

(Start: 2 @18694 has 195 MA's), (5, 18802), (6, 18826), (10, 18904), (13, 19045), (14, 19075), (16, 19117), (20, 19210), (26, 19468), (32, 19660), (38, 19804), (39, 19807), (43, 19843), (50, 19972), (54, 20137), (56, 20191), (57, 20242), (59, 20278), (62, 20323), (68, 20431), (70, 20446), (74, 20497), (75, 20500), (77, 20572), (79, 20608), (80, 20668), (81, 20674),

Gene: Beatrix\_25 Start: 20298, Stop: 22355, Start Num: 2

Candidate Starts for Beatrix\_25:

(Start: 2 @20298 has 195 MA's), (5, 20406), (6, 20430), (10, 20508), (13, 20649), (14, 20679), (16, 20721), (20, 20814), (23, 20961), (26, 21072), (32, 21264), (38, 21408), (39, 21411), (43, 21447), (46, 21477), (50, 21576), (54, 21741), (56, 21795), (57, 21846), (59, 21882), (62, 21927), (68, 22035), (70, 22050), (74, 22101), (75, 22104), (77, 22176), (79, 22212), (80, 22272), (81, 22278),

Gene: BeesKnees\_26 Start: 18893, Stop: 20950, Start Num: 2

Candidate Starts for BeesKnees\_26:

(Start: 2 @18893 has 195 MA's), (5, 19001), (6, 19025), (10, 19103), (13, 19244), (14, 19274), (16, 19316), (26, 19667), (32, 19859), (38, 20003), (39, 20006), (43, 20042), (50, 20171), (54, 20336), (56, 20390), (57, 20441), (59, 20477), (60, 20504), (62, 20522), (68, 20630), (70, 20645), (74, 20696), (75, 20699), (77, 20771), (79, 20807), (80, 20867), (81, 20873),

Gene: Bethlehem\_25 Start: 20121, Stop: 22178, Start Num: 2

Candidate Starts for Bethlehem\_25:

(Start: 2 @20121 has 195 MA's), (5, 20229), (6, 20253), (10, 20331), (13, 20472), (14, 20502), (16, 20544), (26, 20895), (32, 21087), (38, 21231), (39, 21234), (43, 21270), (46, 21300), (47, 21309), (50, 21399), (54, 21564), (56, 21618), (57, 21669), (59, 21705), (60, 21732), (62, 21750), (68, 21858), (70, 21873), (74, 21924), (75, 21927), (77, 21999), (79, 22035), (80, 22095), (81, 22101),

Gene: Bexan\_24 Start: 19843, Stop: 21900, Start Num: 2

Candidate Starts for Bexan\_24:

(Start: 2 @19843 has 195 MA's), (5, 19951), (6, 19975), (10, 20053), (14, 20224), (15, 20251), (16, 20266), (20, 20359), (26, 20617), (32, 20809), (38, 20953), (39, 20956), (43, 20992), (50, 21121), (54, 21286), (56, 21340), (57, 21391), (59, 21427), (62, 21472), (70, 21595), (74, 21646), (75, 21649), (77, 21721), (79, 21757), (80, 21817), (81, 21823),

Gene: Big3\_25 Start: 19474, Stop: 21531, Start Num: 2

Candidate Starts for Big3\_25:

(Start: 2 @19474 has 195 MA's), (5, 19582), (6, 19606), (10, 19684), (13, 19825), (14, 19855), (15, 19882), (16, 19897), (26, 20248), (32, 20440), (38, 20584), (39, 20587), (43, 20623), (46, 20653), (50, 20752), (54, 20917), (56, 20971), (57, 21022), (59, 21058), (62, 21103), (68, 21211), (70, 21226), (74, 21277), (75, 21280), (77, 21352), (79, 21388), (80, 21448), (81, 21454),

Gene: BigMau\_27 Start: 19075, Stop: 21132, Start Num: 2

Candidate Starts for BigMau\_27:

(Start: 2 @19075 has 195 MA's), (5, 19183), (6, 19207), (10, 19285), (14, 19456), (15, 19483), (16, 19498), (20, 19591), (26, 19849), (32, 20041), (38, 20185), (39, 20188), (43, 20224), (46, 20254), (50, 20353), (54, 20518), (56, 20572), (57, 20623), (59, 20659), (62, 20704), (68, 20812), (70, 20827), (74, 20878), (75, 20881), (77, 20953), (79, 20989), (80, 21049), (81, 21055),

Gene: BigPaolini\_26 Start: 19494, Stop: 21551, Start Num: 2

Candidate Starts for BigPaolini\_26:

(Start: 2 @19494 has 195 MA's), (5, 19602), (6, 19626), (10, 19704), (13, 19845), (14, 19875), (16, 19917), (20, 20010), (23, 20157), (26, 20268), (32, 20460), (38, 20604), (39, 20607), (43, 20643), (46, 20673), (50, 20772), (54, 20937), (56, 20991), (57, 21042), (59, 21078), (62, 21123), (68, 21231), (70, 21246), (74, 21297), (75, 21300), (77, 21372), (79, 21408), (80, 21468), (81, 21474),

Gene: Bigfoot\_24 Start: 18703, Stop: 20760, Start Num: 2

Candidate Starts for Bigfoot\_24:

(Start: 2 @18703 has 195 MA's), (5, 18811), (6, 18835), (10, 18913), (13, 19054), (14, 19084), (15, 19111), (16, 19126), (20, 19219), (26, 19477), (32, 19669), (38, 19813), (39, 19816), (43, 19852), (46, 19882), (50, 19981), (54, 20146), (56, 20200), (57, 20251), (59, 20287), (62, 20332), (70, 20455), (74, 20506), (75, 20509), (77, 20581), (79, 20617), (80, 20677), (81, 20683),

Gene: BillKnuckles\_26 Start: 19559, Stop: 21616, Start Num: 2

Candidate Starts for BillKnuckles\_26:

(Start: 2 @19559 has 195 MA's), (5, 19667), (6, 19691), (10, 19769), (13, 19910), (14, 19940), (15, 19967), (16, 19982), (26, 20333), (32, 20525), (38, 20669), (39, 20672), (43, 20708), (46, 20738), (50, 20837), (54, 21002), (56, 21056), (57, 21107), (59, 21143), (62, 21188), (68, 21296), (70, 21311), (74, 21362), (75, 21365), (77, 21437), (79, 21473), (80, 21533), (81, 21539),

Gene: Bircsak\_25 Start: 19353, Stop: 21410, Start Num: 2

Candidate Starts for Bircsak\_25:

(Start: 2 @19353 has 195 MA's), (5, 19461), (6, 19485), (10, 19563), (13, 19704), (14, 19734), (16, 19776), (20, 19869), (26, 20127), (32, 20319), (38, 20463), (39, 20466), (43, 20502), (46, 20532), (50, 20631), (56, 20850), (57, 20901), (59, 20937), (62, 20982), (68, 21090), (70, 21105), (74, 21156), (75, 21159), (79, 21267), (80, 21327), (81, 21333),

Gene: BluSpix\_25 Start: 18855, Stop: 20912, Start Num: 2

Candidate Starts for BluSpix\_25:

(Start: 2 @18855 has 195 MA's), (5, 18963), (6, 18987), (10, 19065), (13, 19206), (14, 19236), (16, 19278), (20, 19371), (26, 19629), (32, 19821), (38, 19965), (39, 19968), (43, 20004), (46, 20034), (47, 20043), (50, 20133), (54, 20298), (56, 20352), (57, 20403), (59, 20439), (62, 20484), (68, 20592), (70, 20607), (74, 20658), (75, 20661), (77, 20733), (79, 20769), (80, 20829), (81, 20835),

Gene: Blue\_25 Start: 19327, Stop: 21384, Start Num: 2

Candidate Starts for Blue\_25:

(Start: 2 @19327 has 195 MA's), (5, 19435), (6, 19459), (10, 19537), (13, 19678), (14, 19708), (16, 19750), (20, 19843), (26, 20101), (32, 20293), (38, 20437), (39, 20440), (43, 20476), (46, 20506), (50, 20605), (54, 20770), (56, 20824), (57, 20875), (59, 20911), (62, 20956), (68, 21064), (70, 21079), (74, 21130), (75, 21133), (77, 21205), (79, 21241), (80, 21301), (81, 21307),

Gene: Bob3\_24 Start: 18415, Stop: 20472, Start Num: 2

Candidate Starts for Bob3\_24:

(Start: 2 @18415 has 195 MA's), (5, 18523), (6, 18547), (10, 18625), (14, 18796), (15, 18823), (16, 18838), (20, 18931), (26, 19189), (32, 19381), (38, 19525), (39, 19528), (43, 19564), (46, 19594), (50, 19693), (54, 19858), (56, 19912), (57, 19963), (59, 19999), (62, 20044), (68, 20152), (70, 20167), (74, 20218), (75, 20221), (77, 20293), (79, 20329), (80, 20389), (81, 20395),

Gene: Bones\_25 Start: 18781, Stop: 20838, Start Num: 2

Candidate Starts for Bones\_25:

(Start: 2 @18781 has 195 MA's), (5, 18889), (6, 18913), (10, 18991), (13, 19132), (14, 19162), (16, 19204), (20, 19297), (26, 19555), (32, 19747), (38, 19891), (39, 19894), (43, 19930), (50, 20059), (54, 20224), (56, 20278), (57, 20329), (59, 20365), (62, 20410), (68, 20518), (70, 20533), (74, 20584), (75, 20587), (77, 20659), (79, 20695), (80, 20755), (81, 20761),

Gene: Briton15\_27 Start: 19150, Stop: 21207, Start Num: 2

Candidate Starts for Briton15\_27:

(Start: 2 @19150 has 195 MA's), (5, 19258), (6, 19282), (10, 19360), (13, 19501), (14, 19531), (16, 19573), (20, 19666), (26, 19924), (32, 20116), (38, 20260), (39, 20263), (43, 20299), (50, 20428), (54, 20593), (56, 20647), (57, 20698), (59, 20734), (62, 20779), (70, 20902), (74, 20953), (75, 20956), (77, 21028), (79, 21064), (80, 21124), (81, 21130),

Gene: Bruns\_24 Start: 18778, Stop: 20835, Start Num: 2

Candidate Starts for Bruns\_24:

(Start: 2 @18778 has 195 MA's), (5, 18886), (6, 18910), (10, 18988), (13, 19129), (14, 19159), (16, 19201), (26, 19552), (32, 19744), (38, 19888), (39, 19891), (43, 19927), (50, 20056), (54, 20221), (56, 20275), (57, 20326), (59, 20362), (62, 20407), (68, 20515), (70, 20530), (74, 20581), (75, 20584), (77, 20656), (79, 20692), (80, 20752), (81, 20758),

Gene: Burton\_26 Start: 18976, Stop: 21033, Start Num: 2

Candidate Starts for Burton\_26:

(Start: 2 @18976 has 195 MA's), (5, 19084), (6, 19108), (10, 19186), (13, 19327), (14, 19357), (16, 19399), (20, 19492), (26, 19750), (32, 19942), (38, 20086), (39, 20089), (43, 20125), (50, 20254), (54, 20419), (56, 20473), (57, 20524), (59, 20560), (70, 20728), (74, 20779), (75, 20782), (77, 20854), (79, 20890), (80, 20950), (81, 20956),

Gene: Buttons\_26 Start: 19337, Stop: 21394, Start Num: 2

Candidate Starts for Buttons\_26:

(Start: 2 @19337 has 195 MA's), (5, 19445), (6, 19469), (10, 19547), (13, 19688), (14, 19718), (16, 19760), (20, 19853), (26, 20111), (32, 20303), (38, 20447), (39, 20450), (43, 20486), (46, 20516), (50, 20615), (54, 20780), (56, 20834), (57, 20885), (59, 20921), (62, 20966), (68, 21074), (70, 21089), (74, 21140), (75, 21143), (77, 21215), (79, 21251), (80, 21311), (81, 21317),

Gene: Bxb1\_23 Start: 18927, Stop: 20984, Start Num: 2

Candidate Starts for Bxb1\_23:

(Start: 2 @18927 has 195 MA's), (5, 19035), (6, 19059), (10, 19137), (13, 19278), (14, 19308), (15, 19335), (16, 19350), (26, 19701), (32, 19893), (38, 20037), (39, 20040), (43, 20076), (46, 20106), (50, 20205), (54, 20370), (56, 20424), (57, 20475), (59, 20511), (62, 20556), (68, 20664), (70, 20679), (74, 20730), (75, 20733), (77, 20805), (79, 20841), (80, 20901), (81, 20907),

Gene: CactusRose\_24 Start: 18776, Stop: 20833, Start Num: 2

Candidate Starts for CactusRose\_24:

(Start: 2 @18776 has 195 MA's), (5, 18884), (6, 18908), (10, 18986), (13, 19127), (14, 19157), (16, 19199), (20, 19292), (26, 19550), (32, 19742), (38, 19886), (39, 19889), (43, 19925), (46, 19955), (47, 19964), (50, 20054), (54, 20219), (56, 20273), (57, 20324), (59, 20360), (60, 20387), (62, 20405), (70, 20528), (74, 20579), (75, 20582), (77, 20654), (79, 20690), (80, 20750), (81, 20756),

Gene: Carlyle\_27 Start: 19656, Stop: 21713, Start Num: 2

Candidate Starts for Carlyle\_27:

(Start: 2 @19656 has 195 MA's), (5, 19764), (6, 19788), (10, 19866), (13, 20007), (14, 20037), (16, 20079), (20, 20172), (26, 20430), (32, 20622), (38, 20766), (39, 20769), (43, 20805), (46, 20835), (50, 20934), (54, 21099), (56, 21153), (57, 21204), (59, 21240), (62, 21285), (68, 21393), (70, 21408), (74, 21459), (75, 21462), (77, 21534), (79, 21570), (80, 21630), (81, 21636),

Gene: Chanagan\_24 Start: 18441, Stop: 20498, Start Num: 2

Candidate Starts for Chanagan\_24:

(Start: 2 @18441 has 195 MA's), (5, 18549), (6, 18573), (10, 18651), (13, 18792), (14, 18822), (15, 18849), (16, 18864), (20, 18957), (23, 19104), (26, 19215), (32, 19407), (38, 19551), (39, 19554), (43, 19590), (50, 19719), (54, 19884), (56, 19938), (57, 19989), (59, 20025), (62, 20070), (68, 20178), (70, 20193), (74, 20244), (75, 20247), (77, 20319), (79, 20355), (80, 20415), (81, 20421),

Gene: Ciao\_25 Start: 18806, Stop: 20863, Start Num: 2

Candidate Starts for Ciao\_25:

(Start: 2 @18806 has 195 MA's), (6, 18938), (10, 19016), (14, 19187), (16, 19229), (20, 19322), (26, 19580), (32, 19772), (38, 19916), (39, 19919), (43, 19955), (46, 19985), (50, 20084), (54, 20249), (56, 20303), (57, 20354), (59, 20390), (62, 20435), (68, 20543), (70, 20558), (74, 20609), (75, 20612), (77, 20684), (79, 20720), (80, 20780), (81, 20786),

Gene: Conceptll\_27 Start: 19820, Stop: 21877, Start Num: 2

Candidate Starts for Conceptll\_27:

(Start: 2 @19820 has 195 MA's), (5, 19928), (6, 19952), (10, 20030), (13, 20171), (14, 20201), (16, 20243), (26, 20594), (32, 20786), (38, 20930), (39, 20933), (43, 20969), (50, 21098), (54, 21263), (56, 21317), (57, 21368), (59, 21404), (62, 21449), (68, 21557), (70, 21572), (74, 21623), (75, 21626), (77, 21698), (79, 21734), (80, 21794), (81, 21800),

Gene: Corvo\_26 Start: 19795, Stop: 21852, Start Num: 2

Candidate Starts for Corvo\_26:

(Start: 2 @19795 has 195 MA's), (5, 19903), (6, 19927), (10, 20005), (13, 20146), (14, 20176), (16, 20218), (20, 20311), (26, 20569), (32, 20761), (38, 20905), (43, 20944), (46, 20974), (50, 21073), (54, 21238), (56, 21292), (57, 21343), (59, 21379), (62, 21424), (68, 21532), (70, 21547), (74, 21598), (75, 21601), (77, 21673), (79, 21709), (80, 21769), (81, 21775),

Gene: Crispicous1\_24 Start: 18312, Stop: 20369, Start Num: 2

Candidate Starts for Crispicous1\_24:

(Start: 2 @18312 has 195 MA's), (5, 18420), (6, 18444), (10, 18522), (13, 18663), (14, 18693), (15, 18720), (16, 18735), (20, 18828), (26, 19086), (32, 19278), (38, 19422), (39, 19425), (43, 19461), (46, 19491), (50, 19590), (54, 19755), (56, 19809), (57, 19860), (59, 19896), (62, 19941), (68, 20049), (70, 20064), (74, 20115), (75, 20118), (77, 20190), (79, 20226), (80, 20286), (81, 20292),

Gene: Cueyllyss\_25 Start: 19014, Stop: 21071, Start Num: 2

Candidate Starts for Cueyllyss\_25:

(Start: 2 @19014 has 195 MA's), (5, 19122), (6, 19146), (10, 19224), (13, 19365), (14, 19395), (16, 19437), (20, 19530), (26, 19788), (32, 19980), (38, 20124), (39, 20127), (43, 20163), (46, 20193), (47, 20202), (50, 20292), (54, 20457), (56, 20511), (57, 20562), (59, 20598), (62, 20643), (68, 20751), (70, 20766), (74, 20817), (75, 20820), (77, 20892), (79, 20928), (80, 20988), (81, 20994),

Gene: DD5\_26 Start: 19562, Stop: 21619, Start Num: 2

Candidate Starts for DD5\_26:

(Start: 2 @19562 has 195 MA's), (5, 19670), (6, 19694), (10, 19772), (13, 19913), (14, 19943), (16, 19985), (26, 20336), (32, 20528), (38, 20672), (39, 20675), (43, 20711), (46, 20741), (47, 20750), (50, 20840), (54, 21005), (56, 21059), (57, 21110), (59, 21146), (60, 21173), (62, 21191), (68, 21299), (70, 21314), (74, 21365), (75, 21368), (77, 21440), (79, 21476), (80, 21536), (81, 21542),

Gene: Dexes\_26 Start: 19522, Stop: 21579, Start Num: 2

Candidate Starts for Dexes\_26:

(Start: 2 @19522 has 195 MA's), (5, 19630), (6, 19654), (10, 19732), (13, 19873), (14, 19903), (16, 19945), (26, 20296), (32, 20488), (38, 20632), (43, 20671), (50, 20800), (54, 20965), (56, 21019), (57, 21070), (59, 21106), (62, 21151), (68, 21259), (70, 21274), (74, 21325), (75, 21328), (77, 21400), (79, 21436), (80, 21496), (81, 21502),

Gene: Doom\_26 Start: 19652, Stop: 21709, Start Num: 2

Candidate Starts for Doom\_26:

(Start: 2 @19652 has 195 MA's), (5, 19760), (6, 19784), (10, 19862), (13, 20003), (14, 20033), (15, 20060), (16, 20075), (20, 20168), (26, 20426), (32, 20618), (38, 20762), (39, 20765), (43, 20801), (46, 20831), (50, 20930), (56, 21149), (57, 21200), (59, 21236), (62, 21281), (68, 21389), (70, 21404), (74, 21455), (75, 21458), (77, 21530), (79, 21566), (80, 21626), (81, 21632),

Gene: DrFeelGood\_24 Start: 19176, Stop: 21233, Start Num: 2

Candidate Starts for DrFeelGood\_24:

(Start: 2 @19176 has 195 MA's), (5, 19284), (6, 19308), (10, 19386), (13, 19527), (14, 19557), (15, 19584), (16, 19599), (20, 19692), (26, 19950), (32, 20142), (38, 20286), (39, 20289), (43, 20325), (50, 20454), (54, 20619), (56, 20673), (57, 20724), (59, 20760), (62, 20805), (68, 20913), (70, 20928), (74, 20979), (75, 20982), (77, 21054), (79, 21090), (80, 21150), (81, 21156),

Gene: DreamCatcher\_28 Start: 20269, Stop: 22326, Start Num: 2

Candidate Starts for DreamCatcher\_28:

(Start: 2 @20269 has 195 MA's), (5, 20377), (6, 20401), (10, 20479), (13, 20620), (14, 20650), (15, 20677), (16, 20692), (20, 20785), (26, 21043), (32, 21235), (38, 21379), (39, 21382), (43, 21418), (46, 21448), (50, 21547), (54, 21712), (56, 21766), (57, 21817), (59, 21853), (62, 21898), (68, 22006), (70, 22021), (74, 22072), (75, 22075), (77, 22147), (79, 22183), (80, 22243), (81, 22249),

Gene: Dreamboat\_26 Start: 18799, Stop: 20856, Start Num: 2

Candidate Starts for Dreamboat\_26:

(Start: 2 @18799 has 195 MA's), (5, 18907), (6, 18931), (10, 19009), (14, 19180), (16, 19222), (26, 19573), (32, 19765), (38, 19909), (39, 19912), (43, 19948), (46, 19978), (50, 20077), (54, 20242), (56, 20296), (57, 20347), (59, 20383), (62, 20428), (68, 20536), (70, 20551), (74, 20602), (75, 20605), (77, 20677), (79, 20713), (80, 20773), (81, 20779),

Gene: DroogsArmy\_27 Start: 20642, Stop: 22624, Start Num: 3

Candidate Starts for DroogsArmy\_27:

(Start: 3 @20642 has 4 MA's), (6, 20762), (8, 20810), (9, 20837), (10, 20840), (11, 20882), (12, 20936), (16, 21050), (17, 21053), (18, 21095), (21, 21185), (22, 21263), (27, 21449), (28, 21545), (29, 21560), (32, 21596), (34, 21629), (35, 21638), (44, 21782), (45, 21785), (49, 21851), (53, 21983), (55, 22064), (61, 22190), (65, 22274), (66, 22277), (67, 22295), (68, 22304), (70, 22319), (73, 22355), (74, 22370), (76, 22415), (78, 22469), (79, 22481), (82, 22571), (84, 22577), (85, 22616),

Gene: Dulcie\_24 Start: 18496, Stop: 20553, Start Num: 2

Candidate Starts for Dulcie\_24:

(Start: 2 @18496 has 195 MA's), (5, 18604), (6, 18628), (10, 18706), (13, 18847), (14, 18877), (15, 18904), (16, 18919), (26, 19270), (32, 19462), (38, 19606), (39, 19609), (43, 19645), (50, 19774), (54, 19939), (56, 19993), (57, 20044), (59, 20080), (62, 20125), (68, 20233), (70, 20248), (74, 20299), (75, 20302), (77, 20374), (79, 20410), (80, 20470), (81, 20476),

Gene: Dussy\_26 Start: 19083, Stop: 21140, Start Num: 2

Candidate Starts for Dussy\_26:

(Start: 2 @19083 has 195 MA's), (5, 19191), (6, 19215), (10, 19293), (13, 19434), (14, 19464), (16, 19506), (20, 19599), (26, 19857), (32, 20049), (38, 20193), (39, 20196), (40, 20202), (43, 20232), (46, 20262), (50, 20361), (54, 20526), (56, 20580), (57, 20631), (59, 20667), (62, 20712), (68, 20820), (70, 20835), (74, 20886), (75, 20889), (77, 20961), (79, 20997), (80, 21057), (81, 21063),

Gene: Dynamix\_26 Start: 18900, Stop: 20957, Start Num: 2

Candidate Starts for Dynamix\_26:

(Start: 2 @18900 has 195 MA's), (5, 19008), (6, 19032), (10, 19110), (13, 19251), (14, 19281), (15, 19308), (16, 19323), (20, 19416), (26, 19674), (32, 19866), (38, 20010), (39, 20013), (43, 20049), (50, 20178), (54, 20343), (56, 20397), (57, 20448), (59, 20484), (62, 20529), (70, 20652), (74, 20703), (75, 20706), (77, 20778), (79, 20814), (80, 20874), (81, 20880),

Gene: Edtherson\_26 Start: 19647, Stop: 21704, Start Num: 2

Candidate Starts for Edtherson\_26:

(Start: 2 @19647 has 195 MA's), (5, 19755), (6, 19779), (10, 19857), (13, 19998), (14, 20028), (16, 20070), (20, 20163), (26, 20421), (32, 20613), (38, 20757), (39, 20760), (43, 20796), (46, 20826), (50, 20925), (54, 21090), (56, 21144), (57, 21195), (59, 21231), (62, 21276), (68, 21384), (70, 21399), (74, 21450), (75, 21453), (77, 21525), (79, 21561), (80, 21621), (81, 21627),

Gene: Espresso\_25 Start: 18944, Stop: 21001, Start Num: 2

Candidate Starts for Espresso\_25:

(Start: 2 @18944 has 195 MA's), (5, 19052), (6, 19076), (10, 19154), (15, 19352), (16, 19367), (20, 19460), (26, 19718), (32, 19910), (38, 20054), (39, 20057), (43, 20093), (46, 20123), (50, 20222), (54, 20387), (56, 20441), (57, 20492), (59, 20528), (62, 20573), (68, 20681), (70, 20696), (74, 20747), (75, 20750), (77, 20822), (79, 20858), (80, 20918), (81, 20924),

Gene: Euphoria\_25 Start: 18832, Stop: 20889, Start Num: 2

Candidate Starts for Euphoria\_25:

(Start: 2 @18832 has 195 MA's), (5, 18940), (6, 18964), (10, 19042), (13, 19183), (14, 19213), (16, 19255), (26, 19606), (32, 19798), (38, 19942), (39, 19945), (43, 19981), (46, 20011), (47, 20020), (50, 20110), (54, 20275), (56, 20329), (57, 20380), (59, 20416), (62, 20461), (68, 20569), (70, 20584), (74, 20635), (75, 20638), (77, 20710), (79, 20746), (80, 20806), (81, 20812),

Gene: Eyeball\_25 Start: 18659, Stop: 20716, Start Num: 2

Candidate Starts for Eyeball\_25:

(Start: 2 @18659 has 195 MA's), (5, 18767), (6, 18791), (10, 18869), (13, 19010), (14, 19040), (15, 19067), (16, 19082), (20, 19175), (26, 19433), (32, 19625), (38, 19769), (39, 19772), (43, 19808), (50, 19937), (54, 20102), (56, 20156), (57, 20207), (59, 20243), (60, 20270), (62, 20288), (68, 20396), (70, 20411), (74, 20462), (75, 20465), (77, 20537), (79, 20573), (80, 20633), (81, 20639),

Gene: Fajezeel\_27 Start: 19169, Stop: 21226, Start Num: 2

Candidate Starts for Fajezeel\_27:

(Start: 2 @19169 has 195 MA's), (5, 19277), (6, 19301), (10, 19379), (13, 19520), (14, 19550), (16, 19592), (20, 19685), (26, 19943), (32, 20135), (38, 20279), (39, 20282), (43, 20318), (46, 20348), (50, 20447), (54, 20612), (56, 20666), (57, 20717), (59, 20753), (62, 20798), (68, 20906), (70, 20921), (74, 20972), (75, 20975), (77, 21047), (79, 21083), (80, 21143), (81, 21149),

Gene: Fascinus\_24 Start: 18700, Stop: 20757, Start Num: 2

Candidate Starts for Fascinus\_24:

(Start: 2 @18700 has 195 MA's), (5, 18808), (6, 18832), (10, 18910), (13, 19051), (14, 19081), (16, 19123), (20, 19216), (26, 19474), (32, 19666), (38, 19810), (39, 19813), (43, 19849), (50, 19978), (54, 20143), (56, 20197), (57, 20248), (59, 20284), (62, 20329), (68, 20437), (70, 20452), (74, 20503), (75, 20506), (77, 20578), (79, 20614), (80, 20674), (81, 20680),

Gene: Fenn\_26 Start: 20534, Stop: 22591, Start Num: 2

Candidate Starts for Fenn\_26:

(Start: 2 @20534 has 195 MA's), (5, 20642), (6, 20666), (10, 20744), (13, 20885), (14, 20915), (16, 20957), (20, 21050), (26, 21308), (32, 21500), (38, 21644), (39, 21647), (43, 21683), (46, 21713), (50, 21812), (54, 21977), (56, 22031), (57, 22082), (59, 22118), (62, 22163), (68, 22271), (70, 22286), (74, 22337), (75, 22340), (77, 22412), (79, 22448), (80, 22508), (81, 22514),

Gene: Forsytheast\_24 Start: 18858, Stop: 20915, Start Num: 2

Candidate Starts for Forsytheast\_24:

(Start: 2 @18858 has 195 MA's), (5, 18966), (6, 18990), (10, 19068), (13, 19209), (14, 19239), (16, 19281), (26, 19632), (32, 19824), (38, 19968), (39, 19971), (43, 20007), (50, 20136), (54, 20301), (56, 20355), (57, 20406), (59, 20442), (62, 20487), (70, 20610), (74, 20661), (75, 20664), (77, 20736), (79, 20772), (80, 20832), (81, 20838),

Gene: Francis47\_25 Start: 19406, Stop: 21463, Start Num: 2

Candidate Starts for Francis47\_25:

(Start: 2 @19406 has 195 MA's), (5, 19514), (6, 19538), (10, 19616), (13, 19757), (14, 19787), (16, 19829), (20, 19922), (26, 20180), (32, 20372), (38, 20516), (39, 20519), (43, 20555), (50, 20684), (54, 20849), (56, 20903), (57, 20954), (59, 20990), (62, 21035), (70, 21158), (74, 21209), (75, 21212), (77, 21284), (79, 21320), (80, 21380), (81, 21386),

Gene: Froghopper\_26 Start: 18821, Stop: 20878, Start Num: 2

Candidate Starts for Froghopper\_26:

(Start: 2 @18821 has 195 MA's), (5, 18929), (6, 18953), (10, 19031), (13, 19172), (14, 19202), (16, 19244), (26, 19595), (32, 19787), (38, 19931), (39, 19934), (43, 19970), (50, 20099), (54, 20264), (56, 20318), (57, 20369), (59, 20405), (62, 20450), (68, 20558), (70, 20573), (74, 20624), (75, 20627), (77, 20699), (79, 20735), (80, 20795), (81, 20801),

Gene: Fushigi\_26 Start: 19278, Stop: 21335, Start Num: 2

Candidate Starts for Fushigi\_26:

(Start: 2 @19278 has 195 MA's), (5, 19386), (6, 19410), (10, 19488), (13, 19629), (14, 19659), (16, 19701), (20, 19794), (26, 20052), (32, 20244), (38, 20388), (39, 20391), (43, 20427), (50, 20556), (54, 20721), (56, 20775), (57, 20826), (59, 20862), (62, 20907), (70, 21030), (74, 21081), (75, 21084), (77, 21156), (79, 21192), (80, 21252), (81, 21258),

Gene: GageAP\_27 Start: 19570, Stop: 21627, Start Num: 2

Candidate Starts for GageAP\_27:

(Start: 2 @19570 has 195 MA's), (5, 19678), (6, 19702), (10, 19780), (13, 19921), (14, 19951), (16, 19993), (26, 20344), (32, 20536), (38, 20680), (39, 20683), (43, 20719), (46, 20749), (50, 20848), (54, 21013), (56, 21067), (57, 21118), (59, 21154), (62, 21199), (68, 21307), (70, 21322), (74, 21373), (75, 21376), (77, 21448), (79, 21484), (80, 21544), (81, 21550),

Gene: Gandalf20\_26 Start: 19697, Stop: 21754, Start Num: 2

Candidate Starts for Gandalf20\_26:

(Start: 2 @19697 has 195 MA's), (5, 19805), (6, 19829), (10, 19907), (13, 20048), (14, 20078), (16, 20120), (20, 20213), (23, 20360), (26, 20471), (32, 20663), (38, 20807), (39, 20810), (43, 20846), (46, 20876), (50, 20975), (54, 21140), (56, 21194), (57, 21245), (59, 21281), (62, 21326), (70, 21449), (74, 21500), (75, 21503), (77, 21575), (79, 21611), (80, 21671), (81, 21677),

Gene: Gompeii16\_25 Start: 19354, Stop: 21411, Start Num: 2

Candidate Starts for Gompeii16\_25:



(Start: 2 @19354 has 195 MA's), (5, 19462), (6, 19486), (10, 19564), (13, 19705), (14, 19735), (16, 19777), (20, 19870), (26, 20128), (32, 20320), (38, 20464), (39, 20467), (43, 20503), (46, 20533), (50, 20632), (56, 20851), (57, 20902), (59, 20938), (62, 20983), (68, 21091), (70, 21106), (74, 21157), (75, 21160), (79, 21268), (80, 21328), (81, 21334),

Gene: Graduation\_27 Start: 19601, Stop: 21658, Start Num: 2

Candidate Starts for Graduation\_27:

(Start: 2 @19601 has 195 MA's), (6, 19733), (10, 19811), (13, 19952), (14, 19982), (16, 20024), (20, 20117), (26, 20375), (32, 20567), (38, 20711), (39, 20714), (43, 20750), (46, 20780), (47, 20789), (50, 20879), (54, 21044), (56, 21098), (57, 21149), (59, 21185), (62, 21230), (68, 21338), (70, 21353), (74, 21404), (75, 21407), (77, 21479), (79, 21515), (80, 21575), (81, 21581),

Gene: GrecoEtereo\_27 Start: 19641, Stop: 21698, Start Num: 2

Candidate Starts for GrecoEtereo\_27:

(Start: 2 @19641 has 195 MA's), (5, 19749), (6, 19773), (10, 19851), (13, 19992), (14, 20022), (16, 20064), (20, 20157), (26, 20415), (32, 20607), (38, 20751), (39, 20754), (43, 20790), (50, 20919), (54, 21084), (56, 21138), (57, 21189), (59, 21225), (62, 21270), (70, 21393), (74, 21444), (75, 21447), (77, 21519), (79, 21555), (80, 21615), (81, 21621),

Gene: Greg\_27 Start: 19169, Stop: 21226, Start Num: 2

Candidate Starts for Greg\_27:

(Start: 2 @19169 has 195 MA's), (5, 19277), (6, 19301), (10, 19379), (13, 19520), (14, 19550), (16, 19592), (20, 19685), (26, 19943), (32, 20135), (38, 20279), (39, 20282), (43, 20318), (46, 20348), (50, 20447), (54, 20612), (56, 20666), (57, 20717), (59, 20753), (62, 20798), (68, 20906), (70, 20921), (74, 20972), (75, 20975), (77, 21047), (79, 21083), (80, 21143), (81, 21149),

Gene: Gwendoluna\_28 Start: 20732, Stop: 22789, Start Num: 2

Candidate Starts for Gwendoluna\_28:

(Start: 2 @20732 has 195 MA's), (5, 20840), (6, 20864), (10, 20942), (13, 21083), (14, 21113), (16, 21155), (26, 21506), (32, 21698), (38, 21842), (39, 21845), (43, 21881), (46, 21911), (50, 22010), (54, 22175), (56, 22229), (57, 22280), (59, 22316), (62, 22361), (68, 22469), (70, 22484), (74, 22535), (75, 22538), (77, 22610), (79, 22646), (80, 22706), (81, 22712),

Gene: Gyzlar\_27 Start: 20095, Stop: 22152, Start Num: 2

Candidate Starts for Gyzlar\_27:

(Start: 2 @20095 has 195 MA's), (5, 20203), (6, 20227), (10, 20305), (13, 20446), (14, 20476), (16, 20518), (20, 20611), (26, 20869), (32, 21061), (38, 21205), (39, 21208), (43, 21244), (50, 21373), (54, 21538), (56, 21592), (57, 21643), (59, 21679), (62, 21724), (68, 21832), (70, 21847), (74, 21898), (75, 21901), (77, 21973), (79, 22009), (80, 22069), (81, 22075),

Gene: HINdeR\_26 Start: 20746, Stop: 22728, Start Num: 3

Candidate Starts for HINdeR\_26:

(1, 20674), (Start: 3 @20746 has 4 MA's), (6, 20866), (8, 20914), (9, 20941), (10, 20944), (11, 20986), (12, 21040), (16, 21154), (17, 21157), (18, 21199), (19, 21211), (21, 21289), (22, 21367), (26, 21508), (28, 21649), (30, 21670), (32, 21700), (34, 21733), (35, 21742), (42, 21877), (48, 21925), (51, 22042), (55, 22168), (57, 22216), (61, 22294), (65, 22378), (66, 22381), (70, 22423), (72, 22444), (74, 22474), (76, 22519), (78, 22573), (79, 22585), (82, 22675), (83, 22678), (84, 22681), (85, 22720),

Gene: Hami1\_27 Start: 19241, Stop: 21298, Start Num: 2

Candidate Starts for Hami1\_27:

(Start: 2 @19241 has 195 MA's), (5, 19349), (6, 19373), (10, 19451), (13, 19592), (14, 19622), (16, 19664), (20, 19757), (23, 19904), (26, 20015), (32, 20207), (38, 20351), (39, 20354), (43, 20390), (46, 20420), (50, 20519), (54, 20684), (56, 20738), (57, 20789), (59, 20825), (62, 20870), (68, 20978), (70,

20993), (74, 21044), (75, 21047), (77, 21119), (79, 21155), (80, 21215), (81, 21221),

Gene: HanShotFirst\_25 Start: 18775, Stop: 20832, Start Num: 2

Candidate Starts for HanShotFirst\_25:

(Start: 2 @18775 has 195 MA's), (5, 18883), (6, 18907), (10, 18985), (13, 19126), (14, 19156), (16, 19198), (20, 19291), (26, 19549), (32, 19741), (38, 19885), (39, 19888), (43, 19924), (50, 20053), (54, 20218), (56, 20272), (57, 20323), (59, 20359), (62, 20404), (70, 20527), (74, 20578), (75, 20581), (77, 20653), (79, 20689), (80, 20749), (81, 20755),

Gene: HarryOW\_26 Start: 19229, Stop: 21286, Start Num: 2

Candidate Starts for HarryOW\_26:

(Start: 2 @19229 has 195 MA's), (5, 19337), (6, 19361), (10, 19439), (13, 19580), (14, 19610), (15, 19637), (16, 19652), (20, 19745), (26, 20003), (32, 20195), (38, 20339), (39, 20342), (43, 20378), (50, 20507), (54, 20672), (56, 20726), (57, 20777), (59, 20813), (62, 20858), (70, 20981), (74, 21032), (75, 21035), (77, 21107), (79, 21143), (80, 21203), (81, 21209),

Gene: Hermia\_28 Start: 20379, Stop: 22436, Start Num: 2

Candidate Starts for Hermia\_28:

(Start: 2 @20379 has 195 MA's), (5, 20487), (6, 20511), (10, 20589), (13, 20730), (14, 20760), (15, 20787), (16, 20802), (20, 20895), (26, 21153), (32, 21345), (38, 21489), (39, 21492), (43, 21528), (46, 21558), (50, 21657), (54, 21822), (56, 21876), (57, 21927), (59, 21963), (62, 22008), (68, 22116), (70, 22131), (74, 22182), (75, 22185), (77, 22257), (79, 22293), (80, 22353), (81, 22359),

Gene: HermioneGrange\_25 Start: 18803, Stop: 20860, Start Num: 2

Candidate Starts for HermioneGrange\_25:

(Start: 2 @18803 has 195 MA's), (5, 18911), (6, 18935), (10, 19013), (13, 19154), (14, 19184), (15, 19211), (16, 19226), (20, 19319), (26, 19577), (32, 19769), (38, 19913), (39, 19916), (43, 19952), (46, 19982), (50, 20081), (54, 20246), (56, 20300), (57, 20351), (59, 20387), (62, 20432), (68, 20540), (70, 20555), (74, 20606), (75, 20609), (77, 20681), (79, 20717), (80, 20777), (81, 20783),

Gene: Homines\_25 Start: 19128, Stop: 21185, Start Num: 2

Candidate Starts for Homines\_25:

(Start: 2 @19128 has 195 MA's), (5, 19236), (6, 19260), (10, 19338), (14, 19509), (16, 19551), (20, 19644), (26, 19902), (32, 20094), (38, 20238), (39, 20241), (43, 20277), (50, 20406), (54, 20571), (56, 20625), (57, 20676), (59, 20712), (62, 20757), (68, 20865), (70, 20880), (74, 20931), (75, 20934), (77, 21006), (79, 21042), (80, 21102), (81, 21108),

Gene: Hope4ever\_25 Start: 19266, Stop: 21323, Start Num: 2

Candidate Starts for Hope4ever\_25:

(Start: 2 @19266 has 195 MA's), (5, 19374), (6, 19398), (10, 19476), (13, 19617), (14, 19647), (16, 19689), (26, 20040), (32, 20232), (38, 20376), (39, 20379), (43, 20415), (50, 20544), (54, 20709), (56, 20763), (57, 20814), (59, 20850), (62, 20895), (68, 21003), (70, 21018), (74, 21069), (75, 21072), (77, 21144), (79, 21180), (80, 21240), (81, 21246),

Gene: ILeeKay\_27 Start: 19030, Stop: 21087, Start Num: 2

Candidate Starts for ILeeKay\_27:

(Start: 2 @19030 has 195 MA's), (5, 19138), (6, 19162), (10, 19240), (14, 19411), (16, 19453), (20, 19546), (26, 19804), (32, 19996), (38, 20140), (39, 20143), (43, 20179), (46, 20209), (47, 20218), (50, 20308), (54, 20473), (56, 20527), (57, 20578), (59, 20614), (60, 20641), (62, 20659), (70, 20782), (74, 20833), (75, 20836), (77, 20908), (79, 20944), (80, 21004), (81, 21010),

Gene: Ichabod\_26 Start: 19054, Stop: 21111, Start Num: 2

Candidate Starts for Ichabod\_26:

(Start: 2 @19054 has 195 MA's), (5, 19162), (6, 19186), (10, 19264), (13, 19405), (14, 19435), (16, 19477), (25, 19762), (26, 19828), (32, 20020), (38, 20164), (39, 20167), (43, 20203), (46, 20233), (47, 20242), (50, 20332), (54, 20497), (56, 20551), (57, 20602), (59, 20638), (60, 20665), (62, 20683), (68, 20791), (70, 20806), (74, 20857), (75, 20860), (77, 20932), (79, 20968), (80, 21028), (81, 21034),

Gene: IgnatiusPatJac\_24 Start: 18856, Stop: 20913, Start Num: 2

Candidate Starts for IgnatiusPatJac\_24:

(Start: 2 @18856 has 195 MA's), (5, 18964), (6, 18988), (10, 19066), (13, 19207), (14, 19237), (16, 19279), (20, 19372), (26, 19630), (32, 19822), (38, 19966), (39, 19969), (43, 20005), (46, 20035), (47, 20044), (50, 20134), (54, 20299), (56, 20353), (57, 20404), (59, 20440), (62, 20485), (68, 20593), (70, 20608), (74, 20659), (75, 20662), (77, 20734), (79, 20770), (80, 20830), (81, 20836),

Gene: JC27\_27 Start: 19766, Stop: 21823, Start Num: 2

Candidate Starts for JC27\_27:

(Start: 2 @19766 has 195 MA's), (6, 19898), (10, 19976), (14, 20147), (15, 20174), (16, 20189), (20, 20282), (26, 20540), (32, 20732), (38, 20876), (39, 20879), (43, 20915), (46, 20945), (47, 20954), (50, 21044), (54, 21209), (56, 21263), (57, 21314), (59, 21350), (62, 21395), (70, 21518), (74, 21569), (75, 21572), (77, 21644), (79, 21680), (80, 21740), (81, 21746),

Gene: JackSparrow\_26 Start: 19206, Stop: 21263, Start Num: 2

Candidate Starts for JackSparrow\_26:

(Start: 2 @19206 has 195 MA's), (5, 19314), (6, 19338), (10, 19416), (13, 19557), (14, 19587), (16, 19629), (20, 19722), (26, 19980), (32, 20172), (38, 20316), (39, 20319), (43, 20355), (46, 20385), (50, 20484), (54, 20649), (56, 20703), (57, 20754), (59, 20790), (62, 20835), (68, 20943), (70, 20958), (74, 21009), (75, 21012), (77, 21084), (79, 21120), (80, 21180), (81, 21186),

Gene: Jasper\_26 Start: 18707, Stop: 20764, Start Num: 2

Candidate Starts for Jasper\_26:

(Start: 2 @18707 has 195 MA's), (5, 18815), (6, 18839), (10, 18917), (13, 19058), (14, 19088), (16, 19130), (20, 19223), (26, 19481), (32, 19673), (38, 19817), (39, 19820), (43, 19856), (50, 19985), (54, 20150), (56, 20204), (57, 20255), (59, 20291), (62, 20336), (70, 20459), (74, 20510), (75, 20513), (77, 20585), (79, 20621), (80, 20681), (81, 20687),

Gene: Jerm2\_26 Start: 19075, Stop: 21132, Start Num: 2

Candidate Starts for Jerm2\_26:

(Start: 2 @19075 has 195 MA's), (5, 19183), (6, 19207), (10, 19285), (13, 19426), (14, 19456), (16, 19498), (20, 19591), (26, 19849), (32, 20041), (38, 20185), (39, 20188), (43, 20224), (46, 20254), (50, 20353), (54, 20518), (56, 20572), (57, 20623), (59, 20659), (62, 20704), (68, 20812), (70, 20827), (74, 20878), (75, 20881), (77, 20953), (79, 20989), (80, 21049), (81, 21055),

Gene: Jorgensen\_25 Start: 18761, Stop: 20818, Start Num: 2

Candidate Starts for Jorgensen\_25:

(Start: 2 @18761 has 195 MA's), (5, 18869), (6, 18893), (10, 18971), (13, 19112), (14, 19142), (16, 19184), (20, 19277), (26, 19535), (32, 19727), (38, 19871), (39, 19874), (43, 19910), (50, 20039), (54, 20204), (56, 20258), (57, 20309), (59, 20345), (62, 20390), (68, 20498), (70, 20513), (74, 20564), (75, 20567), (77, 20639), (79, 20675), (80, 20735), (81, 20741),

Gene: JuliaChild\_27 Start: 19327, Stop: 21384, Start Num: 2

Candidate Starts for JuliaChild\_27:

(Start: 2 @19327 has 195 MA's), (5, 19435), (6, 19459), (10, 19537), (14, 19708), (15, 19735), (16, 19750), (20, 19843), (26, 20101), (32, 20293), (38, 20437), (39, 20440), (43, 20476), (49, 20548), (50, 20605), (54, 20770), (56, 20824), (57, 20875), (59, 20911), (60, 20938), (62, 20956), (68, 21064), (70, 21079), (74, 21130), (75, 21133), (77, 21205), (79, 21241), (80, 21301), (81, 21307),

Gene: KBG\_26 Start: 19760, Stop: 21817, Start Num: 2

Candidate Starts for KBG\_26:

(Start: 2 @19760 has 195 MA's), (5, 19868), (6, 19892), (10, 19970), (13, 20111), (14, 20141), (15, 20168), (16, 20183), (26, 20534), (32, 20726), (38, 20870), (39, 20873), (43, 20909), (50, 21038), (54, 21203), (56, 21257), (57, 21308), (59, 21344), (62, 21389), (70, 21512), (74, 21563), (75, 21566), (77, 21638), (79, 21674), (80, 21734), (81, 21740),

Gene: KSSJEB\_25 Start: 18654, Stop: 20711, Start Num: 2

Candidate Starts for KSSJEB\_25:

(Start: 2 @18654 has 195 MA's), (5, 18762), (6, 18786), (10, 18864), (13, 19005), (14, 19035), (15, 19062), (16, 19077), (20, 19170), (26, 19428), (32, 19620), (38, 19764), (39, 19767), (43, 19803), (50, 19932), (54, 20097), (56, 20151), (57, 20202), (59, 20238), (62, 20283), (68, 20391), (70, 20406), (74, 20457), (75, 20460), (77, 20532), (79, 20568), (80, 20628), (81, 20634),

Gene: Kanely\_26 Start: 19442, Stop: 21499, Start Num: 2

Candidate Starts for Kanely\_26:

(Start: 2 @19442 has 195 MA's), (6, 19574), (10, 19652), (13, 19793), (14, 19823), (15, 19850), (16, 19865), (26, 20216), (32, 20408), (38, 20552), (39, 20555), (43, 20591), (50, 20720), (56, 20939), (57, 20990), (59, 21026), (62, 21071), (68, 21179), (70, 21194), (74, 21245), (75, 21248), (77, 21320), (79, 21356), (80, 21416), (81, 21422),

Gene: Kenmech\_28 Start: 20170, Stop: 22227, Start Num: 2

Candidate Starts for Kenmech\_28:

(Start: 2 @20170 has 195 MA's), (5, 20278), (6, 20302), (10, 20380), (13, 20521), (14, 20551), (16, 20593), (20, 20686), (26, 20944), (32, 21136), (38, 21280), (39, 21283), (40, 21289), (43, 21319), (46, 21349), (50, 21448), (54, 21613), (56, 21667), (57, 21718), (59, 21754), (62, 21799), (68, 21907), (70, 21922), (74, 21973), (75, 21976), (77, 22048), (79, 22084), (80, 22144), (81, 22150),

Gene: Killigrew\_23 Start: 18354, Stop: 20411, Start Num: 2

Candidate Starts for Killigrew\_23:

(Start: 2 @18354 has 195 MA's), (5, 18462), (6, 18486), (10, 18564), (13, 18705), (14, 18735), (16, 18777), (20, 18870), (26, 19128), (32, 19320), (38, 19464), (39, 19467), (43, 19503), (50, 19632), (54, 19797), (56, 19851), (57, 19902), (59, 19938), (62, 19983), (68, 20091), (70, 20106), (74, 20157), (75, 20160), (77, 20232), (79, 20268), (80, 20328), (81, 20334),

Gene: Kugel\_26 Start: 19015, Stop: 21072, Start Num: 2

Candidate Starts for Kugel\_26:

(Start: 2 @19015 has 195 MA's), (6, 19147), (10, 19225), (13, 19366), (14, 19396), (15, 19423), (16, 19438), (20, 19531), (26, 19789), (32, 19981), (38, 20125), (39, 20128), (43, 20164), (50, 20293), (54, 20458), (56, 20512), (57, 20563), (59, 20599), (68, 20752), (70, 20767), (74, 20818), (75, 20821), (77, 20893), (79, 20929), (80, 20989), (81, 20995),

Gene: KyMonks1A\_27 Start: 19181, Stop: 21238, Start Num: 2

Candidate Starts for KyMonks1A\_27:

(Start: 2 @19181 has 195 MA's), (5, 19289), (6, 19313), (10, 19391), (13, 19532), (14, 19562), (15, 19589), (16, 19604), (20, 19697), (26, 19955), (32, 20147), (38, 20291), (39, 20294), (43, 20330), (50, 20459), (54, 20624), (56, 20678), (57, 20729), (59, 20765), (62, 20810), (68, 20918), (70, 20933), (74, 20984), (75, 20987), (77, 21059), (79, 21095), (80, 21155), (81, 21161),

Gene: Kykar\_23 Start: 18550, Stop: 20607, Start Num: 2

Candidate Starts for Kykar\_23:

(Start: 2 @18550 has 195 MA's), (5, 18658), (6, 18682), (10, 18760), (13, 18901), (14, 18931), (15, 18958), (16, 18973), (20, 19066), (26, 19324), (32, 19516), (38, 19660), (39, 19663), (43, 19699), (46, 19729), (50, 19828), (54, 19993), (56, 20047), (57, 20098), (62, 20179), (70, 20302), (74, 20353), (75, 20356), (77, 20428), (79, 20464), (80, 20524), (81, 20530),

Gene: Lamina13\_25 Start: 18452, Stop: 20509, Start Num: 2

Candidate Starts for Lamina13\_25:

(Start: 2 @18452 has 195 MA's), (5, 18560), (6, 18584), (10, 18662), (13, 18803), (14, 18833), (16, 18875), (26, 19226), (32, 19418), (38, 19562), (39, 19565), (43, 19601), (46, 19631), (50, 19730), (54, 19895), (56, 19949), (57, 20000), (59, 20036), (60, 20063), (62, 20081), (68, 20189), (70, 20204), (74, 20255), (75, 20258), (77, 20330), (79, 20366), (80, 20426), (81, 20432),

Gene: Lesedi\_24 Start: 18610, Stop: 20667, Start Num: 2

Candidate Starts for Lesedi\_24:

(Start: 2 @18610 has 195 MA's), (5, 18718), (6, 18742), (10, 18820), (13, 18961), (14, 18991), (15, 19018), (16, 19033), (20, 19126), (26, 19384), (32, 19576), (38, 19720), (39, 19723), (43, 19759), (50, 19888), (54, 20053), (56, 20107), (57, 20158), (59, 20194), (62, 20239), (68, 20347), (70, 20362), (74, 20413), (75, 20416), (77, 20488), (79, 20524), (80, 20584), (81, 20590),

Gene: Licorice\_27 Start: 19861, Stop: 21918, Start Num: 2

Candidate Starts for Licorice\_27:

(Start: 2 @19861 has 195 MA's), (5, 19969), (6, 19993), (10, 20071), (13, 20212), (14, 20242), (15, 20269), (16, 20284), (20, 20377), (26, 20635), (32, 20827), (38, 20971), (39, 20974), (43, 21010), (50, 21139), (54, 21304), (56, 21358), (57, 21409), (58, 21436), (59, 21445), (62, 21490), (68, 21598), (70, 21613), (74, 21664), (75, 21667), (77, 21739), (79, 21775), (80, 21835), (81, 21841),

Gene: LilBib\_26 Start: 20052, Stop: 22109, Start Num: 2

Candidate Starts for LilBib\_26:

(Start: 2 @20052 has 195 MA's), (5, 20160), (6, 20184), (10, 20262), (13, 20403), (14, 20433), (16, 20475), (20, 20568), (26, 20826), (32, 21018), (38, 21162), (39, 21165), (43, 21201), (46, 21231), (50, 21330), (54, 21495), (56, 21549), (57, 21600), (59, 21636), (62, 21681), (68, 21789), (70, 21804), (74, 21855), (75, 21858), (77, 21930), (79, 21966), (80, 22026), (81, 22032),

Gene: Lockley\_25 Start: 18795, Stop: 20852, Start Num: 2

Candidate Starts for Lockley\_25:

(Start: 2 @18795 has 195 MA's), (5, 18903), (6, 18927), (10, 19005), (13, 19146), (14, 19176), (16, 19218), (26, 19569), (32, 19761), (38, 19905), (39, 19908), (43, 19944), (46, 19974), (47, 19983), (50, 20073), (54, 20238), (56, 20292), (57, 20343), (59, 20379), (60, 20406), (62, 20424), (68, 20532), (70, 20547), (74, 20598), (75, 20601), (77, 20673), (79, 20709), (80, 20769), (81, 20775),

Gene: Lopton\_26 Start: 20219, Stop: 22276, Start Num: 2

Candidate Starts for Lopton\_26:

(Start: 2 @20219 has 195 MA's), (5, 20327), (6, 20351), (10, 20429), (13, 20570), (14, 20600), (15, 20627), (16, 20642), (26, 20993), (32, 21185), (38, 21329), (39, 21332), (43, 21368), (50, 21497), (54, 21662), (56, 21716), (57, 21767), (59, 21803), (62, 21848), (68, 21956), (70, 21971), (74, 22022), (75, 22025), (77, 22097), (79, 22133), (80, 22193), (81, 22199),

Gene: MPlant7149\_24 Start: 18429, Stop: 20486, Start Num: 2

Candidate Starts for MPlant7149\_24:

(Start: 2 @18429 has 195 MA's), (5, 18537), (6, 18561), (10, 18639), (13, 18780), (14, 18810), (15, 18837), (16, 18852), (20, 18945), (26, 19203), (32, 19395), (38, 19539), (39, 19542), (43, 19578), (46, 19608), (47, 19617), (50, 19707), (54, 19872), (56, 19926), (57, 19977), (59, 20013), (62, 20058), (68, 20166), (70, 20181), (74, 20232), (75, 20235), (77, 20307), (79, 20343), (80, 20403), (81, 20409),

Gene: Magnar\_25 Start: 18579, Stop: 20636, Start Num: 2

Candidate Starts for Magnar\_25:

(Start: 2 @18579 has 195 MA's), (5, 18687), (6, 18711), (10, 18789), (13, 18930), (14, 18960), (16, 19002), (20, 19095), (26, 19353), (32, 19545), (38, 19689), (39, 19692), (43, 19728), (46, 19758), (50, 19857), (54, 20022), (56, 20076), (57, 20127), (59, 20163), (62, 20208), (70, 20331), (74, 20382), (75, 20385), (77, 20457), (79, 20493), (80, 20553), (81, 20559),

Gene: Magnito\_24 Start: 18331, Stop: 20388, Start Num: 2

Candidate Starts for Magnito\_24:

(Start: 2 @18331 has 195 MA's), (5, 18439), (6, 18463), (10, 18541), (13, 18682), (14, 18712), (16, 18754), (20, 18847), (26, 19105), (32, 19297), (38, 19441), (39, 19444), (43, 19480), (50, 19609), (54, 19774), (56, 19828), (57, 19879), (59, 19915), (62, 19960), (68, 20068), (70, 20083), (74, 20134), (75, 20137), (77, 20209), (79, 20245), (80, 20305), (81, 20311),

Gene: Makemake\_25 Start: 20047, Stop: 22104, Start Num: 2

Candidate Starts for Makemake\_25:

(Start: 2 @20047 has 195 MA's), (5, 20155), (6, 20179), (10, 20257), (13, 20398), (14, 20428), (16, 20470), (20, 20563), (26, 20821), (32, 21013), (38, 21157), (39, 21160), (43, 21196), (50, 21325), (54, 21490), (56, 21544), (57, 21595), (59, 21631), (62, 21676), (68, 21784), (70, 21799), (74, 21850), (75, 21853), (77, 21925), (79, 21961), (80, 22021), (81, 22027),

Gene: Manatee\_26 Start: 18599, Stop: 20656, Start Num: 2

Candidate Starts for Manatee\_26:

(Start: 2 @18599 has 195 MA's), (5, 18707), (6, 18731), (10, 18809), (13, 18950), (14, 18980), (16, 19022), (26, 19373), (32, 19565), (38, 19709), (39, 19712), (43, 19748), (50, 19877), (54, 20042), (56, 20096), (57, 20147), (59, 20183), (62, 20228), (70, 20351), (74, 20402), (75, 20405), (77, 20477), (79, 20513), (80, 20573), (81, 20579),

Gene: Marcell\_25 Start: 19089, Stop: 21146, Start Num: 2

Candidate Starts for Marcell\_25:

(Start: 2 @19089 has 195 MA's), (5, 19197), (6, 19221), (10, 19299), (13, 19440), (14, 19470), (16, 19512), (20, 19605), (26, 19863), (32, 20055), (38, 20199), (39, 20202), (43, 20238), (50, 20367), (54, 20532), (56, 20586), (57, 20637), (59, 20673), (62, 20718), (70, 20841), (74, 20892), (75, 20895), (77, 20967), (79, 21003), (80, 21063), (81, 21069),

Gene: Marchy\_23 Start: 18394, Stop: 20451, Start Num: 2

Candidate Starts for Marchy\_23:

(Start: 2 @18394 has 195 MA's), (5, 18502), (6, 18526), (10, 18604), (13, 18745), (14, 18775), (15, 18802), (16, 18817), (20, 18910), (26, 19168), (32, 19360), (38, 19504), (39, 19507), (43, 19543), (46, 19573), (50, 19672), (54, 19837), (56, 19891), (57, 19942), (59, 19978), (62, 20023), (68, 20131), (70, 20146), (74, 20197), (75, 20200), (77, 20272), (79, 20308), (80, 20368), (81, 20374),

Gene: Marge\_26 Start: 19489, Stop: 21546, Start Num: 2

Candidate Starts for Marge\_26:

(Start: 2 @19489 has 195 MA's), (5, 19597), (6, 19621), (10, 19699), (13, 19840), (14, 19870), (15, 19897), (16, 19912), (20, 20005), (26, 20263), (32, 20455), (38, 20599), (39, 20602), (43, 20638), (46, 20668), (50, 20767), (54, 20932), (56, 20986), (57, 21037), (59, 21073), (62, 21118), (70, 21241), (74, 21292), (75, 21295), (77, 21367), (79, 21403), (80, 21463), (81, 21469),

Gene: Maroc7\_24 Start: 18593, Stop: 20650, Start Num: 2

Candidate Starts for Maroc7\_24:

(Start: 2 @18593 has 195 MA's), (5, 18701), (6, 18725), (10, 18803), (14, 18974), (15, 19001), (16, 19016), (20, 19109), (26, 19367), (32, 19559), (38, 19703), (39, 19706), (43, 19742), (46, 19772), (50, 19871), (54, 20036), (56, 20090), (57, 20141), (59, 20177), (62, 20222), (70, 20345), (74, 20396), (75, 20399), (77, 20471), (79, 20507), (80, 20567), (81, 20573),

Gene: Marsha\_25 Start: 19715, Stop: 21772, Start Num: 2

Candidate Starts for Marsha\_25:

(Start: 2 @19715 has 195 MA's), (5, 19823), (6, 19847), (10, 19925), (13, 20066), (14, 20096), (16, 20138), (20, 20231), (26, 20489), (32, 20681), (38, 20825), (39, 20828), (43, 20864), (46, 20894), (50, 20993), (54, 21158), (56, 21212), (57, 21263), (59, 21299), (62, 21344), (68, 21452), (70, 21467), (74, 21518), (75, 21521), (77, 21593), (79, 21629), (80, 21689), (81, 21695),

Gene: MaryBeth\_25 Start: 19001, Stop: 21058, Start Num: 2

Candidate Starts for MaryBeth\_25:

(Start: 2 @19001 has 195 MA's), (5, 19109), (6, 19133), (10, 19211), (13, 19352), (14, 19382), (16, 19424), (20, 19517), (26, 19775), (32, 19967), (38, 20111), (43, 20150), (46, 20180), (50, 20279), (54, 20444), (56, 20498), (57, 20549), (59, 20585), (62, 20630), (68, 20738), (70, 20753), (74, 20804), (75, 20807), (77, 20879), (79, 20915), (80, 20975), (81, 20981),

Gene: McGuire\_26 Start: 18891, Stop: 20948, Start Num: 2

Candidate Starts for McGuire\_26:

(Start: 2 @18891 has 195 MA's), (5, 18999), (6, 19023), (10, 19101), (13, 19242), (14, 19272), (16, 19314), (26, 19665), (32, 19857), (38, 20001), (39, 20004), (43, 20040), (50, 20169), (54, 20334), (56, 20388), (57, 20439), (59, 20475), (62, 20520), (68, 20628), (70, 20643), (74, 20694), (75, 20697), (77, 20769), (79, 20805), (80, 20865), (81, 20871),

Gene: MetalQZJ\_25 Start: 19001, Stop: 21058, Start Num: 2

Candidate Starts for MetalQZJ\_25:

(Start: 2 @19001 has 195 MA's), (5, 19109), (6, 19133), (10, 19211), (13, 19352), (14, 19382), (16, 19424), (20, 19517), (26, 19775), (32, 19967), (38, 20111), (43, 20150), (46, 20180), (50, 20279), (54, 20444), (56, 20498), (57, 20549), (59, 20585), (62, 20630), (68, 20738), (70, 20753), (74, 20804), (75, 20807), (77, 20879), (79, 20915), (80, 20975), (81, 20981),

Gene: Michley\_25 Start: 18746, Stop: 20803, Start Num: 2

Candidate Starts for Michley\_25:

(Start: 2 @18746 has 195 MA's), (5, 18854), (6, 18878), (10, 18956), (13, 19097), (14, 19127), (16, 19169), (26, 19520), (32, 19712), (38, 19856), (39, 19859), (43, 19895), (46, 19925), (47, 19934), (50, 20024), (54, 20189), (56, 20243), (57, 20294), (59, 20330), (62, 20375), (68, 20483), (70, 20498), (74, 20549), (75, 20552), (77, 20624), (79, 20660), (80, 20720), (81, 20726),

Gene: Molly\_26 Start: 18632, Stop: 20689, Start Num: 2

Candidate Starts for Molly\_26:

(Start: 2 @18632 has 195 MA's), (5, 18740), (6, 18764), (10, 18842), (14, 19013), (15, 19040), (16, 19055), (20, 19148), (26, 19406), (32, 19598), (38, 19742), (39, 19745), (43, 19781), (50, 19910), (54, 20075), (56, 20129), (57, 20180), (59, 20216), (62, 20261), (68, 20369), (70, 20384), (74, 20435), (75, 20438), (77, 20510), (79, 20546), (80, 20606), (81, 20612),

Gene: Monet\_27 Start: 20117, Stop: 22174, Start Num: 2

Candidate Starts for Monet\_27:

(Start: 2 @20117 has 195 MA's), (5, 20225), (6, 20249), (10, 20327), (13, 20468), (14, 20498), (16, 20540), (20, 20633), (26, 20891), (32, 21083), (38, 21227), (39, 21230), (43, 21266), (46, 21296), (50, 21395), (54, 21560), (56, 21614), (57, 21665), (59, 21701), (62, 21746), (68, 21854), (70, 21869), (74, 21920), (75, 21923), (77, 21995), (79, 22031), (80, 22091), (81, 22097),

Gene: Moose\_24 Start: 18858, Stop: 20915, Start Num: 2

Candidate Starts for Moose\_24:

(Start: 2 @18858 has 195 MA's), (5, 18966), (6, 18990), (10, 19068), (13, 19209), (14, 19239), (16, 19281), (26, 19632), (32, 19824), (38, 19968), (39, 19971), (43, 20007), (50, 20136), (54, 20301), (56, 20355), (57, 20406), (59, 20442), (62, 20487), (70, 20610), (74, 20661), (75, 20664), (77, 20736), (79, 20772), (80, 20832), (81, 20838),

Gene: MrGordo\_25 Start: 18559, Stop: 20616, Start Num: 2

Candidate Starts for MrGordo\_25:

(Start: 2 @18559 has 195 MA's), (5, 18667), (6, 18691), (10, 18769), (13, 18910), (14, 18940), (15, 18967), (16, 18982), (26, 19333), (32, 19525), (38, 19669), (39, 19672), (43, 19708), (46, 19738), (50, 19837), (54, 20002), (56, 20056), (57, 20107), (59, 20143), (62, 20188), (68, 20296), (70, 20311), (74, 20362), (75, 20365), (77, 20437), (79, 20473), (80, 20533), (81, 20539),

Gene: Mryolo\_24 Start: 18618, Stop: 20675, Start Num: 2

Candidate Starts for Mryolo\_24:

(Start: 2 @18618 has 195 MA's), (5, 18726), (6, 18750), (10, 18828), (13, 18969), (14, 18999), (16, 19041), (20, 19134), (26, 19392), (32, 19584), (38, 19728), (39, 19731), (43, 19767), (46, 19797), (50, 19896), (54, 20061), (56, 20115), (57, 20166), (59, 20202), (62, 20247), (70, 20370), (74, 20421), (75, 20424), (77, 20496), (79, 20532), (80, 20592), (81, 20598),

Gene: Mule\_25 Start: 18905, Stop: 20962, Start Num: 2

Candidate Starts for Mule\_25:

(Start: 2 @18905 has 195 MA's), (5, 19013), (6, 19037), (10, 19115), (13, 19256), (14, 19286), (16, 19328), (20, 19421), (26, 19679), (32, 19871), (38, 20015), (39, 20018), (43, 20054), (46, 20084), (50, 20183), (54, 20348), (56, 20402), (57, 20453), (59, 20489), (62, 20534), (68, 20642), (70, 20657), (74, 20708), (75, 20711), (77, 20783), (79, 20819), (80, 20879), (81, 20885),

Gene: Museum\_27 Start: 18915, Stop: 20972, Start Num: 2

Candidate Starts for Museum\_27:

(Start: 2 @18915 has 195 MA's), (5, 19023), (6, 19047), (10, 19125), (13, 19266), (14, 19296), (16, 19338), (20, 19431), (26, 19689), (32, 19881), (38, 20025), (39, 20028), (43, 20064), (50, 20193), (54, 20358), (56, 20412), (57, 20463), (59, 20499), (70, 20667), (74, 20718), (75, 20721), (77, 20793), (79, 20829), (80, 20889), (81, 20895),

Gene: NEHalo\_25 Start: 18653, Stop: 20710, Start Num: 2

Candidate Starts for NEHalo\_25:

(Start: 2 @18653 has 195 MA's), (5, 18761), (6, 18785), (10, 18863), (13, 19004), (14, 19034), (16, 19076), (20, 19169), (26, 19427), (32, 19619), (38, 19763), (39, 19766), (43, 19802), (46, 19832), (47, 19841), (50, 19931), (54, 20096), (56, 20150), (57, 20201), (59, 20237), (60, 20264), (62, 20282), (68, 20390), (70, 20405), (74, 20456), (75, 20459), (77, 20531), (79, 20567), (80, 20627), (81, 20633),

Gene: Naira\_26 Start: 20534, Stop: 22591, Start Num: 2

Candidate Starts for Naira\_26:

(Start: 2 @20534 has 195 MA's), (5, 20642), (6, 20666), (10, 20744), (13, 20885), (14, 20915), (16, 20957), (20, 21050), (26, 21308), (32, 21500), (38, 21644), (39, 21647), (43, 21683), (50, 21812), (54, 21977), (56, 22031), (57, 22082), (59, 22118), (62, 22163), (68, 22271), (70, 22286), (74, 22337), (75, 22340), (77, 22412), (79, 22448), (80, 22508), (81, 22514),

Gene: Nerujay\_26 Start: 19321, Stop: 21378, Start Num: 2

Candidate Starts for Nerujay\_26:



(Start: 2 @19321 has 195 MA's), (5, 19429), (6, 19453), (10, 19531), (14, 19702), (15, 19729), (16, 19744), (26, 20095), (32, 20287), (38, 20431), (39, 20434), (43, 20470), (46, 20500), (50, 20599), (54, 20764), (56, 20818), (57, 20869), (59, 20905), (62, 20950), (68, 21058), (70, 21073), (74, 21124), (75, 21127), (77, 21199), (79, 21235), (80, 21295), (81, 21301),

Gene: Nhonho\_25 Start: 19072, Stop: 21129, Start Num: 2

Candidate Starts for Nhonho\_25:

(Start: 2 @19072 has 195 MA's), (5, 19180), (6, 19204), (10, 19282), (13, 19423), (14, 19453), (15, 19480), (16, 19495), (20, 19588), (26, 19846), (32, 20038), (38, 20182), (39, 20185), (43, 20221), (50, 20350), (54, 20515), (56, 20569), (57, 20620), (59, 20656), (62, 20701), (68, 20809), (70, 20824), (74, 20875), (75, 20878), (77, 20950), (79, 20986), (80, 21046), (81, 21052),

Gene: Niza\_27 Start: 19914, Stop: 21971, Start Num: 2

Candidate Starts for Niza\_27:

(Start: 2 @19914 has 195 MA's), (5, 20022), (6, 20046), (10, 20124), (13, 20265), (14, 20295), (16, 20337), (20, 20430), (26, 20688), (32, 20880), (38, 21024), (39, 21027), (43, 21063), (50, 21192), (54, 21357), (56, 21411), (57, 21462), (59, 21498), (62, 21543), (68, 21651), (70, 21666), (74, 21717), (75, 21720), (77, 21792), (79, 21828), (80, 21888), (81, 21894),

Gene: Norz\_27 Start: 19750, Stop: 21807, Start Num: 2

Candidate Starts for Norz\_27:

(Start: 2 @19750 has 195 MA's), (5, 19858), (6, 19882), (10, 19960), (13, 20101), (14, 20131), (16, 20173), (20, 20266), (26, 20524), (32, 20716), (38, 20860), (39, 20863), (43, 20899), (46, 20929), (50, 21028), (56, 21247), (57, 21298), (59, 21334), (62, 21379), (68, 21487), (70, 21502), (74, 21553), (75, 21556), (77, 21628), (79, 21664), (80, 21724), (81, 21730),

Gene: Ohno789\_25 Start: 18714, Stop: 20771, Start Num: 2

Candidate Starts for Ohno789\_25:

(Start: 2 @18714 has 195 MA's), (5, 18822), (6, 18846), (10, 18924), (13, 19065), (14, 19095), (16, 19137), (20, 19230), (26, 19488), (32, 19680), (38, 19824), (39, 19827), (43, 19863), (46, 19893), (50, 19992), (54, 20157), (56, 20211), (57, 20262), (59, 20298), (62, 20343), (68, 20451), (70, 20466), (74, 20517), (75, 20520), (77, 20592), (79, 20628), (80, 20688), (81, 20694),

Gene: Oogway\_24 Start: 18836, Stop: 20893, Start Num: 2

Candidate Starts for Oogway\_24:

(Start: 2 @18836 has 195 MA's), (5, 18944), (6, 18968), (10, 19046), (14, 19217), (15, 19244), (16, 19259), (26, 19610), (32, 19802), (38, 19946), (39, 19949), (43, 19985), (46, 20015), (47, 20024), (50, 20114), (54, 20279), (56, 20333), (57, 20384), (59, 20420), (62, 20465), (68, 20573), (70, 20588), (74, 20639), (75, 20642), (77, 20714), (79, 20750), (80, 20810), (81, 20816),

Gene: PSullivan\_26 Start: 19327, Stop: 21384, Start Num: 2

Candidate Starts for PSullivan\_26:

(Start: 2 @19327 has 195 MA's), (5, 19435), (6, 19459), (10, 19537), (14, 19708), (15, 19735), (16, 19750), (20, 19843), (26, 20101), (32, 20293), (38, 20437), (39, 20440), (43, 20476), (49, 20548), (50, 20605), (54, 20770), (56, 20824), (57, 20875), (59, 20911), (62, 20956), (68, 21064), (70, 21079), (74, 21130), (75, 21133), (77, 21205), (79, 21241), (80, 21301), (81, 21307),

Gene: PacerPaul\_25 Start: 19137, Stop: 21194, Start Num: 2

Candidate Starts for PacerPaul\_25:

(Start: 2 @19137 has 195 MA's), (5, 19245), (6, 19269), (10, 19347), (13, 19488), (14, 19518), (15, 19545), (16, 19560), (26, 19911), (32, 20103), (38, 20247), (39, 20250), (43, 20286), (50, 20415), (54, 20580), (56, 20634), (57, 20685), (59, 20721), (62, 20766), (70, 20889), (74, 20940), (75, 20943), (77, 21015), (79, 21051), (80, 21111), (81, 21117),

Gene: Papez\_27 Start: 20552, Stop: 22609, Start Num: 2

Candidate Starts for Papez\_27:

(Start: 2 @20552 has 195 MA's), (5, 20660), (6, 20684), (10, 20762), (13, 20903), (14, 20933), (16, 20975), (20, 21068), (26, 21326), (32, 21518), (38, 21662), (39, 21665), (43, 21701), (46, 21731), (50, 21830), (56, 22049), (57, 22100), (59, 22136), (62, 22181), (68, 22289), (70, 22304), (74, 22355), (75, 22358), (77, 22430), (79, 22466), (80, 22526), (81, 22532),

Gene: Paphu\_24 Start: 18650, Stop: 20707, Start Num: 2

Candidate Starts for Paphu\_24:

(Start: 2 @18650 has 195 MA's), (5, 18758), (6, 18782), (10, 18860), (13, 19001), (14, 19031), (15, 19058), (16, 19073), (20, 19166), (26, 19424), (32, 19616), (38, 19760), (39, 19763), (43, 19799), (50, 19928), (54, 20093), (56, 20147), (57, 20198), (59, 20234), (62, 20279), (70, 20402), (74, 20453), (75, 20456), (77, 20528), (79, 20564), (80, 20624), (81, 20630),

Gene: Paraselene\_24 Start: 19021, Stop: 21078, Start Num: 2

Candidate Starts for Paraselene\_24:

(Start: 2 @19021 has 195 MA's), (5, 19129), (6, 19153), (10, 19231), (14, 19402), (15, 19429), (16, 19444), (26, 19795), (32, 19987), (38, 20131), (39, 20134), (43, 20170), (50, 20299), (54, 20464), (56, 20518), (57, 20569), (59, 20605), (60, 20632), (62, 20650), (70, 20773), (74, 20824), (75, 20827), (77, 20899), (79, 20935), (80, 20995), (81, 21001),

Gene: Pari\_26 Start: 18588, Stop: 20645, Start Num: 2

Candidate Starts for Pari\_26:

(Start: 2 @18588 has 195 MA's), (5, 18696), (6, 18720), (10, 18798), (13, 18939), (14, 18969), (16, 19011), (26, 19362), (32, 19554), (38, 19698), (39, 19701), (43, 19737), (46, 19767), (50, 19866), (54, 20031), (56, 20085), (57, 20136), (59, 20172), (60, 20199), (62, 20217), (68, 20325), (70, 20340), (74, 20391), (75, 20394), (77, 20466), (79, 20502), (80, 20562), (81, 20568),

Gene: Parliament\_24 Start: 18945, Stop: 21002, Start Num: 2

Candidate Starts for Parliament\_24:

(Start: 2 @18945 has 195 MA's), (5, 19053), (6, 19077), (10, 19155), (13, 19296), (14, 19326), (16, 19368), (26, 19719), (32, 19911), (38, 20055), (39, 20058), (43, 20094), (46, 20124), (47, 20133), (50, 20223), (54, 20388), (56, 20442), (57, 20493), (59, 20529), (60, 20556), (62, 20574), (68, 20682), (70, 20697), (74, 20748), (75, 20751), (77, 20823), (79, 20859), (80, 20919), (81, 20925),

Gene: PascalRango\_24 Start: 18638, Stop: 20695, Start Num: 2

Candidate Starts for PascalRango\_24:

(Start: 2 @18638 has 195 MA's), (5, 18746), (6, 18770), (10, 18848), (13, 18989), (14, 19019), (16, 19061), (20, 19154), (26, 19412), (32, 19604), (38, 19748), (39, 19751), (43, 19787), (46, 19817), (50, 19916), (54, 20081), (56, 20135), (57, 20186), (59, 20222), (68, 20375), (70, 20390), (74, 20441), (75, 20444), (77, 20516), (79, 20552), (80, 20612), (81, 20618),

Gene: PattyP\_27 Start: 19124, Stop: 21181, Start Num: 2

Candidate Starts for PattyP\_27:

(Start: 2 @19124 has 195 MA's), (5, 19232), (6, 19256), (10, 19334), (13, 19475), (14, 19505), (16, 19547), (20, 19640), (26, 19898), (32, 20090), (38, 20234), (39, 20237), (43, 20273), (50, 20402), (54, 20567), (56, 20621), (57, 20672), (59, 20708), (70, 20876), (74, 20927), (75, 20930), (77, 21002), (79, 21038), (80, 21098), (81, 21104),

Gene: Payneful\_24 Start: 18394, Stop: 20451, Start Num: 2

Candidate Starts for Payneful\_24:

(Start: 2 @18394 has 195 MA's), (5, 18502), (6, 18526), (10, 18604), (13, 18745), (14, 18775), (15, 18802), (16, 18817), (20, 18910), (26, 19168), (32, 19360), (38, 19504), (39, 19507), (43, 19543), (46, 19573), (50, 19672), (54, 19837), (56, 19891), (57, 19942), (59, 19978), (62, 20023), (68, 20131), (70, 20146), (74, 20197), (75, 20200), (77, 20272), (79, 20308), (80, 20368), (81, 20374),

Gene: Pelly\_26 Start: 19543, Stop: 21600, Start Num: 2

Candidate Starts for Pelly\_26:

(Start: 2 @19543 has 195 MA's), (5, 19651), (6, 19675), (10, 19753), (14, 19924), (16, 19966), (20, 20059), (26, 20317), (32, 20509), (38, 20653), (39, 20656), (43, 20692), (50, 20821), (54, 20986), (56, 21040), (57, 21091), (59, 21127), (62, 21172), (68, 21280), (70, 21295), (74, 21346), (75, 21349), (77, 21421), (79, 21457), (80, 21517), (81, 21523),

Gene: Pepe\_26 Start: 19725, Stop: 21782, Start Num: 2

Candidate Starts for Pepe\_26:

(Start: 2 @19725 has 195 MA's), (5, 19833), (6, 19857), (10, 19935), (13, 20076), (14, 20106), (16, 20148), (26, 20499), (32, 20691), (38, 20835), (39, 20838), (43, 20874), (46, 20904), (50, 21003), (54, 21168), (56, 21222), (57, 21273), (59, 21309), (62, 21354), (68, 21462), (70, 21477), (74, 21528), (75, 21531), (77, 21603), (79, 21639), (80, 21699), (81, 21705),

Gene: Perseus\_26 Start: 19487, Stop: 21544, Start Num: 2

Candidate Starts for Perseus\_26:

(Start: 2 @19487 has 195 MA's), (5, 19595), (6, 19619), (10, 19697), (13, 19838), (14, 19868), (15, 19895), (16, 19910), (20, 20003), (26, 20261), (32, 20453), (38, 20597), (39, 20600), (43, 20636), (50, 20765), (54, 20930), (56, 20984), (57, 21035), (59, 21071), (62, 21116), (68, 21224), (70, 21239), (74, 21290), (75, 21293), (77, 21365), (79, 21401), (80, 21461), (81, 21467),

Gene: Peterson\_28 Start: 20753, Stop: 22810, Start Num: 2

Candidate Starts for Peterson\_28:

(Start: 2 @20753 has 195 MA's), (5, 20861), (6, 20885), (10, 20963), (13, 21104), (14, 21134), (16, 21176), (26, 21527), (32, 21719), (38, 21863), (39, 21866), (43, 21902), (50, 22031), (54, 22196), (56, 22250), (57, 22301), (59, 22337), (62, 22382), (70, 22505), (74, 22556), (75, 22559), (77, 22631), (79, 22667), (80, 22727), (81, 22733),

Gene: Petp2012\_27 Start: 19795, Stop: 21852, Start Num: 2

Candidate Starts for Petp2012\_27:

(Start: 2 @19795 has 195 MA's), (5, 19903), (6, 19927), (10, 20005), (14, 20176), (15, 20203), (16, 20218), (20, 20311), (26, 20569), (32, 20761), (38, 20905), (39, 20908), (43, 20944), (50, 21073), (54, 21238), (56, 21292), (57, 21343), (59, 21379), (62, 21424), (70, 21547), (74, 21598), (75, 21601), (77, 21673), (79, 21709), (80, 21769), (81, 21775),

Gene: Petruccio\_26 Start: 19316, Stop: 21373, Start Num: 2

Candidate Starts for Petruccio\_26:

(Start: 2 @19316 has 195 MA's), (5, 19424), (6, 19448), (10, 19526), (13, 19667), (14, 19697), (15, 19724), (16, 19739), (20, 19832), (26, 20090), (32, 20282), (38, 20426), (39, 20429), (43, 20465), (46, 20495), (50, 20594), (54, 20759), (56, 20813), (57, 20864), (59, 20900), (62, 20945), (68, 21053), (70, 21068), (74, 21119), (75, 21122), (77, 21194), (79, 21230), (80, 21290), (81, 21296),

Gene: PherrisBueller\_26 Start: 18730, Stop: 20787, Start Num: 2

Candidate Starts for PherrisBueller\_26:

(Start: 2 @18730 has 195 MA's), (5, 18838), (6, 18862), (10, 18940), (14, 19111), (16, 19153), (26, 19504), (32, 19696), (38, 19840), (39, 19843), (43, 19879), (46, 19909), (50, 20008), (54, 20173), (56, 20227), (57, 20278), (59, 20314), (62, 20359), (68, 20467), (70, 20482), (74, 20533), (75, 20536), (77, 20608), (79, 20644), (80, 20704), (81, 20710),

Gene: PhrostyMug\_25 Start: 18902, Stop: 20959, Start Num: 2

Candidate Starts for PhrostyMug\_25:

(Start: 2 @18902 has 195 MA's), (5, 19010), (6, 19034), (10, 19112), (13, 19253), (14, 19283), (16, 19325), (20, 19418), (26, 19676), (32, 19868), (38, 20012), (39, 20015), (43, 20051), (46, 20081), (50, 20180), (54, 20345), (56, 20399), (57, 20450), (59, 20486), (62, 20531), (68, 20639), (70, 20654), (74, 20705), (75, 20708), (77, 20780), (79, 20816), (80, 20876), (81, 20882),

Gene: PinkPlastic\_24 Start: 18664, Stop: 20721, Start Num: 2

Candidate Starts for PinkPlastic\_24:

(Start: 2 @18664 has 195 MA's), (5, 18772), (6, 18796), (10, 18874), (13, 19015), (14, 19045), (16, 19087), (20, 19180), (26, 19438), (32, 19630), (38, 19774), (39, 19777), (43, 19813), (46, 19843), (50, 19942), (54, 20107), (56, 20161), (57, 20212), (59, 20248), (62, 20293), (68, 20401), (70, 20416), (74, 20467), (75, 20470), (77, 20542), (79, 20578), (80, 20638), (81, 20644),

Gene: Pinto\_28 Start: 19455, Stop: 21512, Start Num: 2

Candidate Starts for Pinto\_28:

(Start: 2 @19455 has 195 MA's), (5, 19563), (6, 19587), (10, 19665), (13, 19806), (14, 19836), (16, 19878), (20, 19971), (26, 20229), (32, 20421), (38, 20565), (39, 20568), (43, 20604), (46, 20634), (50, 20733), (54, 20898), (56, 20952), (57, 21003), (59, 21039), (62, 21084), (68, 21192), (70, 21207), (74, 21258), (75, 21261), (77, 21333), (79, 21369), (80, 21429), (81, 21435),

Gene: Pippin\_27 Start: 19228, Stop: 21285, Start Num: 2

Candidate Starts for Pippin\_27:

(Start: 2 @19228 has 195 MA's), (5, 19336), (6, 19360), (10, 19438), (13, 19579), (14, 19609), (16, 19651), (20, 19744), (26, 20002), (32, 20194), (38, 20338), (39, 20341), (43, 20377), (46, 20407), (50, 20506), (54, 20671), (56, 20725), (57, 20776), (59, 20812), (62, 20857), (68, 20965), (70, 20980), (74, 21031), (75, 21034), (77, 21106), (79, 21142), (80, 21202), (81, 21208),

Gene: Pita2\_27 Start: 19327, Stop: 21384, Start Num: 2

Candidate Starts for Pita2\_27:

(Start: 2 @19327 has 195 MA's), (5, 19435), (6, 19459), (10, 19537), (14, 19708), (15, 19735), (16, 19750), (20, 19843), (26, 20101), (32, 20293), (38, 20437), (39, 20440), (43, 20476), (49, 20548), (50, 20605), (54, 20770), (56, 20824), (57, 20875), (59, 20911), (62, 20956), (68, 21064), (70, 21079), (74, 21130), (75, 21133), (77, 21205), (79, 21241), (80, 21301), (81, 21307),

Gene: QTRlifeCrisis\_28 Start: 19484, Stop: 21541, Start Num: 2

Candidate Starts for QTRlifeCrisis\_28:

(Start: 2 @19484 has 195 MA's), (5, 19592), (6, 19616), (10, 19694), (13, 19835), (14, 19865), (15, 19892), (16, 19907), (20, 20000), (26, 20258), (32, 20450), (38, 20594), (39, 20597), (43, 20633), (50, 20762), (54, 20927), (56, 20981), (57, 21032), (59, 21068), (62, 21113), (68, 21221), (70, 21236), (74, 21287), (75, 21290), (77, 21362), (79, 21398), (80, 21458), (81, 21464),

Gene: Rajelicia\_25 Start: 18623, Stop: 20680, Start Num: 2

Candidate Starts for Rajelicia\_25:

(Start: 2 @18623 has 195 MA's), (5, 18731), (6, 18755), (10, 18833), (13, 18974), (14, 19004), (16, 19046), (26, 19397), (32, 19589), (38, 19733), (39, 19736), (43, 19772), (50, 19901), (54, 20066), (56, 20120), (57, 20171), (59, 20207), (60, 20234), (62, 20252), (68, 20360), (70, 20375), (74, 20426), (75, 20429), (77, 20501), (79, 20537), (80, 20597), (81, 20603),

Gene: Rhynn\_25 Start: 18911, Stop: 20968, Start Num: 2

Candidate Starts for Rhynn\_25:

(Start: 2 @18911 has 195 MA's), (5, 19019), (6, 19043), (10, 19121), (13, 19262), (14, 19292), (16, 19334), (20, 19427), (26, 19685), (32, 19877), (38, 20021), (39, 20024), (43, 20060), (46, 20090), (47, 20099), (50, 20189), (54, 20354), (56, 20408), (57, 20459), (59, 20495), (62, 20540), (68, 20648), (70, 20663), (74, 20714), (75, 20717), (77, 20789), (79, 20825), (80, 20885), (81, 20891),

Gene: RidgeCB\_25 Start: 18686, Stop: 20743, Start Num: 2

Candidate Starts for RidgeCB\_25:

(Start: 2 @18686 has 195 MA's), (5, 18794), (6, 18818), (10, 18896), (13, 19037), (14, 19067), (15, 19094), (16, 19109), (20, 19202), (26, 19460), (32, 19652), (38, 19796), (39, 19799), (43, 19835), (46, 19865), (50, 19964), (54, 20129), (56, 20183), (57, 20234), (59, 20270), (62, 20315), (70, 20438), (74, 20489), (75, 20492), (77, 20564), (79, 20600), (80, 20660), (81, 20666),

Gene: Ringer\_25 Start: 19585, Stop: 21642, Start Num: 2

Candidate Starts for Ringer\_25:

(Start: 2 @19585 has 195 MA's), (5, 19693), (6, 19717), (10, 19795), (13, 19936), (14, 19966), (16, 20008), (20, 20101), (26, 20359), (32, 20551), (38, 20695), (39, 20698), (43, 20734), (46, 20764), (50, 20863), (54, 21028), (56, 21082), (57, 21133), (59, 21169), (62, 21214), (68, 21322), (70, 21337), (74, 21388), (75, 21391), (77, 21463), (79, 21499), (80, 21559), (81, 21565),

Gene: Rohr\_26 Start: 19108, Stop: 21165, Start Num: 2

Candidate Starts for Rohr\_26:

(Start: 2 @19108 has 195 MA's), (5, 19216), (6, 19240), (10, 19318), (13, 19459), (14, 19489), (16, 19531), (20, 19624), (26, 19882), (32, 20074), (38, 20218), (39, 20221), (43, 20257), (46, 20287), (50, 20386), (54, 20551), (56, 20605), (57, 20656), (59, 20692), (62, 20737), (68, 20845), (70, 20860), (74, 20911), (75, 20914), (77, 20986), (79, 21022), (80, 21082), (81, 21088),

Gene: Rubeus\_26 Start: 18946, Stop: 21003, Start Num: 2

Candidate Starts for Rubeus\_26:

(Start: 2 @18946 has 195 MA's), (5, 19054), (6, 19078), (10, 19156), (13, 19297), (14, 19327), (15, 19354), (16, 19369), (20, 19462), (26, 19720), (32, 19912), (38, 20056), (39, 20059), (43, 20095), (50, 20224), (54, 20389), (56, 20443), (57, 20494), (59, 20530), (60, 20557), (62, 20575), (70, 20698), (74, 20749), (75, 20752), (77, 20824), (79, 20860), (80, 20920), (81, 20926),

Gene: Rufus\_26 Start: 19270, Stop: 21327, Start Num: 2

Candidate Starts for Rufus\_26:

(Start: 2 @19270 has 195 MA's), (5, 19378), (6, 19402), (10, 19480), (13, 19621), (14, 19651), (15, 19678), (16, 19693), (20, 19786), (26, 20044), (32, 20236), (38, 20380), (39, 20383), (43, 20419), (49, 20491), (50, 20548), (54, 20713), (56, 20767), (57, 20818), (59, 20854), (60, 20881), (62, 20899), (68, 21007), (70, 21022), (74, 21073), (75, 21076), (77, 21148), (79, 21184), (80, 21244), (81, 21250),

Gene: Ruotula\_24 Start: 19474, Stop: 21531, Start Num: 2

Candidate Starts for Ruotula\_24:

(Start: 2 @19474 has 195 MA's), (5, 19582), (6, 19606), (10, 19684), (13, 19825), (14, 19855), (16, 19897), (26, 20248), (32, 20440), (38, 20584), (39, 20587), (43, 20623), (50, 20752), (54, 20917), (56, 20971), (57, 21022), (59, 21058), (62, 21103), (70, 21226), (74, 21277), (75, 21280), (77, 21352), (79, 21388), (80, 21448), (81, 21454),

Gene: Rutherferd\_27 Start: 19517, Stop: 21574, Start Num: 2

Candidate Starts for Rutherferd\_27:

(Start: 2 @19517 has 195 MA's), (5, 19625), (6, 19649), (10, 19727), (13, 19868), (14, 19898), (16, 19940), (20, 20033), (26, 20291), (32, 20483), (38, 20627), (39, 20630), (43, 20666), (50, 20795), (54, 20960), (56, 21014), (57, 21065), (59, 21101), (62, 21146), (68, 21254), (70, 21269), (74, 21320), (75, 21323), (77, 21395), (79, 21431), (80, 21491), (81, 21497),

Gene: STLscum\_26 Start: 19677, Stop: 21734, Start Num: 2

Candidate Starts for STLscum\_26:

(Start: 2 @19677 has 195 MA's), (5, 19785), (6, 19809), (10, 19887), (13, 20028), (14, 20058), (15, 20085), (16, 20100), (20, 20193), (26, 20451), (32, 20643), (38, 20787), (39, 20790), (43, 20826), (46, 20856), (50, 20955), (54, 21120), (56, 21174), (57, 21225), (59, 21261), (60, 21288), (62, 21306), (68, 21414), (70, 21429), (74, 21480), (75, 21483), (77, 21555), (79, 21591), (80, 21651), (81, 21657),

Gene: Sagefire\_26 Start: 19710, Stop: 21767, Start Num: 2

Candidate Starts for Sagefire\_26:

(Start: 2 @19710 has 195 MA's), (5, 19818), (6, 19842), (10, 19920), (14, 20091), (15, 20118), (16, 20133), (26, 20484), (32, 20676), (38, 20820), (39, 20823), (43, 20859), (46, 20889), (50, 20988), (54, 21153), (56, 21207), (57, 21258), (59, 21294), (62, 21339), (68, 21447), (70, 21462), (74, 21513), (75, 21516), (77, 21588), (79, 21624), (80, 21684), (81, 21690),

Gene: Sandaddy\_24 Start: 18823, Stop: 20880, Start Num: 2

Candidate Starts for Sandaddy\_24:

(Start: 2 @18823 has 195 MA's), (5, 18931), (6, 18955), (10, 19033), (13, 19174), (14, 19204), (16, 19246), (20, 19339), (26, 19597), (32, 19789), (38, 19933), (39, 19936), (43, 19972), (46, 20002), (50, 20101), (54, 20266), (56, 20320), (57, 20371), (59, 20407), (62, 20452), (68, 20560), (70, 20575), (74, 20626), (75, 20629), (77, 20701), (79, 20737), (80, 20797), (81, 20803),

Gene: SarFire\_25 Start: 18963, Stop: 21020, Start Num: 2

Candidate Starts for SarFire\_25:

(Start: 2 @18963 has 195 MA's), (5, 19071), (6, 19095), (10, 19173), (13, 19314), (14, 19344), (16, 19386), (26, 19737), (32, 19929), (38, 20073), (43, 20112), (46, 20142), (47, 20151), (50, 20241), (54, 20406), (56, 20460), (57, 20511), (59, 20547), (60, 20574), (62, 20592), (70, 20715), (74, 20766), (75, 20769), (77, 20841), (79, 20877), (80, 20937), (81, 20943),

Gene: Scowl\_26 Start: 19545, Stop: 21602, Start Num: 2

Candidate Starts for Scowl\_26:

(Start: 2 @19545 has 195 MA's), (5, 19653), (6, 19677), (10, 19755), (13, 19896), (14, 19926), (15, 19953), (16, 19968), (20, 20061), (26, 20319), (32, 20511), (38, 20655), (39, 20658), (43, 20694), (46, 20724), (50, 20823), (54, 20988), (56, 21042), (57, 21093), (59, 21129), (62, 21174), (68, 21282), (70, 21297), (74, 21348), (75, 21351), (77, 21423), (79, 21459), (80, 21519), (81, 21525),

Gene: Seabiscuit\_27 Start: 18891, Stop: 20948, Start Num: 2

Candidate Starts for Seabiscuit\_27:

(Start: 2 @18891 has 195 MA's), (5, 18999), (6, 19023), (10, 19101), (13, 19242), (14, 19272), (15, 19299), (16, 19314), (20, 19407), (26, 19665), (32, 19857), (38, 20001), (39, 20004), (43, 20040), (46, 20070), (50, 20169), (54, 20334), (56, 20388), (57, 20439), (59, 20475), (62, 20520), (68, 20628), (70, 20643), (74, 20694), (75, 20697), (77, 20769), (79, 20805), (80, 20865), (81, 20871),

Gene: Seanderson\_26 Start: 19343, Stop: 21400, Start Num: 2

Candidate Starts for Seanderson\_26:

(Start: 2 @19343 has 195 MA's), (5, 19451), (6, 19475), (10, 19553), (13, 19694), (14, 19724), (16, 19766), (20, 19859), (26, 20117), (32, 20309), (38, 20453), (39, 20456), (43, 20492), (50, 20621), (54, 20786), (56, 20840), (57, 20891), (59, 20927), (62, 20972), (68, 21080), (70, 21095), (74, 21146), (75, 21149), (77, 21221), (79, 21257), (80, 21317), (81, 21323),

Gene: Sheen\_28 Start: 21003, Stop: 22982, Start Num: 3

Candidate Starts for Sheen\_28:

(Start: 3 @21003 has 4 MA's), (4, 21081), (7, 21132), (8, 21171), (9, 21198), (10, 21201), (11, 21243), (16, 21411), (17, 21414), (24, 21705), (26, 21765), (27, 21810), (28, 21906), (31, 21954), (32, 21957), (33, 21972), (34, 21990), (36, 22032), (37, 22089), (41, 22119), (50, 22269), (52, 22314), (53, 22341), (57, 22470), (61, 22548), (63, 22593), (64, 22608), (65, 22632), (69, 22668), (70, 22677), (76, 22773), (78, 22827), (79, 22839), (82, 22929), (83, 22932), (85, 22974),

Gene: ShortQueendom\_24 Start: 18783, Stop: 20840, Start Num: 2

Candidate Starts for ShortQueendom\_24:

(Start: 2 @18783 has 195 MA's), (5, 18891), (6, 18915), (10, 18993), (13, 19134), (14, 19164), (16, 19206), (20, 19299), (26, 19557), (32, 19749), (38, 19893), (39, 19896), (43, 19932), (46, 19962), (50, 20061), (54, 20226), (56, 20280), (57, 20331), (59, 20367), (62, 20412), (68, 20520), (70, 20535), (74, 20586), (75, 20589), (77, 20661), (79, 20697), (80, 20757), (81, 20763),

Gene: Sibs6\_27 Start: 19428, Stop: 21485, Start Num: 2

Candidate Starts for Sibs6\_27:

(Start: 2 @19428 has 195 MA's), (5, 19536), (6, 19560), (10, 19638), (13, 19779), (14, 19809), (15, 19836), (16, 19851), (20, 19944), (26, 20202), (32, 20394), (38, 20538), (39, 20541), (43, 20577), (50, 20706), (54, 20871), (56, 20925), (57, 20976), (59, 21012), (70, 21180), (74, 21231), (75, 21234), (77, 21306), (79, 21342), (80, 21402), (81, 21408),

Gene: SkiPole\_27 Start: 19189, Stop: 21246, Start Num: 2

Candidate Starts for SkiPole\_27:

(Start: 2 @19189 has 195 MA's), (5, 19297), (6, 19321), (10, 19399), (13, 19540), (14, 19570), (16, 19612), (20, 19705), (26, 19963), (32, 20155), (38, 20299), (39, 20302), (43, 20338), (46, 20368), (47, 20377), (50, 20467), (54, 20632), (56, 20686), (57, 20737), (59, 20773), (60, 20800), (62, 20818), (68, 20926), (70, 20941), (74, 20992), (75, 20995), (77, 21067), (79, 21103), (80, 21163), (81, 21169),

Gene: Slagathor\_26 Start: 18771, Stop: 20828, Start Num: 2

Candidate Starts for Slagathor\_26:

(Start: 2 @18771 has 195 MA's), (5, 18879), (6, 18903), (10, 18981), (13, 19122), (14, 19152), (15, 19179), (16, 19194), (20, 19287), (26, 19545), (32, 19737), (38, 19881), (39, 19884), (43, 19920), (46, 19950), (47, 19959), (50, 20049), (54, 20214), (56, 20268), (57, 20319), (59, 20355), (62, 20400), (68, 20508), (70, 20523), (74, 20574), (75, 20577), (77, 20649), (79, 20685), (80, 20745), (81, 20751),

Gene: Smairt\_26 Start: 19603, Stop: 21660, Start Num: 2

Candidate Starts for Smairt\_26:

(Start: 2 @19603 has 195 MA's), (5, 19711), (6, 19735), (10, 19813), (13, 19954), (14, 19984), (16, 20026), (26, 20377), (32, 20569), (38, 20713), (39, 20716), (43, 20752), (46, 20782), (50, 20881), (54, 21046), (56, 21100), (57, 21151), (59, 21187), (62, 21232), (68, 21340), (70, 21355), (74, 21406), (75, 21409), (77, 21481), (79, 21517), (80, 21577), (81, 21583),

Gene: Smeagol\_27 Start: 20204, Stop: 22261, Start Num: 2

Candidate Starts for Smeagol\_27:

(Start: 2 @20204 has 195 MA's), (5, 20312), (6, 20336), (10, 20414), (13, 20555), (14, 20585), (15, 20612), (16, 20627), (20, 20720), (26, 20978), (32, 21170), (38, 21314), (39, 21317), (43, 21353), (46, 21383), (50, 21482), (54, 21647), (56, 21701), (57, 21752), (59, 21788), (62, 21833), (68, 21941), (70, 21956), (74, 22007), (75, 22010), (77, 22082), (79, 22118), (80, 22178), (81, 22184),

Gene: Snazzy\_24 Start: 18789, Stop: 20846, Start Num: 2

Candidate Starts for Snazzy\_24:

(Start: 2 @18789 has 195 MA's), (5, 18897), (6, 18921), (10, 18999), (13, 19140), (14, 19170), (15, 19197), (16, 19212), (20, 19305), (23, 19452), (26, 19563), (32, 19755), (38, 19899), (39, 19902), (43, 19938), (46, 19968), (50, 20067), (54, 20232), (56, 20286), (57, 20337), (59, 20373), (60, 20400), (62,

20418), (68, 20526), (70, 20541), (74, 20592), (75, 20595), (77, 20667), (79, 20703), (80, 20763), (81, 20769),

Gene: Solon\_25 Start: 19454, Stop: 21511, Start Num: 2

Candidate Starts for Solon\_25:

(Start: 2 @19454 has 195 MA's), (5, 19562), (6, 19586), (10, 19664), (13, 19805), (14, 19835), (15, 19862), (16, 19877), (20, 19970), (26, 20228), (32, 20420), (38, 20564), (39, 20567), (43, 20603), (50, 20732), (54, 20897), (56, 20951), (57, 21002), (59, 21038), (62, 21083), (68, 21191), (70, 21206), (74, 21257), (75, 21260), (77, 21332), (79, 21368), (80, 21428), (81, 21434),

Gene: Sorpresa\_24 Start: 18823, Stop: 20880, Start Num: 2

Candidate Starts for Sorpresa\_24:

(Start: 2 @18823 has 195 MA's), (5, 18931), (6, 18955), (10, 19033), (13, 19174), (14, 19204), (16, 19246), (20, 19339), (26, 19597), (32, 19789), (38, 19933), (39, 19936), (43, 19972), (46, 20002), (50, 20101), (54, 20266), (56, 20320), (57, 20371), (59, 20407), (62, 20452), (68, 20560), (70, 20575), (74, 20626), (75, 20629), (77, 20701), (79, 20737), (80, 20797), (81, 20803),

Gene: SpikeBT\_27 Start: 19759, Stop: 21816, Start Num: 2

Candidate Starts for SpikeBT\_27:

(Start: 2 @19759 has 195 MA's), (5, 19867), (6, 19891), (10, 19969), (13, 20110), (14, 20140), (16, 20182), (20, 20275), (26, 20533), (32, 20725), (38, 20869), (39, 20872), (43, 20908), (46, 20938), (50, 21037), (54, 21202), (56, 21256), (57, 21307), (59, 21343), (62, 21388), (68, 21496), (70, 21511), (74, 21562), (75, 21565), (77, 21637), (79, 21673), (80, 21733), (81, 21739),

Gene: Squee\_26 Start: 19730, Stop: 21787, Start Num: 2

Candidate Starts for Squee\_26:

(Start: 2 @19730 has 195 MA's), (5, 19838), (6, 19862), (10, 19940), (13, 20081), (14, 20111), (16, 20153), (20, 20246), (26, 20504), (32, 20696), (38, 20840), (39, 20843), (43, 20879), (46, 20909), (50, 21008), (54, 21173), (56, 21227), (57, 21278), (59, 21314), (62, 21359), (68, 21467), (70, 21482), (74, 21533), (75, 21536), (77, 21608), (79, 21644), (80, 21704), (81, 21710),

Gene: StewieG\_24 Start: 18666, Stop: 20723, Start Num: 2

Candidate Starts for StewieG\_24:

(Start: 2 @18666 has 195 MA's), (5, 18774), (6, 18798), (10, 18876), (13, 19017), (14, 19047), (16, 19089), (26, 19440), (32, 19632), (38, 19776), (39, 19779), (43, 19815), (50, 19944), (54, 20109), (56, 20163), (57, 20214), (59, 20250), (62, 20295), (68, 20403), (70, 20418), (74, 20469), (75, 20472), (77, 20544), (79, 20580), (80, 20640), (81, 20646),

Gene: StrongArm\_24 Start: 19843, Stop: 21900, Start Num: 2

Candidate Starts for StrongArm\_24:

(Start: 2 @19843 has 195 MA's), (5, 19951), (6, 19975), (10, 20053), (14, 20224), (15, 20251), (16, 20266), (20, 20359), (26, 20617), (32, 20809), (38, 20953), (39, 20956), (43, 20992), (50, 21121), (54, 21286), (56, 21340), (57, 21391), (59, 21427), (62, 21472), (70, 21595), (74, 21646), (75, 21649), (77, 21721), (79, 21757), (80, 21817), (81, 21823),

Gene: Sumter\_24 Start: 18414, Stop: 20471, Start Num: 2

Candidate Starts for Sumter\_24:

(Start: 2 @18414 has 195 MA's), (6, 18546), (10, 18624), (13, 18765), (14, 18795), (15, 18822), (16, 18837), (20, 18930), (26, 19188), (32, 19380), (38, 19524), (39, 19527), (43, 19563), (46, 19593), (50, 19692), (54, 19857), (56, 19911), (57, 19962), (59, 19998), (62, 20043), (68, 20151), (70, 20166), (74, 20217), (75, 20220), (77, 20292), (79, 20328), (80, 20388), (81, 20394),

Gene: Sunshine924\_24 Start: 18398, Stop: 20455, Start Num: 2



Candidate Starts for Sunshine924\_24:

(Start: 2 @18398 has 195 MA's), (5, 18506), (6, 18530), (10, 18608), (13, 18749), (14, 18779), (16, 18821), (20, 18914), (26, 19172), (32, 19364), (38, 19508), (39, 19511), (43, 19547), (46, 19577), (50, 19676), (54, 19841), (56, 19895), (57, 19946), (59, 19982), (62, 20027), (68, 20135), (70, 20150), (74, 20201), (75, 20204), (77, 20276), (79, 20312), (80, 20372), (81, 20378),

Gene: SwissCheese\_26 Start: 19358, Stop: 21415, Start Num: 2

Candidate Starts for SwissCheese\_26:

(Start: 2 @19358 has 195 MA's), (5, 19466), (6, 19490), (10, 19568), (14, 19739), (16, 19781), (26, 20132), (32, 20324), (38, 20468), (39, 20471), (43, 20507), (50, 20636), (54, 20801), (56, 20855), (57, 20906), (59, 20942), (62, 20987), (70, 21110), (74, 21161), (75, 21164), (77, 21236), (79, 21272), (80, 21332), (81, 21338),

Gene: Switzer\_26 Start: 18997, Stop: 21054, Start Num: 2

Candidate Starts for Switzer\_26:

(Start: 2 @18997 has 195 MA's), (5, 19105), (6, 19129), (10, 19207), (13, 19348), (14, 19378), (15, 19405), (16, 19420), (20, 19513), (26, 19771), (32, 19963), (38, 20107), (39, 20110), (43, 20146), (50, 20275), (54, 20440), (56, 20494), (57, 20545), (59, 20581), (62, 20626), (68, 20734), (70, 20749), (74, 20800), (75, 20803), (77, 20875), (79, 20911), (80, 20971), (81, 20977),

Gene: Swole\_27 Start: 19327, Stop: 21384, Start Num: 2

Candidate Starts for Swole\_27:

(Start: 2 @19327 has 195 MA's), (5, 19435), (6, 19459), (10, 19537), (14, 19708), (15, 19735), (16, 19750), (20, 19843), (26, 20101), (32, 20293), (38, 20437), (39, 20440), (43, 20476), (49, 20548), (50, 20605), (54, 20770), (56, 20824), (57, 20875), (59, 20911), (60, 20938), (62, 20956), (68, 21064), (70, 21079), (74, 21130), (75, 21133), (77, 21205), (79, 21241), (80, 21301), (81, 21307),

Gene: Target\_28 Start: 20358, Stop: 22415, Start Num: 2

Candidate Starts for Target\_28:

(Start: 2 @20358 has 195 MA's), (5, 20466), (6, 20490), (10, 20568), (13, 20709), (14, 20739), (16, 20781), (20, 20874), (26, 21132), (32, 21324), (38, 21468), (39, 21471), (43, 21507), (46, 21537), (50, 21636), (54, 21801), (56, 21855), (57, 21906), (59, 21942), (62, 21987), (68, 22095), (70, 22110), (74, 22161), (75, 22164), (77, 22236), (79, 22272), (80, 22332), (81, 22338),

Gene: Tasp14\_26 Start: 19088, Stop: 21145, Start Num: 2

Candidate Starts for Tasp14\_26:

(Start: 2 @19088 has 195 MA's), (5, 19196), (6, 19220), (10, 19298), (13, 19439), (14, 19469), (15, 19496), (16, 19511), (20, 19604), (26, 19862), (32, 20054), (38, 20198), (39, 20201), (43, 20237), (50, 20366), (54, 20531), (56, 20585), (57, 20636), (59, 20672), (60, 20699), (62, 20717), (70, 20840), (74, 20891), (75, 20894), (77, 20966), (79, 21002), (80, 21062), (81, 21068),

Gene: Teodoridan\_23 Start: 18231, Stop: 20288, Start Num: 2

Candidate Starts for Teodoridan\_23:

(Start: 2 @18231 has 195 MA's), (5, 18339), (6, 18363), (10, 18441), (13, 18582), (14, 18612), (16, 18654), (20, 18747), (23, 18894), (26, 19005), (32, 19197), (38, 19341), (39, 19344), (43, 19380), (46, 19410), (50, 19509), (54, 19674), (56, 19728), (57, 19779), (59, 19815), (62, 19860), (68, 19968), (70, 19983), (74, 20034), (75, 20037), (77, 20109), (79, 20145), (80, 20205), (81, 20211),

Gene: TheloniousMonk\_27 Start: 20502, Stop: 22559, Start Num: 2

Candidate Starts for TheloniousMonk\_27:

(Start: 2 @20502 has 195 MA's), (5, 20610), (6, 20634), (10, 20712), (13, 20853), (14, 20883), (15, 20910), (16, 20925), (20, 21018), (26, 21276), (32, 21468), (38, 21612), (39, 21615), (43, 21651), (50, 21780), (54, 21945), (56, 21999), (57, 22050), (59, 22086), (62, 22131), (68, 22239), (70, 22254), (74,

22305), (75, 22308), (77, 22380), (79, 22416), (80, 22476), (81, 22482),

Gene: Thor\_25 Start: 18963, Stop: 21020, Start Num: 2

Candidate Starts for Thor\_25:

(Start: 2 @18963 has 195 MA's), (5, 19071), (6, 19095), (10, 19173), (13, 19314), (14, 19344), (16, 19386), (26, 19737), (32, 19929), (38, 20073), (43, 20112), (46, 20142), (47, 20151), (50, 20241), (54, 20406), (56, 20460), (57, 20511), (59, 20547), (60, 20574), (62, 20592), (70, 20715), (74, 20766), (75, 20769), (77, 20841), (79, 20877), (80, 20937), (81, 20943),

Gene: Timshel\_27 Start: 20872, Stop: 22854, Start Num: 3

Candidate Starts for Timshel\_27:

(Start: 3 @20872 has 4 MA's), (6, 20992), (8, 21040), (9, 21067), (10, 21070), (11, 21112), (12, 21166), (16, 21280), (17, 21283), (18, 21325), (21, 21415), (22, 21493), (27, 21679), (28, 21775), (29, 21790), (32, 21826), (34, 21859), (35, 21868), (44, 22012), (45, 22015), (49, 22081), (53, 22213), (55, 22294), (61, 22420), (65, 22504), (66, 22507), (67, 22525), (68, 22534), (70, 22549), (73, 22585), (74, 22600), (76, 22645), (78, 22699), (79, 22711), (82, 22801), (84, 22807), (85, 22846),

Gene: Topgun\_25 Start: 18716, Stop: 20773, Start Num: 2

Candidate Starts for Topgun\_25:

(Start: 2 @18716 has 195 MA's), (5, 18824), (6, 18848), (10, 18926), (13, 19067), (14, 19097), (16, 19139), (20, 19232), (26, 19490), (32, 19682), (38, 19826), (39, 19829), (43, 19865), (46, 19895), (47, 19904), (50, 19994), (54, 20159), (56, 20213), (57, 20264), (59, 20300), (60, 20327), (62, 20345), (70, 20468), (74, 20519), (75, 20522), (77, 20594), (79, 20630), (80, 20690), (81, 20696),

Gene: Tote\_27 Start: 19327, Stop: 21384, Start Num: 2

Candidate Starts for Tote\_27:

(Start: 2 @19327 has 195 MA's), (5, 19435), (6, 19459), (10, 19537), (14, 19708), (15, 19735), (16, 19750), (20, 19843), (26, 20101), (32, 20293), (38, 20437), (39, 20440), (43, 20476), (49, 20548), (50, 20605), (54, 20770), (56, 20824), (57, 20875), (59, 20911), (60, 20938), (62, 20956), (68, 21064), (70, 21079), (74, 21130), (75, 21133), (77, 21205), (79, 21241), (80, 21301), (81, 21307),

Gene: Traft412\_27 Start: 19806, Stop: 21863, Start Num: 2

Candidate Starts for Traft412\_27:

(Start: 2 @19806 has 195 MA's), (5, 19914), (6, 19938), (10, 20016), (14, 20187), (15, 20214), (16, 20229), (20, 20322), (26, 20580), (32, 20772), (38, 20916), (39, 20919), (43, 20955), (50, 21084), (54, 21249), (56, 21303), (57, 21354), (59, 21390), (62, 21435), (68, 21543), (70, 21558), (74, 21609), (75, 21612), (77, 21684), (79, 21720), (80, 21780), (81, 21786),

Gene: Treddle\_27 Start: 20118, Stop: 22175, Start Num: 2

Candidate Starts for Treddle\_27:

(Start: 2 @20118 has 195 MA's), (5, 20226), (6, 20250), (10, 20328), (13, 20469), (14, 20499), (16, 20541), (20, 20634), (26, 20892), (32, 21084), (38, 21228), (39, 21231), (43, 21267), (50, 21396), (54, 21561), (56, 21615), (57, 21666), (59, 21702), (62, 21747), (68, 21855), (70, 21870), (74, 21921), (75, 21924), (77, 21996), (79, 22032), (80, 22092), (81, 22098),

Gene: Tripl3t\_26 Start: 19737, Stop: 21794, Start Num: 2

Candidate Starts for Tripl3t\_26:

(Start: 2 @19737 has 195 MA's), (5, 19845), (6, 19869), (10, 19947), (13, 20088), (14, 20118), (16, 20160), (26, 20511), (32, 20703), (38, 20847), (39, 20850), (43, 20886), (50, 21015), (56, 21234), (57, 21285), (59, 21321), (62, 21366), (68, 21474), (70, 21489), (74, 21540), (75, 21543), (77, 21615), (79, 21651), (80, 21711), (81, 21717),

Gene: Trouble\_26 Start: 19662, Stop: 21719, Start Num: 2

Candidate Starts for Trouble\_26:

(Start: 2 @19662 has 195 MA's), (5, 19770), (6, 19794), (10, 19872), (13, 20013), (14, 20043), (15, 20070), (16, 20085), (20, 20178), (26, 20436), (32, 20628), (38, 20772), (39, 20775), (43, 20811), (50, 20940), (54, 21105), (56, 21159), (57, 21210), (59, 21246), (62, 21291), (68, 21399), (70, 21414), (74, 21465), (75, 21468), (77, 21540), (79, 21576), (80, 21636), (81, 21642),

Gene: Turj99\_24 Start: 18602, Stop: 20659, Start Num: 2

Candidate Starts for Turj99\_24:

(Start: 2 @18602 has 195 MA's), (5, 18710), (6, 18734), (10, 18812), (13, 18953), (14, 18983), (16, 19025), (20, 19118), (26, 19376), (32, 19568), (38, 19712), (39, 19715), (43, 19751), (50, 19880), (54, 20045), (56, 20099), (57, 20150), (59, 20186), (62, 20231), (68, 20339), (70, 20354), (74, 20405), (75, 20408), (77, 20480), (79, 20516), (80, 20576), (81, 20582),

Gene: TwoPeat\_25 Start: 19126, Stop: 21183, Start Num: 2

Candidate Starts for TwoPeat\_25:

(Start: 2 @19126 has 195 MA's), (5, 19234), (6, 19258), (10, 19336), (13, 19477), (14, 19507), (16, 19549), (26, 19900), (32, 20092), (38, 20236), (39, 20239), (43, 20275), (46, 20305), (47, 20314), (50, 20404), (54, 20569), (56, 20623), (57, 20674), (59, 20710), (62, 20755), (68, 20863), (70, 20878), (74, 20929), (75, 20932), (77, 21004), (79, 21040), (80, 21100), (81, 21106),

Gene: U2\_25 Start: 19003, Stop: 21060, Start Num: 2

Candidate Starts for U2\_25:

(Start: 2 @19003 has 195 MA's), (5, 19111), (6, 19135), (10, 19213), (13, 19354), (14, 19384), (15, 19411), (16, 19426), (20, 19519), (26, 19777), (32, 19969), (38, 20113), (39, 20116), (43, 20152), (50, 20281), (54, 20446), (56, 20500), (57, 20551), (59, 20587), (62, 20632), (68, 20740), (70, 20755), (74, 20806), (75, 20809), (77, 20881), (79, 20917), (80, 20977), (81, 20983),

Gene: Violet\_24 Start: 19410, Stop: 21467, Start Num: 2

Candidate Starts for Violet\_24:

(Start: 2 @19410 has 195 MA's), (5, 19518), (6, 19542), (10, 19620), (13, 19761), (14, 19791), (16, 19833), (26, 20184), (32, 20376), (38, 20520), (39, 20523), (43, 20559), (46, 20589), (47, 20598), (50, 20688), (54, 20853), (56, 20907), (57, 20958), (59, 20994), (60, 21021), (62, 21039), (70, 21162), (74, 21213), (75, 21216), (77, 21288), (79, 21324), (80, 21384), (81, 21390),

Gene: Watermelon\_27 Start: 19724, Stop: 21781, Start Num: 2

Candidate Starts for Watermelon\_27:

(Start: 2 @19724 has 195 MA's), (5, 19832), (6, 19856), (10, 19934), (13, 20075), (14, 20105), (15, 20132), (16, 20147), (20, 20240), (26, 20498), (32, 20690), (38, 20834), (39, 20837), (43, 20873), (46, 20903), (50, 21002), (54, 21167), (56, 21221), (57, 21272), (59, 21308), (62, 21353), (68, 21461), (70, 21476), (75, 21530), (77, 21602), (79, 21638), (80, 21698), (81, 21704),

Gene: Wheeler\_25 Start: 19178, Stop: 21235, Start Num: 2

Candidate Starts for Wheeler\_25:

(Start: 2 @19178 has 195 MA's), (5, 19286), (6, 19310), (10, 19388), (13, 19529), (14, 19559), (15, 19586), (16, 19601), (20, 19694), (26, 19952), (32, 20144), (38, 20288), (39, 20291), (43, 20327), (46, 20357), (50, 20456), (54, 20621), (56, 20675), (57, 20726), (59, 20762), (62, 20807), (70, 20930), (74, 20981), (75, 20984), (77, 21056), (79, 21092), (80, 21152), (81, 21158),

Gene: Wilkins\_25 Start: 18716, Stop: 20773, Start Num: 2

Candidate Starts for Wilkins\_25:

(Start: 2 @18716 has 195 MA's), (5, 18824), (6, 18848), (10, 18926), (13, 19067), (14, 19097), (16, 19139), (20, 19232), (26, 19490), (32, 19682), (38, 19826), (39, 19829), (43, 19865), (46, 19895), (50, 19994), (54, 20159), (56, 20213), (57, 20264), (59, 20300), (62, 20345), (68, 20453), (70, 20468), (74,

20519), (75, 20522), (77, 20594), (79, 20630), (80, 20690), (81, 20696),

Gene: Zeeculate\_25 Start: 19537, Stop: 21594, Start Num: 2

Candidate Starts for Zeeculate\_25:

(Start: 2 @19537 has 195 MA's), (5, 19645), (6, 19669), (10, 19747), (13, 19888), (14, 19918), (15, 19945), (16, 19960), (20, 20053), (26, 20311), (32, 20503), (38, 20647), (39, 20650), (43, 20686), (46, 20716), (50, 20815), (54, 20980), (56, 21034), (57, 21085), (59, 21121), (62, 21166), (68, 21274), (70, 21289), (74, 21340), (75, 21343), (77, 21415), (79, 21451), (80, 21511), (81, 21517),

Gene: Zephyr\_25 Start: 18957, Stop: 21014, Start Num: 2

Candidate Starts for Zephyr\_25:

(Start: 2 @18957 has 195 MA's), (5, 19065), (6, 19089), (10, 19167), (13, 19308), (14, 19338), (16, 19380), (26, 19731), (32, 19923), (38, 20067), (39, 20070), (43, 20106), (46, 20136), (47, 20145), (50, 20235), (54, 20400), (56, 20454), (57, 20505), (59, 20541), (62, 20586), (68, 20694), (70, 20709), (74, 20760), (75, 20763), (77, 20835), (79, 20871), (80, 20931), (81, 20937),

Gene: Zeuska\_26 Start: 19391, Stop: 21448, Start Num: 2

Candidate Starts for Zeuska\_26:

(Start: 2 @19391 has 195 MA's), (5, 19499), (6, 19523), (10, 19601), (13, 19742), (14, 19772), (16, 19814), (20, 19907), (26, 20165), (32, 20357), (38, 20501), (39, 20504), (43, 20540), (46, 20570), (50, 20669), (54, 20834), (56, 20888), (57, 20939), (59, 20975), (62, 21020), (68, 21128), (70, 21143), (74, 21194), (75, 21197), (77, 21269), (79, 21305), (80, 21365), (81, 21371),