

Pham 202687

	41	49	52	59	61	70	73	88	89	90	91	92	93	141	142	145	149	156	160	162	165	174	
1: Settecandela_44 + 1	21	21	21	21	21	21	21	21	21	21	21	21	21	130	140	144	153	158	161	161	161	170	183
2: Juliet_81 + 45	21	21	21	21	21	21	21	21	21	21	21	21	21	130	140	144	153	158	161	161	161	170	183
3: EdithArm_96 + 2	21	21	21	21	21	21	21	21	21	21	21	21	21	130	140	144	153	158	161	161	161	170	183
4: Lena_88 + 4	21	21	21	21	21	21	21	21	21	21	21	21	21	130	140	144	153	158	161	161	161	170	183
5: Charlotte_21_84 + 11	21	21	21	21	21	21	21	21	21	21	21	21	21	130	140	144	153	158	161	161	161	170	183
6: Bx_7 + 65	21	21	21	21	21	21	21	21	21	21	21	21	21	130	140	144	153	158	161	161	161	170	183
7: Edith_84 + 16	21	21	21	21	21	21	21	21	21	21	21	21	21	130	140	144	153	158	161	161	161	170	183
8: FrayBel_94 + 10	21	21	21	21	21	21	21	21	21	21	21	21	21	130	140	144	153	158	161	161	161	170	183
9: DidiMaster_8 + 6	21	21	21	21	21	21	21	21	21	21	21	21	21	130	140	144	153	158	161	161	161	170	183
10: TheJulii_102	21	21	21	21	21	21	21	21	21	21	21	21	21	130	140	144	153	158	161	161	161	170	183
11: Lila_86 + 6	21	21	21	21	21	21	21	21	21	21	21	21	21	130	140	144	153	158	161	161	161	170	183
12: Blossole_93	21	21	21	21	21	21	21	21	21	21	21	21	21	130	140	144	153	158	161	161	161	170	183
13: BackwardAgan_85	21	21	21	21	21	21	21	21	21	21	21	21	21	130	140	144	153	158	161	161	161	170	183
14: Shira_77	21	21	21	21	21	21	21	21	21	21	21	21	21	130	140	144	153	158	161	161	161	170	183
15: SlubbySaige_90	21	21	21	21	21	21	21	21	21	21	21	21	21	130	140	144	153	158	161	161	161	170	183
16: Phoe_85 + 2	21	21	21	21	21	21	21	21	21	21	21	21	21	130	140	144	153	158	161	161	161	170	183
17: Celineaque_83 + 1	21	21	21	21	21	21	21	21	21	21	21	21	21	130	140	144	153	158	161	161	161	170	183
18: Tania_93	21	21	21	21	21	21	21	21	21	21	21	21	21	130	140	144	153	158	161	161	161	170	183
19: Nana_89 +	21	21	21	21	21	21	21	21	21	21	21	21	21	130	140	144	153	158	161	161	161	170	183
20: LifeSavor_87 + 5	21	21	21	21	21	21	21	21	21	21	21	21	21	130	140	144	153	158	161	161	161	170	183
21: Cori_88 + 2	21	21	21	21	21	21	21	21	21	21	21	21	21	130	140	144	153	158	161	161	161	170	183
22: TeaScop_88 + 2	21	21	21	21	21	21	21	21	21	21	21	21	21	130	140	144	153	158	161	161	161	170	183
23: Hilda_80	21	21	21	21	21	21	21	21	21	21	21	21	21	130	140	144	153	158	161	161	161	170	183
24: ElizaTart_82 + 1	21	21	21	21	21	21	21	21	21	21	21	21	21	130	140	144	153	158	161	161	161	170	183
25: Slubby_81	21	21	21	21	21	21	21	21	21	21	21	21	21	130	140	144	153	158	161	161	161	170	183
26: B_9	21	21	21	21	21	21	21	21	21	21	21	21	21	130	140	144	153	158	161	161	161	170	183
27: Pier_82	19	31	31	31	31	31	31	31	31	31	31	31	31	130	140	144	153	158	161	161	161	170	183
28: Green_89	19	31	31	31	31	31	31	31	31	31	31	31	31	130	140	144	153	158	161	161	161	170	183
29: Myra_87	11	30	31	31	31	31	31	31	31	31	31	31	31	130	140	144	153	158	161	161	161	170	183
30: SpookyDobbyDoo_8	11	30	31	31	31	31	31	31	31	31	31	31	31	130	140	144	153	158	161	161	161	170	183
31: Phobia_92	16	30	31	31	31	31	31	31	31	31	31	31	31	130	140	144	153	158	161	161	161	170	183
32: SCentag_8 + 1	23	30	31	31	31	31	31	31	31	31	31	31	31	130	140	144	153	158	161	161	161	170	183
33: CherryTambloes_86	44	30	31	31	31	31	31	31	31	31	31	31	31	130	140	144	153	158	161	161	161	170	183
34: Skog_149	16	30	31	31	31	31	31	31	31	31	31	31	31	130	140	144	153	158	161	161	161	170	183

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 202687 Report

This analysis was run 01/18/25 on database version 583.

Pham number 202687 has 204 members, 25 are drafts.

Phages represented in each track:

- Track 1 : Settecandela\_44, Phrappuccino\_44
- Track 2 : JulietS\_81, Spec\_83, Bangla1971\_89, Rahel\_87, Ronan\_81, Tyke\_90, DTDevon\_89, Cali\_83, Jemmno\_88, EmToTheThree\_91, Blackdragon\_82, QBert\_82, LinStu\_88, JigglyPuff\_94, BeanWater\_80, Derek\_88, Iota\_82, JayJay\_90, Mangeria\_88, Phusco\_88, Jedediah\_91, EmmaElysia\_87, Tortoise16\_86, LRRHood\_82, Grungle\_75, Koguma\_84, Drazdys\_88, Sprinklers\_83, Littleton\_88, Breeniome\_88, Halldule\_81, SmallFry\_88, Gabriel\_90, Astraea\_86, ET08\_77, CharlieB\_83, Shaqnato\_80, Sebata\_89, Sauce\_88, Salacia\_92, Chomp\_87
- Track 3 : EggyFarm\_96, Grasshills\_95, BigCity\_96
- Track 4 : Letha\_88, Ading\_88, Loanshark\_88, Guwapp\_87, Issimir\_87
- Track 5 : Chargie21\_84, Fludd\_88, Flabslab\_83, Basquiat\_84, Janiyra\_90, Quasimodo\_88, ChaylaJr\_83, Trinitium\_84, Turret\_83, ChickenPhender\_84, Kboogie\_91, EasyJones\_91
- Track 6 : Bxz1\_87, Babyland\_88, Shrimp\_88, Khaleesi\_87, PurduePete\_88, Ngannou\_84, YoungMoneyMata\_88, Nidhogg\_89, Amataga\_88, MikeLiesIn\_89, Essence\_85, CindyLou\_89, Napoleon13\_84, Naija\_87, ParkTD\_89, Ghost\_87, TinyTim\_88, Naval22\_93, Kamryn\_88, ValleyTerrace\_88, Audrick\_90, SilverDipper\_89, Pleione\_91, JPickles\_86, Momo\_87, Willis\_89, NedWong\_89, Belieber\_82, InigoMontoya\_89, DrPhinkDaddy\_87, Asterius\_85, Bipolarisk\_87, Jessibeth14\_87, Pio\_92, Pivoine\_87, Norm\_89, Izajani\_88, Caravan\_83, SVoro\_86, Delylah\_91, Erdmann\_89, Latch\_88, Capablanca\_90, McWolfish\_86, Gamgam\_88, NoodleTree\_96, Megamind\_87, Maby2021\_88, Wally\_87, YemiJoy2021\_89, Shelob\_90, Bread\_88, Patter\_88, Delilah\_88, LordLeafolot\_93, Rizal\_86, Burrough\_88, GlutenPhree\_86, ZygoTaiga\_87, NuevoMundo\_94, Roots515\_87, Atlantean\_87, Zalkecks\_89, Daffodil\_93, Phlegm\_90, McGee\_89
- Track 7 : ErnieJ\_84, ScottMcG\_85, Catera\_87, Ablatia\_84, Melpomini\_82, Spud\_88, Rabinovish\_85, JustHall\_84, Dietrick\_80, Morizzled23\_88, MoMoMixon\_89
- Track 8 : FrayBell\_94, BananaFence\_87, Domi\_82, RoMag\_83, BadAgartude\_85, IkeLoa\_82, StephanieG\_87, Bonray\_88, Darko\_88, Mikro\_86, Jezreel\_86
- Track 9 : DirtMonster\_81, Concombre\_95, ArcherS7\_87, Yucca\_88, FoxtrotP1\_88, Demodog\_95, InterFolia\_97
- Track 10 : Tonenili\_102
- Track 11 : Lee7\_86, Ewok\_89, Gizmo\_92, SrishMeg2525\_87, Lukilu\_79, Zeenon\_90, Ava3\_89
- Track 12 : Bigswole\_93
- Track 13 : BackyardAgain\_85
- Track 14 : Shifa\_77

- Track 15 : StubbySaigey\_90
- Track 16 : Phox\_85, Pinkcreek\_79, Alice\_81
- Track 17 : Cactojaque\_83, Blackbrain\_83
- Track 18 : Tainan\_93
- Track 19 : Nappy\_89, Yassified\_84
- Track 20 : LifeSavor\_87, Jaygup\_88, ShiaLabeouf\_88, Adlitam\_88, Matsumoto\_86, Shnickers\_88
- Track 21 : Colt\_78, Blubba\_77, Cane17\_76
- Track 22 : Teardrop\_88, Specks\_94, LolaVinca\_90
- Track 23 : HyRo\_80
- Track 24 : FudgeTart\_88, Dandelion\_95
- Track 25 : Stubby\_81
- Track 26 : I3\_94
- Track 27 : Pier\_92
- Track 28 : Greely\_89
- Track 29 : Myrna\_87
- Track 30 : ScoobyDoobyDoo\_81
- Track 31 : Phabba\_92
- Track 32 : SCentae\_84, Pupper\_86
- Track 33 : CherryTomatoes\_86
- Track 34 : Skog\_149

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

The start number called the most often in the published annotations is 1, it was called in 171 of the 179 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Ablatia\_84, Ading\_88, Adlitam\_88, Alice\_81, Amataga\_88, ArcherS7\_87, Asterius\_85, Astraea\_86, Atlantean\_87, Audrick\_90, Ava3\_89, Babyland\_88, BackyardAgain\_85, BadAgartude\_85, BananaFence\_87, Bangla1971\_89, Basquiat\_84, BeanWater\_80, Belieber\_82, BigCity\_96, Bigswole\_93, Bipolarisk\_87, Blackbrain\_83, Blackdragon\_82, Blubba\_77, Bonray\_88, Bread\_88, Breeniome\_88, Burrough\_88, Bxz1\_87, Cactojaque\_83, Cali\_83, Cane17\_76, Capablanca\_90, Caravan\_83, Catera\_87, Chargie21\_84, CharlieB\_83, ChaylaJr\_83, ChickenPhender\_84, Chomp\_87, CindyLou\_89, Colt\_78, Concombre\_95, DTDevon\_89, Daffodil\_93, Dandelion\_95, Darko\_88, Delilah\_88, Delylah\_91, Demodog\_95, Derek\_88, Dietrick\_80, DirtMonster\_81, Domi\_82, DrPhinkDaddy\_87, Drazdys\_88, ET08\_77, EasyJones\_91, EggyFarm\_96, EmToTheThree\_91, EmmaElysia\_87, Erdmann\_89, ErnieJ\_84, Essence\_85, Ewok\_89, Flabslab\_83, Fludd\_88, FoxtrotP1\_88, FrayBell\_94, FudgeTart\_88, Gabriel\_90, Gamgam\_88, Ghost\_87, Gizmo\_92, GlutenPhree\_86, Grasshills\_95, Grungle\_75, Guwapp\_87, Halldule\_81, HyRo\_80, I3\_94, IkeLoa\_82, InigoMontoya\_89, InterFolia\_97, Iota\_82, Issimir\_87, Izajani\_88, JPickles\_86, Janiyra\_90, JayJay\_90, Jaygup\_88, Jedediah\_91, Jemmno\_88, Jessibeth14\_87, Jezreel\_86, JigglyPuff\_94, JulietS\_81, JustHall\_84, Kamryn\_88, Kboogie\_91, Khaleesi\_87, Koguma\_84, LRRHood\_82, Latch\_88, Lee7\_86, Lethe\_88, LifeSavor\_87, LinStu\_88, Littleton\_88, Loanshark\_88, LolaVinca\_90, LordLeafolot\_93, Lukilu\_79, Maby2021\_88, Mangeria\_88, Matsumoto\_86, McGee\_89, McWolfish\_86, Megamind\_87, Melpomini\_82, MikeLiesIn\_89, Mikro\_86, MoMoMixon\_89, Momo\_87, Morizzled23\_88, Naija\_87,

Napoleon13\_84, Nappy\_89, Naval22\_93, NedWong\_89, Ngannou\_84, Nidhogg\_89, NoodleTree\_96, Norm\_89, NuevoMundo\_94, ParkTD\_89, Patter\_88, Phlegm\_90, Phox\_85, Phusco\_88, Pier\_92, Pinkcreek\_79, Pio\_92, Pivoine\_87, Pleione\_91, PurduePete\_88, QBert\_82, Quasimodo\_88, Rabinovish\_85, Rahel\_87, Rizal\_86, RoMag\_83, Ronan\_81, Roots515\_87, SVoro\_86, Salacia\_92, Sauce\_88, ScoobyDoobyDoo\_81, ScottMcG\_85, Sebata\_89, Shaqnato\_80, Shelob\_90, ShiaLabeouf\_88, Shifa\_77, Shnickers\_88, Shrimp\_88, SilverDipper\_89, SmallFry\_88, Spec\_83, Specks\_94, Sprinklers\_83, Spud\_88, SrishMeg2525\_87, StephanieG\_87, StubbySaigey\_90, Stubby\_81, Tainan\_93, Teardrop\_88, TinyTim\_88, Tonenili\_102, Tortoise16\_86, Trinitium\_84, Turret\_83, Tyke\_90, ValleyTerrace\_88, Wally\_87, Willis\_89, Yassified\_84, YemiJoy2021\_89, YoungMoneyMata\_88, Yucca\_88, Zalkecks\_89, Zeenon\_90, ZygoTaiga\_87,

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:

- CherryTomatoes\_86, Greely\_89, Myrna\_87, Phabba\_92, Phrappuccino\_44, Pupper\_86, SCentae\_84, Settecandela\_44, Skog\_149,

### Summary by start number:

Start 1:

- Found in 195 of 204 ( 95.6% ) of genes in pham
- Manual Annotations of this start: 171 of 179
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Ablatia\_84 (C1), Ading\_88 (C1), Adlitam\_88 (C1), Alice\_81 (C1), Amataga\_88 (C1), ArcherS7\_87 (C1), Asterius\_85 (C1), Astraea\_86 (C1), Atlantean\_87 (C1), Audrick\_90 (C1), Ava3\_89 (C1), Babyland\_88 (C1), BackyardAgain\_85 (C1), BadAgartude\_85 (C1), BananaFence\_87 (C1), Bangla1971\_89 (C1), Basquiat\_84 (C1), BeanWater\_80 (C1), Belieber\_82 (C1), BigCity\_96 (C1), Bigswole\_93 (C1), Bipolarisk\_87 (C1), Blackbrain\_83 (C1), Blackdragon\_82 (C1), Blubba\_77 (C1), Bonray\_88 (C1), Bread\_88 (C1), Breeniome\_88 (C1), Burrough\_88 (C1), Bxz1\_87 (C1), Cactojaque\_83 (C1), Cali\_83 (C1), Cane17\_76 (C1), Capablanca\_90 (C1), Caravan\_83 (C1), Catera\_87 (C1), Chargie21\_84 (C1), CharlieB\_83 (C1), ChaylaJr\_83 (C1), ChickenPhender\_84 (C1), Chomp\_87 (C1), CindyLou\_89 (C1), Colt\_78 (C1), Concombre\_95 (C1), DTDevon\_89 (C1), Daffodil\_93 (C1), Dandelion\_95 (C1), Darko\_88 (C1), Delilah\_88 (C1), Delylah\_91 (C1), Demodog\_95 (C1), Derek\_88 (C1), Dietrick\_80 (C1), DirtMonster\_81 (C1), Domi\_82 (C1), DrPhinkDaddy\_87 (C1), Drazdys\_88 (C1), ET08\_77 (C1), EasyJones\_91 (C1), EggyFarm\_96 (C1), EmToTheThree\_91 (C1), EmmaElysia\_87 (C1), Erdmann\_89 (C1), ErnieJ\_84 (C1), Essence\_85 (C1), Ewok\_89 (C1), Flabslab\_83 (C1), Fludd\_88 (C1), FoxtrotP1\_88 (C1), FrayBell\_94 (C1), FudgeTart\_88 (C1), Gabriel\_90 (C1), Gamgam\_88 (C1), Ghost\_87 (C1), Gizmo\_92 (C1), GlutenPhree\_86 (C1), Grasshills\_95 (C1), Grungle\_75 (C1), Guwapp\_87 (C1), Halldule\_81 (C1), HyRo\_80 (C1), I3\_94 (C1), IkeLoa\_82 (C1), InigoMontoya\_89 (C1), InterFolia\_97 (C1), Iota\_82 (C1), Issimir\_87 (C1), Izajani\_88 (C1), JPickles\_86 (C1), Janiyr\_90 (C1), JayJay\_90 (C1), Jaygup\_88 (C1), Jedediah\_91 (C1), Jemmno\_88 (C1), Jessibeth14\_87 (C1), Jezreel\_86 (C1), JigglyPuff\_94 (C1), JulietS\_81 (C1), JustHall\_84 (C1), Kamryn\_88 (C1), Kboogie\_91 (C1), Khaleesi\_87 (C1), Koguma\_84 (C1), LRRHood\_82 (C1), Latch\_88 (C1), Lee7\_86 (C1), Lethe\_88 (C1), LifeSavor\_87 (C1), LinStu\_88 (C1), Littleton\_88 (C1), Loanshark\_88 (C1), LolaVinca\_90 (C1), LordLeaflot\_93 (C1), Lukilu\_79 (C1),

Maby2021\_88 (C1), Mangeria\_88 (C1), Matsumoto\_86 (C1), McGee\_89 (C1), McWolfish\_86 (C1), Megamind\_87 (C1), Melpomini\_82 (C1), MikeLiesIn\_89 (C1), Mikro\_86 (C1), MoMoMixon\_89 (C1), Momo\_87 (C1), Morizzled23\_88 (C1), Naija\_87 (C1), Napoleon13\_84 (C1), Nappy\_89 (C1), Naval22\_93 (C1), NedWong\_89 (C1), Ngannou\_84 (C1), Nidhogg\_89 (C1), NoodleTree\_96 (C1), Norm\_89 (C1), NuevoMundo\_94 (C1), ParkTD\_89 (C1), Patter\_88 (C1), Phlegm\_90 (C1), Phox\_85 (C1), Phusco\_88 (C1), Pier\_92 (C1), Pinkcreek\_79 (C1), Pio\_92 (C1), Pivoine\_87 (C1), Pleione\_91 (C1), PurduePete\_88 (C1), QBert\_82 (C1), Quasimodo\_88 (C1), Rabinovich\_85 (C1), Rahel\_87 (C1), Rizal\_86 (C1), RoMag\_83 (C1), Ronan\_81 (C1), Roots515\_87 (C1), SVoro\_86 (C1), Salacia\_92 (C1), Sauce\_88 (C1), ScoobyDoobyDoo\_81 (C2), ScottMcG\_85 (C1), Sebata\_89 (C1), Shaqato\_80 (C1), Shelob\_90 (C1), ShiaLabeouf\_88 (C1), Shifa\_77 (C1), Shnickers\_88 (C1), Shrimp\_88 (C1), SilverDipper\_89 (C1), SmallFry\_88 (C1), Spec\_83 (C1), Specks\_94 (C1), Sprinklers\_83 (C1), Spud\_88 (C1), SrishMeg2525\_87 (C1), StephanieG\_87 (C1), StubbySaigey\_90 (C1), Stubby\_81 (C1), Tainan\_93 (C1), Teardrop\_88 (C1), TinyTim\_88 (C1), Tonenili\_102 (C1), Tortoise16\_86 (C1), Trinitium\_84 (C1), Turret\_83 (C1), Tyke\_90 (C1), ValleyTerrace\_88 (C1), Wally\_87 (C1), Willis\_89 (C1), Yassified\_84 (C1), YemiJoy2021\_89 (C1), YoungMoneyMata\_88 (C1), Yucca\_88 (C1), Zalkecks\_89 (C1), Zeenon\_90 (C1), ZygoTaiga\_87 (C1),

#### Start 2:

- Found in 3 of 204 ( 1.5% ) of genes in pham
- Manual Annotations of this start: 2 of 179
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Greely\_89 (C2), Myrna\_87 (C2), Phabba\_92 (C2),

#### Start 16:

- Found in 4 of 204 ( 2.0% ) of genes in pham
- Manual Annotations of this start: 4 of 179
- Called 100.0% of time when present
- Phage (with cluster) where this start called: CherryTomatoes\_86 (DO), Pupper\_86 (DO), SCentae\_84 (DO), Skog\_149 (DO),

#### Start 44:

- Found in 6 of 204 ( 2.9% ) of genes in pham
- Manual Annotations of this start: 2 of 179
- Called 33.3% of time when present
- Phage (with cluster) where this start called: Phrappuccino\_44 (AA), Settecandela\_44 (AA),

### Summary by clusters:

There are 4 clusters represented in this pham: AA, DO, C1, C2,

Info for manual annotations of cluster AA:

- Start number 44 was manually annotated 2 times for cluster AA.

Info for manual annotations of cluster C1:

- Start number 1 was manually annotated 170 times for cluster C1.

Info for manual annotations of cluster C2:

- Start number 1 was manually annotated 1 time for cluster C2.

- Start number 2 was manually annotated 2 times for cluster C2.

Info for manual annotations of cluster DO:

- Start number 16 was manually annotated 4 times for cluster DO.

### **Gene Information:**

Gene: Ablatia\_84 Start: 30993, Stop: 34355, Start Num: 1

Candidate Starts for Ablatia\_84:

(Start: 1 @30993 has 171 MA's), (3, 31074), (5, 31095), (6, 31119), (8, 31164), (9, 31191), (10, 31194), (11, 31206), (12, 31224), (13, 31227), (22, 31446), (27, 31584), (29, 31671), (32, 31719), (35, 31782), (36, 31812), (38, 31839), (39, 31848), (43, 31869), (46, 31923), (48, 31989), (64, 32367), (65, 32403), (75, 32679), (80, 32790), (99, 32994), (101, 32997), (111, 33054), (112, 33057), (115, 33069), (116, 33093), (120, 33111), (121, 33114), (122, 33126), (126, 33159), (130, 33201), (144, 33342), (146, 33396), (151, 33459), (153, 33468), (158, 33642), (161, 33747), (167, 33858), (170, 33879), (191, 34014), (193, 34056), (197, 34140),

Gene: Ading\_88 Start: 31088, Stop: 34798, Start Num: 1

Candidate Starts for Ading\_88:

(Start: 1 @31088 has 171 MA's), (3, 31169), (5, 31190), (6, 31214), (8, 31259), (9, 31286), (10, 31289), (11, 31301), (12, 31319), (13, 31322), (22, 31541), (27, 31679), (29, 31766), (32, 31814), (35, 31877), (36, 31907), (38, 31934), (39, 31943), (42, 31961), (43, 31964), (46, 32018), (48, 32084), (65, 32477), (66, 32510), (71, 32630), (80, 32861), (99, 33065), (101, 33068), (111, 33125), (112, 33128), (115, 33140), (116, 33164), (120, 33182), (121, 33185), (122, 33197), (126, 33230), (130, 33272), (139, 33398), (140, 33401), (144, 33566), (151, 33683), (153, 33692), (158, 33866), (161, 33971), (167, 34082), (170, 34103), (179, 34226), (180, 34232), (182, 34274), (183, 34292), (191, 34436), (193, 34478), (197, 34583),

Gene: Adlitam\_88 Start: 31105, Stop: 34815, Start Num: 1

Candidate Starts for Adlitam\_88:

(Start: 1 @31105 has 171 MA's), (3, 31186), (5, 31207), (6, 31231), (9, 31303), (10, 31306), (11, 31318), (12, 31336), (13, 31339), (22, 31558), (27, 31696), (29, 31783), (32, 31831), (35, 31894), (36, 31924), (38, 31951), (39, 31960), (43, 31981), (46, 32035), (48, 32101), (65, 32494), (66, 32527), (71, 32647), (80, 32878), (99, 33082), (101, 33085), (111, 33142), (112, 33145), (115, 33157), (116, 33181), (120, 33199), (121, 33202), (122, 33214), (126, 33247), (130, 33289), (139, 33415), (140, 33418), (144, 33583), (151, 33700), (153, 33709), (158, 33883), (161, 33988), (167, 34099), (170, 34120), (179, 34243), (180, 34249), (182, 34291), (183, 34309), (191, 34453), (193, 34495), (197, 34600),

Gene: Alice\_81 Start: 29790, Stop: 33500, Start Num: 1

Candidate Starts for Alice\_81:

(Start: 1 @29790 has 171 MA's), (3, 29871), (5, 29892), (6, 29916), (8, 29961), (9, 29988), (10, 29991), (11, 30003), (12, 30021), (13, 30024), (22, 30243), (27, 30381), (29, 30468), (32, 30516), (35, 30579), (36, 30609), (38, 30636), (39, 30645), (43, 30666), (46, 30720), (48, 30786), (64, 31134), (65, 31170), (75, 31446), (80, 31557), (99, 31761), (101, 31764), (111, 31821), (112, 31824), (115, 31836), (116, 31860), (120, 31878), (121, 31881), (122, 31893), (126, 31926), (130, 31968), (139, 32094), (140, 32097), (144, 32262), (151, 32379), (153, 32388), (158, 32562), (161, 32667), (167, 32778), (170, 32799), (172, 32862), (176, 32928), (177, 32934), (184, 33027), (191, 33159), (193, 33201), (197, 33285),

Gene: Amataga\_88 Start: 31151, Stop: 34864, Start Num: 1

Candidate Starts for Amataga\_88:

(Start: 1 @31151 has 171 MA's), (3, 31232), (5, 31253), (6, 31277), (8, 31322), (9, 31349), (10, 31352), (11, 31364), (12, 31382), (13, 31385), (22, 31604), (27, 31742), (29, 31829), (32, 31877), (35, 31940), (36, 31970), (38, 31997), (39, 32006), (42, 32024), (43, 32027), (46, 32081), (48, 32147), (65, 32540), (66, 32573), (71, 32693), (80, 32927), (99, 33131), (101, 33134), (111, 33191), (112, 33194), (115, 33206), (116, 33230), (120, 33248), (121, 33251), (122, 33263), (126, 33296), (130, 33338), (139, 33464), (140, 33467), (144, 33632), (146, 33686), (151, 33749), (153, 33758), (158, 33932), (161, 34037), (167, 34148), (170, 34169), (179, 34292), (180, 34298), (182, 34340), (183, 34358), (191, 34502), (193, 34544), (197, 34649),

Gene: ArcherS7\_87 Start: 31472, Stop: 35182, Start Num: 1

Candidate Starts for ArcherS7\_87:

(Start: 1 @31472 has 171 MA's), (3, 31553), (5, 31574), (6, 31598), (8, 31643), (9, 31670), (10, 31673), (11, 31685), (12, 31703), (13, 31706), (22, 31925), (27, 32063), (29, 32150), (32, 32198), (35, 32261), (36, 32291), (38, 32318), (39, 32327), (43, 32348), (46, 32402), (48, 32468), (65, 32861), (66, 32894), (71, 33014), (80, 33245), (99, 33449), (101, 33452), (111, 33509), (112, 33512), (115, 33524), (116, 33548), (120, 33566), (121, 33569), (122, 33581), (126, 33614), (130, 33656), (139, 33782), (140, 33785), (144, 33950), (146, 34004), (151, 34067), (153, 34076), (158, 34250), (161, 34355), (167, 34466), (170, 34487), (179, 34610), (180, 34616), (182, 34658), (183, 34676), (191, 34820), (193, 34862), (197, 34967),

Gene: Asterius\_85 Start: 31454, Stop: 35167, Start Num: 1

Candidate Starts for Asterius\_85:

(Start: 1 @31454 has 171 MA's), (3, 31535), (5, 31556), (6, 31580), (8, 31625), (9, 31652), (10, 31655), (11, 31667), (12, 31685), (13, 31688), (22, 31907), (27, 32045), (29, 32132), (32, 32180), (35, 32243), (36, 32273), (38, 32300), (39, 32309), (42, 32327), (43, 32330), (46, 32384), (48, 32450), (65, 32843), (66, 32876), (71, 32996), (80, 33230), (99, 33434), (101, 33437), (111, 33494), (112, 33497), (115, 33509), (116, 33533), (120, 33551), (121, 33554), (122, 33566), (126, 33599), (130, 33641), (139, 33767), (140, 33770), (144, 33935), (146, 33989), (151, 34052), (153, 34061), (158, 34235), (161, 34340), (167, 34451), (170, 34472), (179, 34595), (180, 34601), (182, 34643), (183, 34661), (191, 34805), (193, 34847), (197, 34952),

Gene: Astraea\_86 Start: 31333, Stop: 35043, Start Num: 1

Candidate Starts for Astraea\_86:

(Start: 1 @31333 has 171 MA's), (3, 31414), (5, 31435), (6, 31459), (8, 31504), (9, 31531), (10, 31534), (11, 31546), (12, 31564), (13, 31567), (22, 31786), (27, 31924), (29, 32011), (32, 32059), (35, 32122), (36, 32152), (38, 32179), (39, 32188), (43, 32209), (46, 32263), (48, 32329), (65, 32722), (66, 32755), (71, 32875), (80, 33106), (99, 33310), (101, 33313), (111, 33370), (112, 33373), (115, 33385), (116, 33409), (120, 33427), (121, 33430), (122, 33442), (126, 33475), (130, 33517), (139, 33643), (140, 33646), (144, 33811), (151, 33928), (153, 33937), (158, 34111), (161, 34216), (167, 34327), (170, 34348), (179, 34471), (180, 34477), (182, 34519), (183, 34537), (191, 34681), (193, 34723), (197, 34828),

Gene: Atlantean\_87 Start: 31151, Stop: 34864, Start Num: 1

Candidate Starts for Atlantean\_87:

(Start: 1 @31151 has 171 MA's), (3, 31232), (5, 31253), (6, 31277), (8, 31322), (9, 31349), (10, 31352), (11, 31364), (12, 31382), (13, 31385), (22, 31604), (27, 31742), (29, 31829), (32, 31877), (35, 31940), (36, 31970), (38, 31997), (39, 32006), (42, 32024), (43, 32027), (46, 32081), (48, 32147), (65, 32540), (66, 32573), (71, 32693), (80, 32927), (99, 33131), (101, 33134), (111, 33191), (112, 33194), (115, 33206), (116, 33230), (120, 33248), (121, 33251), (122, 33263), (126, 33296), (130, 33338), (139, 33464), (140, 33467), (144, 33632), (146, 33686), (151, 33749), (153, 33758), (158, 33932), (161, 34037), (167, 34148), (170, 34169), (179, 34292), (180, 34298), (182, 34340), (183, 34358), (191, 34502), (193, 34544), (197, 34649),

Gene: Audrick\_90 Start: 31130, Stop: 34843, Start Num: 1

Candidate Starts for Audrick\_90:

(Start: 1 @31130 has 171 MA's), (3, 31211), (5, 31232), (6, 31256), (8, 31301), (9, 31328), (10, 31331), (11, 31343), (12, 31361), (13, 31364), (22, 31583), (27, 31721), (29, 31808), (32, 31856), (35, 31919), (36, 31949), (38, 31976), (39, 31985), (42, 32003), (43, 32006), (46, 32060), (48, 32126), (65, 32519), (66, 32552), (71, 32672), (80, 32906), (99, 33110), (101, 33113), (111, 33170), (112, 33173), (115, 33185), (116, 33209), (120, 33227), (121, 33230), (122, 33242), (126, 33275), (130, 33317), (139, 33443), (140, 33446), (144, 33611), (146, 33665), (151, 33728), (153, 33737), (158, 33911), (161, 34016), (167, 34127), (170, 34148), (179, 34271), (180, 34277), (182, 34319), (183, 34337), (191, 34481), (193, 34523), (197, 34628),

Gene: Ava3\_89 Start: 32205, Stop: 35540, Start Num: 1

Candidate Starts for Ava3\_89:

(Start: 1 @32205 has 171 MA's), (3, 32286), (5, 32307), (6, 32331), (8, 32376), (9, 32403), (10, 32406), (11, 32418), (12, 32436), (13, 32439), (22, 32658), (27, 32796), (29, 32883), (32, 32931), (35, 32994), (36, 33024), (38, 33051), (39, 33060), (42, 33078), (43, 33081), (46, 33135), (48, 33201), (65, 33594), (66, 33627), (71, 33747), (80, 33978), (99, 34182), (101, 34185), (111, 34242), (112, 34245), (115, 34257), (116, 34281), (120, 34299), (121, 34302), (122, 34314), (126, 34347), (130, 34389), (144, 34530), (146, 34584), (151, 34644), (153, 34653), (158, 34827), (161, 34932), (167, 35043), (170, 35064), (191, 35199), (193, 35241), (197, 35325),

Gene: Babyland\_88 Start: 30590, Stop: 34303, Start Num: 1

Candidate Starts for Babyland\_88:

(Start: 1 @30590 has 171 MA's), (3, 30671), (5, 30692), (6, 30716), (8, 30761), (9, 30788), (10, 30791), (11, 30803), (12, 30821), (13, 30824), (22, 31043), (27, 31181), (29, 31268), (32, 31316), (35, 31379), (36, 31409), (38, 31436), (39, 31445), (42, 31463), (43, 31466), (46, 31520), (48, 31586), (65, 31979), (66, 32012), (71, 32132), (80, 32366), (99, 32570), (101, 32573), (111, 32630), (112, 32633), (115, 32645), (116, 32669), (120, 32687), (121, 32690), (122, 32702), (126, 32735), (130, 32777), (139, 32903), (140, 32906), (144, 33071), (146, 33125), (151, 33188), (153, 33197), (158, 33371), (161, 33476), (167, 33587), (170, 33608), (179, 33731), (180, 33737), (182, 33779), (183, 33797), (191, 33941), (193, 33983), (197, 34088),

Gene: BackyardAgain\_85 Start: 31040, Stop: 34378, Start Num: 1

Candidate Starts for BackyardAgain\_85:

(Start: 1 @31040 has 171 MA's), (3, 31121), (5, 31142), (6, 31166), (8, 31211), (9, 31238), (10, 31241), (11, 31253), (12, 31271), (13, 31274), (22, 31493), (27, 31631), (29, 31718), (32, 31766), (35, 31829), (36, 31859), (38, 31886), (39, 31895), (43, 31916), (46, 31970), (48, 32036), (65, 32429), (66, 32462), (71, 32582), (80, 32813), (99, 33017), (101, 33020), (111, 33077), (112, 33080), (115, 33092), (116, 33116), (120, 33134), (121, 33137), (122, 33149), (126, 33182), (130, 33224), (144, 33365), (146, 33419), (151, 33482), (153, 33491), (158, 33665), (161, 33770), (167, 33881), (170, 33902), (191, 34037), (193, 34079), (197, 34163),

Gene: BadAgartude\_85 Start: 32206, Stop: 35919, Start Num: 1

Candidate Starts for BadAgartude\_85:

(Start: 1 @32206 has 171 MA's), (3, 32287), (5, 32308), (6, 32332), (9, 32404), (10, 32407), (11, 32419), (12, 32437), (13, 32440), (22, 32659), (27, 32797), (29, 32884), (32, 32932), (35, 32995), (36, 33025), (38, 33052), (39, 33061), (43, 33082), (46, 33136), (48, 33202), (65, 33595), (66, 33628), (71, 33748), (80, 33982), (99, 34186), (101, 34189), (111, 34246), (112, 34249), (115, 34261), (116, 34285), (120, 34303), (121, 34306), (122, 34318), (126, 34351), (130, 34393), (139, 34519), (140, 34522), (144, 34687), (146, 34741), (151, 34804), (153, 34813), (158, 34987), (161, 35092), (167, 35203), (170, 35224), (179, 35347), (180, 35353), (182, 35395), (183, 35413), (191, 35557), (193, 35599), (197, 35704),



Gene: BananaFence\_87 Start: 31688, Stop: 35401, Start Num: 1

Candidate Starts for BananaFence\_87:

(Start: 1 @31688 has 171 MA's), (3, 31769), (5, 31790), (6, 31814), (9, 31886), (10, 31889), (11, 31901), (12, 31919), (13, 31922), (22, 32141), (27, 32279), (29, 32366), (32, 32414), (35, 32477), (36, 32507), (38, 32534), (39, 32543), (43, 32564), (46, 32618), (48, 32684), (65, 33077), (66, 33110), (71, 33230), (80, 33464), (99, 33668), (101, 33671), (111, 33728), (112, 33731), (115, 33743), (116, 33767), (120, 33785), (121, 33788), (122, 33800), (126, 33833), (130, 33875), (139, 34001), (140, 34004), (144, 34169), (146, 34223), (151, 34286), (153, 34295), (158, 34469), (161, 34574), (167, 34685), (170, 34706), (179, 34829), (180, 34835), (182, 34877), (183, 34895), (191, 35039), (193, 35081), (197, 35186),

Gene: Bangla1971\_89 Start: 31602, Stop: 35312, Start Num: 1

Candidate Starts for Bangla1971\_89:

(Start: 1 @31602 has 171 MA's), (3, 31683), (5, 31704), (6, 31728), (8, 31773), (9, 31800), (10, 31803), (11, 31815), (12, 31833), (13, 31836), (22, 32055), (27, 32193), (29, 32280), (32, 32328), (35, 32391), (36, 32421), (38, 32448), (39, 32457), (43, 32478), (46, 32532), (48, 32598), (65, 32991), (66, 33024), (71, 33144), (80, 33375), (99, 33579), (101, 33582), (111, 33639), (112, 33642), (115, 33654), (116, 33678), (120, 33696), (121, 33699), (122, 33711), (126, 33744), (130, 33786), (139, 33912), (140, 33915), (144, 34080), (151, 34197), (153, 34206), (158, 34380), (161, 34485), (167, 34596), (170, 34617), (179, 34740), (180, 34746), (182, 34788), (183, 34806), (191, 34950), (193, 34992), (197, 35097),

Gene: Basquiat\_84 Start: 30538, Stop: 33879, Start Num: 1

Candidate Starts for Basquiat\_84:

(Start: 1 @30538 has 171 MA's), (3, 30619), (5, 30640), (6, 30664), (8, 30709), (9, 30736), (10, 30739), (11, 30751), (12, 30769), (13, 30772), (22, 30991), (27, 31129), (29, 31216), (32, 31264), (35, 31327), (36, 31357), (38, 31384), (39, 31393), (43, 31414), (46, 31468), (48, 31534), (65, 31927), (66, 31960), (75, 32206), (80, 32317), (99, 32521), (101, 32524), (111, 32581), (112, 32584), (115, 32596), (116, 32620), (120, 32638), (121, 32641), (122, 32653), (126, 32686), (130, 32728), (144, 32869), (146, 32923), (151, 32983), (153, 32992), (158, 33166), (161, 33271), (167, 33382), (170, 33403), (191, 33538), (193, 33580), (197, 33664),

Gene: BeanWater\_80 Start: 30742, Stop: 34452, Start Num: 1

Candidate Starts for BeanWater\_80:

(Start: 1 @30742 has 171 MA's), (3, 30823), (5, 30844), (6, 30868), (8, 30913), (9, 30940), (10, 30943), (11, 30955), (12, 30973), (13, 30976), (22, 31195), (27, 31333), (29, 31420), (32, 31468), (35, 31531), (36, 31561), (38, 31588), (39, 31597), (43, 31618), (46, 31672), (48, 31738), (65, 32131), (66, 32164), (71, 32284), (80, 32515), (99, 32719), (101, 32722), (111, 32779), (112, 32782), (115, 32794), (116, 32818), (120, 32836), (121, 32839), (122, 32851), (126, 32884), (130, 32926), (139, 33052), (140, 33055), (144, 33220), (151, 33337), (153, 33346), (158, 33520), (161, 33625), (167, 33736), (170, 33757), (179, 33880), (180, 33886), (182, 33928), (183, 33946), (191, 34090), (193, 34132), (197, 34237),

Gene: Belieber\_82 Start: 30503, Stop: 34216, Start Num: 1

Candidate Starts for Belieber\_82:

(Start: 1 @30503 has 171 MA's), (3, 30584), (5, 30605), (6, 30629), (8, 30674), (9, 30701), (10, 30704), (11, 30716), (12, 30734), (13, 30737), (22, 30956), (27, 31094), (29, 31181), (32, 31229), (35, 31292), (36, 31322), (38, 31349), (39, 31358), (42, 31376), (43, 31379), (46, 31433), (48, 31499), (65, 31892), (66, 31925), (71, 32045), (80, 32279), (99, 32483), (101, 32486), (111, 32543), (112, 32546), (115, 32558), (116, 32582), (120, 32600), (121, 32603), (122, 32615), (126, 32648), (130, 32690), (139, 32816), (140, 32819), (144, 32984), (146, 33038), (151, 33101), (153, 33110), (158, 33284), (161, 33389), (167, 33500), (170, 33521), (179, 33644), (180, 33650), (182, 33692), (183, 33710), (191,

33854), (193, 33896), (197, 34001),

Gene: BigCity\_96 Start: 34232, Stop: 37912, Start Num: 1

Candidate Starts for BigCity\_96:

(Start: 1 @34232 has 171 MA's), (3, 34313), (5, 34334), (6, 34358), (8, 34403), (9, 34430), (10, 34433), (11, 34445), (12, 34463), (13, 34466), (22, 34685), (25, 34787), (43, 34820), (46, 34874), (48, 34940), (65, 35333), (66, 35366), (71, 35486), (80, 35717), (99, 35921), (101, 35924), (111, 35981), (112, 35984), (115, 35996), (116, 36020), (120, 36038), (121, 36041), (122, 36053), (126, 36086), (130, 36128), (139, 36254), (140, 36257), (144, 36422), (151, 36539), (153, 36548), (158, 36722), (161, 36827), (167, 36938), (170, 36959), (179, 37082), (180, 37088), (182, 37130), (183, 37148), (189, 37409), (190, 37469), (191, 37550), (193, 37592), (197, 37697),

Gene: Bigswole\_93 Start: 34874, Stop: 38281, Start Num: 1

Candidate Starts for Bigswole\_93:

(Start: 1 @34874 has 171 MA's), (3, 34955), (5, 34976), (6, 35000), (8, 35045), (9, 35072), (10, 35075), (11, 35087), (12, 35105), (13, 35108), (22, 35327), (25, 35429), (43, 35462), (46, 35516), (48, 35582), (65, 35960), (66, 35993), (71, 36113), (80, 36344), (99, 36548), (101, 36551), (111, 36608), (112, 36611), (115, 36623), (116, 36647), (120, 36665), (121, 36668), (122, 36680), (126, 36713), (130, 36755), (139, 36881), (140, 36884), (144, 37049), (151, 37166), (153, 37175), (158, 37349), (161, 37454), (167, 37565), (170, 37586), (179, 37709), (180, 37715), (182, 37757), (183, 37775), (191, 37919), (193, 37961), (197, 38066),

Gene: Bipolarisk\_87 Start: 31857, Stop: 35570, Start Num: 1

Candidate Starts for Bipolarisk\_87:

(Start: 1 @31857 has 171 MA's), (3, 31938), (5, 31959), (6, 31983), (8, 32028), (9, 32055), (10, 32058), (11, 32070), (12, 32088), (13, 32091), (22, 32310), (27, 32448), (29, 32535), (32, 32583), (35, 32646), (36, 32676), (38, 32703), (39, 32712), (42, 32730), (43, 32733), (46, 32787), (48, 32853), (65, 33246), (66, 33279), (71, 33399), (80, 33633), (99, 33837), (101, 33840), (111, 33897), (112, 33900), (115, 33912), (116, 33936), (120, 33954), (121, 33957), (122, 33969), (126, 34002), (130, 34044), (139, 34170), (140, 34173), (144, 34338), (146, 34392), (151, 34455), (153, 34464), (158, 34638), (161, 34743), (167, 34854), (170, 34875), (179, 34998), (180, 35004), (182, 35046), (183, 35064), (191, 35208), (193, 35250), (197, 35355),

Gene: Blackbrain\_83 Start: 30355, Stop: 33696, Start Num: 1

Candidate Starts for Blackbrain\_83:

(Start: 1 @30355 has 171 MA's), (3, 30436), (5, 30457), (6, 30481), (8, 30526), (9, 30553), (10, 30556), (11, 30568), (12, 30586), (13, 30589), (22, 30808), (27, 30946), (29, 31033), (32, 31081), (33, 31132), (35, 31144), (36, 31174), (38, 31201), (39, 31210), (43, 31231), (46, 31285), (48, 31351), (65, 31744), (66, 31777), (75, 32023), (80, 32134), (99, 32338), (101, 32341), (111, 32398), (112, 32401), (115, 32413), (116, 32437), (120, 32455), (121, 32458), (122, 32470), (126, 32503), (130, 32545), (144, 32686), (146, 32740), (151, 32800), (153, 32809), (158, 32983), (161, 33088), (167, 33199), (170, 33220), (191, 33355), (193, 33397), (197, 33481),

Gene: Blackdragon\_82 Start: 30678, Stop: 34388, Start Num: 1

Candidate Starts for Blackdragon\_82:

(Start: 1 @30678 has 171 MA's), (3, 30759), (5, 30780), (6, 30804), (8, 30849), (9, 30876), (10, 30879), (11, 30891), (12, 30909), (13, 30912), (22, 31131), (27, 31269), (29, 31356), (32, 31404), (35, 31467), (36, 31497), (38, 31524), (39, 31533), (43, 31554), (46, 31608), (48, 31674), (65, 32067), (66, 32100), (71, 32220), (80, 32451), (99, 32655), (101, 32658), (111, 32715), (112, 32718), (115, 32730), (116, 32754), (120, 32772), (121, 32775), (122, 32787), (126, 32820), (130, 32862), (139, 32988), (140, 32991), (144, 33156), (151, 33273), (153, 33282), (158, 33456), (161, 33561), (167, 33672), (170, 33693), (179, 33816), (180, 33822), (182, 33864), (183, 33882), (191, 34026), (193, 34068), (197, 34173),

Gene: Blubba\_77 Start: 28963, Stop: 32385, Start Num: 1

Candidate Starts for Blubba\_77:

(Start: 1 @28963 has 171 MA's), (3, 29044), (5, 29065), (6, 29089), (8, 29134), (9, 29161), (10, 29164), (11, 29176), (12, 29194), (13, 29197), (22, 29416), (25, 29518), (43, 29551), (46, 29605), (48, 29671), (65, 30064), (66, 30097), (71, 30217), (80, 30448), (99, 30652), (101, 30655), (111, 30712), (112, 30715), (115, 30727), (116, 30751), (120, 30769), (121, 30772), (122, 30784), (126, 30817), (130, 30859), (139, 30985), (140, 30988), (144, 31153), (146, 31207), (151, 31270), (153, 31279), (158, 31453), (161, 31558), (167, 31669), (170, 31690), (179, 31813), (180, 31819), (182, 31861), (183, 31879), (191, 32023), (193, 32065), (197, 32170),

Gene: Bonray\_88 Start: 32250, Stop: 35963, Start Num: 1

Candidate Starts for Bonray\_88:

(Start: 1 @32250 has 171 MA's), (3, 32331), (5, 32352), (6, 32376), (9, 32448), (10, 32451), (11, 32463), (12, 32481), (13, 32484), (22, 32703), (27, 32841), (29, 32928), (32, 32976), (35, 33039), (36, 33069), (38, 33096), (39, 33105), (43, 33126), (46, 33180), (48, 33246), (65, 33639), (66, 33672), (71, 33792), (80, 34026), (99, 34230), (101, 34233), (111, 34290), (112, 34293), (115, 34305), (116, 34329), (120, 34347), (121, 34350), (122, 34362), (126, 34395), (130, 34437), (139, 34563), (140, 34566), (144, 34731), (146, 34785), (151, 34848), (153, 34857), (158, 35031), (161, 35136), (167, 35247), (170, 35268), (179, 35391), (180, 35397), (182, 35439), (183, 35457), (191, 35601), (193, 35643), (197, 35748),

Gene: Bread\_88 Start: 31749, Stop: 35462, Start Num: 1

Candidate Starts for Bread\_88:

(Start: 1 @31749 has 171 MA's), (3, 31830), (5, 31851), (6, 31875), (8, 31920), (9, 31947), (10, 31950), (11, 31962), (12, 31980), (13, 31983), (22, 32202), (27, 32340), (29, 32427), (32, 32475), (35, 32538), (36, 32568), (38, 32595), (39, 32604), (42, 32622), (43, 32625), (46, 32679), (48, 32745), (65, 33138), (66, 33171), (71, 33291), (80, 33525), (99, 33729), (101, 33732), (111, 33789), (112, 33792), (115, 33804), (116, 33828), (120, 33846), (121, 33849), (122, 33861), (126, 33894), (130, 33936), (139, 34062), (140, 34065), (144, 34230), (146, 34284), (151, 34347), (153, 34356), (158, 34530), (161, 34635), (167, 34746), (170, 34767), (179, 34890), (180, 34896), (182, 34938), (183, 34956), (191, 35100), (193, 35142), (197, 35247),

Gene: Breeniome\_88 Start: 30975, Stop: 34685, Start Num: 1

Candidate Starts for Breeniome\_88:

(Start: 1 @30975 has 171 MA's), (3, 31056), (5, 31077), (6, 31101), (8, 31146), (9, 31173), (10, 31176), (11, 31188), (12, 31206), (13, 31209), (22, 31428), (27, 31566), (29, 31653), (32, 31701), (35, 31764), (36, 31794), (38, 31821), (39, 31830), (43, 31851), (46, 31905), (48, 31971), (65, 32364), (66, 32397), (71, 32517), (80, 32748), (99, 32952), (101, 32955), (111, 33012), (112, 33015), (115, 33027), (116, 33051), (120, 33069), (121, 33072), (122, 33084), (126, 33117), (130, 33159), (139, 33285), (140, 33288), (144, 33453), (151, 33570), (153, 33579), (158, 33753), (161, 33858), (167, 33969), (170, 33990), (179, 34113), (180, 34119), (182, 34161), (183, 34179), (191, 34323), (193, 34365), (197, 34470),

Gene: Burrough\_88 Start: 32406, Stop: 36119, Start Num: 1

Candidate Starts for Burrough\_88:

(Start: 1 @32406 has 171 MA's), (3, 32487), (5, 32508), (6, 32532), (8, 32577), (9, 32604), (10, 32607), (11, 32619), (12, 32637), (13, 32640), (22, 32859), (27, 32997), (29, 33084), (32, 33132), (35, 33195), (36, 33225), (38, 33252), (39, 33261), (42, 33279), (43, 33282), (46, 33336), (48, 33402), (65, 33795), (66, 33828), (71, 33948), (80, 34182), (99, 34386), (101, 34389), (111, 34446), (112, 34449), (115, 34461), (116, 34485), (120, 34503), (121, 34506), (122, 34518), (126, 34551), (130, 34593), (139, 34719), (140, 34722), (144, 34887), (146, 34941), (151, 35004), (153, 35013), (158, 35187), (161, 35292), (167, 35403), (170, 35424), (179, 35547), (180, 35553), (182, 35595), (183, 35613), (191,

35757), (193, 35799), (197, 35904),

Gene: Bxz1\_87 Start: 33457, Stop: 37170, Start Num: 1

Candidate Starts for Bxz1\_87:

(Start: 1 @33457 has 171 MA's), (3, 33538), (5, 33559), (6, 33583), (8, 33628), (9, 33655), (10, 33658), (11, 33670), (12, 33688), (13, 33691), (22, 33910), (27, 34048), (29, 34135), (32, 34183), (35, 34246), (36, 34276), (38, 34303), (39, 34312), (42, 34330), (43, 34333), (46, 34387), (48, 34453), (65, 34846), (66, 34879), (71, 34999), (80, 35233), (99, 35437), (101, 35440), (111, 35497), (112, 35500), (115, 35512), (116, 35536), (120, 35554), (121, 35557), (122, 35569), (126, 35602), (130, 35644), (139, 35770), (140, 35773), (144, 35938), (146, 35992), (151, 36055), (153, 36064), (158, 36238), (161, 36343), (167, 36454), (170, 36475), (179, 36598), (180, 36604), (182, 36646), (183, 36664), (191, 36808), (193, 36850), (197, 36955),

Gene: Cactojaque\_83 Start: 30462, Stop: 33803, Start Num: 1

Candidate Starts for Cactojaque\_83:

(Start: 1 @30462 has 171 MA's), (3, 30543), (5, 30564), (6, 30588), (8, 30633), (9, 30660), (10, 30663), (11, 30675), (12, 30693), (13, 30696), (22, 30915), (27, 31053), (29, 31140), (32, 31188), (33, 31239), (35, 31251), (36, 31281), (38, 31308), (39, 31317), (43, 31338), (46, 31392), (48, 31458), (65, 31851), (66, 31884), (75, 32130), (80, 32241), (99, 32445), (101, 32448), (111, 32505), (112, 32508), (115, 32520), (116, 32544), (120, 32562), (121, 32565), (122, 32577), (126, 32610), (130, 32652), (144, 32793), (146, 32847), (151, 32907), (153, 32916), (158, 33090), (161, 33195), (167, 33306), (170, 33327), (191, 33462), (193, 33504), (197, 33588),

Gene: Cali\_83 Start: 31979, Stop: 35692, Start Num: 1

Candidate Starts for Cali\_83:

(Start: 1 @31979 has 171 MA's), (3, 32060), (5, 32081), (6, 32105), (8, 32150), (9, 32177), (10, 32180), (11, 32192), (12, 32210), (13, 32213), (22, 32432), (27, 32570), (29, 32657), (32, 32705), (35, 32768), (36, 32798), (38, 32825), (39, 32834), (43, 32855), (46, 32909), (48, 32975), (65, 33368), (66, 33401), (71, 33521), (80, 33755), (99, 33959), (101, 33962), (111, 34019), (112, 34022), (115, 34034), (116, 34058), (120, 34076), (121, 34079), (122, 34091), (126, 34124), (130, 34166), (139, 34292), (140, 34295), (144, 34460), (151, 34577), (153, 34586), (158, 34760), (161, 34865), (167, 34976), (170, 34997), (179, 35120), (180, 35126), (182, 35168), (183, 35186), (191, 35330), (193, 35372), (197, 35477),

Gene: Cane17\_76 Start: 28573, Stop: 31995, Start Num: 1

Candidate Starts for Cane17\_76:

(Start: 1 @28573 has 171 MA's), (3, 28654), (5, 28675), (6, 28699), (8, 28744), (9, 28771), (10, 28774), (11, 28786), (12, 28804), (13, 28807), (22, 29026), (25, 29128), (43, 29161), (46, 29215), (48, 29281), (65, 29674), (66, 29707), (71, 29827), (80, 30058), (99, 30262), (101, 30265), (111, 30322), (112, 30325), (115, 30337), (116, 30361), (120, 30379), (121, 30382), (122, 30394), (126, 30427), (130, 30469), (139, 30595), (140, 30598), (144, 30763), (146, 30817), (151, 30880), (153, 30889), (158, 31063), (161, 31168), (167, 31279), (170, 31300), (179, 31423), (180, 31429), (182, 31471), (183, 31489), (191, 31633), (193, 31675), (197, 31780),

Gene: Capablanca\_90 Start: 32276, Stop: 35989, Start Num: 1

Candidate Starts for Capablanca\_90:

(Start: 1 @32276 has 171 MA's), (3, 32357), (5, 32378), (6, 32402), (8, 32447), (9, 32474), (10, 32477), (11, 32489), (12, 32507), (13, 32510), (22, 32729), (27, 32867), (29, 32954), (32, 33002), (35, 33065), (36, 33095), (38, 33122), (39, 33131), (42, 33149), (43, 33152), (46, 33206), (48, 33272), (65, 33665), (66, 33698), (71, 33818), (80, 34052), (99, 34256), (101, 34259), (111, 34316), (112, 34319), (115, 34331), (116, 34355), (120, 34373), (121, 34376), (122, 34388), (126, 34421), (130, 34463), (139, 34589), (140, 34592), (144, 34757), (146, 34811), (151, 34874), (153, 34883), (158, 35057), (161, 35162), (167, 35273), (170, 35294), (179, 35417), (180, 35423), (182, 35465), (183, 35483), (191,

35627), (193, 35669), (197, 35774),

Gene: Caravan\_83 Start: 31801, Stop: 35514, Start Num: 1

Candidate Starts for Caravan\_83:

(Start: 1 @31801 has 171 MA's), (3, 31882), (5, 31903), (6, 31927), (8, 31972), (9, 31999), (10, 32002), (11, 32014), (12, 32032), (13, 32035), (22, 32254), (27, 32392), (29, 32479), (32, 32527), (35, 32590), (36, 32620), (38, 32647), (39, 32656), (42, 32674), (43, 32677), (46, 32731), (48, 32797), (65, 33190), (66, 33223), (71, 33343), (80, 33577), (99, 33781), (101, 33784), (111, 33841), (112, 33844), (115, 33856), (116, 33880), (120, 33898), (121, 33901), (122, 33913), (126, 33946), (130, 33988), (139, 34114), (140, 34117), (144, 34282), (146, 34336), (151, 34399), (153, 34408), (158, 34582), (161, 34687), (167, 34798), (170, 34819), (179, 34942), (180, 34948), (182, 34990), (183, 35008), (191, 35152), (193, 35194), (197, 35299),

Gene: Catera\_87 Start: 30602, Stop: 33964, Start Num: 1

Candidate Starts for Catera\_87:

(Start: 1 @30602 has 171 MA's), (3, 30683), (5, 30704), (6, 30728), (8, 30773), (9, 30800), (10, 30803), (11, 30815), (12, 30833), (13, 30836), (22, 31055), (27, 31193), (29, 31280), (32, 31328), (35, 31391), (36, 31421), (38, 31448), (39, 31457), (43, 31478), (46, 31532), (48, 31598), (64, 31976), (65, 32012), (75, 32288), (80, 32399), (99, 32603), (101, 32606), (111, 32663), (112, 32666), (115, 32678), (116, 32702), (120, 32720), (121, 32723), (122, 32735), (126, 32768), (130, 32810), (144, 32951), (146, 33005), (151, 33068), (153, 33077), (158, 33251), (161, 33356), (167, 33467), (170, 33488), (191, 33623), (193, 33665), (197, 33749),

Gene: Chargie21\_84 Start: 30538, Stop: 33879, Start Num: 1

Candidate Starts for Chargie21\_84:

(Start: 1 @30538 has 171 MA's), (3, 30619), (5, 30640), (6, 30664), (8, 30709), (9, 30736), (10, 30739), (11, 30751), (12, 30769), (13, 30772), (22, 30991), (27, 31129), (29, 31216), (32, 31264), (35, 31327), (36, 31357), (38, 31384), (39, 31393), (43, 31414), (46, 31468), (48, 31534), (65, 31927), (66, 31960), (75, 32206), (80, 32317), (99, 32521), (101, 32524), (111, 32581), (112, 32584), (115, 32596), (116, 32620), (120, 32638), (121, 32641), (122, 32653), (126, 32686), (130, 32728), (144, 32869), (146, 32923), (151, 32983), (153, 32992), (158, 33166), (161, 33271), (167, 33382), (170, 33403), (191, 33538), (193, 33580), (197, 33664),

Gene: CharlieB\_83 Start: 29977, Stop: 33690, Start Num: 1

Candidate Starts for CharlieB\_83:

(Start: 1 @29977 has 171 MA's), (3, 30058), (5, 30079), (6, 30103), (8, 30148), (9, 30175), (10, 30178), (11, 30190), (12, 30208), (13, 30211), (22, 30430), (27, 30568), (29, 30655), (32, 30703), (35, 30766), (36, 30796), (38, 30823), (39, 30832), (43, 30853), (46, 30907), (48, 30973), (65, 31366), (66, 31399), (71, 31519), (80, 31753), (99, 31957), (101, 31960), (111, 32017), (112, 32020), (115, 32032), (116, 32056), (120, 32074), (121, 32077), (122, 32089), (126, 32122), (130, 32164), (139, 32290), (140, 32293), (144, 32458), (151, 32575), (153, 32584), (158, 32758), (161, 32863), (167, 32974), (170, 32995), (179, 33118), (180, 33124), (182, 33166), (183, 33184), (191, 33328), (193, 33370), (197, 33475),

Gene: ChaylaJr\_83 Start: 30253, Stop: 33594, Start Num: 1

Candidate Starts for ChaylaJr\_83:

(Start: 1 @30253 has 171 MA's), (3, 30334), (5, 30355), (6, 30379), (8, 30424), (9, 30451), (10, 30454), (11, 30466), (12, 30484), (13, 30487), (22, 30706), (27, 30844), (29, 30931), (32, 30979), (35, 31042), (36, 31072), (38, 31099), (39, 31108), (43, 31129), (46, 31183), (48, 31249), (65, 31642), (66, 31675), (75, 31921), (80, 32032), (99, 32236), (101, 32239), (111, 32296), (112, 32299), (115, 32311), (116, 32335), (120, 32353), (121, 32356), (122, 32368), (126, 32401), (130, 32443), (144, 32584), (146, 32638), (151, 32698), (153, 32707), (158, 32881), (161, 32986), (167, 33097), (170, 33118), (191, 33253), (193, 33295), (197, 33379),

Gene: CherryTomatoes\_86 Start: 33329, Stop: 36184, Start Num: 16

Candidate Starts for CherryTomatoes\_86:

(Start: 16 @33329 has 4 MA's), (18, 33410), (20, 33422), (23, 33500), (24, 33563), (26, 33572), (39, 33584), (Start: 44 @33647 has 2 MA's), (50, 33806), (51, 33812), (57, 33917), (80, 34412), (81, 34415), (82, 34448), (115, 34685), (116, 34709), (119, 34721), (128, 34802), (129, 34805), (135, 34856), (163, 35447), (164, 35453), (168, 35492), (169, 35495), (192, 35858), (194, 35927), (195, 35948), (198, 35987), (200, 36083), (201, 36098),

Gene: ChickenPhender\_84 Start: 30586, Stop: 33927, Start Num: 1

Candidate Starts for ChickenPhender\_84:

(Start: 1 @30586 has 171 MA's), (3, 30667), (5, 30688), (6, 30712), (8, 30757), (9, 30784), (10, 30787), (11, 30799), (12, 30817), (13, 30820), (22, 31039), (27, 31177), (29, 31264), (32, 31312), (35, 31375), (36, 31405), (38, 31432), (39, 31441), (43, 31462), (46, 31516), (48, 31582), (65, 31975), (66, 32008), (75, 32254), (80, 32365), (99, 32569), (101, 32572), (111, 32629), (112, 32632), (115, 32644), (116, 32668), (120, 32686), (121, 32689), (122, 32701), (126, 32734), (130, 32776), (144, 32917), (146, 32971), (151, 33031), (153, 33040), (158, 33214), (161, 33319), (167, 33430), (170, 33451), (191, 33586), (193, 33628), (197, 33712),

Gene: Chomp\_87 Start: 31638, Stop: 35348, Start Num: 1

Candidate Starts for Chomp\_87:

(Start: 1 @31638 has 171 MA's), (3, 31719), (5, 31740), (6, 31764), (8, 31809), (9, 31836), (10, 31839), (11, 31851), (12, 31869), (13, 31872), (22, 32091), (27, 32229), (29, 32316), (32, 32364), (35, 32427), (36, 32457), (38, 32484), (39, 32493), (43, 32514), (46, 32568), (48, 32634), (65, 33027), (66, 33060), (71, 33180), (80, 33411), (99, 33615), (101, 33618), (111, 33675), (112, 33678), (115, 33690), (116, 33714), (120, 33732), (121, 33735), (122, 33747), (126, 33780), (130, 33822), (139, 33948), (140, 33951), (144, 34116), (151, 34233), (153, 34242), (158, 34416), (161, 34521), (167, 34632), (170, 34653), (179, 34776), (180, 34782), (182, 34824), (183, 34842), (191, 34986), (193, 35028), (197, 35133),

Gene: CindyLou\_89 Start: 31676, Stop: 35389, Start Num: 1

Candidate Starts for CindyLou\_89:

(Start: 1 @31676 has 171 MA's), (3, 31757), (5, 31778), (6, 31802), (8, 31847), (9, 31874), (10, 31877), (11, 31889), (12, 31907), (13, 31910), (22, 32129), (27, 32267), (29, 32354), (32, 32402), (35, 32465), (36, 32495), (38, 32522), (39, 32531), (42, 32549), (43, 32552), (46, 32606), (48, 32672), (65, 33065), (66, 33098), (71, 33218), (80, 33452), (99, 33656), (101, 33659), (111, 33716), (112, 33719), (115, 33731), (116, 33755), (120, 33773), (121, 33776), (122, 33788), (126, 33821), (130, 33863), (139, 33989), (140, 33992), (144, 34157), (146, 34211), (151, 34274), (153, 34283), (158, 34457), (161, 34562), (167, 34673), (170, 34694), (179, 34817), (180, 34823), (182, 34865), (183, 34883), (191, 35027), (193, 35069), (197, 35174),

Gene: Colt\_78 Start: 29635, Stop: 33057, Start Num: 1

Candidate Starts for Colt\_78:

(Start: 1 @29635 has 171 MA's), (3, 29716), (5, 29737), (6, 29761), (8, 29806), (9, 29833), (10, 29836), (11, 29848), (12, 29866), (13, 29869), (22, 30088), (25, 30190), (43, 30223), (46, 30277), (48, 30343), (65, 30736), (66, 30769), (71, 30889), (80, 31120), (99, 31324), (101, 31327), (111, 31384), (112, 31387), (115, 31399), (116, 31423), (120, 31441), (121, 31444), (122, 31456), (126, 31489), (130, 31531), (139, 31657), (140, 31660), (144, 31825), (146, 31879), (151, 31942), (153, 31951), (158, 32125), (161, 32230), (167, 32341), (170, 32362), (179, 32485), (180, 32491), (182, 32533), (183, 32551), (191, 32695), (193, 32737), (197, 32842),

Gene: Concombre\_95 Start: 34395, Stop: 38105, Start Num: 1

Candidate Starts for Concombre\_95:

(Start: 1 @34395 has 171 MA's), (3, 34476), (5, 34497), (6, 34521), (8, 34566), (9, 34593), (10, 34596), (11, 34608), (12, 34626), (13, 34629), (22, 34848), (27, 34986), (29, 35073), (32, 35121), (35, 35184), (36, 35214), (38, 35241), (39, 35250), (43, 35271), (46, 35325), (48, 35391), (65, 35784), (66, 35817), (71, 35937), (80, 36168), (99, 36372), (101, 36375), (111, 36432), (112, 36435), (115, 36447), (116, 36471), (120, 36489), (121, 36492), (122, 36504), (126, 36537), (130, 36579), (139, 36705), (140, 36708), (144, 36873), (146, 36927), (151, 36990), (153, 36999), (158, 37173), (161, 37278), (167, 37389), (170, 37410), (179, 37533), (180, 37539), (182, 37581), (183, 37599), (191, 37743), (193, 37785), (197, 37890),

Gene: DTDevon\_89 Start: 32315, Stop: 36025, Start Num: 1

Candidate Starts for DTDevon\_89:

(Start: 1 @32315 has 171 MA's), (3, 32396), (5, 32417), (6, 32441), (8, 32486), (9, 32513), (10, 32516), (11, 32528), (12, 32546), (13, 32549), (22, 32768), (27, 32906), (29, 32993), (32, 33041), (35, 33104), (36, 33134), (38, 33161), (39, 33170), (43, 33191), (46, 33245), (48, 33311), (65, 33704), (66, 33737), (71, 33857), (80, 34088), (99, 34292), (101, 34295), (111, 34352), (112, 34355), (115, 34367), (116, 34391), (120, 34409), (121, 34412), (122, 34424), (126, 34457), (130, 34499), (139, 34625), (140, 34628), (144, 34793), (151, 34910), (153, 34919), (158, 35093), (161, 35198), (167, 35309), (170, 35330), (179, 35453), (180, 35459), (182, 35501), (183, 35519), (191, 35663), (193, 35705), (197, 35810),

Gene: Daffodil\_93 Start: 32145, Stop: 35858, Start Num: 1

Candidate Starts for Daffodil\_93:

(Start: 1 @32145 has 171 MA's), (3, 32226), (5, 32247), (6, 32271), (8, 32316), (9, 32343), (10, 32346), (11, 32358), (12, 32376), (13, 32379), (22, 32598), (27, 32736), (29, 32823), (32, 32871), (35, 32934), (36, 32964), (38, 32991), (39, 33000), (42, 33018), (43, 33021), (46, 33075), (48, 33141), (65, 33534), (66, 33567), (71, 33687), (80, 33921), (99, 34125), (101, 34128), (111, 34185), (112, 34188), (115, 34200), (116, 34224), (120, 34242), (121, 34245), (122, 34257), (126, 34290), (130, 34332), (139, 34458), (140, 34461), (144, 34626), (146, 34680), (151, 34743), (153, 34752), (158, 34926), (161, 35031), (167, 35142), (170, 35163), (179, 35286), (180, 35292), (182, 35334), (183, 35352), (191, 35496), (193, 35538), (197, 35643),

Gene: Dandelion\_95 Start: 34817, Stop: 38551, Start Num: 1

Candidate Starts for Dandelion\_95:

(Start: 1 @34817 has 171 MA's), (3, 34898), (5, 34919), (6, 34943), (8, 34988), (9, 35015), (10, 35018), (11, 35030), (12, 35048), (13, 35051), (22, 35270), (27, 35408), (29, 35495), (32, 35543), (35, 35606), (36, 35636), (38, 35663), (39, 35672), (43, 35693), (46, 35747), (48, 35813), (64, 36191), (65, 36227), (75, 36503), (80, 36614), (99, 36818), (101, 36821), (111, 36878), (112, 36881), (115, 36893), (116, 36917), (120, 36935), (121, 36938), (122, 36950), (126, 36983), (130, 37025), (139, 37151), (140, 37154), (144, 37319), (151, 37436), (153, 37445), (158, 37619), (161, 37724), (167, 37835), (170, 37856), (179, 37979), (180, 37985), (182, 38027), (183, 38045), (191, 38189), (193, 38231), (197, 38336),

Gene: Darko\_88 Start: 32076, Stop: 35789, Start Num: 1

Candidate Starts for Darko\_88:

(Start: 1 @32076 has 171 MA's), (3, 32157), (5, 32178), (6, 32202), (9, 32274), (10, 32277), (11, 32289), (12, 32307), (13, 32310), (22, 32529), (27, 32667), (29, 32754), (32, 32802), (35, 32865), (36, 32895), (38, 32922), (39, 32931), (43, 32952), (46, 33006), (48, 33072), (65, 33465), (66, 33498), (71, 33618), (80, 33852), (99, 34056), (101, 34059), (111, 34116), (112, 34119), (115, 34131), (116, 34155), (120, 34173), (121, 34176), (122, 34188), (126, 34221), (130, 34263), (139, 34389), (140, 34392), (144, 34557), (146, 34611), (151, 34674), (153, 34683), (158, 34857), (161, 34962), (167, 35073), (170, 35094), (179, 35217), (180, 35223), (182, 35265), (183, 35283), (191, 35427), (193, 35469), (197, 35574),

Gene: Delilah\_88 Start: 32146, Stop: 35859, Start Num: 1

Candidate Starts for Delilah\_88:

(Start: 1 @32146 has 171 MA's), (3, 32227), (5, 32248), (6, 32272), (8, 32317), (9, 32344), (10, 32347), (11, 32359), (12, 32377), (13, 32380), (22, 32599), (27, 32737), (29, 32824), (32, 32872), (35, 32935), (36, 32965), (38, 32992), (39, 33001), (42, 33019), (43, 33022), (46, 33076), (48, 33142), (65, 33535), (66, 33568), (71, 33688), (80, 33922), (99, 34126), (101, 34129), (111, 34186), (112, 34189), (115, 34201), (116, 34225), (120, 34243), (121, 34246), (122, 34258), (126, 34291), (130, 34333), (139, 34459), (140, 34462), (144, 34627), (146, 34681), (151, 34744), (153, 34753), (158, 34927), (161, 35032), (167, 35143), (170, 35164), (179, 35287), (180, 35293), (182, 35335), (183, 35353), (191, 35497), (193, 35539), (197, 35644),

Gene: Delylah\_91 Start: 31939, Stop: 35652, Start Num: 1

Candidate Starts for Delylah\_91:

(Start: 1 @31939 has 171 MA's), (3, 32020), (5, 32041), (6, 32065), (8, 32110), (9, 32137), (10, 32140), (11, 32152), (12, 32170), (13, 32173), (22, 32392), (27, 32530), (29, 32617), (32, 32665), (35, 32728), (36, 32758), (38, 32785), (39, 32794), (42, 32812), (43, 32815), (46, 32869), (48, 32935), (65, 33328), (66, 33361), (71, 33481), (80, 33715), (99, 33919), (101, 33922), (111, 33979), (112, 33982), (115, 33994), (116, 34018), (120, 34036), (121, 34039), (122, 34051), (126, 34084), (130, 34126), (139, 34252), (140, 34255), (144, 34420), (146, 34474), (151, 34537), (153, 34546), (158, 34720), (161, 34825), (167, 34936), (170, 34957), (179, 35080), (180, 35086), (182, 35128), (183, 35146), (191, 35290), (193, 35332), (197, 35437),

Gene: Demodog\_95 Start: 34395, Stop: 38105, Start Num: 1

Candidate Starts for Demodog\_95:

(Start: 1 @34395 has 171 MA's), (3, 34476), (5, 34497), (6, 34521), (8, 34566), (9, 34593), (10, 34596), (11, 34608), (12, 34626), (13, 34629), (22, 34848), (27, 34986), (29, 35073), (32, 35121), (35, 35184), (36, 35214), (38, 35241), (39, 35250), (43, 35271), (46, 35325), (48, 35391), (65, 35784), (66, 35817), (71, 35937), (80, 36168), (99, 36372), (101, 36375), (111, 36432), (112, 36435), (115, 36447), (116, 36471), (120, 36489), (121, 36492), (122, 36504), (126, 36537), (130, 36579), (139, 36705), (140, 36708), (144, 36873), (146, 36927), (151, 36990), (153, 36999), (158, 37173), (161, 37278), (167, 37389), (170, 37410), (179, 37533), (180, 37539), (182, 37581), (183, 37599), (191, 37743), (193, 37785), (197, 37890),

Gene: Derek\_88 Start: 31440, Stop: 35150, Start Num: 1

Candidate Starts for Derek\_88:

(Start: 1 @31440 has 171 MA's), (3, 31521), (5, 31542), (6, 31566), (8, 31611), (9, 31638), (10, 31641), (11, 31653), (12, 31671), (13, 31674), (22, 31893), (27, 32031), (29, 32118), (32, 32166), (35, 32229), (36, 32259), (38, 32286), (39, 32295), (43, 32316), (46, 32370), (48, 32436), (65, 32829), (66, 32862), (71, 32982), (80, 33213), (99, 33417), (101, 33420), (111, 33477), (112, 33480), (115, 33492), (116, 33516), (120, 33534), (121, 33537), (122, 33549), (126, 33582), (130, 33624), (139, 33750), (140, 33753), (144, 33918), (151, 34035), (153, 34044), (158, 34218), (161, 34323), (167, 34434), (170, 34455), (179, 34578), (180, 34584), (182, 34626), (183, 34644), (191, 34788), (193, 34830), (197, 34935),

Gene: Dietrick\_80 Start: 30264, Stop: 33626, Start Num: 1

Candidate Starts for Dietrick\_80:

(Start: 1 @30264 has 171 MA's), (3, 30345), (5, 30366), (6, 30390), (8, 30435), (9, 30462), (10, 30465), (11, 30477), (12, 30495), (13, 30498), (22, 30717), (27, 30855), (29, 30942), (32, 30990), (35, 31053), (36, 31083), (38, 31110), (39, 31119), (43, 31140), (46, 31194), (48, 31260), (64, 31638), (65, 31674), (75, 31950), (80, 32061), (99, 32265), (101, 32268), (111, 32325), (112, 32328), (115, 32340), (116, 32364), (120, 32382), (121, 32385), (122, 32397), (126, 32430), (130, 32472), (144, 32613), (146, 32667), (151, 32730), (153, 32739), (158, 32913), (161, 33018), (167, 33129), (170, 33150), (191, 33285), (193, 33327), (197, 33411),



Gene: DirtMonster\_81 Start: 30741, Stop: 34451, Start Num: 1

Candidate Starts for DirtMonster\_81:

(Start: 1 @30741 has 171 MA's), (3, 30822), (5, 30843), (6, 30867), (8, 30912), (9, 30939), (10, 30942), (11, 30954), (12, 30972), (13, 30975), (22, 31194), (27, 31332), (29, 31419), (32, 31467), (35, 31530), (36, 31560), (38, 31587), (39, 31596), (43, 31617), (46, 31671), (48, 31737), (65, 32130), (66, 32163), (71, 32283), (80, 32514), (99, 32718), (101, 32721), (111, 32778), (112, 32781), (115, 32793), (116, 32817), (120, 32835), (121, 32838), (122, 32850), (126, 32883), (130, 32925), (139, 33051), (140, 33054), (144, 33219), (146, 33273), (151, 33336), (153, 33345), (158, 33519), (161, 33624), (167, 33735), (170, 33756), (179, 33879), (180, 33885), (182, 33927), (183, 33945), (191, 34089), (193, 34131), (197, 34236),

Gene: Domi\_82 Start: 31470, Stop: 35183, Start Num: 1

Candidate Starts for Domi\_82:

(Start: 1 @31470 has 171 MA's), (3, 31551), (5, 31572), (6, 31596), (9, 31668), (10, 31671), (11, 31683), (12, 31701), (13, 31704), (22, 31923), (27, 32061), (29, 32148), (32, 32196), (35, 32259), (36, 32289), (38, 32316), (39, 32325), (43, 32346), (46, 32400), (48, 32466), (65, 32859), (66, 32892), (71, 33012), (80, 33246), (99, 33450), (101, 33453), (111, 33510), (112, 33513), (115, 33525), (116, 33549), (120, 33567), (121, 33570), (122, 33582), (126, 33615), (130, 33657), (139, 33783), (140, 33786), (144, 33951), (146, 34005), (151, 34068), (153, 34077), (158, 34251), (161, 34356), (167, 34467), (170, 34488), (179, 34611), (180, 34617), (182, 34659), (183, 34677), (191, 34821), (193, 34863), (197, 34968),

Gene: DrPhinkDaddy\_87 Start: 32201, Stop: 35914, Start Num: 1

Candidate Starts for DrPhinkDaddy\_87:

(Start: 1 @32201 has 171 MA's), (3, 32282), (5, 32303), (6, 32327), (8, 32372), (9, 32399), (10, 32402), (11, 32414), (12, 32432), (13, 32435), (22, 32654), (27, 32792), (29, 32879), (32, 32927), (35, 32990), (36, 33020), (38, 33047), (39, 33056), (42, 33074), (43, 33077), (46, 33131), (48, 33197), (65, 33590), (66, 33623), (71, 33743), (80, 33977), (99, 34181), (101, 34184), (111, 34241), (112, 34244), (115, 34256), (116, 34280), (120, 34298), (121, 34301), (122, 34313), (126, 34346), (130, 34388), (139, 34514), (140, 34517), (144, 34682), (146, 34736), (151, 34799), (153, 34808), (158, 34982), (161, 35087), (167, 35198), (170, 35219), (179, 35342), (180, 35348), (182, 35390), (183, 35408), (191, 35552), (193, 35594), (197, 35699),

Gene: Drazdys\_88 Start: 31946, Stop: 35656, Start Num: 1

Candidate Starts for Drazdys\_88:

(Start: 1 @31946 has 171 MA's), (3, 32027), (5, 32048), (6, 32072), (8, 32117), (9, 32144), (10, 32147), (11, 32159), (12, 32177), (13, 32180), (22, 32399), (27, 32537), (29, 32624), (32, 32672), (35, 32735), (36, 32765), (38, 32792), (39, 32801), (43, 32822), (46, 32876), (48, 32942), (65, 33335), (66, 33368), (71, 33488), (80, 33719), (99, 33923), (101, 33926), (111, 33983), (112, 33986), (115, 33998), (116, 34022), (120, 34040), (121, 34043), (122, 34055), (126, 34088), (130, 34130), (139, 34256), (140, 34259), (144, 34424), (151, 34541), (153, 34550), (158, 34724), (161, 34829), (167, 34940), (170, 34961), (179, 35084), (180, 35090), (182, 35132), (183, 35150), (191, 35294), (193, 35336), (197, 35441),

Gene: ET08\_77 Start: 29845, Stop: 33558, Start Num: 1

Candidate Starts for ET08\_77:

(Start: 1 @29845 has 171 MA's), (3, 29926), (5, 29947), (6, 29971), (8, 30016), (9, 30043), (10, 30046), (11, 30058), (12, 30076), (13, 30079), (22, 30298), (27, 30436), (29, 30523), (32, 30571), (35, 30634), (36, 30664), (38, 30691), (39, 30700), (43, 30721), (46, 30775), (48, 30841), (65, 31234), (66, 31267), (71, 31387), (80, 31621), (99, 31825), (101, 31828), (111, 31885), (112, 31888), (115, 31900), (116, 31924), (120, 31942), (121, 31945), (122, 31957), (126, 31990), (130, 32032), (139, 32158), (140, 32161), (144, 32326), (151, 32443), (153, 32452), (158, 32626), (161, 32731), (167, 32842), (170,

32863), (179, 32986), (180, 32992), (182, 33034), (183, 33052), (191, 33196), (193, 33238), (197, 33343),

Gene: EasyJones\_91 Start: 31645, Stop: 34986, Start Num: 1

Candidate Starts for EasyJones\_91:

(Start: 1 @31645 has 171 MA's), (3, 31726), (5, 31747), (6, 31771), (8, 31816), (9, 31843), (10, 31846), (11, 31858), (12, 31876), (13, 31879), (22, 32098), (27, 32236), (29, 32323), (32, 32371), (35, 32434), (36, 32464), (38, 32491), (39, 32500), (43, 32521), (46, 32575), (48, 32641), (65, 33034), (66, 33067), (75, 33313), (80, 33424), (99, 33628), (101, 33631), (111, 33688), (112, 33691), (115, 33703), (116, 33727), (120, 33745), (121, 33748), (122, 33760), (126, 33793), (130, 33835), (144, 33976), (146, 34030), (151, 34090), (153, 34099), (158, 34273), (161, 34378), (167, 34489), (170, 34510), (191, 34645), (193, 34687), (197, 34771),

Gene: EggyFarm\_96 Start: 34232, Stop: 37912, Start Num: 1

Candidate Starts for EggyFarm\_96:

(Start: 1 @34232 has 171 MA's), (3, 34313), (5, 34334), (6, 34358), (8, 34403), (9, 34430), (10, 34433), (11, 34445), (12, 34463), (13, 34466), (22, 34685), (25, 34787), (43, 34820), (46, 34874), (48, 34940), (65, 35333), (66, 35366), (71, 35486), (80, 35717), (99, 35921), (101, 35924), (111, 35981), (112, 35984), (115, 35996), (116, 36020), (120, 36038), (121, 36041), (122, 36053), (126, 36086), (130, 36128), (139, 36254), (140, 36257), (144, 36422), (151, 36539), (153, 36548), (158, 36722), (161, 36827), (167, 36938), (170, 36959), (179, 37082), (180, 37088), (182, 37130), (183, 37148), (189, 37409), (190, 37469), (191, 37550), (193, 37592), (197, 37697),

Gene: EmToTheThree\_91 Start: 33618, Stop: 37310, Start Num: 1

Candidate Starts for EmToTheThree\_91:

(Start: 1 @33618 has 171 MA's), (3, 33699), (5, 33720), (6, 33744), (8, 33789), (9, 33816), (10, 33819), (11, 33831), (12, 33849), (13, 33852), (22, 34071), (27, 34209), (29, 34296), (32, 34344), (35, 34407), (36, 34437), (38, 34464), (39, 34473), (43, 34494), (46, 34548), (48, 34614), (65, 35007), (66, 35040), (71, 35160), (80, 35394), (99, 35598), (101, 35601), (111, 35658), (112, 35661), (115, 35673), (116, 35697), (120, 35715), (121, 35718), (122, 35730), (126, 35763), (130, 35805), (139, 35931), (140, 35934), (144, 36099), (151, 36216), (153, 36225), (158, 36399), (161, 36504), (167, 36615), (170, 36636), (179, 36759), (180, 36765), (182, 36807), (183, 36825), (191, 36969), (193, 37011), (197, 37095),

Gene: EmmaElysia\_87 Start: 30721, Stop: 34431, Start Num: 1

Candidate Starts for EmmaElysia\_87:

(Start: 1 @30721 has 171 MA's), (3, 30802), (5, 30823), (6, 30847), (8, 30892), (9, 30919), (10, 30922), (11, 30934), (12, 30952), (13, 30955), (22, 31174), (27, 31312), (29, 31399), (32, 31447), (35, 31510), (36, 31540), (38, 31567), (39, 31576), (43, 31597), (46, 31651), (48, 31717), (65, 32110), (66, 32143), (71, 32263), (80, 32494), (99, 32698), (101, 32701), (111, 32758), (112, 32761), (115, 32773), (116, 32797), (120, 32815), (121, 32818), (122, 32830), (126, 32863), (130, 32905), (139, 33031), (140, 33034), (144, 33199), (151, 33316), (153, 33325), (158, 33499), (161, 33604), (167, 33715), (170, 33736), (179, 33859), (180, 33865), (182, 33907), (183, 33925), (191, 34069), (193, 34111), (197, 34216),

Gene: Erdmann\_89 Start: 32146, Stop: 35859, Start Num: 1

Candidate Starts for Erdmann\_89:

(Start: 1 @32146 has 171 MA's), (3, 32227), (5, 32248), (6, 32272), (8, 32317), (9, 32344), (10, 32347), (11, 32359), (12, 32377), (13, 32380), (22, 32599), (27, 32737), (29, 32824), (32, 32872), (35, 32935), (36, 32965), (38, 32992), (39, 33001), (42, 33019), (43, 33022), (46, 33076), (48, 33142), (65, 33535), (66, 33568), (71, 33688), (80, 33922), (99, 34126), (101, 34129), (111, 34186), (112, 34189), (115, 34201), (116, 34225), (120, 34243), (121, 34246), (122, 34258), (126, 34291), (130, 34333), (139, 34459), (140, 34462), (144, 34627), (146, 34681), (151, 34744), (153, 34753), (158, 34927), (161,

35032), (167, 35143), (170, 35164), (179, 35287), (180, 35293), (182, 35335), (183, 35353), (191, 35497), (193, 35539), (197, 35644),

Gene: ErnieJ\_84 Start: 30542, Stop: 33904, Start Num: 1

Candidate Starts for ErnieJ\_84:

(Start: 1 @30542 has 171 MA's), (3, 30623), (5, 30644), (6, 30668), (8, 30713), (9, 30740), (10, 30743), (11, 30755), (12, 30773), (13, 30776), (22, 30995), (27, 31133), (29, 31220), (32, 31268), (35, 31331), (36, 31361), (38, 31388), (39, 31397), (43, 31418), (46, 31472), (48, 31538), (64, 31916), (65, 31952), (75, 32228), (80, 32339), (99, 32543), (101, 32546), (111, 32603), (112, 32606), (115, 32618), (116, 32642), (120, 32660), (121, 32663), (122, 32675), (126, 32708), (130, 32750), (144, 32891), (146, 32945), (151, 33008), (153, 33017), (158, 33191), (161, 33296), (167, 33407), (170, 33428), (191, 33563), (193, 33605), (197, 33689),

Gene: Essence\_85 Start: 30901, Stop: 34614, Start Num: 1

Candidate Starts for Essence\_85:

(Start: 1 @30901 has 171 MA's), (3, 30982), (5, 31003), (6, 31027), (8, 31072), (9, 31099), (10, 31102), (11, 31114), (12, 31132), (13, 31135), (22, 31354), (27, 31492), (29, 31579), (32, 31627), (35, 31690), (36, 31720), (38, 31747), (39, 31756), (42, 31774), (43, 31777), (46, 31831), (48, 31897), (65, 32290), (66, 32323), (71, 32443), (80, 32677), (99, 32881), (101, 32884), (111, 32941), (112, 32944), (115, 32956), (116, 32980), (120, 32998), (121, 33001), (122, 33013), (126, 33046), (130, 33088), (139, 33214), (140, 33217), (144, 33382), (146, 33436), (151, 33499), (153, 33508), (158, 33682), (161, 33787), (167, 33898), (170, 33919), (179, 34042), (180, 34048), (182, 34090), (183, 34108), (191, 34252), (193, 34294), (197, 34399),

Gene: Ewok\_89 Start: 32148, Stop: 35486, Start Num: 1

Candidate Starts for Ewok\_89:

(Start: 1 @32148 has 171 MA's), (3, 32229), (5, 32250), (6, 32274), (8, 32319), (9, 32346), (10, 32349), (11, 32361), (12, 32379), (13, 32382), (22, 32601), (27, 32739), (29, 32826), (32, 32874), (35, 32937), (36, 32967), (38, 32994), (39, 33003), (42, 33021), (43, 33024), (46, 33078), (48, 33144), (65, 33537), (66, 33570), (71, 33690), (80, 33921), (99, 34125), (101, 34128), (111, 34185), (112, 34188), (115, 34200), (116, 34224), (120, 34242), (121, 34245), (122, 34257), (126, 34290), (130, 34332), (144, 34473), (146, 34527), (151, 34590), (153, 34599), (158, 34773), (161, 34878), (167, 34989), (170, 35010), (191, 35145), (193, 35187), (197, 35271),

Gene: Flabslab\_83 Start: 30323, Stop: 33664, Start Num: 1

Candidate Starts for Flabslab\_83:

(Start: 1 @30323 has 171 MA's), (3, 30404), (5, 30425), (6, 30449), (8, 30494), (9, 30521), (10, 30524), (11, 30536), (12, 30554), (13, 30557), (22, 30776), (27, 30914), (29, 31001), (32, 31049), (35, 31112), (36, 31142), (38, 31169), (39, 31178), (43, 31199), (46, 31253), (48, 31319), (65, 31712), (66, 31745), (75, 31991), (80, 32102), (99, 32306), (101, 32309), (111, 32366), (112, 32369), (115, 32381), (116, 32405), (120, 32423), (121, 32426), (122, 32438), (126, 32471), (130, 32513), (144, 32654), (146, 32708), (151, 32768), (153, 32777), (158, 32951), (161, 33056), (167, 33167), (170, 33188), (191, 33323), (193, 33365), (197, 33449),

Gene: Fludd\_88 Start: 30985, Stop: 34326, Start Num: 1

Candidate Starts for Fludd\_88:

(Start: 1 @30985 has 171 MA's), (3, 31066), (5, 31087), (6, 31111), (8, 31156), (9, 31183), (10, 31186), (11, 31198), (12, 31216), (13, 31219), (22, 31438), (27, 31576), (29, 31663), (32, 31711), (35, 31774), (36, 31804), (38, 31831), (39, 31840), (43, 31861), (46, 31915), (48, 31981), (65, 32374), (66, 32407), (75, 32653), (80, 32764), (99, 32968), (101, 32971), (111, 33028), (112, 33031), (115, 33043), (116, 33067), (120, 33085), (121, 33088), (122, 33100), (126, 33133), (130, 33175), (144, 33316), (146, 33370), (151, 33430), (153, 33439), (158, 33613), (161, 33718), (167, 33829), (170, 33850), (191, 33985), (193, 34027), (197, 34111),

Gene: FoxtrotP1\_88 Start: 32548, Stop: 36258, Start Num: 1

Candidate Starts for FoxtrotP1\_88:

(Start: 1 @32548 has 171 MA's), (3, 32629), (5, 32650), (6, 32674), (8, 32719), (9, 32746), (10, 32749), (11, 32761), (12, 32779), (13, 32782), (22, 33001), (27, 33139), (29, 33226), (32, 33274), (35, 33337), (36, 33367), (38, 33394), (39, 33403), (43, 33424), (46, 33478), (48, 33544), (65, 33937), (66, 33970), (71, 34090), (80, 34321), (99, 34525), (101, 34528), (111, 34585), (112, 34588), (115, 34600), (116, 34624), (120, 34642), (121, 34645), (122, 34657), (126, 34690), (130, 34732), (139, 34858), (140, 34861), (144, 35026), (146, 35080), (151, 35143), (153, 35152), (158, 35326), (161, 35431), (167, 35542), (170, 35563), (179, 35686), (180, 35692), (182, 35734), (183, 35752), (191, 35896), (193, 35938), (197, 36043),

Gene: FrayBell\_94 Start: 33591, Stop: 37304, Start Num: 1

Candidate Starts for FrayBell\_94:

(Start: 1 @33591 has 171 MA's), (3, 33672), (5, 33693), (6, 33717), (9, 33789), (10, 33792), (11, 33804), (12, 33822), (13, 33825), (22, 34044), (27, 34182), (29, 34269), (32, 34317), (35, 34380), (36, 34410), (38, 34437), (39, 34446), (43, 34467), (46, 34521), (48, 34587), (65, 34980), (66, 35013), (71, 35133), (80, 35367), (99, 35571), (101, 35574), (111, 35631), (112, 35634), (115, 35646), (116, 35670), (120, 35688), (121, 35691), (122, 35703), (126, 35736), (130, 35778), (139, 35904), (140, 35907), (144, 36072), (146, 36126), (151, 36189), (153, 36198), (158, 36372), (161, 36477), (167, 36588), (170, 36609), (179, 36732), (180, 36738), (182, 36780), (183, 36798), (191, 36942), (193, 36984), (197, 37089),

Gene: FudgeTart\_88 Start: 31314, Stop: 35048, Start Num: 1

Candidate Starts for FudgeTart\_88:

(Start: 1 @31314 has 171 MA's), (3, 31395), (5, 31416), (6, 31440), (8, 31485), (9, 31512), (10, 31515), (11, 31527), (12, 31545), (13, 31548), (22, 31767), (27, 31905), (29, 31992), (32, 32040), (35, 32103), (36, 32133), (38, 32160), (39, 32169), (43, 32190), (46, 32244), (48, 32310), (64, 32688), (65, 32724), (75, 33000), (80, 33111), (99, 33315), (101, 33318), (111, 33375), (112, 33378), (115, 33390), (116, 33414), (120, 33432), (121, 33435), (122, 33447), (126, 33480), (130, 33522), (139, 33648), (140, 33651), (144, 33816), (151, 33933), (153, 33942), (158, 34116), (161, 34221), (167, 34332), (170, 34353), (179, 34476), (180, 34482), (182, 34524), (183, 34542), (191, 34686), (193, 34728), (197, 34833),

Gene: Gabriel\_90 Start: 31384, Stop: 35094, Start Num: 1

Candidate Starts for Gabriel\_90:

(Start: 1 @31384 has 171 MA's), (3, 31465), (5, 31486), (6, 31510), (8, 31555), (9, 31582), (10, 31585), (11, 31597), (12, 31615), (13, 31618), (22, 31837), (27, 31975), (29, 32062), (32, 32110), (35, 32173), (36, 32203), (38, 32230), (39, 32239), (43, 32260), (46, 32314), (48, 32380), (65, 32773), (66, 32806), (71, 32926), (80, 33157), (99, 33361), (101, 33364), (111, 33421), (112, 33424), (115, 33436), (116, 33460), (120, 33478), (121, 33481), (122, 33493), (126, 33526), (130, 33568), (139, 33694), (140, 33697), (144, 33862), (151, 33979), (153, 33988), (158, 34162), (161, 34267), (167, 34378), (170, 34399), (179, 34522), (180, 34528), (182, 34570), (183, 34588), (191, 34732), (193, 34774), (197, 34879),

Gene: Gamgam\_88 Start: 31151, Stop: 34864, Start Num: 1

Candidate Starts for Gamgam\_88:

(Start: 1 @31151 has 171 MA's), (3, 31232), (5, 31253), (6, 31277), (8, 31322), (9, 31349), (10, 31352), (11, 31364), (12, 31382), (13, 31385), (22, 31604), (27, 31742), (29, 31829), (32, 31877), (35, 31940), (36, 31970), (38, 31997), (39, 32006), (42, 32024), (43, 32027), (46, 32081), (48, 32147), (65, 32540), (66, 32573), (71, 32693), (80, 32927), (99, 33131), (101, 33134), (111, 33191), (112, 33194), (115, 33206), (116, 33230), (120, 33248), (121, 33251), (122, 33263), (126, 33296), (130, 33338), (139, 33464), (140, 33467), (144, 33632), (146, 33686), (151, 33749), (153, 33758), (158, 33932), (161,

34037), (167, 34148), (170, 34169), (179, 34292), (180, 34298), (182, 34340), (183, 34358), (191, 34502), (193, 34544), (197, 34649),

Gene: Ghost\_87 Start: 31151, Stop: 34864, Start Num: 1

Candidate Starts for Ghost\_87:

(Start: 1 @31151 has 171 MA's), (3, 31232), (5, 31253), (6, 31277), (8, 31322), (9, 31349), (10, 31352), (11, 31364), (12, 31382), (13, 31385), (22, 31604), (27, 31742), (29, 31829), (32, 31877), (35, 31940), (36, 31970), (38, 31997), (39, 32006), (42, 32024), (43, 32027), (46, 32081), (48, 32147), (65, 32540), (66, 32573), (71, 32693), (80, 32927), (99, 33131), (101, 33134), (111, 33191), (112, 33194), (115, 33206), (116, 33230), (120, 33248), (121, 33251), (122, 33263), (126, 33296), (130, 33338), (139, 33464), (140, 33467), (144, 33632), (146, 33686), (151, 33749), (153, 33758), (158, 33932), (161, 34037), (167, 34148), (170, 34169), (179, 34292), (180, 34298), (182, 34340), (183, 34358), (191, 34502), (193, 34544), (197, 34649),

Gene: Gizmo\_92 Start: 31829, Stop: 35167, Start Num: 1

Candidate Starts for Gizmo\_92:

(Start: 1 @31829 has 171 MA's), (3, 31910), (5, 31931), (6, 31955), (8, 32000), (9, 32027), (10, 32030), (11, 32042), (12, 32060), (13, 32063), (22, 32282), (27, 32420), (29, 32507), (32, 32555), (35, 32618), (36, 32648), (38, 32675), (39, 32684), (42, 32702), (43, 32705), (46, 32759), (48, 32825), (65, 33218), (66, 33251), (71, 33371), (80, 33602), (99, 33806), (101, 33809), (111, 33866), (112, 33869), (115, 33881), (116, 33905), (120, 33923), (121, 33926), (122, 33938), (126, 33971), (130, 34013), (144, 34154), (146, 34208), (151, 34271), (153, 34280), (158, 34454), (161, 34559), (167, 34670), (170, 34691), (191, 34826), (193, 34868), (197, 34952),

Gene: GlutenPhree\_86 Start: 31151, Stop: 34864, Start Num: 1

Candidate Starts for GlutenPhree\_86:

(Start: 1 @31151 has 171 MA's), (3, 31232), (5, 31253), (6, 31277), (8, 31322), (9, 31349), (10, 31352), (11, 31364), (12, 31382), (13, 31385), (22, 31604), (27, 31742), (29, 31829), (32, 31877), (35, 31940), (36, 31970), (38, 31997), (39, 32006), (42, 32024), (43, 32027), (46, 32081), (48, 32147), (65, 32540), (66, 32573), (71, 32693), (80, 32927), (99, 33131), (101, 33134), (111, 33191), (112, 33194), (115, 33206), (116, 33230), (120, 33248), (121, 33251), (122, 33263), (126, 33296), (130, 33338), (139, 33464), (140, 33467), (144, 33632), (146, 33686), (151, 33749), (153, 33758), (158, 33932), (161, 34037), (167, 34148), (170, 34169), (179, 34292), (180, 34298), (182, 34340), (183, 34358), (191, 34502), (193, 34544), (197, 34649),

Gene: Grasshills\_95 Start: 34232, Stop: 37912, Start Num: 1

Candidate Starts for Grasshills\_95:

(Start: 1 @34232 has 171 MA's), (3, 34313), (5, 34334), (6, 34358), (8, 34403), (9, 34430), (10, 34433), (11, 34445), (12, 34463), (13, 34466), (22, 34685), (25, 34787), (43, 34820), (46, 34874), (48, 34940), (65, 35333), (66, 35366), (71, 35486), (80, 35717), (99, 35921), (101, 35924), (111, 35981), (112, 35984), (115, 35996), (116, 36020), (120, 36038), (121, 36041), (122, 36053), (126, 36086), (130, 36128), (139, 36254), (140, 36257), (144, 36422), (151, 36539), (153, 36548), (158, 36722), (161, 36827), (167, 36938), (170, 36959), (179, 37082), (180, 37088), (182, 37130), (183, 37148), (189, 37409), (190, 37469), (191, 37550), (193, 37592), (197, 37697),

Gene: Greely\_89 Start: 33330, Stop: 36788, Start Num: 2

Candidate Starts for Greely\_89:

(Start: 2 @33330 has 2 MA's), (7, 33459), (9, 33528), (13, 33564), (14, 33585), (15, 33600), (19, 33735), (30, 33882), (31, 33918), (39, 34053), (40, 34059), (62, 34560), (63, 34563), (66, 34659), (74, 34791), (77, 34881), (79, 34929), (81, 34941), (88, 35049), (90, 35070), (115, 35340), (116, 35364), (124, 35403), (126, 35430), (127, 35448), (130, 35472), (132, 35493), (133, 35508), (148, 35805), (152, 35844), (159, 36060), (161, 36126), (164, 36204), (166, 36228), (167, 36240), (169, 36246), (178, 36390), (196, 36582),

Gene: Grungle\_75 Start: 28529, Stop: 32242, Start Num: 1

Candidate Starts for Grungle\_75:

(Start: 1 @28529 has 171 MA's), (3, 28610), (5, 28631), (6, 28655), (8, 28700), (9, 28727), (10, 28730), (11, 28742), (12, 28760), (13, 28763), (22, 28982), (27, 29120), (29, 29207), (32, 29255), (35, 29318), (36, 29348), (38, 29375), (39, 29384), (43, 29405), (46, 29459), (48, 29525), (65, 29918), (66, 29951), (71, 30071), (80, 30305), (99, 30509), (101, 30512), (111, 30569), (112, 30572), (115, 30584), (116, 30608), (120, 30626), (121, 30629), (122, 30641), (126, 30674), (130, 30716), (139, 30842), (140, 30845), (144, 31010), (151, 31127), (153, 31136), (158, 31310), (161, 31415), (167, 31526), (170, 31547), (179, 31670), (180, 31676), (182, 31718), (183, 31736), (191, 31880), (193, 31922), (197, 32027),

Gene: Guwapp\_87 Start: 31246, Stop: 34959, Start Num: 1

Candidate Starts for Guwapp\_87:

(Start: 1 @31246 has 171 MA's), (3, 31327), (5, 31348), (6, 31372), (8, 31417), (9, 31444), (10, 31447), (11, 31459), (12, 31477), (13, 31480), (22, 31699), (27, 31837), (29, 31924), (32, 31972), (35, 32035), (36, 32065), (38, 32092), (39, 32101), (42, 32119), (43, 32122), (46, 32176), (48, 32242), (65, 32635), (66, 32668), (71, 32788), (80, 33022), (99, 33226), (101, 33229), (111, 33286), (112, 33289), (115, 33301), (116, 33325), (120, 33343), (121, 33346), (122, 33358), (126, 33391), (130, 33433), (139, 33559), (140, 33562), (144, 33727), (151, 33844), (153, 33853), (158, 34027), (161, 34132), (167, 34243), (170, 34264), (179, 34387), (180, 34393), (182, 34435), (183, 34453), (191, 34597), (193, 34639), (197, 34744),

Gene: Halldule\_81 Start: 29559, Stop: 33272, Start Num: 1

Candidate Starts for Halldule\_81:

(Start: 1 @29559 has 171 MA's), (3, 29640), (5, 29661), (6, 29685), (8, 29730), (9, 29757), (10, 29760), (11, 29772), (12, 29790), (13, 29793), (22, 30012), (27, 30150), (29, 30237), (32, 30285), (35, 30348), (36, 30378), (38, 30405), (39, 30414), (43, 30435), (46, 30489), (48, 30555), (65, 30948), (66, 30981), (71, 31101), (80, 31335), (99, 31539), (101, 31542), (111, 31599), (112, 31602), (115, 31614), (116, 31638), (120, 31656), (121, 31659), (122, 31671), (126, 31704), (130, 31746), (139, 31872), (140, 31875), (144, 32040), (151, 32157), (153, 32166), (158, 32340), (161, 32445), (167, 32556), (170, 32577), (179, 32700), (180, 32706), (182, 32748), (183, 32766), (191, 32910), (193, 32952), (197, 33057),

Gene: HyRo\_80 Start: 30714, Stop: 34055, Start Num: 1

Candidate Starts for HyRo\_80:

(Start: 1 @30714 has 171 MA's), (3, 30795), (5, 30816), (6, 30840), (8, 30885), (9, 30912), (10, 30915), (11, 30927), (12, 30945), (13, 30948), (22, 31167), (27, 31305), (29, 31392), (32, 31440), (35, 31503), (36, 31533), (38, 31560), (39, 31569), (42, 31587), (43, 31590), (46, 31644), (48, 31710), (65, 32103), (66, 32136), (71, 32256), (75, 32379), (80, 32490), (99, 32694), (101, 32697), (111, 32754), (112, 32757), (115, 32769), (116, 32793), (120, 32811), (121, 32814), (122, 32826), (126, 32859), (130, 32901), (144, 33042), (146, 33096), (151, 33159), (153, 33168), (158, 33342), (161, 33447), (167, 33558), (170, 33579), (191, 33714), (193, 33756), (197, 33840),

Gene: I3\_94 Start: 32313, Stop: 35822, Start Num: 1

Candidate Starts for I3\_94:

(Start: 1 @32313 has 171 MA's), (3, 32394), (5, 32415), (6, 32439), (9, 32511), (10, 32514), (11, 32526), (12, 32544), (13, 32547), (22, 32766), (27, 32904), (29, 32991), (32, 33039), (35, 33102), (36, 33132), (38, 33159), (39, 33168), (43, 33189), (46, 33243), (48, 33309), (65, 33702), (66, 33735), (71, 33855), (80, 34086), (99, 34290), (101, 34293), (111, 34350), (112, 34353), (115, 34365), (116, 34389), (120, 34407), (121, 34410), (122, 34422), (126, 34455), (130, 34497), (139, 34623), (144, 34791), (146, 34845), (151, 34905), (153, 34914), (158, 35088), (161, 35193), (167, 35304), (170, 35325), (191, 35460), (193, 35502), (197, 35607),

Gene: IkeLoa\_82 Start: 30507, Stop: 34220, Start Num: 1

Candidate Starts for IkeLoa\_82:

(Start: 1 @30507 has 171 MA's), (3, 30588), (5, 30609), (6, 30633), (9, 30705), (10, 30708), (11, 30720), (12, 30738), (13, 30741), (22, 30960), (27, 31098), (29, 31185), (32, 31233), (35, 31296), (36, 31326), (38, 31353), (39, 31362), (43, 31383), (46, 31437), (48, 31503), (65, 31896), (66, 31929), (71, 32049), (80, 32283), (99, 32487), (101, 32490), (111, 32547), (112, 32550), (115, 32562), (116, 32586), (120, 32604), (121, 32607), (122, 32619), (126, 32652), (130, 32694), (139, 32820), (140, 32823), (144, 32988), (146, 33042), (151, 33105), (153, 33114), (158, 33288), (161, 33393), (167, 33504), (170, 33525), (179, 33648), (180, 33654), (182, 33696), (183, 33714), (191, 33858), (193, 33900), (197, 34005),

Gene: InigoMontoya\_89 Start: 31112, Stop: 34825, Start Num: 1

Candidate Starts for InigoMontoya\_89:

(Start: 1 @31112 has 171 MA's), (3, 31193), (5, 31214), (6, 31238), (8, 31283), (9, 31310), (10, 31313), (11, 31325), (12, 31343), (13, 31346), (22, 31565), (27, 31703), (29, 31790), (32, 31838), (35, 31901), (36, 31931), (38, 31958), (39, 31967), (42, 31985), (43, 31988), (46, 32042), (48, 32108), (65, 32501), (66, 32534), (71, 32654), (80, 32888), (99, 33092), (101, 33095), (111, 33152), (112, 33155), (115, 33167), (116, 33191), (120, 33209), (121, 33212), (122, 33224), (126, 33257), (130, 33299), (139, 33425), (140, 33428), (144, 33593), (146, 33647), (151, 33710), (153, 33719), (158, 33893), (161, 33998), (167, 34109), (170, 34130), (179, 34253), (180, 34259), (182, 34301), (183, 34319), (191, 34463), (193, 34505), (197, 34610),

Gene: InterFolia\_97 Start: 34554, Stop: 38246, Start Num: 1

Candidate Starts for InterFolia\_97:

(Start: 1 @34554 has 171 MA's), (3, 34635), (5, 34656), (6, 34680), (8, 34725), (9, 34752), (10, 34755), (11, 34767), (12, 34785), (13, 34788), (22, 35007), (27, 35145), (29, 35232), (32, 35280), (35, 35343), (36, 35373), (38, 35400), (39, 35409), (43, 35430), (46, 35484), (48, 35550), (65, 35943), (66, 35976), (71, 36096), (80, 36327), (99, 36531), (101, 36534), (111, 36591), (112, 36594), (115, 36606), (116, 36630), (120, 36648), (121, 36651), (122, 36663), (126, 36696), (130, 36738), (139, 36864), (140, 36867), (144, 37014), (146, 37068), (151, 37131), (153, 37140), (158, 37314), (161, 37419), (167, 37530), (170, 37551), (179, 37674), (180, 37680), (182, 37722), (183, 37740), (191, 37884), (193, 37926), (197, 38031),

Gene: Iota\_82 Start: 30888, Stop: 34601, Start Num: 1

Candidate Starts for Iota\_82:

(Start: 1 @30888 has 171 MA's), (3, 30969), (5, 30990), (6, 31014), (8, 31059), (9, 31086), (10, 31089), (11, 31101), (12, 31119), (13, 31122), (22, 31341), (27, 31479), (29, 31566), (32, 31614), (35, 31677), (36, 31707), (38, 31734), (39, 31743), (43, 31764), (46, 31818), (48, 31884), (65, 32277), (66, 32310), (71, 32430), (80, 32664), (99, 32868), (101, 32871), (111, 32928), (112, 32931), (115, 32943), (116, 32967), (120, 32985), (121, 32988), (122, 33000), (126, 33033), (130, 33075), (139, 33201), (140, 33204), (144, 33369), (151, 33486), (153, 33495), (158, 33669), (161, 33774), (167, 33885), (170, 33906), (179, 34029), (180, 34035), (182, 34077), (183, 34095), (191, 34239), (193, 34281), (197, 34386),

Gene: Issimir\_87 Start: 32089, Stop: 35802, Start Num: 1

Candidate Starts for Issimir\_87:

(Start: 1 @32089 has 171 MA's), (3, 32170), (5, 32191), (6, 32215), (8, 32260), (9, 32287), (10, 32290), (11, 32302), (12, 32320), (13, 32323), (22, 32542), (27, 32680), (29, 32767), (32, 32815), (35, 32878), (36, 32908), (38, 32935), (39, 32944), (42, 32962), (43, 32965), (46, 33019), (48, 33085), (65, 33478), (66, 33511), (71, 33631), (80, 33865), (99, 34069), (101, 34072), (111, 34129), (112, 34132), (115, 34144), (116, 34168), (120, 34186), (121, 34189), (122, 34201), (126, 34234), (130, 34276), (139, 34402), (140, 34405), (144, 34570), (151, 34687), (153, 34696), (158, 34870), (161, 34975), (167,

35086), (170, 35107), (179, 35230), (180, 35236), (182, 35278), (183, 35296), (191, 35440), (193, 35482), (197, 35587),

Gene: Izajani\_88 Start: 32162, Stop: 35875, Start Num: 1

Candidate Starts for Izajani\_88:

(Start: 1 @32162 has 171 MA's), (3, 32243), (5, 32264), (6, 32288), (8, 32333), (9, 32360), (10, 32363), (11, 32375), (12, 32393), (13, 32396), (22, 32615), (27, 32753), (29, 32840), (32, 32888), (35, 32951), (36, 32981), (38, 33008), (39, 33017), (42, 33035), (43, 33038), (46, 33092), (48, 33158), (65, 33551), (66, 33584), (71, 33704), (80, 33938), (99, 34142), (101, 34145), (111, 34202), (112, 34205), (115, 34217), (116, 34241), (120, 34259), (121, 34262), (122, 34274), (126, 34307), (130, 34349), (139, 34475), (140, 34478), (144, 34643), (146, 34697), (151, 34760), (153, 34769), (158, 34943), (161, 35048), (167, 35159), (170, 35180), (179, 35303), (180, 35309), (182, 35351), (183, 35369), (191, 35513), (193, 35555), (197, 35660),

Gene: JPickles\_86 Start: 29578, Stop: 33291, Start Num: 1

Candidate Starts for JPickles\_86:

(Start: 1 @29578 has 171 MA's), (3, 29659), (5, 29680), (6, 29704), (8, 29749), (9, 29776), (10, 29779), (11, 29791), (12, 29809), (13, 29812), (22, 30031), (27, 30169), (29, 30256), (32, 30304), (35, 30367), (36, 30397), (38, 30424), (39, 30433), (42, 30451), (43, 30454), (46, 30508), (48, 30574), (65, 30967), (66, 31000), (71, 31120), (80, 31354), (99, 31558), (101, 31561), (111, 31618), (112, 31621), (115, 31633), (116, 31657), (120, 31675), (121, 31678), (122, 31690), (126, 31723), (130, 31765), (139, 31891), (140, 31894), (144, 32059), (146, 32113), (151, 32176), (153, 32185), (158, 32359), (161, 32464), (167, 32575), (170, 32596), (179, 32719), (180, 32725), (182, 32767), (183, 32785), (191, 32929), (193, 32971), (197, 33076),

Gene: Janiyra\_90 Start: 31815, Stop: 35156, Start Num: 1

Candidate Starts for Janiyra\_90:

(Start: 1 @31815 has 171 MA's), (3, 31896), (5, 31917), (6, 31941), (8, 31986), (9, 32013), (10, 32016), (11, 32028), (12, 32046), (13, 32049), (22, 32268), (27, 32406), (29, 32493), (32, 32541), (35, 32604), (36, 32634), (38, 32661), (39, 32670), (43, 32691), (46, 32745), (48, 32811), (65, 33204), (66, 33237), (75, 33483), (80, 33594), (99, 33798), (101, 33801), (111, 33858), (112, 33861), (115, 33873), (116, 33897), (120, 33915), (121, 33918), (122, 33930), (126, 33963), (130, 34005), (144, 34146), (146, 34200), (151, 34260), (153, 34269), (158, 34443), (161, 34548), (167, 34659), (170, 34680), (191, 34815), (193, 34857), (197, 34941),

Gene: JayJay\_90 Start: 32642, Stop: 36355, Start Num: 1

Candidate Starts for JayJay\_90:

(Start: 1 @32642 has 171 MA's), (3, 32723), (5, 32744), (6, 32768), (8, 32813), (9, 32840), (10, 32843), (11, 32855), (12, 32873), (13, 32876), (22, 33095), (27, 33233), (29, 33320), (32, 33368), (35, 33431), (36, 33461), (38, 33488), (39, 33497), (43, 33518), (46, 33572), (48, 33638), (65, 34031), (66, 34064), (71, 34184), (80, 34418), (99, 34622), (101, 34625), (111, 34682), (112, 34685), (115, 34697), (116, 34721), (120, 34739), (121, 34742), (122, 34754), (126, 34787), (130, 34829), (139, 34955), (140, 34958), (144, 35123), (151, 35240), (153, 35249), (158, 35423), (161, 35528), (167, 35639), (170, 35660), (179, 35783), (180, 35789), (182, 35831), (183, 35849), (191, 35993), (193, 36035), (197, 36140),

Gene: Jaygup\_88 Start: 31106, Stop: 34816, Start Num: 1

Candidate Starts for Jaygup\_88:

(Start: 1 @31106 has 171 MA's), (3, 31187), (5, 31208), (6, 31232), (9, 31304), (10, 31307), (11, 31319), (12, 31337), (13, 31340), (22, 31559), (27, 31697), (29, 31784), (32, 31832), (35, 31895), (36, 31925), (38, 31952), (39, 31961), (43, 31982), (46, 32036), (48, 32102), (65, 32495), (66, 32528), (71, 32648), (80, 32879), (99, 33083), (101, 33086), (111, 33143), (112, 33146), (115, 33158), (116, 33182), (120, 33200), (121, 33203), (122, 33215), (126, 33248), (130, 33290), (139, 33416), (140,



33419), (144, 33584), (151, 33701), (153, 33710), (158, 33884), (161, 33989), (167, 34100), (170, 34121), (179, 34244), (180, 34250), (182, 34292), (183, 34310), (191, 34454), (193, 34496), (197, 34601),

Gene: Jedediah\_91 Start: 31606, Stop: 35316, Start Num: 1

Candidate Starts for Jedediah\_91:

(Start: 1 @31606 has 171 MA's), (3, 31687), (5, 31708), (6, 31732), (8, 31777), (9, 31804), (10, 31807), (11, 31819), (12, 31837), (13, 31840), (22, 32059), (27, 32197), (29, 32284), (32, 32332), (35, 32395), (36, 32425), (38, 32452), (39, 32461), (43, 32482), (46, 32536), (48, 32602), (65, 32995), (66, 33028), (71, 33148), (80, 33379), (99, 33583), (101, 33586), (111, 33643), (112, 33646), (115, 33658), (116, 33682), (120, 33700), (121, 33703), (122, 33715), (126, 33748), (130, 33790), (139, 33916), (140, 33919), (144, 34084), (151, 34201), (153, 34210), (158, 34384), (161, 34489), (167, 34600), (170, 34621), (179, 34744), (180, 34750), (182, 34792), (183, 34810), (191, 34954), (193, 34996), (197, 35101),

Gene: Jemmno\_88 Start: 31056, Stop: 34766, Start Num: 1

Candidate Starts for Jemmno\_88:

(Start: 1 @31056 has 171 MA's), (3, 31137), (5, 31158), (6, 31182), (8, 31227), (9, 31254), (10, 31257), (11, 31269), (12, 31287), (13, 31290), (22, 31509), (27, 31647), (29, 31734), (32, 31782), (35, 31845), (36, 31875), (38, 31902), (39, 31911), (43, 31932), (46, 31986), (48, 32052), (65, 32445), (66, 32478), (71, 32598), (80, 32829), (99, 33033), (101, 33036), (111, 33093), (112, 33096), (115, 33108), (116, 33132), (120, 33150), (121, 33153), (122, 33165), (126, 33198), (130, 33240), (139, 33366), (140, 33369), (144, 33534), (151, 33651), (153, 33660), (158, 33834), (161, 33939), (167, 34050), (170, 34071), (179, 34194), (180, 34200), (182, 34242), (183, 34260), (191, 34404), (193, 34446), (197, 34551),

Gene: Jessibeth14\_87 Start: 31931, Stop: 35644, Start Num: 1

Candidate Starts for Jessibeth14\_87:

(Start: 1 @31931 has 171 MA's), (3, 32012), (5, 32033), (6, 32057), (8, 32102), (9, 32129), (10, 32132), (11, 32144), (12, 32162), (13, 32165), (22, 32384), (27, 32522), (29, 32609), (32, 32657), (35, 32720), (36, 32750), (38, 32777), (39, 32786), (42, 32804), (43, 32807), (46, 32861), (48, 32927), (65, 33320), (66, 33353), (71, 33473), (80, 33707), (99, 33911), (101, 33914), (111, 33971), (112, 33974), (115, 33986), (116, 34010), (120, 34028), (121, 34031), (122, 34043), (126, 34076), (130, 34118), (139, 34244), (140, 34247), (144, 34412), (146, 34466), (151, 34529), (153, 34538), (158, 34712), (161, 34817), (167, 34928), (170, 34949), (179, 35072), (180, 35078), (182, 35120), (183, 35138), (191, 35282), (193, 35324), (197, 35429),

Gene: Jezreel\_86 Start: 31841, Stop: 35554, Start Num: 1

Candidate Starts for Jezreel\_86:

(Start: 1 @31841 has 171 MA's), (3, 31922), (5, 31943), (6, 31967), (9, 32039), (10, 32042), (11, 32054), (12, 32072), (13, 32075), (22, 32294), (27, 32432), (29, 32519), (32, 32567), (35, 32630), (36, 32660), (38, 32687), (39, 32696), (43, 32717), (46, 32771), (48, 32837), (65, 33230), (66, 33263), (71, 33383), (80, 33617), (99, 33821), (101, 33824), (111, 33881), (112, 33884), (115, 33896), (116, 33920), (120, 33938), (121, 33941), (122, 33953), (126, 33986), (130, 34028), (139, 34154), (140, 34157), (144, 34322), (146, 34376), (151, 34439), (153, 34448), (158, 34622), (161, 34727), (167, 34838), (170, 34859), (179, 34982), (180, 34988), (182, 35030), (183, 35048), (191, 35192), (193, 35234), (197, 35339),

Gene: JigglyPuff\_94 Start: 33726, Stop: 37418, Start Num: 1

Candidate Starts for JigglyPuff\_94:

(Start: 1 @33726 has 171 MA's), (3, 33807), (5, 33828), (6, 33852), (8, 33897), (9, 33924), (10, 33927), (11, 33939), (12, 33957), (13, 33960), (22, 34179), (27, 34317), (29, 34404), (32, 34452), (35, 34515), (36, 34545), (38, 34572), (39, 34581), (43, 34602), (46, 34656), (48, 34722), (65, 35115), (66, 35148),

(71, 35268), (80, 35499), (99, 35703), (101, 35706), (111, 35763), (112, 35766), (115, 35778), (116, 35802), (120, 35820), (121, 35823), (122, 35835), (126, 35868), (130, 35910), (139, 36036), (140, 36039), (144, 36186), (151, 36303), (153, 36312), (158, 36486), (161, 36591), (167, 36702), (170, 36723), (179, 36846), (180, 36852), (182, 36894), (183, 36912), (191, 37056), (193, 37098), (197, 37203),

Gene: JulietS\_81 Start: 29410, Stop: 33123, Start Num: 1

Candidate Starts for JulietS\_81:

(Start: 1 @29410 has 171 MA's), (3, 29491), (5, 29512), (6, 29536), (8, 29581), (9, 29608), (10, 29611), (11, 29623), (12, 29641), (13, 29644), (22, 29863), (27, 30001), (29, 30088), (32, 30136), (35, 30199), (36, 30229), (38, 30256), (39, 30265), (43, 30286), (46, 30340), (48, 30406), (65, 30799), (66, 30832), (71, 30952), (80, 31186), (99, 31390), (101, 31393), (111, 31450), (112, 31453), (115, 31465), (116, 31489), (120, 31507), (121, 31510), (122, 31522), (126, 31555), (130, 31597), (139, 31723), (140, 31726), (144, 31891), (151, 32008), (153, 32017), (158, 32191), (161, 32296), (167, 32407), (170, 32428), (179, 32551), (180, 32557), (182, 32599), (183, 32617), (191, 32761), (193, 32803), (197, 32908),

Gene: JustHall\_84 Start: 31428, Stop: 34790, Start Num: 1

Candidate Starts for JustHall\_84:

(Start: 1 @31428 has 171 MA's), (3, 31509), (5, 31530), (6, 31554), (8, 31599), (9, 31626), (10, 31629), (11, 31641), (12, 31659), (13, 31662), (22, 31881), (27, 32019), (29, 32106), (32, 32154), (35, 32217), (36, 32247), (38, 32274), (39, 32283), (43, 32304), (46, 32358), (48, 32424), (64, 32802), (65, 32838), (75, 33114), (80, 33225), (99, 33429), (101, 33432), (111, 33489), (112, 33492), (115, 33504), (116, 33528), (120, 33546), (121, 33549), (122, 33561), (126, 33594), (130, 33636), (144, 33777), (146, 33831), (151, 33894), (153, 33903), (158, 34077), (161, 34182), (167, 34293), (170, 34314), (191, 34449), (193, 34491), (197, 34575),

Gene: Kamryn\_88 Start: 32670, Stop: 36383, Start Num: 1

Candidate Starts for Kamryn\_88:

(Start: 1 @32670 has 171 MA's), (3, 32751), (5, 32772), (6, 32796), (8, 32841), (9, 32868), (10, 32871), (11, 32883), (12, 32901), (13, 32904), (22, 33123), (27, 33261), (29, 33348), (32, 33396), (35, 33459), (36, 33489), (38, 33516), (39, 33525), (42, 33543), (43, 33546), (46, 33600), (48, 33666), (65, 34059), (66, 34092), (71, 34212), (80, 34446), (99, 34650), (101, 34653), (111, 34710), (112, 34713), (115, 34725), (116, 34749), (120, 34767), (121, 34770), (122, 34782), (126, 34815), (130, 34857), (139, 34983), (140, 34986), (144, 35151), (146, 35205), (151, 35268), (153, 35277), (158, 35451), (161, 35556), (167, 35667), (170, 35688), (179, 35811), (180, 35817), (182, 35859), (183, 35877), (191, 36021), (193, 36063), (197, 36168),

Gene: Kboogie\_91 Start: 31097, Stop: 34438, Start Num: 1

Candidate Starts for Kboogie\_91:

(Start: 1 @31097 has 171 MA's), (3, 31178), (5, 31199), (6, 31223), (8, 31268), (9, 31295), (10, 31298), (11, 31310), (12, 31328), (13, 31331), (22, 31550), (27, 31688), (29, 31775), (32, 31823), (35, 31886), (36, 31916), (38, 31943), (39, 31952), (43, 31973), (46, 32027), (48, 32093), (65, 32486), (66, 32519), (75, 32765), (80, 32876), (99, 33080), (101, 33083), (111, 33140), (112, 33143), (115, 33155), (116, 33179), (120, 33197), (121, 33200), (122, 33212), (126, 33245), (130, 33287), (144, 33428), (146, 33482), (151, 33542), (153, 33551), (158, 33725), (161, 33830), (167, 33941), (170, 33962), (191, 34097), (193, 34139), (197, 34223),

Gene: Khaleesi\_87 Start: 31893, Stop: 35606, Start Num: 1

Candidate Starts for Khaleesi\_87:

(Start: 1 @31893 has 171 MA's), (3, 31974), (5, 31995), (6, 32019), (8, 32064), (9, 32091), (10, 32094), (11, 32106), (12, 32124), (13, 32127), (22, 32346), (27, 32484), (29, 32571), (32, 32619), (35, 32682), (36, 32712), (38, 32739), (39, 32748), (42, 32766), (43, 32769), (46, 32823), (48, 32889), (65, 33282),

(66, 33315), (71, 33435), (80, 33669), (99, 33873), (101, 33876), (111, 33933), (112, 33936), (115, 33948), (116, 33972), (120, 33990), (121, 33993), (122, 34005), (126, 34038), (130, 34080), (139, 34206), (140, 34209), (144, 34374), (146, 34428), (151, 34491), (153, 34500), (158, 34674), (161, 34779), (167, 34890), (170, 34911), (179, 35034), (180, 35040), (182, 35082), (183, 35100), (191, 35244), (193, 35286), (197, 35391),

Gene: Koguma\_84 Start: 29630, Stop: 33343, Start Num: 1

Candidate Starts for Koguma\_84:

(Start: 1 @29630 has 171 MA's), (3, 29711), (5, 29732), (6, 29756), (8, 29801), (9, 29828), (10, 29831), (11, 29843), (12, 29861), (13, 29864), (22, 30083), (27, 30221), (29, 30308), (32, 30356), (35, 30419), (36, 30449), (38, 30476), (39, 30485), (43, 30506), (46, 30560), (48, 30626), (65, 31019), (66, 31052), (71, 31172), (80, 31406), (99, 31610), (101, 31613), (111, 31670), (112, 31673), (115, 31685), (116, 31709), (120, 31727), (121, 31730), (122, 31742), (126, 31775), (130, 31817), (139, 31943), (140, 31946), (144, 32111), (151, 32228), (153, 32237), (158, 32411), (161, 32516), (167, 32627), (170, 32648), (179, 32771), (180, 32777), (182, 32819), (183, 32837), (191, 32981), (193, 33023), (197, 33128),

Gene: LRRHood\_82 Start: 31449, Stop: 35162, Start Num: 1

Candidate Starts for LRRHood\_82:

(Start: 1 @31449 has 171 MA's), (3, 31530), (5, 31551), (6, 31575), (8, 31620), (9, 31647), (10, 31650), (11, 31662), (12, 31680), (13, 31683), (22, 31902), (27, 32040), (29, 32127), (32, 32175), (35, 32238), (36, 32268), (38, 32295), (39, 32304), (43, 32325), (46, 32379), (48, 32445), (65, 32838), (66, 32871), (71, 32991), (80, 33225), (99, 33429), (101, 33432), (111, 33489), (112, 33492), (115, 33504), (116, 33528), (120, 33546), (121, 33549), (122, 33561), (126, 33594), (130, 33636), (139, 33762), (140, 33765), (144, 33930), (151, 34047), (153, 34056), (158, 34230), (161, 34335), (167, 34446), (170, 34467), (179, 34590), (180, 34596), (182, 34638), (183, 34656), (191, 34800), (193, 34842), (197, 34947),

Gene: Latch\_88 Start: 31151, Stop: 34864, Start Num: 1

Candidate Starts for Latch\_88:

(Start: 1 @31151 has 171 MA's), (3, 31232), (5, 31253), (6, 31277), (8, 31322), (9, 31349), (10, 31352), (11, 31364), (12, 31382), (13, 31385), (22, 31604), (27, 31742), (29, 31829), (32, 31877), (35, 31940), (36, 31970), (38, 31997), (39, 32006), (42, 32024), (43, 32027), (46, 32081), (48, 32147), (65, 32540), (66, 32573), (71, 32693), (80, 32927), (99, 33131), (101, 33134), (111, 33191), (112, 33194), (115, 33206), (116, 33230), (120, 33248), (121, 33251), (122, 33263), (126, 33296), (130, 33338), (139, 33464), (140, 33467), (144, 33632), (146, 33686), (151, 33749), (153, 33758), (158, 33932), (161, 34037), (167, 34148), (170, 34169), (179, 34292), (180, 34298), (182, 34340), (183, 34358), (191, 34502), (193, 34544), (197, 34649),

Gene: Lee7\_86 Start: 32146, Stop: 35469, Start Num: 1

Candidate Starts for Lee7\_86:

(Start: 1 @32146 has 171 MA's), (3, 32227), (5, 32248), (6, 32272), (8, 32317), (9, 32344), (10, 32347), (11, 32359), (12, 32377), (13, 32380), (22, 32599), (27, 32737), (29, 32824), (32, 32872), (35, 32935), (36, 32965), (38, 32992), (39, 33001), (42, 33019), (43, 33022), (46, 33076), (48, 33142), (65, 33520), (66, 33553), (71, 33673), (80, 33904), (99, 34108), (101, 34111), (111, 34168), (112, 34171), (115, 34183), (116, 34207), (120, 34225), (121, 34228), (122, 34240), (126, 34273), (130, 34315), (144, 34456), (146, 34510), (151, 34573), (153, 34582), (158, 34756), (161, 34861), (167, 34972), (170, 34993), (191, 35128), (193, 35170), (197, 35254),

Gene: Lethe\_88 Start: 32341, Stop: 36054, Start Num: 1

Candidate Starts for Lethe\_88:

(Start: 1 @32341 has 171 MA's), (3, 32422), (5, 32443), (6, 32467), (8, 32512), (9, 32539), (10, 32542), (11, 32554), (12, 32572), (13, 32575), (22, 32794), (27, 32932), (29, 33019), (32, 33067), (35, 33130),

(36, 33160), (38, 33187), (39, 33196), (42, 33214), (43, 33217), (46, 33271), (48, 33337), (65, 33730), (66, 33763), (71, 33883), (80, 34117), (99, 34321), (101, 34324), (111, 34381), (112, 34384), (115, 34396), (116, 34420), (120, 34438), (121, 34441), (122, 34453), (126, 34486), (130, 34528), (139, 34654), (140, 34657), (144, 34822), (151, 34939), (153, 34948), (158, 35122), (161, 35227), (167, 35338), (170, 35359), (179, 35482), (180, 35488), (182, 35530), (183, 35548), (191, 35692), (193, 35734), (197, 35839),

Gene: LifeSavor\_87 Start: 30871, Stop: 34581, Start Num: 1

Candidate Starts for LifeSavor\_87:

(Start: 1 @30871 has 171 MA's), (3, 30952), (5, 30973), (6, 30997), (9, 31069), (10, 31072), (11, 31084), (12, 31102), (13, 31105), (22, 31324), (27, 31462), (29, 31549), (32, 31597), (35, 31660), (36, 31690), (38, 31717), (39, 31726), (43, 31747), (46, 31801), (48, 31867), (65, 32260), (66, 32293), (71, 32413), (80, 32644), (99, 32848), (101, 32851), (111, 32908), (112, 32911), (115, 32923), (116, 32947), (120, 32965), (121, 32968), (122, 32980), (126, 33013), (130, 33055), (139, 33181), (140, 33184), (144, 33349), (151, 33466), (153, 33475), (158, 33649), (161, 33754), (167, 33865), (170, 33886), (179, 34009), (180, 34015), (182, 34057), (183, 34075), (191, 34219), (193, 34261), (197, 34366),

Gene: LinStu\_88 Start: 32513, Stop: 36226, Start Num: 1

Candidate Starts for LinStu\_88:

(Start: 1 @32513 has 171 MA's), (3, 32594), (5, 32615), (6, 32639), (8, 32684), (9, 32711), (10, 32714), (11, 32726), (12, 32744), (13, 32747), (22, 32966), (27, 33104), (29, 33191), (32, 33239), (35, 33302), (36, 33332), (38, 33359), (39, 33368), (43, 33389), (46, 33443), (48, 33509), (65, 33902), (66, 33935), (71, 34055), (80, 34289), (99, 34493), (101, 34496), (111, 34553), (112, 34556), (115, 34568), (116, 34592), (120, 34610), (121, 34613), (122, 34625), (126, 34658), (130, 34700), (139, 34826), (140, 34829), (144, 34994), (151, 35111), (153, 35120), (158, 35294), (161, 35399), (167, 35510), (170, 35531), (179, 35654), (180, 35660), (182, 35702), (183, 35720), (191, 35864), (193, 35906), (197, 36011),

Gene: Littleton\_88 Start: 31109, Stop: 34819, Start Num: 1

Candidate Starts for Littleton\_88:

(Start: 1 @31109 has 171 MA's), (3, 31190), (5, 31211), (6, 31235), (8, 31280), (9, 31307), (10, 31310), (11, 31322), (12, 31340), (13, 31343), (22, 31562), (27, 31700), (29, 31787), (32, 31835), (35, 31898), (36, 31928), (38, 31955), (39, 31964), (43, 31985), (46, 32039), (48, 32105), (65, 32498), (66, 32531), (71, 32651), (80, 32882), (99, 33086), (101, 33089), (111, 33146), (112, 33149), (115, 33161), (116, 33185), (120, 33203), (121, 33206), (122, 33218), (126, 33251), (130, 33293), (139, 33419), (140, 33422), (144, 33587), (151, 33704), (153, 33713), (158, 33887), (161, 33992), (167, 34103), (170, 34124), (179, 34247), (180, 34253), (182, 34295), (183, 34313), (191, 34457), (193, 34499), (197, 34604),

Gene: Loanshark\_88 Start: 32146, Stop: 35859, Start Num: 1

Candidate Starts for Loanshark\_88:

(Start: 1 @32146 has 171 MA's), (3, 32227), (5, 32248), (6, 32272), (8, 32317), (9, 32344), (10, 32347), (11, 32359), (12, 32377), (13, 32380), (22, 32599), (27, 32737), (29, 32824), (32, 32872), (35, 32935), (36, 32965), (38, 32992), (39, 33001), (42, 33019), (43, 33022), (46, 33076), (48, 33142), (65, 33535), (66, 33568), (71, 33688), (80, 33922), (99, 34126), (101, 34129), (111, 34186), (112, 34189), (115, 34201), (116, 34225), (120, 34243), (121, 34246), (122, 34258), (126, 34291), (130, 34333), (139, 34459), (140, 34462), (144, 34627), (151, 34744), (153, 34753), (158, 34927), (161, 35032), (167, 35143), (170, 35164), (179, 35287), (180, 35293), (182, 35335), (183, 35353), (191, 35497), (193, 35539), (197, 35644),

Gene: LolaVinca\_90 Start: 33306, Stop: 36965, Start Num: 1

Candidate Starts for LolaVinca\_90:

(Start: 1 @33306 has 171 MA's), (3, 33387), (5, 33408), (6, 33432), (8, 33477), (9, 33504), (10, 33507), (11, 33519), (12, 33537), (13, 33540), (22, 33759), (27, 33897), (29, 33984), (32, 34032), (35, 34095), (36, 34125), (38, 34152), (39, 34161), (42, 34179), (43, 34182), (46, 34236), (48, 34302), (65, 34695), (66, 34728), (71, 34848), (75, 34962), (80, 35046), (99, 35250), (101, 35253), (111, 35310), (112, 35313), (115, 35325), (116, 35349), (120, 35367), (121, 35370), (122, 35382), (126, 35415), (130, 35457), (139, 35583), (140, 35586), (144, 35733), (146, 35787), (151, 35850), (153, 35859), (158, 36033), (161, 36138), (167, 36249), (170, 36270), (179, 36393), (180, 36399), (182, 36441), (183, 36459), (191, 36603), (193, 36645), (197, 36750),

Gene: LordLeafolot\_93 Start: 34239, Stop: 37952, Start Num: 1

Candidate Starts for LordLeafolot\_93:

(Start: 1 @34239 has 171 MA's), (3, 34320), (5, 34341), (6, 34365), (8, 34410), (9, 34437), (10, 34440), (11, 34452), (12, 34470), (13, 34473), (22, 34692), (27, 34830), (29, 34917), (32, 34965), (35, 35028), (36, 35058), (38, 35085), (39, 35094), (42, 35112), (43, 35115), (46, 35169), (48, 35235), (65, 35628), (66, 35661), (71, 35781), (80, 36015), (99, 36219), (101, 36222), (111, 36279), (112, 36282), (115, 36294), (116, 36318), (120, 36336), (121, 36339), (122, 36351), (126, 36384), (130, 36426), (139, 36552), (140, 36555), (144, 36720), (146, 36774), (151, 36837), (153, 36846), (158, 37020), (161, 37125), (167, 37236), (170, 37257), (179, 37380), (180, 37386), (182, 37428), (183, 37446), (191, 37590), (193, 37632), (197, 37737),

Gene: Lukilu\_79 Start: 31361, Stop: 34699, Start Num: 1

Candidate Starts for Lukilu\_79:

(Start: 1 @31361 has 171 MA's), (3, 31442), (5, 31463), (6, 31487), (8, 31532), (9, 31559), (10, 31562), (11, 31574), (12, 31592), (13, 31595), (22, 31814), (27, 31952), (29, 32039), (32, 32087), (35, 32150), (36, 32180), (38, 32207), (39, 32216), (42, 32234), (43, 32237), (46, 32291), (48, 32357), (65, 32750), (66, 32783), (71, 32903), (80, 33134), (99, 33338), (101, 33341), (111, 33398), (112, 33401), (115, 33413), (116, 33437), (120, 33455), (121, 33458), (122, 33470), (126, 33503), (130, 33545), (144, 33686), (146, 33740), (151, 33803), (153, 33812), (158, 33986), (161, 34091), (167, 34202), (170, 34223), (191, 34358), (193, 34400), (197, 34484),

Gene: Maby2021\_88 Start: 31827, Stop: 35540, Start Num: 1

Candidate Starts for Maby2021\_88:

(Start: 1 @31827 has 171 MA's), (3, 31908), (5, 31929), (6, 31953), (8, 31998), (9, 32025), (10, 32028), (11, 32040), (12, 32058), (13, 32061), (22, 32280), (27, 32418), (29, 32505), (32, 32553), (35, 32616), (36, 32646), (38, 32673), (39, 32682), (42, 32700), (43, 32703), (46, 32757), (48, 32823), (65, 33216), (66, 33249), (71, 33369), (80, 33603), (99, 33807), (101, 33810), (111, 33867), (112, 33870), (115, 33882), (116, 33906), (120, 33924), (121, 33927), (122, 33939), (126, 33972), (130, 34014), (139, 34140), (140, 34143), (144, 34308), (146, 34362), (151, 34425), (153, 34434), (158, 34608), (161, 34713), (167, 34824), (170, 34845), (179, 34968), (180, 34974), (182, 35016), (183, 35034), (191, 35178), (193, 35220), (197, 35325),

Gene: Mangeria\_88 Start: 32105, Stop: 35821, Start Num: 1

Candidate Starts for Mangeria\_88:

(Start: 1 @32105 has 171 MA's), (3, 32186), (5, 32207), (6, 32231), (8, 32276), (9, 32303), (10, 32306), (11, 32318), (12, 32336), (13, 32339), (22, 32558), (27, 32696), (29, 32783), (32, 32831), (35, 32894), (36, 32924), (38, 32951), (39, 32960), (43, 32981), (46, 33035), (48, 33101), (65, 33494), (66, 33527), (71, 33647), (80, 33878), (99, 34082), (101, 34085), (111, 34142), (112, 34145), (115, 34157), (116, 34181), (120, 34199), (121, 34202), (122, 34214), (126, 34247), (130, 34289), (139, 34415), (140, 34418), (144, 34583), (151, 34700), (153, 34709), (158, 34883), (161, 34988), (167, 35099), (170, 35120), (179, 35243), (180, 35249), (182, 35291), (183, 35309), (191, 35453), (193, 35495), (197, 35606),

Gene: Matsumoto\_86 Start: 31070, Stop: 34780, Start Num: 1

Candidate Starts for Matsumoto\_86:

(Start: 1 @31070 has 171 MA's), (3, 31151), (5, 31172), (6, 31196), (9, 31268), (10, 31271), (11, 31283), (12, 31301), (13, 31304), (22, 31523), (27, 31661), (29, 31748), (32, 31796), (35, 31859), (36, 31889), (38, 31916), (39, 31925), (43, 31946), (46, 32000), (48, 32066), (65, 32459), (66, 32492), (71, 32612), (80, 32843), (99, 33047), (101, 33050), (111, 33107), (112, 33110), (115, 33122), (116, 33146), (120, 33164), (121, 33167), (122, 33179), (126, 33212), (130, 33254), (139, 33380), (140, 33383), (144, 33548), (151, 33665), (153, 33674), (158, 33848), (161, 33953), (167, 34064), (170, 34085), (179, 34208), (180, 34214), (182, 34256), (183, 34274), (191, 34418), (193, 34460), (197, 34565),

Gene: McGee\_89 Start: 30335, Stop: 34048, Start Num: 1

Candidate Starts for McGee\_89:

(Start: 1 @30335 has 171 MA's), (3, 30416), (5, 30437), (6, 30461), (8, 30506), (9, 30533), (10, 30536), (11, 30548), (12, 30566), (13, 30569), (22, 30788), (27, 30926), (29, 31013), (32, 31061), (35, 31124), (36, 31154), (38, 31181), (39, 31190), (42, 31208), (43, 31211), (46, 31265), (48, 31331), (65, 31724), (66, 31757), (71, 31877), (80, 32111), (99, 32315), (101, 32318), (111, 32375), (112, 32378), (115, 32390), (116, 32414), (120, 32432), (121, 32435), (122, 32447), (126, 32480), (130, 32522), (139, 32648), (140, 32651), (144, 32816), (146, 32870), (151, 32933), (153, 32942), (158, 33116), (161, 33221), (167, 33332), (170, 33353), (179, 33476), (180, 33482), (182, 33524), (183, 33542), (191, 33686), (193, 33728), (197, 33833),

Gene: McWolfish\_86 Start: 31574, Stop: 35287, Start Num: 1

Candidate Starts for McWolfish\_86:

(Start: 1 @31574 has 171 MA's), (3, 31655), (5, 31676), (6, 31700), (8, 31745), (9, 31772), (10, 31775), (11, 31787), (12, 31805), (13, 31808), (22, 32027), (27, 32165), (29, 32252), (32, 32300), (35, 32363), (36, 32393), (38, 32420), (39, 32429), (42, 32447), (43, 32450), (46, 32504), (48, 32570), (65, 32963), (66, 32996), (71, 33116), (80, 33350), (99, 33554), (101, 33557), (111, 33614), (112, 33617), (115, 33629), (116, 33653), (120, 33671), (121, 33674), (122, 33686), (126, 33719), (130, 33761), (139, 33887), (140, 33890), (144, 34055), (146, 34109), (151, 34172), (153, 34181), (158, 34355), (161, 34460), (167, 34571), (170, 34592), (179, 34715), (180, 34721), (182, 34763), (183, 34781), (191, 34925), (193, 34967), (197, 35072),

Gene: Megamind\_87 Start: 31812, Stop: 35525, Start Num: 1

Candidate Starts for Megamind\_87:

(Start: 1 @31812 has 171 MA's), (3, 31893), (5, 31914), (6, 31938), (8, 31983), (9, 32010), (10, 32013), (11, 32025), (12, 32043), (13, 32046), (22, 32265), (27, 32403), (29, 32490), (32, 32538), (35, 32601), (36, 32631), (38, 32658), (39, 32667), (42, 32685), (43, 32688), (46, 32742), (48, 32808), (65, 33201), (66, 33234), (71, 33354), (80, 33588), (99, 33792), (101, 33795), (111, 33852), (112, 33855), (115, 33867), (116, 33891), (120, 33909), (121, 33912), (122, 33924), (126, 33957), (130, 33999), (139, 34125), (140, 34128), (144, 34293), (146, 34347), (151, 34410), (153, 34419), (158, 34593), (161, 34698), (167, 34809), (170, 34830), (179, 34953), (180, 34959), (182, 35001), (183, 35019), (191, 35163), (193, 35205), (197, 35310),

Gene: Melpomini\_82 Start: 29705, Stop: 33067, Start Num: 1

Candidate Starts for Melpomini\_82:

(Start: 1 @29705 has 171 MA's), (3, 29786), (5, 29807), (6, 29831), (8, 29876), (9, 29903), (10, 29906), (11, 29918), (12, 29936), (13, 29939), (22, 30158), (27, 30296), (29, 30383), (32, 30431), (35, 30494), (36, 30524), (38, 30551), (39, 30560), (43, 30581), (46, 30635), (48, 30701), (64, 31079), (65, 31115), (75, 31391), (80, 31502), (99, 31706), (101, 31709), (111, 31766), (112, 31769), (115, 31781), (116, 31805), (120, 31823), (121, 31826), (122, 31838), (126, 31871), (130, 31913), (144, 32054), (146, 32108), (151, 32171), (153, 32180), (158, 32354), (161, 32459), (167, 32570), (170, 32591), (191, 32726), (193, 32768), (197, 32852),

Gene: MikeLiesIn\_89 Start: 32159, Stop: 35872, Start Num: 1

Candidate Starts for MikeLiesIn\_89:

(Start: 1 @32159 has 171 MA's), (3, 32240), (5, 32261), (6, 32285), (8, 32330), (9, 32357), (10, 32360), (11, 32372), (12, 32390), (13, 32393), (22, 32612), (27, 32750), (29, 32837), (32, 32885), (35, 32948), (36, 32978), (38, 33005), (39, 33014), (42, 33032), (43, 33035), (46, 33089), (48, 33155), (65, 33548), (66, 33581), (71, 33701), (80, 33935), (99, 34139), (101, 34142), (111, 34199), (112, 34202), (115, 34214), (116, 34238), (120, 34256), (121, 34259), (122, 34271), (126, 34304), (130, 34346), (139, 34472), (140, 34475), (144, 34640), (146, 34694), (151, 34757), (153, 34766), (158, 34940), (161, 35045), (167, 35156), (170, 35177), (179, 35300), (180, 35306), (182, 35348), (183, 35366), (191, 35510), (193, 35552), (197, 35657),

Gene: Mikro\_86 Start: 33066, Stop: 36779, Start Num: 1

Candidate Starts for Mikro\_86:

(Start: 1 @33066 has 171 MA's), (3, 33147), (5, 33168), (6, 33192), (9, 33264), (10, 33267), (11, 33279), (12, 33297), (13, 33300), (22, 33519), (27, 33657), (29, 33744), (32, 33792), (35, 33855), (36, 33885), (38, 33912), (39, 33921), (43, 33942), (46, 33996), (48, 34062), (65, 34455), (66, 34488), (71, 34608), (80, 34842), (99, 35046), (101, 35049), (111, 35106), (112, 35109), (115, 35121), (116, 35145), (120, 35163), (121, 35166), (122, 35178), (126, 35211), (130, 35253), (139, 35379), (140, 35382), (144, 35547), (146, 35601), (151, 35664), (153, 35673), (158, 35847), (161, 35952), (167, 36063), (170, 36084), (179, 36207), (180, 36213), (182, 36255), (183, 36273), (191, 36417), (193, 36459), (197, 36564),

Gene: MoMoMixon\_89 Start: 32259, Stop: 35618, Start Num: 1

Candidate Starts for MoMoMixon\_89:

(Start: 1 @32259 has 171 MA's), (3, 32340), (5, 32361), (6, 32385), (8, 32430), (9, 32457), (10, 32460), (11, 32472), (12, 32490), (13, 32493), (22, 32712), (27, 32850), (29, 32937), (32, 32985), (35, 33048), (36, 33078), (38, 33105), (39, 33114), (43, 33135), (46, 33189), (48, 33255), (64, 33633), (65, 33669), (75, 33945), (80, 34056), (99, 34260), (101, 34263), (111, 34320), (112, 34323), (115, 34335), (116, 34359), (120, 34377), (121, 34380), (122, 34392), (126, 34425), (130, 34467), (144, 34608), (146, 34662), (151, 34722), (153, 34731), (158, 34905), (161, 35010), (167, 35121), (170, 35142), (191, 35277), (193, 35319), (197, 35403),

Gene: Momo\_87 Start: 31151, Stop: 34864, Start Num: 1

Candidate Starts for Momo\_87:

(Start: 1 @31151 has 171 MA's), (3, 31232), (5, 31253), (6, 31277), (8, 31322), (9, 31349), (10, 31352), (11, 31364), (12, 31382), (13, 31385), (22, 31604), (27, 31742), (29, 31829), (32, 31877), (35, 31940), (36, 31970), (38, 31997), (39, 32006), (42, 32024), (43, 32027), (46, 32081), (48, 32147), (65, 32540), (66, 32573), (71, 32693), (80, 32927), (99, 33131), (101, 33134), (111, 33191), (112, 33194), (115, 33206), (116, 33230), (120, 33248), (121, 33251), (122, 33263), (126, 33296), (130, 33338), (139, 33464), (140, 33467), (144, 33632), (146, 33686), (151, 33749), (153, 33758), (158, 33932), (161, 34037), (167, 34148), (170, 34169), (179, 34292), (180, 34298), (182, 34340), (183, 34358), (191, 34502), (193, 34544), (197, 34649),

Gene: Morizzled23\_88 Start: 31225, Stop: 34587, Start Num: 1

Candidate Starts for Morizzled23\_88:

(Start: 1 @31225 has 171 MA's), (3, 31306), (5, 31327), (6, 31351), (8, 31396), (9, 31423), (10, 31426), (11, 31438), (12, 31456), (13, 31459), (22, 31678), (27, 31816), (29, 31903), (32, 31951), (35, 32014), (36, 32044), (38, 32071), (39, 32080), (43, 32101), (46, 32155), (48, 32221), (64, 32599), (65, 32635), (75, 32911), (80, 33022), (99, 33226), (101, 33229), (111, 33286), (112, 33289), (115, 33301), (116, 33325), (120, 33343), (121, 33346), (122, 33358), (126, 33391), (130, 33433), (144, 33574), (146, 33628), (151, 33691), (153, 33700), (158, 33874), (161, 33979), (167, 34090), (170, 34111), (191, 34246), (193, 34288), (197, 34372),

Gene: Myrna\_87 Start: 33661, Stop: 37551, Start Num: 2

Candidate Starts for Myrna\_87:

(Start: 2 @33661 has 2 MA's), (7, 33790), (13, 33895), (14, 33916), (15, 33931), (19, 34063), (30, 34345), (31, 34381), (36, 34480), (45, 34585), (66, 35089), (74, 35221), (77, 35311), (79, 35359), (81, 35371), (102, 35614), (115, 35785), (116, 35809), (124, 35848), (126, 35875), (127, 35893), (130, 35917), (131, 35932), (132, 35938), (134, 35959), (137, 36061), (138, 36118), (147, 36403), (151, 36448), (159, 36667), (161, 36733), (164, 36811), (166, 36835), (167, 36847), (169, 36853), (178, 36997), (188, 37153), (196, 37342),

Gene: Naija\_87 Start: 31151, Stop: 34864, Start Num: 1

Candidate Starts for Naija\_87:

(Start: 1 @31151 has 171 MA's), (3, 31232), (5, 31253), (6, 31277), (8, 31322), (9, 31349), (10, 31352), (11, 31364), (12, 31382), (13, 31385), (22, 31604), (27, 31742), (29, 31829), (32, 31877), (35, 31940), (36, 31970), (38, 31997), (39, 32006), (42, 32024), (43, 32027), (46, 32081), (48, 32147), (65, 32540), (66, 32573), (71, 32693), (80, 32927), (99, 33131), (101, 33134), (111, 33191), (112, 33194), (115, 33206), (116, 33230), (120, 33248), (121, 33251), (122, 33263), (126, 33296), (130, 33338), (139, 33464), (140, 33467), (144, 33632), (146, 33686), (151, 33749), (153, 33758), (158, 33932), (161, 34037), (167, 34148), (170, 34169), (179, 34292), (180, 34298), (182, 34340), (183, 34358), (191, 34502), (193, 34544), (197, 34649),

Gene: Napoleon13\_84 Start: 29954, Stop: 33667, Start Num: 1

Candidate Starts for Napoleon13\_84:

(Start: 1 @29954 has 171 MA's), (3, 30035), (5, 30056), (6, 30080), (8, 30125), (9, 30152), (10, 30155), (11, 30167), (12, 30185), (13, 30188), (22, 30407), (27, 30545), (29, 30632), (32, 30680), (35, 30743), (36, 30773), (38, 30800), (39, 30809), (42, 30827), (43, 30830), (46, 30884), (48, 30950), (65, 31343), (66, 31376), (71, 31496), (80, 31730), (99, 31934), (101, 31937), (111, 31994), (112, 31997), (115, 32009), (116, 32033), (120, 32051), (121, 32054), (122, 32066), (126, 32099), (130, 32141), (139, 32267), (140, 32270), (144, 32435), (146, 32489), (151, 32552), (153, 32561), (158, 32735), (161, 32840), (167, 32951), (170, 32972), (179, 33095), (180, 33101), (182, 33143), (183, 33161), (191, 33305), (193, 33347), (197, 33452),

Gene: Nappy\_89 Start: 32448, Stop: 35960, Start Num: 1

Candidate Starts for Nappy\_89:

(Start: 1 @32448 has 171 MA's), (3, 32529), (5, 32550), (6, 32574), (8, 32619), (9, 32646), (10, 32649), (11, 32661), (12, 32679), (13, 32682), (22, 32901), (27, 33039), (29, 33126), (32, 33174), (35, 33237), (36, 33267), (38, 33294), (39, 33303), (43, 33324), (46, 33378), (48, 33444), (65, 33837), (66, 33870), (71, 33990), (80, 34221), (99, 34425), (101, 34428), (111, 34485), (112, 34488), (115, 34500), (116, 34524), (120, 34542), (121, 34545), (122, 34557), (126, 34590), (130, 34632), (139, 34758), (140, 34761), (144, 34926), (146, 34980), (151, 35043), (153, 35052), (158, 35226), (161, 35331), (167, 35442), (170, 35463), (191, 35598), (193, 35640), (197, 35745),

Gene: Naval22\_93 Start: 33750, Stop: 37463, Start Num: 1

Candidate Starts for Naval22\_93:

(Start: 1 @33750 has 171 MA's), (3, 33831), (5, 33852), (6, 33876), (8, 33921), (9, 33948), (10, 33951), (11, 33963), (12, 33981), (13, 33984), (22, 34203), (27, 34341), (29, 34428), (32, 34476), (35, 34539), (36, 34569), (38, 34596), (39, 34605), (42, 34623), (43, 34626), (46, 34680), (48, 34746), (65, 35139), (66, 35172), (71, 35292), (80, 35526), (99, 35730), (101, 35733), (111, 35790), (112, 35793), (115, 35805), (116, 35829), (120, 35847), (121, 35850), (122, 35862), (126, 35895), (130, 35937), (139, 36063), (140, 36066), (144, 36231), (146, 36285), (151, 36348), (153, 36357), (158, 36531), (161, 36636), (167, 36747), (170, 36768), (179, 36891), (180, 36897), (182, 36939), (183, 36957), (191, 37101), (193, 37143), (197, 37248),

Gene: NedWong\_89 Start: 32146, Stop: 35859, Start Num: 1



Candidate Starts for NedWong\_89:

(Start: 1 @32146 has 171 MA's), (3, 32227), (5, 32248), (6, 32272), (8, 32317), (9, 32344), (10, 32347), (11, 32359), (12, 32377), (13, 32380), (22, 32599), (27, 32737), (29, 32824), (32, 32872), (35, 32935), (36, 32965), (38, 32992), (39, 33001), (42, 33019), (43, 33022), (46, 33076), (48, 33142), (65, 33535), (66, 33568), (71, 33688), (80, 33922), (99, 34126), (101, 34129), (111, 34186), (112, 34189), (115, 34201), (116, 34225), (120, 34243), (121, 34246), (122, 34258), (126, 34291), (130, 34333), (139, 34459), (140, 34462), (144, 34627), (146, 34681), (151, 34744), (153, 34753), (158, 34927), (161, 35032), (167, 35143), (170, 35164), (179, 35287), (180, 35293), (182, 35335), (183, 35353), (191, 35497), (193, 35539), (197, 35644),

Gene: Ngannou\_84 Start: 30133, Stop: 33846, Start Num: 1

Candidate Starts for Ngannou\_84:

(Start: 1 @30133 has 171 MA's), (3, 30214), (5, 30235), (6, 30259), (8, 30304), (9, 30331), (10, 30334), (11, 30346), (12, 30364), (13, 30367), (22, 30586), (27, 30724), (29, 30811), (32, 30859), (35, 30922), (36, 30952), (38, 30979), (39, 30988), (42, 31006), (43, 31009), (46, 31063), (48, 31129), (65, 31522), (66, 31555), (71, 31675), (80, 31909), (99, 32113), (101, 32116), (111, 32173), (112, 32176), (115, 32188), (116, 32212), (120, 32230), (121, 32233), (122, 32245), (126, 32278), (130, 32320), (139, 32446), (140, 32449), (144, 32614), (146, 32668), (151, 32731), (153, 32740), (158, 32914), (161, 33019), (167, 33130), (170, 33151), (179, 33274), (180, 33280), (182, 33322), (183, 33340), (191, 33484), (193, 33526), (197, 33631),

Gene: Nidhogg\_89 Start: 32000, Stop: 35713, Start Num: 1

Candidate Starts for Nidhogg\_89:

(Start: 1 @32000 has 171 MA's), (3, 32081), (5, 32102), (6, 32126), (8, 32171), (9, 32198), (10, 32201), (11, 32213), (12, 32231), (13, 32234), (22, 32453), (27, 32591), (29, 32678), (32, 32726), (35, 32789), (36, 32819), (38, 32846), (39, 32855), (42, 32873), (43, 32876), (46, 32930), (48, 32996), (65, 33389), (66, 33422), (71, 33542), (80, 33776), (99, 33980), (101, 33983), (111, 34040), (112, 34043), (115, 34055), (116, 34079), (120, 34097), (121, 34100), (122, 34112), (126, 34145), (130, 34187), (139, 34313), (140, 34316), (144, 34481), (146, 34535), (151, 34598), (153, 34607), (158, 34781), (161, 34886), (167, 34997), (170, 35018), (179, 35141), (180, 35147), (182, 35189), (183, 35207), (191, 35351), (193, 35393), (197, 35498),

Gene: NoodleTree\_96 Start: 33177, Stop: 36890, Start Num: 1

Candidate Starts for NoodleTree\_96:

(Start: 1 @33177 has 171 MA's), (3, 33258), (5, 33279), (6, 33303), (8, 33348), (9, 33375), (10, 33378), (11, 33390), (12, 33408), (13, 33411), (22, 33630), (27, 33768), (29, 33855), (32, 33903), (35, 33966), (36, 33996), (38, 34023), (39, 34032), (42, 34050), (43, 34053), (46, 34107), (48, 34173), (65, 34566), (66, 34599), (71, 34719), (80, 34953), (99, 35157), (101, 35160), (111, 35217), (112, 35220), (115, 35232), (116, 35256), (120, 35274), (121, 35277), (122, 35289), (126, 35322), (130, 35364), (139, 35490), (140, 35493), (144, 35658), (146, 35712), (151, 35775), (153, 35784), (158, 35958), (161, 36063), (167, 36174), (170, 36195), (179, 36318), (180, 36324), (182, 36366), (183, 36384), (191, 36528), (193, 36570), (197, 36675),

Gene: Norm\_89 Start: 32148, Stop: 35861, Start Num: 1

Candidate Starts for Norm\_89:

(Start: 1 @32148 has 171 MA's), (3, 32229), (5, 32250), (6, 32274), (8, 32319), (9, 32346), (10, 32349), (11, 32361), (12, 32379), (13, 32382), (22, 32601), (27, 32739), (29, 32826), (32, 32874), (35, 32937), (36, 32967), (38, 32994), (39, 33003), (42, 33021), (43, 33024), (46, 33078), (48, 33144), (65, 33537), (66, 33570), (71, 33690), (80, 33924), (99, 34128), (101, 34131), (111, 34188), (112, 34191), (115, 34203), (116, 34227), (120, 34245), (121, 34248), (122, 34260), (126, 34293), (130, 34335), (139, 34461), (140, 34464), (144, 34629), (146, 34683), (151, 34746), (153, 34755), (158, 34929), (161, 35034), (167, 35145), (170, 35166), (179, 35289), (180, 35295), (182, 35337), (183, 35355), (191, 35499), (193, 35541), (197, 35646),

Gene: NuevoMundo\_94 Start: 34107, Stop: 37820, Start Num: 1

Candidate Starts for NuevoMundo\_94:

(Start: 1 @34107 has 171 MA's), (3, 34188), (5, 34209), (6, 34233), (8, 34278), (9, 34305), (10, 34308), (11, 34320), (12, 34338), (13, 34341), (22, 34560), (27, 34698), (29, 34785), (32, 34833), (35, 34896), (36, 34926), (38, 34953), (39, 34962), (42, 34980), (43, 34983), (46, 35037), (48, 35103), (65, 35496), (66, 35529), (71, 35649), (80, 35883), (99, 36087), (101, 36090), (111, 36147), (112, 36150), (115, 36162), (116, 36186), (120, 36204), (121, 36207), (122, 36219), (126, 36252), (130, 36294), (139, 36420), (140, 36423), (144, 36588), (146, 36642), (151, 36705), (153, 36714), (158, 36888), (161, 36993), (167, 37104), (170, 37125), (179, 37248), (180, 37254), (182, 37296), (183, 37314), (191, 37458), (193, 37500), (197, 37605),

Gene: ParkTD\_89 Start: 32142, Stop: 35855, Start Num: 1

Candidate Starts for ParkTD\_89:

(Start: 1 @32142 has 171 MA's), (3, 32223), (5, 32244), (6, 32268), (8, 32313), (9, 32340), (10, 32343), (11, 32355), (12, 32373), (13, 32376), (22, 32595), (27, 32733), (29, 32820), (32, 32868), (35, 32931), (36, 32961), (38, 32988), (39, 32997), (42, 33015), (43, 33018), (46, 33072), (48, 33138), (65, 33531), (66, 33564), (71, 33684), (80, 33918), (99, 34122), (101, 34125), (111, 34182), (112, 34185), (115, 34197), (116, 34221), (120, 34239), (121, 34242), (122, 34254), (126, 34287), (130, 34329), (139, 34455), (140, 34458), (144, 34623), (146, 34677), (151, 34740), (153, 34749), (158, 34923), (161, 35028), (167, 35139), (170, 35160), (179, 35283), (180, 35289), (182, 35331), (183, 35349), (191, 35493), (193, 35535), (197, 35640),

Gene: Patter\_88 Start: 31168, Stop: 34881, Start Num: 1

Candidate Starts for Patter\_88:

(Start: 1 @31168 has 171 MA's), (3, 31249), (5, 31270), (6, 31294), (8, 31339), (9, 31366), (10, 31369), (11, 31381), (12, 31399), (13, 31402), (22, 31621), (27, 31759), (29, 31846), (32, 31894), (35, 31957), (36, 31987), (38, 32014), (39, 32023), (42, 32041), (43, 32044), (46, 32098), (48, 32164), (65, 32557), (66, 32590), (71, 32710), (80, 32944), (99, 33148), (101, 33151), (111, 33208), (112, 33211), (115, 33223), (116, 33247), (120, 33265), (121, 33268), (122, 33280), (126, 33313), (130, 33355), (139, 33481), (140, 33484), (144, 33649), (146, 33703), (151, 33766), (153, 33775), (158, 33949), (161, 34054), (167, 34165), (170, 34186), (179, 34309), (180, 34315), (182, 34357), (183, 34375), (191, 34519), (193, 34561), (197, 34666),

Gene: Phabba\_92 Start: 33179, Stop: 36631, Start Num: 2

Candidate Starts for Phabba\_92:

(Start: 2 @33179 has 2 MA's), (7, 33308), (9, 33377), (13, 33413), (14, 33434), (15, 33449), (19, 33584), (30, 33731), (31, 33767), (40, 33908), (58, 34295), (66, 34499), (68, 34571), (74, 34631), (77, 34721), (79, 34769), (81, 34781), (87, 34883), (88, 34889), (90, 34910), (91, 34916), (115, 35183), (116, 35207), (124, 35246), (126, 35273), (127, 35291), (130, 35315), (133, 35351), (152, 35687), (155, 35825), (159, 35903), (161, 35969), (164, 36047), (166, 36071), (167, 36083), (169, 36089), (178, 36233), (196, 36425),

Gene: Phlegm\_90 Start: 31151, Stop: 34864, Start Num: 1

Candidate Starts for Phlegm\_90:

(Start: 1 @31151 has 171 MA's), (3, 31232), (5, 31253), (6, 31277), (8, 31322), (9, 31349), (10, 31352), (11, 31364), (12, 31382), (13, 31385), (22, 31604), (27, 31742), (29, 31829), (32, 31877), (35, 31940), (36, 31970), (38, 31997), (39, 32006), (42, 32024), (43, 32027), (46, 32081), (48, 32147), (65, 32540), (66, 32573), (71, 32693), (80, 32927), (99, 33131), (101, 33134), (111, 33191), (112, 33194), (115, 33206), (116, 33230), (120, 33248), (121, 33251), (122, 33263), (126, 33296), (130, 33338), (139, 33464), (140, 33467), (144, 33632), (146, 33686), (151, 33749), (153, 33758), (158, 33932), (161, 34037), (167, 34148), (170, 34169), (179, 34292), (180, 34298), (182, 34340), (183, 34358), (191, 34502), (193, 34544), (197, 34649),

Gene: Phox\_85 Start: 32036, Stop: 35746, Start Num: 1

Candidate Starts for Phox\_85:

(Start: 1 @32036 has 171 MA's), (3, 32117), (5, 32138), (6, 32162), (8, 32207), (9, 32234), (10, 32237), (11, 32249), (12, 32267), (13, 32270), (22, 32489), (27, 32627), (29, 32714), (32, 32762), (35, 32825), (36, 32855), (38, 32882), (39, 32891), (43, 32912), (46, 32966), (48, 33032), (64, 33380), (65, 33416), (75, 33692), (80, 33803), (99, 34007), (101, 34010), (111, 34067), (112, 34070), (115, 34082), (116, 34106), (120, 34124), (121, 34127), (122, 34139), (126, 34172), (130, 34214), (139, 34340), (140, 34343), (144, 34508), (151, 34625), (153, 34634), (158, 34808), (161, 34913), (167, 35024), (170, 35045), (172, 35108), (176, 35174), (177, 35180), (184, 35273), (191, 35405), (193, 35447), (197, 35531),

Gene: Phrappuccino\_44 Start: 23839, Stop: 26178, Start Num: 44

Candidate Starts for Phrappuccino\_44:

(Start: 44 @23839 has 2 MA's), (47, 23869), (49, 23968), (52, 24025), (54, 24067), (55, 24070), (56, 24079), (59, 24151), (67, 24334), (70, 24418), (72, 24454), (73, 24472), (83, 24724), (84, 24742), (85, 24745), (89, 24793), (91, 24814), (92, 24817), (94, 24856), (97, 24877), (98, 24886), (100, 24898), (103, 24919), (104, 24931), (105, 24940), (106, 24952), (107, 24964), (108, 24973), (109, 24985), (110, 24997), (111, 25006), (114, 25018), (115, 25027), (117, 25054), (118, 25057), (123, 25090), (141, 25309), (142, 25408), (143, 25423), (145, 25492), (149, 25561), (150, 25564), (156, 25747), (160, 25876), (162, 25927), (165, 25978), (173, 26098), (174, 26107),

Gene: Phusco\_88 Start: 31919, Stop: 35629, Start Num: 1

Candidate Starts for Phusco\_88:

(Start: 1 @31919 has 171 MA's), (3, 32000), (5, 32021), (6, 32045), (8, 32090), (9, 32117), (10, 32120), (11, 32132), (12, 32150), (13, 32153), (22, 32372), (27, 32510), (29, 32597), (32, 32645), (35, 32708), (36, 32738), (38, 32765), (39, 32774), (43, 32795), (46, 32849), (48, 32915), (65, 33308), (66, 33341), (71, 33461), (80, 33692), (99, 33896), (101, 33899), (111, 33956), (112, 33959), (115, 33971), (116, 33995), (120, 34013), (121, 34016), (122, 34028), (126, 34061), (130, 34103), (139, 34229), (140, 34232), (144, 34397), (151, 34514), (153, 34523), (158, 34697), (161, 34802), (167, 34913), (170, 34934), (179, 35057), (180, 35063), (182, 35105), (183, 35123), (191, 35267), (193, 35309), (197, 35414),

Gene: Pier\_92 Start: 32339, Stop: 36052, Start Num: 1

Candidate Starts for Pier\_92:

(Start: 1 @32339 has 171 MA's), (3, 32420), (5, 32441), (6, 32465), (9, 32537), (10, 32540), (11, 32552), (12, 32570), (13, 32573), (22, 32792), (27, 32930), (29, 33017), (32, 33065), (35, 33128), (36, 33158), (38, 33185), (39, 33194), (42, 33212), (43, 33215), (46, 33269), (48, 33335), (65, 33728), (66, 33761), (71, 33881), (80, 34115), (99, 34319), (101, 34322), (111, 34379), (112, 34382), (115, 34394), (116, 34418), (120, 34436), (121, 34439), (122, 34451), (126, 34484), (130, 34526), (139, 34652), (140, 34655), (144, 34820), (146, 34874), (151, 34937), (153, 34946), (158, 35120), (161, 35225), (167, 35336), (170, 35357), (179, 35480), (180, 35486), (182, 35528), (183, 35546), (191, 35690), (193, 35732), (197, 35837),

Gene: Pinkcreek\_79 Start: 29119, Stop: 32829, Start Num: 1

Candidate Starts for Pinkcreek\_79:

(Start: 1 @29119 has 171 MA's), (3, 29200), (5, 29221), (6, 29245), (8, 29290), (9, 29317), (10, 29320), (11, 29332), (12, 29350), (13, 29353), (22, 29572), (27, 29710), (29, 29797), (32, 29845), (35, 29908), (36, 29938), (38, 29965), (39, 29974), (43, 29995), (46, 30049), (48, 30115), (64, 30463), (65, 30499), (75, 30775), (80, 30886), (99, 31090), (101, 31093), (111, 31150), (112, 31153), (115, 31165), (116, 31189), (120, 31207), (121, 31210), (122, 31222), (126, 31255), (130, 31297), (139, 31423), (140, 31426), (144, 31591), (151, 31708), (153, 31717), (158, 31891), (161, 31996), (167, 32107), (170, 32128), (172, 32191), (176, 32257), (177, 32263), (184, 32356), (191, 32488), (193, 32530), (197,

32614),

Gene: Pio\_92 Start: 33075, Stop: 36788, Start Num: 1

Candidate Starts for Pio\_92:

(Start: 1 @33075 has 171 MA's), (3, 33156), (5, 33177), (6, 33201), (8, 33246), (9, 33273), (10, 33276), (11, 33288), (12, 33306), (13, 33309), (22, 33528), (27, 33666), (29, 33753), (32, 33801), (35, 33864), (36, 33894), (38, 33921), (39, 33930), (42, 33948), (43, 33951), (46, 34005), (48, 34071), (65, 34464), (66, 34497), (71, 34617), (80, 34851), (99, 35055), (101, 35058), (111, 35115), (112, 35118), (115, 35130), (116, 35154), (120, 35172), (121, 35175), (122, 35187), (126, 35220), (130, 35262), (139, 35388), (140, 35391), (144, 35556), (146, 35610), (151, 35673), (153, 35682), (158, 35856), (161, 35961), (167, 36072), (170, 36093), (179, 36216), (180, 36222), (182, 36264), (183, 36282), (191, 36426), (193, 36468), (197, 36573),

Gene: Pivoine\_87 Start: 31151, Stop: 34864, Start Num: 1

Candidate Starts for Pivoine\_87:

(Start: 1 @31151 has 171 MA's), (3, 31232), (5, 31253), (6, 31277), (8, 31322), (9, 31349), (10, 31352), (11, 31364), (12, 31382), (13, 31385), (22, 31604), (27, 31742), (29, 31829), (32, 31877), (35, 31940), (36, 31970), (38, 31997), (39, 32006), (42, 32024), (43, 32027), (46, 32081), (48, 32147), (65, 32540), (66, 32573), (71, 32693), (80, 32927), (99, 33131), (101, 33134), (111, 33191), (112, 33194), (115, 33206), (116, 33230), (120, 33248), (121, 33251), (122, 33263), (126, 33296), (130, 33338), (139, 33464), (140, 33467), (144, 33632), (146, 33686), (151, 33749), (153, 33758), (158, 33932), (161, 34037), (167, 34148), (170, 34169), (179, 34292), (180, 34298), (182, 34340), (183, 34358), (191, 34502), (193, 34544), (197, 34649),

Gene: Pleione\_91 Start: 32145, Stop: 35858, Start Num: 1

Candidate Starts for Pleione\_91:

(Start: 1 @32145 has 171 MA's), (3, 32226), (5, 32247), (6, 32271), (8, 32316), (9, 32343), (10, 32346), (11, 32358), (12, 32376), (13, 32379), (22, 32598), (27, 32736), (29, 32823), (32, 32871), (35, 32934), (36, 32964), (38, 32991), (39, 33000), (42, 33018), (43, 33021), (46, 33075), (48, 33141), (65, 33534), (66, 33567), (71, 33687), (80, 33921), (99, 34125), (101, 34128), (111, 34185), (112, 34188), (115, 34200), (116, 34224), (120, 34242), (121, 34245), (122, 34257), (126, 34290), (130, 34332), (139, 34458), (140, 34461), (144, 34626), (146, 34680), (151, 34743), (153, 34752), (158, 34926), (161, 35031), (167, 35142), (170, 35163), (179, 35286), (180, 35292), (182, 35334), (183, 35352), (191, 35496), (193, 35538), (197, 35643),

Gene: Pupper\_86 Start: 33513, Stop: 36311, Start Num: 16

Candidate Starts for Pupper\_86:

(Start: 16 @33513 has 4 MA's), (18, 33594), (20, 33606), (23, 33684), (24, 33747), (26, 33756), (39, 33768), (Start: 44 @33831 has 2 MA's), (50, 33990), (51, 33996), (57, 34101), (80, 34590), (81, 34593), (82, 34626), (115, 34863), (116, 34887), (119, 34899), (129, 34983), (135, 35034), (163, 35625), (164, 35631), (168, 35670), (169, 35673), (175, 35769), (187, 35913), (192, 35985), (194, 36054), (195, 36075), (198, 36114), (200, 36210), (201, 36225),

Gene: PurduePete\_88 Start: 32190, Stop: 35903, Start Num: 1

Candidate Starts for PurduePete\_88:

(Start: 1 @32190 has 171 MA's), (3, 32271), (5, 32292), (6, 32316), (8, 32361), (9, 32388), (10, 32391), (11, 32403), (12, 32421), (13, 32424), (22, 32643), (27, 32781), (29, 32868), (32, 32916), (35, 32979), (36, 33009), (38, 33036), (39, 33045), (42, 33063), (43, 33066), (46, 33120), (48, 33186), (65, 33579), (66, 33612), (71, 33732), (80, 33966), (99, 34170), (101, 34173), (111, 34230), (112, 34233), (115, 34245), (116, 34269), (120, 34287), (121, 34290), (122, 34302), (126, 34335), (130, 34377), (139, 34503), (140, 34506), (144, 34671), (146, 34725), (151, 34788), (153, 34797), (158, 34971), (161, 35076), (167, 35187), (170, 35208), (179, 35331), (180, 35337), (182, 35379), (183, 35397), (191, 35541), (193, 35583), (197, 35688),

Gene: QBert\_82 Start: 31642, Stop: 35355, Start Num: 1

Candidate Starts for QBert\_82:

(Start: 1 @31642 has 171 MA's), (3, 31723), (5, 31744), (6, 31768), (8, 31813), (9, 31840), (10, 31843), (11, 31855), (12, 31873), (13, 31876), (22, 32095), (27, 32233), (29, 32320), (32, 32368), (35, 32431), (36, 32461), (38, 32488), (39, 32497), (43, 32518), (46, 32572), (48, 32638), (65, 33031), (66, 33064), (71, 33184), (80, 33418), (99, 33622), (101, 33625), (111, 33682), (112, 33685), (115, 33697), (116, 33721), (120, 33739), (121, 33742), (122, 33754), (126, 33787), (130, 33829), (139, 33955), (140, 33958), (144, 34123), (151, 34240), (153, 34249), (158, 34423), (161, 34528), (167, 34639), (170, 34660), (179, 34783), (180, 34789), (182, 34831), (183, 34849), (191, 34993), (193, 35035), (197, 35140),

Gene: Quasimodo\_88 Start: 32074, Stop: 35415, Start Num: 1

Candidate Starts for Quasimodo\_88:

(Start: 1 @32074 has 171 MA's), (3, 32155), (5, 32176), (6, 32200), (8, 32245), (9, 32272), (10, 32275), (11, 32287), (12, 32305), (13, 32308), (22, 32527), (27, 32665), (29, 32752), (32, 32800), (35, 32863), (36, 32893), (38, 32920), (39, 32929), (43, 32950), (46, 33004), (48, 33070), (65, 33463), (66, 33496), (75, 33742), (80, 33853), (99, 34057), (101, 34060), (111, 34117), (112, 34120), (115, 34132), (116, 34156), (120, 34174), (121, 34177), (122, 34189), (126, 34222), (130, 34264), (144, 34405), (146, 34459), (151, 34519), (153, 34528), (158, 34702), (161, 34807), (167, 34918), (170, 34939), (191, 35074), (193, 35116), (197, 35200),

Gene: Rabinovish\_85 Start: 32386, Stop: 35718, Start Num: 1

Candidate Starts for Rabinovish\_85:

(Start: 1 @32386 has 171 MA's), (3, 32467), (5, 32488), (6, 32512), (8, 32557), (9, 32584), (10, 32587), (11, 32599), (12, 32617), (13, 32620), (22, 32839), (27, 32977), (29, 33064), (32, 33112), (35, 33175), (36, 33205), (38, 33232), (39, 33241), (43, 33262), (46, 33316), (48, 33382), (64, 33730), (65, 33766), (75, 34042), (80, 34153), (99, 34357), (101, 34360), (111, 34417), (112, 34420), (115, 34432), (116, 34456), (120, 34474), (121, 34477), (122, 34489), (126, 34522), (130, 34564), (144, 34705), (146, 34759), (151, 34822), (153, 34831), (158, 35005), (161, 35110), (167, 35221), (170, 35242), (191, 35377), (193, 35419), (197, 35503),

Gene: Rahel\_87 Start: 30707, Stop: 34417, Start Num: 1

Candidate Starts for Rahel\_87:

(Start: 1 @30707 has 171 MA's), (3, 30788), (5, 30809), (6, 30833), (8, 30878), (9, 30905), (10, 30908), (11, 30920), (12, 30938), (13, 30941), (22, 31160), (27, 31298), (29, 31385), (32, 31433), (35, 31496), (36, 31526), (38, 31553), (39, 31562), (43, 31583), (46, 31637), (48, 31703), (65, 32096), (66, 32129), (71, 32249), (80, 32480), (99, 32684), (101, 32687), (111, 32744), (112, 32747), (115, 32759), (116, 32783), (120, 32801), (121, 32804), (122, 32816), (126, 32849), (130, 32891), (139, 33017), (140, 33020), (144, 33185), (151, 33302), (153, 33311), (158, 33485), (161, 33590), (167, 33701), (170, 33722), (179, 33845), (180, 33851), (182, 33893), (183, 33911), (191, 34055), (193, 34097), (197, 34202),

Gene: Rizal\_86 Start: 31063, Stop: 34776, Start Num: 1

Candidate Starts for Rizal\_86:

(Start: 1 @31063 has 171 MA's), (3, 31144), (5, 31165), (6, 31189), (8, 31234), (9, 31261), (10, 31264), (11, 31276), (12, 31294), (13, 31297), (22, 31516), (27, 31654), (29, 31741), (32, 31789), (35, 31852), (36, 31882), (38, 31909), (39, 31918), (42, 31936), (43, 31939), (46, 31993), (48, 32059), (65, 32452), (66, 32485), (71, 32605), (80, 32839), (99, 33043), (101, 33046), (111, 33103), (112, 33106), (115, 33118), (116, 33142), (120, 33160), (121, 33163), (122, 33175), (126, 33208), (130, 33250), (139, 33376), (140, 33379), (144, 33544), (146, 33598), (151, 33661), (153, 33670), (158, 33844), (161, 33949), (167, 34060), (170, 34081), (179, 34204), (180, 34210), (182, 34252), (183, 34270), (191, 34414), (193, 34456), (197, 34561),

Gene: RoMag\_83 Start: 31501, Stop: 35214, Start Num: 1

Candidate Starts for RoMag\_83:

(Start: 1 @31501 has 171 MA's), (3, 31582), (5, 31603), (6, 31627), (9, 31699), (10, 31702), (11, 31714), (12, 31732), (13, 31735), (22, 31954), (27, 32092), (29, 32179), (32, 32227), (35, 32290), (36, 32320), (38, 32347), (39, 32356), (43, 32377), (46, 32431), (48, 32497), (65, 32890), (66, 32923), (71, 33043), (80, 33277), (99, 33481), (101, 33484), (111, 33541), (112, 33544), (115, 33556), (116, 33580), (120, 33598), (121, 33601), (122, 33613), (126, 33646), (130, 33688), (139, 33814), (140, 33817), (144, 33982), (146, 34036), (151, 34099), (153, 34108), (158, 34282), (161, 34387), (167, 34498), (170, 34519), (179, 34642), (180, 34648), (182, 34690), (183, 34708), (191, 34852), (193, 34894), (197, 34999),

Gene: Ronan\_81 Start: 28948, Stop: 32661, Start Num: 1

Candidate Starts for Ronan\_81:

(Start: 1 @28948 has 171 MA's), (3, 29029), (5, 29050), (6, 29074), (8, 29119), (9, 29146), (10, 29149), (11, 29161), (12, 29179), (13, 29182), (22, 29401), (27, 29539), (29, 29626), (32, 29674), (35, 29737), (36, 29767), (38, 29794), (39, 29803), (43, 29824), (46, 29878), (48, 29944), (65, 30337), (66, 30370), (71, 30490), (80, 30724), (99, 30928), (101, 30931), (111, 30988), (112, 30991), (115, 31003), (116, 31027), (120, 31045), (121, 31048), (122, 31060), (126, 31093), (130, 31135), (139, 31261), (140, 31264), (144, 31429), (151, 31546), (153, 31555), (158, 31729), (161, 31834), (167, 31945), (170, 31966), (179, 32089), (180, 32095), (182, 32137), (183, 32155), (191, 32299), (193, 32341), (197, 32446),

Gene: Roots515\_87 Start: 31568, Stop: 35281, Start Num: 1

Candidate Starts for Roots515\_87:

(Start: 1 @31568 has 171 MA's), (3, 31649), (5, 31670), (6, 31694), (8, 31739), (9, 31766), (10, 31769), (11, 31781), (12, 31799), (13, 31802), (22, 32021), (27, 32159), (29, 32246), (32, 32294), (35, 32357), (36, 32387), (38, 32414), (39, 32423), (42, 32441), (43, 32444), (46, 32498), (48, 32564), (65, 32957), (66, 32990), (71, 33110), (80, 33344), (99, 33548), (101, 33551), (111, 33608), (112, 33611), (115, 33623), (116, 33647), (120, 33665), (121, 33668), (122, 33680), (126, 33713), (130, 33755), (139, 33881), (140, 33884), (144, 34049), (146, 34103), (151, 34166), (153, 34175), (158, 34349), (161, 34454), (167, 34565), (170, 34586), (179, 34709), (180, 34715), (182, 34757), (183, 34775), (191, 34919), (193, 34961), (197, 35066),

Gene: SCentae\_84 Start: 33187, Stop: 35985, Start Num: 16

Candidate Starts for SCentae\_84:

(Start: 16 @33187 has 4 MA's), (18, 33268), (20, 33280), (23, 33358), (24, 33421), (26, 33430), (39, 33442), (Start: 44 @33505 has 2 MA's), (50, 33664), (51, 33670), (57, 33775), (80, 34264), (81, 34267), (82, 34300), (115, 34537), (116, 34561), (119, 34573), (129, 34657), (135, 34708), (163, 35299), (164, 35305), (168, 35344), (169, 35347), (175, 35443), (187, 35587), (192, 35659), (194, 35728), (195, 35749), (198, 35788), (200, 35884), (201, 35899),

Gene: SVoro\_86 Start: 32140, Stop: 35853, Start Num: 1

Candidate Starts for SVoro\_86:

(Start: 1 @32140 has 171 MA's), (3, 32221), (5, 32242), (6, 32266), (8, 32311), (9, 32338), (10, 32341), (11, 32353), (12, 32371), (13, 32374), (22, 32593), (27, 32731), (29, 32818), (32, 32866), (35, 32929), (36, 32959), (38, 32986), (39, 32995), (42, 33013), (43, 33016), (46, 33070), (48, 33136), (65, 33529), (66, 33562), (71, 33682), (80, 33916), (99, 34120), (101, 34123), (111, 34180), (112, 34183), (115, 34195), (116, 34219), (120, 34237), (121, 34240), (122, 34252), (126, 34285), (130, 34327), (139, 34453), (140, 34456), (144, 34621), (146, 34675), (151, 34738), (153, 34747), (158, 34921), (161, 35026), (167, 35137), (170, 35158), (179, 35281), (180, 35287), (182, 35329), (183, 35347), (191, 35491), (193, 35533), (197, 35638),

Gene: Salacia\_92 Start: 32263, Stop: 35973, Start Num: 1

Candidate Starts for Salacia\_92:

(Start: 1 @32263 has 171 MA's), (3, 32344), (5, 32365), (6, 32389), (8, 32434), (9, 32461), (10, 32464), (11, 32476), (12, 32494), (13, 32497), (22, 32716), (27, 32854), (29, 32941), (32, 32989), (35, 33052), (36, 33082), (38, 33109), (39, 33118), (43, 33139), (46, 33193), (48, 33259), (65, 33652), (66, 33685), (71, 33805), (80, 34036), (99, 34240), (101, 34243), (111, 34300), (112, 34303), (115, 34315), (116, 34339), (120, 34357), (121, 34360), (122, 34372), (126, 34405), (130, 34447), (139, 34573), (140, 34576), (144, 34741), (151, 34858), (153, 34867), (158, 35041), (161, 35146), (167, 35257), (170, 35278), (179, 35401), (180, 35407), (182, 35449), (183, 35467), (191, 35611), (193, 35653), (197, 35758),

Gene: Sauce\_88 Start: 30996, Stop: 34709, Start Num: 1

Candidate Starts for Sauce\_88:

(Start: 1 @30996 has 171 MA's), (3, 31077), (5, 31098), (6, 31122), (8, 31167), (9, 31194), (10, 31197), (11, 31209), (12, 31227), (13, 31230), (22, 31449), (27, 31587), (29, 31674), (32, 31722), (35, 31785), (36, 31815), (38, 31842), (39, 31851), (43, 31872), (46, 31926), (48, 31992), (65, 32385), (66, 32418), (71, 32538), (80, 32772), (99, 32976), (101, 32979), (111, 33036), (112, 33039), (115, 33051), (116, 33075), (120, 33093), (121, 33096), (122, 33108), (126, 33141), (130, 33183), (139, 33309), (140, 33312), (144, 33477), (151, 33594), (153, 33603), (158, 33777), (161, 33882), (167, 33993), (170, 34014), (179, 34137), (180, 34143), (182, 34185), (183, 34203), (191, 34347), (193, 34389), (197, 34494),

Gene: ScoobyDoobyDoo\_81 Start: 30092, Stop: 33598, Start Num: 1

Candidate Starts for ScoobyDoobyDoo\_81:

(Start: 1 @30092 has 171 MA's), (4, 30185), (7, 30221), (12, 30323), (13, 30326), (14, 30347), (17, 30461), (28, 30587), (30, 30620), (34, 30716), (37, 30761), (45, 30860), (60, 31235), (69, 31484), (74, 31667), (76, 31739), (77, 31757), (79, 31805), (86, 31898), (93, 31970), (95, 32015), (96, 32030), (113, 32210), (115, 32222), (116, 32246), (126, 32312), (130, 32354), (131, 32369), (132, 32375), (152, 32738), (154, 32789), (159, 32954), (161, 33020), (164, 33098), (166, 33122), (167, 33134), (169, 33140), (178, 33254), (196, 33389),

Gene: ScottMcG\_85 Start: 31500, Stop: 34862, Start Num: 1

Candidate Starts for ScottMcG\_85:

(Start: 1 @31500 has 171 MA's), (3, 31581), (5, 31602), (6, 31626), (8, 31671), (9, 31698), (10, 31701), (11, 31713), (12, 31731), (13, 31734), (22, 31953), (27, 32091), (29, 32178), (32, 32226), (35, 32289), (36, 32319), (38, 32346), (39, 32355), (43, 32376), (46, 32430), (48, 32496), (64, 32874), (65, 32910), (75, 33186), (80, 33297), (99, 33501), (101, 33504), (111, 33561), (112, 33564), (115, 33576), (116, 33600), (120, 33618), (121, 33621), (122, 33633), (126, 33666), (130, 33708), (144, 33849), (146, 33903), (151, 33966), (153, 33975), (158, 34149), (161, 34254), (167, 34365), (170, 34386), (191, 34521), (193, 34563), (197, 34647),

Gene: Sebata\_89 Start: 32632, Stop: 36345, Start Num: 1

Candidate Starts for Sebata\_89:

(Start: 1 @32632 has 171 MA's), (3, 32713), (5, 32734), (6, 32758), (8, 32803), (9, 32830), (10, 32833), (11, 32845), (12, 32863), (13, 32866), (22, 33085), (27, 33223), (29, 33310), (32, 33358), (35, 33421), (36, 33451), (38, 33478), (39, 33487), (43, 33508), (46, 33562), (48, 33628), (65, 34021), (66, 34054), (71, 34174), (80, 34408), (99, 34612), (101, 34615), (111, 34672), (112, 34675), (115, 34687), (116, 34711), (120, 34729), (121, 34732), (122, 34744), (126, 34777), (130, 34819), (139, 34945), (140, 34948), (144, 35113), (151, 35230), (153, 35239), (158, 35413), (161, 35518), (167, 35629), (170, 35650), (179, 35773), (180, 35779), (182, 35821), (183, 35839), (191, 35983), (193, 36025), (197, 36130),

Gene: Settecandela\_44 Start: 23839, Stop: 26178, Start Num: 44

Candidate Starts for Settecandela\_44:

(Start: 44 @23839 has 2 MA's), (47, 23869), (49, 23968), (52, 24025), (54, 24067), (55, 24070), (56, 24079), (59, 24151), (67, 24334), (70, 24418), (72, 24454), (73, 24472), (83, 24724), (84, 24742), (85, 24745), (89, 24793), (91, 24814), (92, 24817), (94, 24856), (97, 24877), (98, 24886), (100, 24898), (103, 24919), (104, 24931), (105, 24940), (106, 24952), (107, 24964), (108, 24973), (109, 24985), (110, 24997), (111, 25006), (114, 25018), (115, 25027), (117, 25054), (118, 25057), (123, 25090), (141, 25309), (142, 25408), (143, 25423), (145, 25492), (149, 25561), (150, 25564), (156, 25747), (160, 25876), (162, 25927), (165, 25978), (173, 26098), (174, 26107),

Gene: Shaqnato\_80 Start: 29871, Stop: 33584, Start Num: 1

Candidate Starts for Shaqnato\_80:

(Start: 1 @29871 has 171 MA's), (3, 29952), (5, 29973), (6, 29997), (8, 30042), (9, 30069), (10, 30072), (11, 30084), (12, 30102), (13, 30105), (22, 30324), (27, 30462), (29, 30549), (32, 30597), (35, 30660), (36, 30690), (38, 30717), (39, 30726), (43, 30747), (46, 30801), (48, 30867), (65, 31260), (66, 31293), (71, 31413), (80, 31647), (99, 31851), (101, 31854), (111, 31911), (112, 31914), (115, 31926), (116, 31950), (120, 31968), (121, 31971), (122, 31983), (126, 32016), (130, 32058), (139, 32184), (140, 32187), (144, 32352), (151, 32469), (153, 32478), (158, 32652), (161, 32757), (167, 32868), (170, 32889), (179, 33012), (180, 33018), (182, 33060), (183, 33078), (191, 33222), (193, 33264), (197, 33369),

Gene: Shelob\_90 Start: 33138, Stop: 36851, Start Num: 1

Candidate Starts for Shelob\_90:

(Start: 1 @33138 has 171 MA's), (3, 33219), (5, 33240), (6, 33264), (8, 33309), (9, 33336), (10, 33339), (11, 33351), (12, 33369), (13, 33372), (22, 33591), (27, 33729), (29, 33816), (32, 33864), (35, 33927), (36, 33957), (38, 33984), (39, 33993), (42, 34011), (43, 34014), (46, 34068), (48, 34134), (65, 34527), (66, 34560), (71, 34680), (80, 34914), (99, 35118), (101, 35121), (111, 35178), (112, 35181), (115, 35193), (116, 35217), (120, 35235), (121, 35238), (122, 35250), (126, 35283), (130, 35325), (139, 35451), (140, 35454), (144, 35619), (146, 35673), (151, 35736), (153, 35745), (158, 35919), (161, 36024), (167, 36135), (170, 36156), (179, 36279), (180, 36285), (182, 36327), (183, 36345), (191, 36489), (193, 36531), (197, 36636),

Gene: ShiaLabeouf\_88 Start: 31546, Stop: 35256, Start Num: 1

Candidate Starts for ShiaLabeouf\_88:

(Start: 1 @31546 has 171 MA's), (3, 31627), (5, 31648), (6, 31672), (9, 31744), (10, 31747), (11, 31759), (12, 31777), (13, 31780), (22, 31999), (27, 32137), (29, 32224), (32, 32272), (35, 32335), (36, 32365), (38, 32392), (39, 32401), (43, 32422), (46, 32476), (48, 32542), (65, 32935), (66, 32968), (71, 33088), (80, 33319), (99, 33523), (101, 33526), (111, 33583), (112, 33586), (115, 33598), (116, 33622), (120, 33640), (121, 33643), (122, 33655), (126, 33688), (130, 33730), (139, 33856), (140, 33859), (144, 34024), (151, 34141), (153, 34150), (158, 34324), (161, 34429), (167, 34540), (170, 34561), (179, 34684), (180, 34690), (182, 34732), (183, 34750), (191, 34894), (193, 34936), (197, 35041),

Gene: Shifa\_77 Start: 29738, Stop: 33316, Start Num: 1

Candidate Starts for Shifa\_77:

(Start: 1 @29738 has 171 MA's), (3, 29819), (5, 29840), (6, 29864), (8, 29909), (9, 29936), (10, 29939), (11, 29951), (12, 29969), (13, 29972), (22, 30191), (27, 30329), (29, 30416), (32, 30464), (35, 30527), (36, 30557), (38, 30584), (39, 30593), (42, 30611), (43, 30614), (46, 30668), (48, 30734), (65, 31142), (66, 31175), (71, 31295), (75, 31418), (80, 31529), (99, 31733), (101, 31736), (111, 31793), (112, 31796), (115, 31808), (116, 31832), (120, 31850), (121, 31853), (122, 31865), (126, 31898), (130, 31940), (144, 32081), (146, 32135), (151, 32195), (153, 32204), (158, 32378), (161, 32483), (167, 32594), (170, 32615), (172, 32678), (176, 32744), (177, 32750), (184, 32843), (191, 32975), (193, 33017), (197, 33101),



Gene: Shnickers\_88 Start: 31106, Stop: 34816, Start Num: 1

Candidate Starts for Shnickers\_88:

(Start: 1 @31106 has 171 MA's), (3, 31187), (5, 31208), (6, 31232), (9, 31304), (10, 31307), (11, 31319), (12, 31337), (13, 31340), (22, 31559), (27, 31697), (29, 31784), (32, 31832), (35, 31895), (36, 31925), (38, 31952), (39, 31961), (43, 31982), (46, 32036), (48, 32102), (65, 32495), (66, 32528), (71, 32648), (80, 32879), (99, 33083), (101, 33086), (111, 33143), (112, 33146), (115, 33158), (116, 33182), (120, 33200), (121, 33203), (122, 33215), (126, 33248), (130, 33290), (139, 33416), (140, 33419), (144, 33584), (151, 33701), (153, 33710), (158, 33884), (161, 33989), (167, 34100), (170, 34121), (179, 34244), (180, 34250), (182, 34292), (183, 34310), (191, 34454), (193, 34496), (197, 34601),

Gene: Shrimp\_88 Start: 32150, Stop: 35863, Start Num: 1

Candidate Starts for Shrimp\_88:

(Start: 1 @32150 has 171 MA's), (3, 32231), (5, 32252), (6, 32276), (8, 32321), (9, 32348), (10, 32351), (11, 32363), (12, 32381), (13, 32384), (22, 32603), (27, 32741), (29, 32828), (32, 32876), (35, 32939), (36, 32969), (38, 32996), (39, 33005), (42, 33023), (43, 33026), (46, 33080), (48, 33146), (65, 33539), (66, 33572), (71, 33692), (80, 33926), (99, 34130), (101, 34133), (111, 34190), (112, 34193), (115, 34205), (116, 34229), (120, 34247), (121, 34250), (122, 34262), (126, 34295), (130, 34337), (139, 34463), (140, 34466), (144, 34631), (146, 34685), (151, 34748), (153, 34757), (158, 34931), (161, 35036), (167, 35147), (170, 35168), (179, 35291), (180, 35297), (182, 35339), (183, 35357), (191, 35501), (193, 35543), (197, 35648),

Gene: SilverDipper\_89 Start: 31151, Stop: 34864, Start Num: 1

Candidate Starts for SilverDipper\_89:

(Start: 1 @31151 has 171 MA's), (3, 31232), (5, 31253), (6, 31277), (8, 31322), (9, 31349), (10, 31352), (11, 31364), (12, 31382), (13, 31385), (22, 31604), (27, 31742), (29, 31829), (32, 31877), (35, 31940), (36, 31970), (38, 31997), (39, 32006), (42, 32024), (43, 32027), (46, 32081), (48, 32147), (65, 32540), (66, 32573), (71, 32693), (80, 32927), (99, 33131), (101, 33134), (111, 33191), (112, 33194), (115, 33206), (116, 33230), (120, 33248), (121, 33251), (122, 33263), (126, 33296), (130, 33338), (139, 33464), (140, 33467), (144, 33632), (146, 33686), (151, 33749), (153, 33758), (158, 33932), (161, 34037), (167, 34148), (170, 34169), (179, 34292), (180, 34298), (182, 34340), (183, 34358), (191, 34502), (193, 34544), (197, 34649),

Gene: Skog\_149 Start: 63157, Stop: 66045, Start Num: 16

Candidate Starts for Skog\_149:

(Start: 16 @63157 has 4 MA's), (20, 63250), (21, 63259), (24, 63391), (26, 63400), (Start: 44 @63478 has 2 MA's), (50, 63637), (51, 63643), (53, 63685), (61, 63820), (80, 64282), (81, 64285), (82, 64318), (115, 64552), (117, 64579), (119, 64588), (136, 64735), (157, 65134), (163, 65329), (164, 65335), (168, 65374), (169, 65377), (171, 65440), (186, 65617), (195, 65809), (198, 65848), (199, 65869),

Gene: SmallFry\_88 Start: 31105, Stop: 34815, Start Num: 1

Candidate Starts for SmallFry\_88:

(Start: 1 @31105 has 171 MA's), (3, 31186), (5, 31207), (6, 31231), (8, 31276), (9, 31303), (10, 31306), (11, 31318), (12, 31336), (13, 31339), (22, 31558), (27, 31696), (29, 31783), (32, 31831), (35, 31894), (36, 31924), (38, 31951), (39, 31960), (43, 31981), (46, 32035), (48, 32101), (65, 32494), (66, 32527), (71, 32647), (80, 32878), (99, 33082), (101, 33085), (111, 33142), (112, 33145), (115, 33157), (116, 33181), (120, 33199), (121, 33202), (122, 33214), (126, 33247), (130, 33289), (139, 33415), (140, 33418), (144, 33583), (151, 33700), (153, 33709), (158, 33883), (161, 33988), (167, 34099), (170, 34120), (179, 34243), (180, 34249), (182, 34291), (183, 34309), (191, 34453), (193, 34495), (197, 34600),

Gene: Spec\_83 Start: 30871, Stop: 34581, Start Num: 1

Candidate Starts for Spec\_83:

(Start: 1 @30871 has 171 MA's), (3, 30952), (5, 30973), (6, 30997), (8, 31042), (9, 31069), (10, 31072), (11, 31084), (12, 31102), (13, 31105), (22, 31324), (27, 31462), (29, 31549), (32, 31597), (35, 31660), (36, 31690), (38, 31717), (39, 31726), (43, 31747), (46, 31801), (48, 31867), (65, 32260), (66, 32293), (71, 32413), (80, 32644), (99, 32848), (101, 32851), (111, 32908), (112, 32911), (115, 32923), (116, 32947), (120, 32965), (121, 32968), (122, 32980), (126, 33013), (130, 33055), (139, 33181), (140, 33184), (144, 33349), (151, 33466), (153, 33475), (158, 33649), (161, 33754), (167, 33865), (170, 33886), (179, 34009), (180, 34015), (182, 34057), (183, 34075), (191, 34219), (193, 34261), (197, 34366),

Gene: Specks\_94 Start: 33940, Stop: 37599, Start Num: 1

Candidate Starts for Specks\_94:

(Start: 1 @33940 has 171 MA's), (3, 34021), (5, 34042), (6, 34066), (8, 34111), (9, 34138), (10, 34141), (11, 34153), (12, 34171), (13, 34174), (22, 34393), (27, 34531), (29, 34618), (32, 34666), (35, 34729), (36, 34759), (38, 34786), (39, 34795), (42, 34813), (43, 34816), (46, 34870), (48, 34936), (65, 35329), (66, 35362), (71, 35482), (75, 35596), (80, 35680), (99, 35884), (101, 35887), (111, 35944), (112, 35947), (115, 35959), (116, 35983), (120, 36001), (121, 36004), (122, 36016), (126, 36049), (130, 36091), (139, 36217), (140, 36220), (144, 36367), (146, 36421), (151, 36484), (153, 36493), (158, 36667), (161, 36772), (167, 36883), (170, 36904), (179, 37027), (180, 37033), (182, 37075), (183, 37093), (191, 37237), (193, 37279), (197, 37384),

Gene: Sprinklers\_83 Start: 30368, Stop: 34081, Start Num: 1

Candidate Starts for Sprinklers\_83:

(Start: 1 @30368 has 171 MA's), (3, 30449), (5, 30470), (6, 30494), (8, 30539), (9, 30566), (10, 30569), (11, 30581), (12, 30599), (13, 30602), (22, 30821), (27, 30959), (29, 31046), (32, 31094), (35, 31157), (36, 31187), (38, 31214), (39, 31223), (43, 31244), (46, 31298), (48, 31364), (65, 31757), (66, 31790), (71, 31910), (80, 32144), (99, 32348), (101, 32351), (111, 32408), (112, 32411), (115, 32423), (116, 32447), (120, 32465), (121, 32468), (122, 32480), (126, 32513), (130, 32555), (139, 32681), (140, 32684), (144, 32849), (151, 32966), (153, 32975), (158, 33149), (161, 33254), (167, 33365), (170, 33386), (179, 33509), (180, 33515), (182, 33557), (183, 33575), (191, 33719), (193, 33761), (197, 33866),

Gene: Spud\_88 Start: 32461, Stop: 35823, Start Num: 1

Candidate Starts for Spud\_88:

(Start: 1 @32461 has 171 MA's), (3, 32542), (5, 32563), (6, 32587), (8, 32632), (9, 32659), (10, 32662), (11, 32674), (12, 32692), (13, 32695), (22, 32914), (27, 33052), (29, 33139), (32, 33187), (35, 33250), (36, 33280), (38, 33307), (39, 33316), (43, 33337), (46, 33391), (48, 33457), (64, 33835), (65, 33871), (75, 34147), (80, 34258), (99, 34462), (101, 34465), (111, 34522), (112, 34525), (115, 34537), (116, 34561), (120, 34579), (121, 34582), (122, 34594), (126, 34627), (130, 34669), (144, 34810), (146, 34864), (151, 34927), (153, 34936), (158, 35110), (161, 35215), (167, 35326), (170, 35347), (191, 35482), (193, 35524), (197, 35608),

Gene: SrishMeg2525\_87 Start: 31857, Stop: 35195, Start Num: 1

Candidate Starts for SrishMeg2525\_87:

(Start: 1 @31857 has 171 MA's), (3, 31938), (5, 31959), (6, 31983), (8, 32028), (9, 32055), (10, 32058), (11, 32070), (12, 32088), (13, 32091), (22, 32310), (27, 32448), (29, 32535), (32, 32583), (35, 32646), (36, 32676), (38, 32703), (39, 32712), (42, 32730), (43, 32733), (46, 32787), (48, 32853), (65, 33246), (66, 33279), (71, 33399), (80, 33630), (99, 33834), (101, 33837), (111, 33894), (112, 33897), (115, 33909), (116, 33933), (120, 33951), (121, 33954), (122, 33966), (126, 33999), (130, 34041), (144, 34182), (146, 34236), (151, 34299), (153, 34308), (158, 34482), (161, 34587), (167, 34698), (170, 34719), (191, 34854), (193, 34896), (197, 34980),

Gene: StephanieG\_87 Start: 32958, Stop: 36671, Start Num: 1

Candidate Starts for StephanieG\_87:

(Start: 1 @32958 has 171 MA's), (3, 33039), (5, 33060), (6, 33084), (9, 33156), (10, 33159), (11, 33171), (12, 33189), (13, 33192), (22, 33411), (27, 33549), (29, 33636), (32, 33684), (35, 33747), (36, 33777), (38, 33804), (39, 33813), (43, 33834), (46, 33888), (48, 33954), (65, 34347), (66, 34380), (71, 34500), (80, 34734), (99, 34938), (101, 34941), (111, 34998), (112, 35001), (115, 35013), (116, 35037), (120, 35055), (121, 35058), (122, 35070), (126, 35103), (130, 35145), (139, 35271), (140, 35274), (144, 35439), (146, 35493), (151, 35556), (153, 35565), (158, 35739), (161, 35844), (167, 35955), (170, 35976), (179, 36099), (180, 36105), (182, 36147), (183, 36165), (191, 36309), (193, 36351), (197, 36456),

Gene: Stubby\_81 Start: 30428, Stop: 33913, Start Num: 1

Candidate Starts for Stubby\_81:

(Start: 1 @30428 has 171 MA's), (3, 30509), (5, 30530), (6, 30554), (8, 30599), (9, 30626), (10, 30629), (11, 30641), (12, 30659), (13, 30662), (22, 30881), (27, 31019), (29, 31106), (32, 31154), (35, 31217), (36, 31247), (38, 31274), (39, 31283), (43, 31304), (46, 31358), (48, 31424), (64, 31772), (65, 31808), (75, 32084), (80, 32195), (99, 32399), (101, 32402), (111, 32459), (112, 32462), (115, 32474), (116, 32498), (120, 32516), (121, 32519), (122, 32531), (126, 32564), (130, 32606), (139, 32732), (140, 32735), (144, 32900), (151, 33017), (153, 33026), (158, 33200), (161, 33305), (167, 33416), (170, 33437), (191, 33572), (193, 33614), (197, 33698),

Gene: StubbySaigey\_90 Start: 30786, Stop: 34148, Start Num: 1

Candidate Starts for StubbySaigey\_90:

(Start: 1 @30786 has 171 MA's), (3, 30867), (5, 30888), (6, 30912), (8, 30957), (9, 30984), (10, 30987), (11, 30999), (12, 31017), (13, 31020), (22, 31239), (27, 31377), (29, 31464), (32, 31512), (35, 31575), (36, 31605), (38, 31632), (39, 31641), (42, 31659), (43, 31662), (46, 31716), (48, 31782), (64, 32160), (65, 32196), (75, 32472), (80, 32583), (99, 32787), (101, 32790), (111, 32847), (112, 32850), (115, 32862), (116, 32886), (120, 32904), (121, 32907), (122, 32919), (126, 32952), (130, 32994), (144, 33135), (146, 33189), (151, 33252), (153, 33261), (158, 33435), (161, 33540), (167, 33651), (170, 33672), (191, 33807), (193, 33849), (197, 33933),

Gene: Tainan\_93 Start: 33590, Stop: 37249, Start Num: 1

Candidate Starts for Tainan\_93:

(Start: 1 @33590 has 171 MA's), (3, 33671), (5, 33692), (6, 33716), (9, 33788), (10, 33791), (11, 33803), (12, 33821), (13, 33824), (22, 34043), (27, 34181), (29, 34268), (32, 34316), (35, 34379), (38, 34436), (39, 34445), (43, 34466), (46, 34520), (48, 34586), (65, 34979), (66, 35012), (71, 35132), (75, 35246), (80, 35330), (99, 35534), (101, 35537), (111, 35594), (112, 35597), (115, 35609), (116, 35633), (120, 35651), (121, 35654), (122, 35666), (126, 35699), (130, 35741), (139, 35867), (140, 35870), (144, 36017), (146, 36071), (151, 36134), (153, 36143), (158, 36317), (161, 36422), (167, 36533), (170, 36554), (179, 36677), (180, 36683), (182, 36725), (183, 36743), (191, 36887), (193, 36929), (197, 37034),

Gene: Teardrop\_88 Start: 31264, Stop: 34923, Start Num: 1

Candidate Starts for Teardrop\_88:

(Start: 1 @31264 has 171 MA's), (3, 31345), (5, 31366), (6, 31390), (8, 31435), (9, 31462), (10, 31465), (11, 31477), (12, 31495), (13, 31498), (22, 31717), (27, 31855), (29, 31942), (32, 31990), (35, 32053), (36, 32083), (38, 32110), (39, 32119), (42, 32137), (43, 32140), (46, 32194), (48, 32260), (65, 32653), (66, 32686), (71, 32806), (75, 32920), (80, 33004), (99, 33208), (101, 33211), (111, 33268), (112, 33271), (115, 33283), (116, 33307), (120, 33325), (121, 33328), (122, 33340), (126, 33373), (130, 33415), (139, 33541), (140, 33544), (144, 33691), (146, 33745), (151, 33808), (153, 33817), (158, 33991), (161, 34096), (167, 34207), (170, 34228), (179, 34351), (180, 34357), (182, 34399), (183, 34417), (191, 34561), (193, 34603), (197, 34708),

Gene: TinyTim\_88 Start: 32146, Stop: 35859, Start Num: 1

Candidate Starts for TinyTim\_88:

(Start: 1 @32146 has 171 MA's), (3, 32227), (5, 32248), (6, 32272), (8, 32317), (9, 32344), (10, 32347), (11, 32359), (12, 32377), (13, 32380), (22, 32599), (27, 32737), (29, 32824), (32, 32872), (35, 32935), (36, 32965), (38, 32992), (39, 33001), (42, 33019), (43, 33022), (46, 33076), (48, 33142), (65, 33535), (66, 33568), (71, 33688), (80, 33922), (99, 34126), (101, 34129), (111, 34186), (112, 34189), (115, 34201), (116, 34225), (120, 34243), (121, 34246), (122, 34258), (126, 34291), (130, 34333), (139, 34459), (140, 34462), (144, 34627), (146, 34681), (151, 34744), (153, 34753), (158, 34927), (161, 35032), (167, 35143), (170, 35164), (179, 35287), (180, 35293), (182, 35335), (183, 35353), (191, 35497), (193, 35539), (197, 35644),

Gene: Tonenili\_102 Start: 36564, Stop: 39851, Start Num: 1

Candidate Starts for Tonenili\_102:

(Start: 1 @36564 has 171 MA's), (3, 36645), (5, 36666), (6, 36690), (8, 36735), (9, 36762), (10, 36765), (11, 36777), (12, 36795), (13, 36798), (22, 37014), (41, 37140), (46, 37203), (65, 37701), (66, 37734), (71, 37854), (78, 38067), (80, 38085), (99, 38289), (101, 38292), (111, 38349), (112, 38352), (115, 38364), (116, 38388), (120, 38406), (121, 38409), (122, 38421), (125, 38433), (126, 38454), (130, 38496), (144, 38637), (146, 38691), (151, 38751), (153, 38760), (158, 38934), (159, 38973), (161, 39039), (168, 39153), (170, 39171), (181, 39324), (185, 39363), (191, 39489), (193, 39531), (197, 39636),

Gene: Tortoise16\_86 Start: 32007, Stop: 35717, Start Num: 1

Candidate Starts for Tortoise16\_86:

(Start: 1 @32007 has 171 MA's), (3, 32088), (5, 32109), (6, 32133), (8, 32178), (9, 32205), (10, 32208), (11, 32220), (12, 32238), (13, 32241), (22, 32460), (27, 32598), (29, 32685), (32, 32733), (35, 32796), (36, 32826), (38, 32853), (39, 32862), (43, 32883), (46, 32937), (48, 33003), (65, 33396), (66, 33429), (71, 33549), (80, 33780), (99, 33984), (101, 33987), (111, 34044), (112, 34047), (115, 34059), (116, 34083), (120, 34101), (121, 34104), (122, 34116), (126, 34149), (130, 34191), (139, 34317), (140, 34320), (144, 34485), (151, 34602), (153, 34611), (158, 34785), (161, 34890), (167, 35001), (170, 35022), (179, 35145), (180, 35151), (182, 35193), (183, 35211), (191, 35355), (193, 35397), (197, 35502),

Gene: Trinitium\_84 Start: 30571, Stop: 33912, Start Num: 1

Candidate Starts for Trinitium\_84:

(Start: 1 @30571 has 171 MA's), (3, 30652), (5, 30673), (6, 30697), (8, 30742), (9, 30769), (10, 30772), (11, 30784), (12, 30802), (13, 30805), (22, 31024), (27, 31162), (29, 31249), (32, 31297), (35, 31360), (36, 31390), (38, 31417), (39, 31426), (43, 31447), (46, 31501), (48, 31567), (65, 31960), (66, 31993), (75, 32239), (80, 32350), (99, 32554), (101, 32557), (111, 32614), (112, 32617), (115, 32629), (116, 32653), (120, 32671), (121, 32674), (122, 32686), (126, 32719), (130, 32761), (144, 32902), (146, 32956), (151, 33016), (153, 33025), (158, 33199), (161, 33304), (167, 33415), (170, 33436), (191, 33571), (193, 33613), (197, 33697),

Gene: Turret\_83 Start: 30237, Stop: 33578, Start Num: 1

Candidate Starts for Turret\_83:

(Start: 1 @30237 has 171 MA's), (3, 30318), (5, 30339), (6, 30363), (8, 30408), (9, 30435), (10, 30438), (11, 30450), (12, 30468), (13, 30471), (22, 30690), (27, 30828), (29, 30915), (32, 30963), (35, 31026), (36, 31056), (38, 31083), (39, 31092), (43, 31113), (46, 31167), (48, 31233), (65, 31626), (66, 31659), (75, 31905), (80, 32016), (99, 32220), (101, 32223), (111, 32280), (112, 32283), (115, 32295), (116, 32319), (120, 32337), (121, 32340), (122, 32352), (126, 32385), (130, 32427), (144, 32568), (146, 32622), (151, 32682), (153, 32691), (158, 32865), (161, 32970), (167, 33081), (170, 33102), (191, 33237), (193, 33279), (197, 33363),

Gene: Tyke\_90 Start: 32911, Stop: 36621, Start Num: 1

Candidate Starts for Tyke\_90:

(Start: 1 @32911 has 171 MA's), (3, 32992), (5, 33013), (6, 33037), (8, 33082), (9, 33109), (10, 33112), (11, 33124), (12, 33142), (13, 33145), (22, 33364), (27, 33502), (29, 33589), (32, 33637), (35, 33700), (36, 33730), (38, 33757), (39, 33766), (43, 33787), (46, 33841), (48, 33907), (65, 34300), (66, 34333), (71, 34453), (80, 34684), (99, 34888), (101, 34891), (111, 34948), (112, 34951), (115, 34963), (116, 34987), (120, 35005), (121, 35008), (122, 35020), (126, 35053), (130, 35095), (139, 35221), (140, 35224), (144, 35389), (151, 35506), (153, 35515), (158, 35689), (161, 35794), (167, 35905), (170, 35926), (179, 36049), (180, 36055), (182, 36097), (183, 36115), (191, 36259), (193, 36301), (197, 36406),

Gene: ValleyTerrace\_88 Start: 31151, Stop: 34864, Start Num: 1

Candidate Starts for ValleyTerrace\_88:

(Start: 1 @31151 has 171 MA's), (3, 31232), (5, 31253), (6, 31277), (8, 31322), (9, 31349), (10, 31352), (11, 31364), (12, 31382), (13, 31385), (22, 31604), (27, 31742), (29, 31829), (32, 31877), (35, 31940), (36, 31970), (38, 31997), (39, 32006), (42, 32024), (43, 32027), (46, 32081), (48, 32147), (65, 32540), (66, 32573), (71, 32693), (80, 32927), (99, 33131), (101, 33134), (111, 33191), (112, 33194), (115, 33206), (116, 33230), (120, 33248), (121, 33251), (122, 33263), (126, 33296), (130, 33338), (139, 33464), (140, 33467), (144, 33632), (146, 33686), (151, 33749), (153, 33758), (158, 33932), (161, 34037), (167, 34148), (170, 34169), (179, 34292), (180, 34298), (182, 34340), (183, 34358), (191, 34502), (193, 34544), (197, 34649),

Gene: Wally\_87 Start: 30701, Stop: 34414, Start Num: 1

Candidate Starts for Wally\_87:

(Start: 1 @30701 has 171 MA's), (3, 30782), (5, 30803), (6, 30827), (8, 30872), (9, 30899), (10, 30902), (11, 30914), (12, 30932), (13, 30935), (22, 31154), (27, 31292), (29, 31379), (32, 31427), (35, 31490), (36, 31520), (38, 31547), (39, 31556), (42, 31574), (43, 31577), (46, 31631), (48, 31697), (65, 32090), (66, 32123), (71, 32243), (80, 32477), (99, 32681), (101, 32684), (111, 32741), (112, 32744), (115, 32756), (116, 32780), (120, 32798), (121, 32801), (122, 32813), (126, 32846), (130, 32888), (139, 33014), (140, 33017), (144, 33182), (146, 33236), (151, 33299), (153, 33308), (158, 33482), (161, 33587), (167, 33698), (170, 33719), (179, 33842), (180, 33848), (182, 33890), (183, 33908), (191, 34052), (193, 34094), (197, 34199),

Gene: Willis\_89 Start: 32041, Stop: 35754, Start Num: 1

Candidate Starts for Willis\_89:

(Start: 1 @32041 has 171 MA's), (3, 32122), (5, 32143), (6, 32167), (8, 32212), (9, 32239), (10, 32242), (11, 32254), (12, 32272), (13, 32275), (22, 32494), (27, 32632), (29, 32719), (32, 32767), (35, 32830), (36, 32860), (38, 32887), (39, 32896), (42, 32914), (43, 32917), (46, 32971), (48, 33037), (65, 33430), (66, 33463), (71, 33583), (80, 33817), (99, 34021), (101, 34024), (111, 34081), (112, 34084), (115, 34096), (116, 34120), (120, 34138), (121, 34141), (122, 34153), (126, 34186), (130, 34228), (139, 34354), (140, 34357), (144, 34522), (146, 34576), (151, 34639), (153, 34648), (158, 34822), (161, 34927), (167, 35038), (170, 35059), (179, 35182), (180, 35188), (182, 35230), (183, 35248), (191, 35392), (193, 35434), (197, 35539),

Gene: Yassified\_84 Start: 30651, Stop: 34145, Start Num: 1

Candidate Starts for Yassified\_84:

(Start: 1 @30651 has 171 MA's), (3, 30732), (5, 30753), (6, 30777), (8, 30822), (9, 30849), (10, 30852), (11, 30864), (12, 30882), (13, 30885), (22, 31104), (27, 31242), (29, 31329), (32, 31377), (35, 31440), (36, 31470), (38, 31497), (39, 31506), (43, 31527), (46, 31581), (48, 31647), (65, 32040), (66, 32073), (71, 32193), (80, 32427), (99, 32631), (101, 32634), (111, 32691), (112, 32694), (115, 32706), (116, 32730), (120, 32748), (121, 32751), (122, 32763), (126, 32796), (130, 32838), (139, 32964), (140, 32967), (144, 33132), (146, 33186), (151, 33249), (153, 33258), (158, 33432), (161, 33537), (167, 33648), (170, 33669), (191, 33804), (193, 33846), (197, 33930),

Gene: YemiJoy2021\_89 Start: 32143, Stop: 35856, Start Num: 1

Candidate Starts for YemiJoy2021\_89:

(Start: 1 @32143 has 171 MA's), (3, 32224), (5, 32245), (6, 32269), (8, 32314), (9, 32341), (10, 32344), (11, 32356), (12, 32374), (13, 32377), (22, 32596), (27, 32734), (29, 32821), (32, 32869), (35, 32932), (36, 32962), (38, 32989), (39, 32998), (42, 33016), (43, 33019), (46, 33073), (48, 33139), (65, 33532), (66, 33565), (71, 33685), (80, 33919), (99, 34123), (101, 34126), (111, 34183), (112, 34186), (115, 34198), (116, 34222), (120, 34240), (121, 34243), (122, 34255), (126, 34288), (130, 34330), (139, 34456), (140, 34459), (144, 34624), (146, 34678), (151, 34741), (153, 34750), (158, 34924), (161, 35029), (167, 35140), (170, 35161), (179, 35284), (180, 35290), (182, 35332), (183, 35350), (191, 35494), (193, 35536), (197, 35641),

Gene: YoungMoneyMata\_88 Start: 30902, Stop: 34615, Start Num: 1

Candidate Starts for YoungMoneyMata\_88:

(Start: 1 @30902 has 171 MA's), (3, 30983), (5, 31004), (6, 31028), (8, 31073), (9, 31100), (10, 31103), (11, 31115), (12, 31133), (13, 31136), (22, 31355), (27, 31493), (29, 31580), (32, 31628), (35, 31691), (36, 31721), (38, 31748), (39, 31757), (42, 31775), (43, 31778), (46, 31832), (48, 31898), (65, 32291), (66, 32324), (71, 32444), (80, 32678), (99, 32882), (101, 32885), (111, 32942), (112, 32945), (115, 32957), (116, 32981), (120, 32999), (121, 33002), (122, 33014), (126, 33047), (130, 33089), (139, 33215), (140, 33218), (144, 33383), (146, 33437), (151, 33500), (153, 33509), (158, 33683), (161, 33788), (167, 33899), (170, 33920), (179, 34043), (180, 34049), (182, 34091), (183, 34109), (191, 34253), (193, 34295), (197, 34400),

Gene: Yucca\_88 Start: 32068, Stop: 35778, Start Num: 1

Candidate Starts for Yucca\_88:

(Start: 1 @32068 has 171 MA's), (3, 32149), (5, 32170), (6, 32194), (8, 32239), (9, 32266), (10, 32269), (11, 32281), (12, 32299), (13, 32302), (22, 32521), (27, 32659), (29, 32746), (32, 32794), (35, 32857), (36, 32887), (38, 32914), (39, 32923), (43, 32944), (46, 32998), (48, 33064), (65, 33457), (66, 33490), (71, 33610), (80, 33841), (99, 34045), (101, 34048), (111, 34105), (112, 34108), (115, 34120), (116, 34144), (120, 34162), (121, 34165), (122, 34177), (126, 34210), (130, 34252), (139, 34378), (140, 34381), (144, 34546), (146, 34600), (151, 34663), (153, 34672), (158, 34846), (161, 34951), (167, 35062), (170, 35083), (179, 35206), (180, 35212), (182, 35254), (183, 35272), (191, 35416), (193, 35458), (197, 35563),

Gene: Zalkecks\_89 Start: 31831, Stop: 35544, Start Num: 1

Candidate Starts for Zalkecks\_89:

(Start: 1 @31831 has 171 MA's), (3, 31912), (5, 31933), (6, 31957), (8, 32002), (9, 32029), (10, 32032), (11, 32044), (12, 32062), (13, 32065), (22, 32284), (27, 32422), (29, 32509), (32, 32557), (35, 32620), (36, 32650), (38, 32677), (39, 32686), (42, 32704), (43, 32707), (46, 32761), (48, 32827), (65, 33220), (66, 33253), (71, 33373), (80, 33607), (99, 33811), (101, 33814), (111, 33871), (112, 33874), (115, 33886), (116, 33910), (120, 33928), (121, 33931), (122, 33943), (126, 33976), (130, 34018), (139, 34144), (140, 34147), (144, 34312), (146, 34366), (151, 34429), (153, 34438), (158, 34612), (161, 34717), (167, 34828), (170, 34849), (179, 34972), (180, 34978), (182, 35020), (183, 35038), (191, 35182), (193, 35224), (197, 35329),

Gene: Zeenon\_90 Start: 32133, Stop: 35471, Start Num: 1

Candidate Starts for Zeenon\_90:

(Start: 1 @32133 has 171 MA's), (3, 32214), (5, 32235), (6, 32259), (8, 32304), (9, 32331), (10, 32334), (11, 32346), (12, 32364), (13, 32367), (22, 32586), (27, 32724), (29, 32811), (32, 32859), (35, 32922), (36, 32952), (38, 32979), (39, 32988), (42, 33006), (43, 33009), (46, 33063), (48, 33129), (65, 33522), (66, 33555), (71, 33675), (80, 33906), (99, 34110), (101, 34113), (111, 34170), (112, 34173), (115, 34185), (116, 34209), (120, 34227), (121, 34230), (122, 34242), (126, 34275), (130, 34317), (144, 34458), (146, 34512), (151, 34575), (153, 34584), (158, 34758), (161, 34863), (167, 34974), (170, 34995), (191, 35130), (193, 35172), (197, 35256),

Gene: ZygoTaiga\_87 Start: 32147, Stop: 35860, Start Num: 1

Candidate Starts for ZygoTaiga\_87:

(Start: 1 @32147 has 171 MA's), (3, 32228), (5, 32249), (6, 32273), (8, 32318), (9, 32345), (10, 32348), (11, 32360), (12, 32378), (13, 32381), (22, 32600), (27, 32738), (29, 32825), (32, 32873), (35, 32936), (36, 32966), (38, 32993), (39, 33002), (42, 33020), (43, 33023), (46, 33077), (48, 33143), (65, 33536), (66, 33569), (71, 33689), (80, 33923), (99, 34127), (101, 34130), (111, 34187), (112, 34190), (115, 34202), (116, 34226), (120, 34244), (121, 34247), (122, 34259), (126, 34292), (130, 34334), (139, 34460), (140, 34463), (144, 34628), (146, 34682), (151, 34745), (153, 34754), (158, 34928), (161, 35033), (167, 35144), (170, 35165), (179, 35288), (180, 35294), (182, 35336), (183, 35354), (191, 35498), (193, 35540), (197, 35645),