



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 281976 Report

This analysis was run 02/23/26 on database version 636.

Pham number 281976 has 227 members, 38 are drafts.

Phages represented in each track:

- Track 1 : Settecandela\_44, Phrappuccino\_44
- Track 2 : JulietS\_81, Spec\_83, Bangla1971\_89, Duckfeet\_79, Rahel\_87, Ronan\_81, Tyke\_90, DTDevon\_89, Cali\_83, Jemmno\_88, EmToTheThree\_91, Blackdragon\_82, Primadonna\_82, QBert\_82, LinStu\_88, JigglyPuff\_94, BeanWater\_80, Derek\_88, Iota\_82, Mangeria\_88, CharlieB\_83, Phusco\_88, Jedediah\_91, EmmaElysia\_87, JayJay\_94, Tortoise16\_86, LRRHood\_82, Grungle\_75, Koguma\_84, Sprinklers\_83, Littleton\_88, Drazdys\_88, Breeniome\_88, Halldule\_81, SmallFry\_88, Gabriel\_90, Astraea\_86, ET08\_77, Shaqnato\_80, Sebata\_89, Sauce\_88, Salacia\_92, Chomp\_87
- Track 3 : EggyFarm\_96, Grasshills\_95, BigCity\_96
- Track 4 : Letha\_87, Ading\_88, Guwapp\_87, Loanshark\_88, Issimir\_87
- Track 5 : Chargie21\_84, Fludd\_88, Flabslab\_83, Basquiat\_84, Janiyra\_90, Quasimodo\_88, ChaylaJr\_83, Trinitium\_84, Turret\_83, BobaPhatt\_82, ChickenPhender\_84, Kboogie\_91, EasyJones\_91
- Track 6 : Bxz1\_87, Babyland\_88, Shrimp\_88, Khaleesi\_87, PurduePete\_88, Ngannou\_84, LordLeafolot\_94, YoungMoneyMata\_88, Nidhogg\_89, Amataga\_88, MikeLiesIn\_89, Essence\_85, CindyLou\_89, Napoleon13\_84, Naija\_87, ParkTD\_89, Substance289\_85, Ghost\_87, TinyTim\_88, Naval22\_93, Kamryn\_88, ValleyTerrace\_88, Audrick\_90, SilverDipper\_89, Pleione\_91, JPickles\_86, Fixie\_83, Momo\_87, Willis\_89, Belieber\_82, InigoMontoya\_89, DrPhinkDaddy\_87, Asterius\_91, Bipolarisk\_87, NedWong\_89, 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, Maby2021\_88, Wally\_87, YemiJoy2021\_89, Shelob\_90, Bread\_88, Patter\_88, Delilah\_88, Dessert\_86, Rizal\_86, GlutenPhree\_89, Burrough\_88, ZygoTaiga\_87, NuevoMundo\_94, Roots515\_87, Atlantean\_87, Zalkecks\_89, Megamind\_87, Daffodil\_93, Phlegm\_90, McGee\_89
- Track 7 : Moby\_79, Moiqah\_79
- Track 8 : ErnieJ\_84, ScottMcG\_85, Catera\_87, Ablatia\_86, Melpomini\_82, Spud\_88, Rabinovish\_85, JustHall\_84, Dietrick\_80, Morizzled23\_88, MoMoMixon\_89
- Track 9 : FrayBell\_94, BananaFence\_87, Bowman\_86, Domi\_82, Rocha\_87, RoMag\_83, BadAgartude\_85, Pupusa\_93, IkeLoa\_82, StephanieG\_87, Bonray\_88, Darko\_88, Cleatunium\_83, Mikro\_86, PharkleMinkus\_93, LookingGlass\_89, Jezreel\_88
- Track 10 : OrediggerDelux\_86, DirtMonster\_81, Concombre\_95, ArcherS7\_87, Yucca\_88, FoxtrotP1\_88, Demodog\_95, InterFolia\_97
- Track 11 : Montpel\_85, Lunareta\_85
- Track 12 : Tonenili\_102

- Track 13 : Bigswole\_93
- Track 14 : BackyardAgain\_85
- Track 15 : Shifa\_77
- Track 16 : StubbySaigey\_90
- Track 17 : DeejaClivia\_77, HyRo\_80
- Track 18 : Ewok\_89, Gizmo\_92, SrishMeg2525\_87, Lukilu\_79, Lee7\_86, Fongie\_86, Zeenon\_90, Ava3\_89
- Track 19 : Vortrix\_103
- Track 20 : Phox\_85, Pinkcreek\_79, Bezza\_77, Alice\_81
- Track 21 : Cactojaque\_83, Blackbrain\_83
- Track 22 : Tainan\_93
- Track 23 : Nappy\_89, Yassified\_84
- Track 24 : LifeSavor\_87, Jaygup\_88, ShiaLabeouf\_88, Adlitam\_88, Labradorite\_88, Matsumoto\_87, Shnickers\_88
- Track 25 : Colt\_78, Blubba\_77, Cane17\_76
- Track 26 : Teardrop\_88, Specks\_94, LolaVinca\_90
- Track 27 : Maturis\_85
- Track 28 : FudgeTart\_88, Dandelion\_95
- Track 29 : Stubby\_81
- Track 30 : l3\_94
- Track 31 : Pier\_92
- Track 32 : Myrna\_87
- Track 33 : Greely\_89
- Track 34 : ScoobyDoobyDoo\_81
- Track 35 : Phabba\_92
- Track 36 : SCentae\_84, Pupper\_86
- Track 37 : CherryTomatoes\_86
- Track 38 : 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 181 of the 189 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

• Ablatia\_86, Ading\_88, Adlitam\_88, Alice\_81, Amataga\_88, ArcherS7\_87, Asterius\_91, Astraea\_86, Atlantean\_87, Audrick\_90, Ava3\_89, Babyland\_88, BackyardAgain\_85, BadAgartude\_85, BananaFence\_87, Bangla1971\_89, Basquiat\_84, BeanWater\_80, Belieber\_82, Bezza\_77, BigCity\_96, Bigswole\_93, Bipolarisk\_87, Blackbrain\_83, Blackdragon\_82, Blubba\_77, BobaPhatt\_82, Bonray\_88, Bowman\_86, 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, Cleatunium\_83, Colt\_78, Concombre\_95, DTDevon\_89, Daffodil\_93, Dandelion\_95, Darko\_88, DeejaClivia\_77, Delilah\_88, Delylah\_91, Demodog\_95, Derek\_88, Dessert\_86, Dietrick\_80, DirtMonster\_81, Domi\_82, DrPhinkDaddy\_87, Drazdys\_88, Duckfeet\_79, ET08\_77, EasyJones\_91, EggyFarm\_96, EmToTheThree\_91, EmmaElysia\_87, Erdmann\_89, ErnieJ\_84, Essence\_85, Ewok\_89, Fixie\_83, Flabslab\_83, Fludd\_88, Fongie\_86, FoxtrotP1\_88, FrayBell\_94, FudgeTart\_88, Gabriel\_90, Gamgam\_88, Ghost\_87, Gizmo\_92, GlutenPhree\_89,

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\_94, Jaygup\_88, Jedediah\_91, Jemmno\_88, Jessibeth14\_87, Jezreel\_88, JigglyPuff\_94, JulietS\_81, JustHall\_84, Kamryn\_88, Kboogie\_91, Khaleesi\_87, Koguma\_84, LRRHood\_82, Labradorite\_88, Latch\_88, Lee7\_86, Lethe\_87, LifeSavor\_87, LinStu\_88, Littleton\_88, Loanshark\_88, LolaVinca\_90, LookingGlass\_89, LordLeafolot\_94, Lukilu\_79, Lunareta\_85, Maby2021\_88, Mangeria\_88, Matsumoto\_87, Maturis\_85, McGee\_89, McWolfish\_86, Megamind\_87, Melpomini\_82, MikeLiesIn\_89, Mikro\_86, MoMoMixon\_89, Moby\_79, Moiqah\_79, Momo\_87, Montpel\_85, Morizzled23\_88, Naija\_87, Napoleon13\_84, Nappy\_89, Naval22\_93, NedWong\_89, Ngannou\_84, Nidhogg\_89, NoodleTree\_96, Norm\_89, NuevoMundo\_94, OrediggerDelux\_86, ParkTD\_89, Patter\_88, PharkleMinkus\_93, Phlegm\_90, Phox\_85, Phusco\_88, Pier\_92, Pinkcreek\_79, Pio\_92, Pivoine\_87, Pleione\_91, Primadonna\_82, Pupusa\_93, PurduePete\_88, QBert\_82, Quasimodo\_88, Rabinovish\_85, Rahel\_87, Rizal\_86, RoMag\_83, Rocha\_87, 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, Substance289\_85, Tainan\_93, Teardrop\_88, TinyTim\_88, Tonenili\_102, Tortoise16\_86, Trinitium\_84, Turret\_83, Tyke\_90, ValleyTerrace\_88, Vortrix\_103, 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:

- 

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 218 of 227 ( 96.0% ) of genes in pham
- Manual Annotations of this start: 181 of 189
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Ablatia\_86 (C1), Ading\_88 (C1), Adlitam\_88 (C1), Alice\_81 (C1), Amataga\_88 (C1), ArcherS7\_87 (C1), Asterius\_91 (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), Bezza\_77 (C1), BigCity\_96 (C1), Bigswole\_93 (C1), Bipolarisk\_87 (C1), Blackbrain\_83 (C1), Blackdragon\_82 (C1), Blubba\_77 (C1), BobaPhatt\_82 (C1), Bonray\_88 (C1), Bowman\_86 (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), Cleatunium\_83 (C1), Colt\_78 (C1), Concombre\_95 (C1), DTDevon\_89 (C1), Daffodil\_93 (C1), Dandelion\_95 (C1), Darko\_88 (C1), DeejaClivia\_77 (C1), Delilah\_88 (C1), Delylah\_91 (C1), Demodog\_95 (C1), Derek\_88 (C1), Dessert\_86 (C1), Dietrick\_80 (C1), DirtMonster\_81 (C1), Domi\_82 (C1), DrPhinkDaddy\_87 (C1), Drazdys\_88 (C1), Duckfeet\_79 (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), Fixie\_83 (C1), Flabslab\_83 (C1), Fludd\_88 (C1), Fongie\_86 (C1), FoxtrotP1\_88 (C1), FrayBell\_94 (C1), FudgeTart\_88 (C1), Gabriel\_90 (C1), Gamgam\_88 (C1), Ghost\_87 (C1), Gizmo\_92 (C1), GlutenPhree\_89 (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), Janiyra\_90 (C1), JayJay\_94 (C1), Jaygup\_88 (C1), Jedediah\_91 (C1), Jemmno\_88 (C1), Jessibeth14\_87 (C1), Jezreel\_88 (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), Labradorite\_88 (C1), Latch\_88 (C1), Lee7\_86 (C1), Lethe\_87 (C1), LifeSavor\_87 (C1), LinStu\_88 (C1), Littleton\_88 (C1), Loanshark\_88 (C1), LolaVince\_90 (C1), LookingGlass\_89 (C1), LordLeafolot\_94 (C1), Lukilu\_79 (C1), Lunareta\_85 (C1), Maby2021\_88 (C1), Mangeria\_88 (C1), Matsumoto\_87 (C1), Maturis\_85 (C1), McGee\_89 (C1), McWolfish\_86 (C1), Megamind\_87 (C1), Melpomini\_82 (C1), MikeLiesIn\_89 (C1), Mikro\_86 (C1), MoMoMixon\_89 (C1), Moby\_79 (C1), Moiqah\_79 (C1), Momo\_87 (C1), Montpel\_85 (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), OrediggerDelux\_86 (C1), ParkTD\_89 (C1), Patter\_88 (C1), PharkleMinkus\_93 (C1), Phlegm\_90 (C1), Phox\_85 (C1), Plusco\_88 (C1), Pier\_92 (C1), Pinkcreek\_79 (C1), Pio\_92 (C1), Pivoine\_87 (C1), Pleione\_91 (C1), Primadonna\_82 (C1), Pupusa\_93 (C1), PurduePete\_88 (C1), QBert\_82 (C1), Quasimodo\_88 (C1), Rabinovich\_85 (C1), Rahel\_87 (C1), Rizal\_86 (C1), RoMag\_83 (C1), Rocha\_87 (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), Substance289\_85 (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), Vortrix\_103 (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 227 ( 1.3% ) of genes in pham
- Manual Annotations of this start: 2 of 189
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Greely\_89 (C2), Myrna\_87 (C2), Phabba\_92 (C2),

#### Start 30:

- Found in 6 of 227 ( 2.6% ) of genes in pham
- Manual Annotations of this start: 6 of 189
- Called 100.0% of time when present
- Phage (with cluster) where this start called: CherryTomatoes\_86 (DO), Phrappuccino\_44 (AA), Pupper\_86 (DO), SCentae\_84 (DO), Settecandela\_44 (AA), Skog\_149 (DO),

#### Summary by clusters:

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

Info for manual annotations of cluster AA:

- Start number 30 was manually annotated 2 times for cluster AA.

Info for manual annotations of cluster C1:

- Start number 1 was manually annotated 180 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 30 was manually annotated 4 times for cluster DO.

### **Gene Information:**

Gene: Ablatia\_86 Start: 30993, Stop: 34355, Start Num: 1

Candidate Starts for Ablatia\_86:

(Start: 1 @30993 has 181 MA's), (3, 31074), (5, 31095), (6, 31119), (8, 31164), (9, 31191), (10, 31194), (11, 31206), (12, 31224), (13, 31227), (18, 31446), (20, 31584), (24, 31671), (26, 31719), (31, 31782), (35, 31812), (36, 31839), (37, 31848), (41, 31869), (45, 31923), (48, 31989), (65, 32367), (68, 32403), (81, 32679), (91, 32790), (114, 32994), (115, 32997), (120, 33054), (121, 33057), (122, 33069), (124, 33093), (125, 33111), (126, 33114), (127, 33126), (130, 33159), (133, 33201), (151, 33342), (153, 33396), (157, 33459), (159, 33468), (164, 33642), (167, 33747), (173, 33858), (176, 33879), (197, 34014), (199, 34056), (202, 34140),

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

Candidate Starts for Ading\_88:

(Start: 1 @31088 has 181 MA's), (3, 31169), (5, 31190), (6, 31214), (8, 31259), (9, 31286), (10, 31289), (11, 31301), (12, 31319), (13, 31322), (18, 31541), (20, 31679), (24, 31766), (26, 31814), (31, 31877), (35, 31907), (36, 31934), (37, 31943), (40, 31961), (41, 31964), (45, 32018), (48, 32084), (68, 32477), (70, 32510), (77, 32630), (91, 32861), (114, 33065), (115, 33068), (120, 33125), (121, 33128), (122, 33140), (124, 33164), (125, 33182), (126, 33185), (127, 33197), (130, 33230), (133, 33272), (142, 33398), (143, 33401), (151, 33566), (157, 33683), (159, 33692), (164, 33866), (167, 33971), (173, 34082), (176, 34103), (180, 34226), (181, 34232), (182, 34274), (183, 34292), (197, 34436), (199, 34478), (202, 34583),

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

Candidate Starts for Adlitam\_88:

(Start: 1 @31105 has 181 MA's), (3, 31186), (5, 31207), (6, 31231), (9, 31303), (10, 31306), (11, 31318), (12, 31336), (13, 31339), (18, 31558), (20, 31696), (24, 31783), (26, 31831), (31, 31894), (35, 31924), (36, 31951), (37, 31960), (41, 31981), (45, 32035), (48, 32101), (68, 32494), (70, 32527), (77, 32647), (91, 32878), (114, 33082), (115, 33085), (120, 33142), (121, 33145), (122, 33157), (124, 33181), (125, 33199), (126, 33202), (127, 33214), (130, 33247), (133, 33289), (142, 33415), (143, 33418), (151, 33583), (157, 33700), (159, 33709), (164, 33883), (167, 33988), (173, 34099), (176, 34120), (180, 34243), (181, 34249), (182, 34291), (183, 34309), (197, 34453), (199, 34495), (202, 34600),

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

Candidate Starts for Alice\_81:

(Start: 1 @29790 has 181 MA's), (3, 29871), (5, 29892), (6, 29916), (8, 29961), (9, 29988), (10, 29991), (11, 30003), (12, 30021), (13, 30024), (18, 30243), (20, 30381), (24, 30468), (26, 30516), (31, 30579), (35, 30609), (36, 30636), (37, 30645), (41, 30666), (45, 30720), (48, 30786), (65, 31134), (68, 31170), (81, 31446), (91, 31557), (114, 31761), (115, 31764), (120, 31821), (121, 31824), (122, 31836), (124, 31860), (125, 31878), (126, 31881), (127, 31893), (130, 31926), (133, 31968), (142, 32094), (143, 32097), (151, 32262), (157, 32379), (159, 32388), (164, 32562), (167, 32667), (173, 32778), (176, 32799), (177, 32862), (178, 32928), (179, 32934), (184, 33027), (197, 33159), (199, 33201), (202, 33285),

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

Candidate Starts for Amataga\_88:

(Start: 1 @31151 has 181 MA's), (3, 31232), (5, 31253), (6, 31277), (8, 31322), (9, 31349), (10, 31352), (11, 31364), (12, 31382), (13, 31385), (18, 31604), (20, 31742), (24, 31829), (26, 31877), (31, 31940), (35, 31970), (36, 31997), (37, 32006), (40, 32024), (41, 32027), (45, 32081), (48, 32147), (68, 32540), (70, 32573), (77, 32693), (91, 32927), (114, 33131), (115, 33134), (120, 33191), (121, 33194), (122, 33206), (124, 33230), (125, 33248), (126, 33251), (127, 33263), (130, 33296), (133, 33338), (142, 33464), (143, 33467), (151, 33632), (153, 33686), (157, 33749), (159, 33758), (164, 33932), (167, 34037), (173, 34148), (176, 34169), (180, 34292), (181, 34298), (182, 34340), (183, 34358), (197, 34502), (199, 34544), (202, 34649),

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

Candidate Starts for ArcherS7\_87:

(Start: 1 @31472 has 181 MA's), (3, 31553), (5, 31574), (6, 31598), (8, 31643), (9, 31670), (10, 31673), (11, 31685), (12, 31703), (13, 31706), (18, 31925), (20, 32063), (24, 32150), (26, 32198), (31, 32261), (35, 32291), (36, 32318), (37, 32327), (41, 32348), (45, 32402), (48, 32468), (68, 32861), (70, 32894), (77, 33014), (91, 33245), (114, 33449), (115, 33452), (120, 33509), (121, 33512), (122, 33524), (124, 33548), (125, 33566), (126, 33569), (127, 33581), (130, 33614), (133, 33656), (142, 33782), (143, 33785), (151, 33950), (153, 34004), (157, 34067), (159, 34076), (164, 34250), (167, 34355), (173, 34466), (176, 34487), (180, 34610), (181, 34616), (182, 34658), (183, 34676), (197, 34820), (199, 34862), (202, 34967),

Gene: Asterius\_91 Start: 31454, Stop: 35167, Start Num: 1

Candidate Starts for Asterius\_91:

(Start: 1 @31454 has 181 MA's), (3, 31535), (5, 31556), (6, 31580), (8, 31625), (9, 31652), (10, 31655), (11, 31667), (12, 31685), (13, 31688), (18, 31907), (20, 32045), (24, 32132), (26, 32180), (31, 32243), (35, 32273), (36, 32300), (37, 32309), (40, 32327), (41, 32330), (45, 32384), (48, 32450), (68, 32843), (70, 32876), (77, 32996), (91, 33230), (114, 33434), (115, 33437), (120, 33494), (121, 33497), (122, 33509), (124, 33533), (125, 33551), (126, 33554), (127, 33566), (130, 33599), (133, 33641), (142, 33767), (143, 33770), (151, 33935), (153, 33989), (157, 34052), (159, 34061), (164, 34235), (167, 34340), (173, 34451), (176, 34472), (180, 34595), (181, 34601), (182, 34643), (183, 34661), (197, 34805), (199, 34847), (202, 34952),

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

Candidate Starts for Astraea\_86:

(Start: 1 @31333 has 181 MA's), (3, 31414), (5, 31435), (6, 31459), (8, 31504), (9, 31531), (10, 31534), (11, 31546), (12, 31564), (13, 31567), (18, 31786), (20, 31924), (24, 32011), (26, 32059), (31, 32122), (35, 32152), (36, 32179), (37, 32188), (41, 32209), (45, 32263), (48, 32329), (68, 32722), (70, 32755), (77, 32875), (91, 33106), (114, 33310), (115, 33313), (120, 33370), (121, 33373), (122, 33385), (124, 33409), (125, 33427), (126, 33430), (127, 33442), (130, 33475), (133, 33517), (142, 33643), (143, 33646), (151, 33811), (157, 33928), (159, 33937), (164, 34111), (167, 34216), (173, 34327), (176, 34348), (180, 34471), (181, 34477), (182, 34519), (183, 34537), (197, 34681), (199, 34723), (202, 34828),

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

Candidate Starts for Atlantean\_87:

(Start: 1 @31151 has 181 MA's), (3, 31232), (5, 31253), (6, 31277), (8, 31322), (9, 31349), (10, 31352), (11, 31364), (12, 31382), (13, 31385), (18, 31604), (20, 31742), (24, 31829), (26, 31877), (31, 31940), (35, 31970), (36, 31997), (37, 32006), (40, 32024), (41, 32027), (45, 32081), (48, 32147), (68, 32540), (70, 32573), (77, 32693), (91, 32927), (114, 33131), (115, 33134), (120, 33191), (121, 33194), (122, 33206), (124, 33230), (125, 33248), (126, 33251), (127, 33263), (130, 33296), (133, 33338), (142, 33464), (143, 33467), (151, 33632), (153, 33686), (157, 33749), (159, 33758), (164, 33932), (167, 34037), (173, 34148), (176, 34169), (180, 34292), (181, 34298), (182, 34340), (183, 34358), (197, 34502), (199, 34544), (202, 34649),

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

Candidate Starts for Audrick\_90:

(Start: 1 @31130 has 181 MA's), (3, 31211), (5, 31232), (6, 31256), (8, 31301), (9, 31328), (10, 31331), (11, 31343), (12, 31361), (13, 31364), (18, 31583), (20, 31721), (24, 31808), (26, 31856), (31, 31919), (35, 31949), (36, 31976), (37, 31985), (40, 32003), (41, 32006), (45, 32060), (48, 32126), (68, 32519), (70, 32552), (77, 32672), (91, 32906), (114, 33110), (115, 33113), (120, 33170), (121, 33173), (122, 33185), (124, 33209), (125, 33227), (126, 33230), (127, 33242), (130, 33275), (133, 33317), (142, 33443), (143, 33446), (151, 33611), (153, 33665), (157, 33728), (159, 33737), (164, 33911), (167, 34016), (173, 34127), (176, 34148), (180, 34271), (181, 34277), (182, 34319), (183, 34337), (197, 34481), (199, 34523), (202, 34628),

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

Candidate Starts for Ava3\_89:

(Start: 1 @32205 has 181 MA's), (3, 32286), (5, 32307), (6, 32331), (8, 32376), (9, 32403), (10, 32406), (11, 32418), (12, 32436), (13, 32439), (18, 32658), (20, 32796), (24, 32883), (26, 32931), (31, 32994), (35, 33024), (36, 33051), (37, 33060), (40, 33078), (41, 33081), (45, 33135), (48, 33201), (68, 33594), (70, 33627), (77, 33747), (91, 33978), (114, 34182), (115, 34185), (120, 34242), (121, 34245), (122, 34257), (124, 34281), (125, 34299), (126, 34302), (127, 34314), (130, 34347), (133, 34389), (151, 34530), (153, 34584), (157, 34644), (159, 34653), (164, 34827), (167, 34932), (173, 35043), (176, 35064), (197, 35199), (199, 35241), (202, 35325),

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

Candidate Starts for Babyland\_88:

(Start: 1 @30590 has 181 MA's), (3, 30671), (5, 30692), (6, 30716), (8, 30761), (9, 30788), (10, 30791), (11, 30803), (12, 30821), (13, 30824), (18, 31043), (20, 31181), (24, 31268), (26, 31316), (31, 31379), (35, 31409), (36, 31436), (37, 31445), (40, 31463), (41, 31466), (45, 31520), (48, 31586), (68, 31979), (70, 32012), (77, 32132), (91, 32366), (114, 32570), (115, 32573), (120, 32630), (121, 32633), (122, 32645), (124, 32669), (125, 32687), (126, 32690), (127, 32702), (130, 32735), (133, 32777), (142, 32903), (143, 32906), (151, 33071), (153, 33125), (157, 33188), (159, 33197), (164, 33371), (167, 33476), (173, 33587), (176, 33608), (180, 33731), (181, 33737), (182, 33779), (183, 33797), (197, 33941), (199, 33983), (202, 34088),

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

Candidate Starts for BackyardAgain\_85:

(Start: 1 @31040 has 181 MA's), (3, 31121), (5, 31142), (6, 31166), (8, 31211), (9, 31238), (10, 31241), (11, 31253), (12, 31271), (13, 31274), (18, 31493), (20, 31631), (24, 31718), (26, 31766), (31, 31829), (35, 31859), (36, 31886), (37, 31895), (41, 31916), (45, 31970), (48, 32036), (68, 32429), (70, 32462), (77, 32582), (91, 32813), (114, 33017), (115, 33020), (120, 33077), (121, 33080), (122, 33092), (124, 33116), (125, 33134), (126, 33137), (127, 33149), (130, 33182), (133, 33224), (151, 33365), (153, 33419), (157, 33482), (159, 33491), (164, 33665), (167, 33770), (173, 33881), (176, 33902), (197, 34037), (199, 34079), (202, 34163),

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

Candidate Starts for BadAgartude\_85:

(Start: 1 @32206 has 181 MA's), (3, 32287), (5, 32308), (6, 32332), (9, 32404), (10, 32407), (11, 32419), (12, 32437), (13, 32440), (18, 32659), (20, 32797), (24, 32884), (26, 32932), (31, 32995), (35, 33025), (36, 33052), (37, 33061), (41, 33082), (45, 33136), (48, 33202), (68, 33595), (70, 33628), (77, 33748), (91, 33982), (114, 34186), (115, 34189), (120, 34246), (121, 34249), (122, 34261), (124, 34285), (125, 34303), (126, 34306), (127, 34318), (130, 34351), (133, 34393), (142, 34519), (143, 34522), (151, 34687), (153, 34741), (157, 34804), (159, 34813), (164, 34987), (167, 35092), (173, 35203), (176, 35224), (180, 35347), (181, 35353), (182, 35395), (183, 35413), (197, 35557), (199, 35599), (202, 35704),

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

Candidate Starts for BananaFence\_87:

(Start: 1 @31688 has 181 MA's), (3, 31769), (5, 31790), (6, 31814), (9, 31886), (10, 31889), (11, 31901), (12, 31919), (13, 31922), (18, 32141), (20, 32279), (24, 32366), (26, 32414), (31, 32477), (35, 32507), (36, 32534), (37, 32543), (41, 32564), (45, 32618), (48, 32684), (68, 33077), (70, 33110), (77, 33230), (91, 33464), (114, 33668), (115, 33671), (120, 33728), (121, 33731), (122, 33743), (124, 33767), (125, 33785), (126, 33788), (127, 33800), (130, 33833), (133, 33875), (142, 34001), (143, 34004), (151, 34169), (153, 34223), (157, 34286), (159, 34295), (164, 34469), (167, 34574), (173, 34685), (176, 34706), (180, 34829), (181, 34835), (182, 34877), (183, 34895), (197, 35039), (199, 35081), (202, 35186),

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

Candidate Starts for Bangla1971\_89:

(Start: 1 @31602 has 181 MA's), (3, 31683), (5, 31704), (6, 31728), (8, 31773), (9, 31800), (10, 31803), (11, 31815), (12, 31833), (13, 31836), (18, 32055), (20, 32193), (24, 32280), (26, 32328), (31, 32391), (35, 32421), (36, 32448), (37, 32457), (41, 32478), (45, 32532), (48, 32598), (68, 32991), (70, 33024), (77, 33144), (91, 33375), (114, 33579), (115, 33582), (120, 33639), (121, 33642), (122, 33654), (124, 33678), (125, 33696), (126, 33699), (127, 33711), (130, 33744), (133, 33786), (142, 33912), (143, 33915), (151, 34080), (157, 34197), (159, 34206), (164, 34380), (167, 34485), (173, 34596), (176, 34617), (180, 34740), (181, 34746), (182, 34788), (183, 34806), (197, 34950), (199, 34992), (202, 35097),

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

Candidate Starts for Basquiat\_84:

(Start: 1 @30538 has 181 MA's), (3, 30619), (5, 30640), (6, 30664), (8, 30709), (9, 30736), (10, 30739), (11, 30751), (12, 30769), (13, 30772), (18, 30991), (20, 31129), (24, 31216), (26, 31264), (31, 31327), (35, 31357), (36, 31384), (37, 31393), (41, 31414), (45, 31468), (48, 31534), (68, 31927), (70, 31960), (81, 32206), (91, 32317), (114, 32521), (115, 32524), (120, 32581), (121, 32584), (122, 32596), (124, 32620), (125, 32638), (126, 32641), (127, 32653), (130, 32686), (133, 32728), (151, 32869), (153, 32923), (157, 32983), (159, 32992), (164, 33166), (167, 33271), (173, 33382), (176, 33403), (197, 33538), (199, 33580), (202, 33664),

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

Candidate Starts for BeanWater\_80:

(Start: 1 @30742 has 181 MA's), (3, 30823), (5, 30844), (6, 30868), (8, 30913), (9, 30940), (10, 30943), (11, 30955), (12, 30973), (13, 30976), (18, 31195), (20, 31333), (24, 31420), (26, 31468), (31, 31531), (35, 31561), (36, 31588), (37, 31597), (41, 31618), (45, 31672), (48, 31738), (68, 32131), (70, 32164), (77, 32284), (91, 32515), (114, 32719), (115, 32722), (120, 32779), (121, 32782), (122, 32794), (124, 32818), (125, 32836), (126, 32839), (127, 32851), (130, 32884), (133, 32926), (142, 33052), (143, 33055), (151, 33220), (157, 33337), (159, 33346), (164, 33520), (167, 33625), (173, 33736), (176, 33757), (180, 33880), (181, 33886), (182, 33928), (183, 33946), (197, 34090), (199, 34132), (202,

34237),

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

Candidate Starts for Belieber\_82:

(Start: 1 @30503 has 181 MA's), (3, 30584), (5, 30605), (6, 30629), (8, 30674), (9, 30701), (10, 30704), (11, 30716), (12, 30734), (13, 30737), (18, 30956), (20, 31094), (24, 31181), (26, 31229), (31, 31292), (35, 31322), (36, 31349), (37, 31358), (40, 31376), (41, 31379), (45, 31433), (48, 31499), (68, 31892), (70, 31925), (77, 32045), (91, 32279), (114, 32483), (115, 32486), (120, 32543), (121, 32546), (122, 32558), (124, 32582), (125, 32600), (126, 32603), (127, 32615), (130, 32648), (133, 32690), (142, 32816), (143, 32819), (151, 32984), (153, 33038), (157, 33101), (159, 33110), (164, 33284), (167, 33389), (173, 33500), (176, 33521), (180, 33644), (181, 33650), (182, 33692), (183, 33710), (197, 33854), (199, 33896), (202, 34001),

Gene: Bezza\_77 Start: 30481, Stop: 34191, Start Num: 1

Candidate Starts for Bezza\_77:

(Start: 1 @30481 has 181 MA's), (3, 30562), (5, 30583), (6, 30607), (8, 30652), (9, 30679), (10, 30682), (11, 30694), (12, 30712), (13, 30715), (18, 30934), (20, 31072), (24, 31159), (26, 31207), (31, 31270), (35, 31300), (36, 31327), (37, 31336), (41, 31357), (45, 31411), (48, 31477), (65, 31825), (68, 31861), (81, 32137), (91, 32248), (114, 32452), (115, 32455), (120, 32512), (121, 32515), (122, 32527), (124, 32551), (125, 32569), (126, 32572), (127, 32584), (130, 32617), (133, 32659), (142, 32785), (143, 32788), (151, 32953), (157, 33070), (159, 33079), (164, 33253), (167, 33358), (173, 33469), (176, 33490), (177, 33553), (178, 33619), (179, 33625), (184, 33718), (197, 33850), (199, 33892), (202, 33976),

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

Candidate Starts for BigCity\_96:

(Start: 1 @34232 has 181 MA's), (3, 34313), (5, 34334), (6, 34358), (8, 34403), (9, 34430), (10, 34433), (11, 34445), (12, 34463), (13, 34466), (18, 34685), (19, 34787), (41, 34820), (45, 34874), (48, 34940), (68, 35333), (70, 35366), (77, 35486), (91, 35717), (114, 35921), (115, 35924), (120, 35981), (121, 35984), (122, 35996), (124, 36020), (125, 36038), (126, 36041), (127, 36053), (130, 36086), (133, 36128), (142, 36254), (143, 36257), (151, 36422), (157, 36539), (159, 36548), (164, 36722), (167, 36827), (173, 36938), (176, 36959), (180, 37082), (181, 37088), (182, 37130), (183, 37148), (192, 37409), (195, 37469), (197, 37550), (199, 37592), (202, 37697),

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

Candidate Starts for Bigswole\_93:

(Start: 1 @34874 has 181 MA's), (3, 34955), (5, 34976), (6, 35000), (8, 35045), (9, 35072), (10, 35075), (11, 35087), (12, 35105), (13, 35108), (18, 35327), (19, 35429), (41, 35462), (45, 35516), (48, 35582), (68, 35960), (70, 35993), (77, 36113), (91, 36344), (114, 36548), (115, 36551), (120, 36608), (121, 36611), (122, 36623), (124, 36647), (125, 36665), (126, 36668), (127, 36680), (130, 36713), (133, 36755), (142, 36881), (143, 36884), (151, 37049), (157, 37166), (159, 37175), (164, 37349), (167, 37454), (173, 37565), (176, 37586), (180, 37709), (181, 37715), (182, 37757), (183, 37775), (197, 37919), (199, 37961), (202, 38066),

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

Candidate Starts for Bipolarisk\_87:

(Start: 1 @31857 has 181 MA's), (3, 31938), (5, 31959), (6, 31983), (8, 32028), (9, 32055), (10, 32058), (11, 32070), (12, 32088), (13, 32091), (18, 32310), (20, 32448), (24, 32535), (26, 32583), (31, 32646), (35, 32676), (36, 32703), (37, 32712), (40, 32730), (41, 32733), (45, 32787), (48, 32853), (68, 33246), (70, 33279), (77, 33399), (91, 33633), (114, 33837), (115, 33840), (120, 33897), (121, 33900), (122, 33912), (124, 33936), (125, 33954), (126, 33957), (127, 33969), (130, 34002), (133, 34044), (142, 34170), (143, 34173), (151, 34338), (153, 34392), (157, 34455), (159, 34464), (164, 34638), (167, 34743), (173, 34854), (176, 34875), (180, 34998), (181, 35004), (182, 35046), (183, 35064), (197,

35208), (199, 35250), (202, 35355),

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

Candidate Starts for Blackbrain\_83:

(Start: 1 @30355 has 181 MA's), (3, 30436), (5, 30457), (6, 30481), (8, 30526), (9, 30553), (10, 30556), (11, 30568), (12, 30586), (13, 30589), (18, 30808), (20, 30946), (24, 31033), (26, 31081), (29, 31132), (31, 31144), (35, 31174), (36, 31201), (37, 31210), (41, 31231), (45, 31285), (48, 31351), (68, 31744), (70, 31777), (81, 32023), (91, 32134), (114, 32338), (115, 32341), (120, 32398), (121, 32401), (122, 32413), (124, 32437), (125, 32455), (126, 32458), (127, 32470), (130, 32503), (133, 32545), (151, 32686), (153, 32740), (157, 32800), (159, 32809), (164, 32983), (167, 33088), (173, 33199), (176, 33220), (197, 33355), (199, 33397), (202, 33481),

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

Candidate Starts for Blackdragon\_82:

(Start: 1 @30678 has 181 MA's), (3, 30759), (5, 30780), (6, 30804), (8, 30849), (9, 30876), (10, 30879), (11, 30891), (12, 30909), (13, 30912), (18, 31131), (20, 31269), (24, 31356), (26, 31404), (31, 31467), (35, 31497), (36, 31524), (37, 31533), (41, 31554), (45, 31608), (48, 31674), (68, 32067), (70, 32100), (77, 32220), (91, 32451), (114, 32655), (115, 32658), (120, 32715), (121, 32718), (122, 32730), (124, 32754), (125, 32772), (126, 32775), (127, 32787), (130, 32820), (133, 32862), (142, 32988), (143, 32991), (151, 33156), (157, 33273), (159, 33282), (164, 33456), (167, 33561), (173, 33672), (176, 33693), (180, 33816), (181, 33822), (182, 33864), (183, 33882), (197, 34026), (199, 34068), (202, 34173),

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

Candidate Starts for Blubba\_77:

(Start: 1 @28963 has 181 MA's), (3, 29044), (5, 29065), (6, 29089), (8, 29134), (9, 29161), (10, 29164), (11, 29176), (12, 29194), (13, 29197), (18, 29416), (19, 29518), (41, 29551), (45, 29605), (48, 29671), (68, 30064), (70, 30097), (77, 30217), (91, 30448), (114, 30652), (115, 30655), (120, 30712), (121, 30715), (122, 30727), (124, 30751), (125, 30769), (126, 30772), (127, 30784), (130, 30817), (133, 30859), (142, 30985), (143, 30988), (151, 31153), (153, 31207), (157, 31270), (159, 31279), (164, 31453), (167, 31558), (173, 31669), (176, 31690), (180, 31813), (181, 31819), (182, 31861), (183, 31879), (197, 32023), (199, 32065), (202, 32170),

Gene: BobaPhatt\_82 Start: 30177, Stop: 33518, Start Num: 1

Candidate Starts for BobaPhatt\_82:

(Start: 1 @30177 has 181 MA's), (3, 30258), (5, 30279), (6, 30303), (8, 30348), (9, 30375), (10, 30378), (11, 30390), (12, 30408), (13, 30411), (18, 30630), (20, 30768), (24, 30855), (26, 30903), (31, 30966), (35, 30996), (36, 31023), (37, 31032), (41, 31053), (45, 31107), (48, 31173), (68, 31566), (70, 31599), (81, 31845), (91, 31956), (114, 32160), (115, 32163), (120, 32220), (121, 32223), (122, 32235), (124, 32259), (125, 32277), (126, 32280), (127, 32292), (130, 32325), (133, 32367), (151, 32508), (153, 32562), (157, 32622), (159, 32631), (164, 32805), (167, 32910), (173, 33021), (176, 33042), (197, 33177), (199, 33219), (202, 33303),

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

Candidate Starts for Bonray\_88:

(Start: 1 @32250 has 181 MA's), (3, 32331), (5, 32352), (6, 32376), (9, 32448), (10, 32451), (11, 32463), (12, 32481), (13, 32484), (18, 32703), (20, 32841), (24, 32928), (26, 32976), (31, 33039), (35, 33069), (36, 33096), (37, 33105), (41, 33126), (45, 33180), (48, 33246), (68, 33639), (70, 33672), (77, 33792), (91, 34026), (114, 34230), (115, 34233), (120, 34290), (121, 34293), (122, 34305), (124, 34329), (125, 34347), (126, 34350), (127, 34362), (130, 34395), (133, 34437), (142, 34563), (143, 34566), (151, 34731), (153, 34785), (157, 34848), (159, 34857), (164, 35031), (167, 35136), (173, 35247), (176, 35268), (180, 35391), (181, 35397), (182, 35439), (183, 35457), (197, 35601), (199, 35643), (202, 35748),

Gene: Bowman\_86 Start: 32441, Stop: 36154, Start Num: 1

Candidate Starts for Bowman\_86:

(Start: 1 @32441 has 181 MA's), (3, 32522), (5, 32543), (6, 32567), (9, 32639), (10, 32642), (11, 32654), (12, 32672), (13, 32675), (18, 32894), (20, 33032), (24, 33119), (26, 33167), (31, 33230), (35, 33260), (36, 33287), (37, 33296), (41, 33317), (45, 33371), (48, 33437), (68, 33830), (70, 33863), (77, 33983), (91, 34217), (114, 34421), (115, 34424), (120, 34481), (121, 34484), (122, 34496), (124, 34520), (125, 34538), (126, 34541), (127, 34553), (130, 34586), (133, 34628), (142, 34754), (143, 34757), (151, 34922), (153, 34976), (157, 35039), (159, 35048), (164, 35222), (167, 35327), (173, 35438), (176, 35459), (180, 35582), (181, 35588), (182, 35630), (183, 35648), (197, 35792), (199, 35834), (202, 35939),

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

Candidate Starts for Bread\_88:

(Start: 1 @31749 has 181 MA's), (3, 31830), (5, 31851), (6, 31875), (8, 31920), (9, 31947), (10, 31950), (11, 31962), (12, 31980), (13, 31983), (18, 32202), (20, 32340), (24, 32427), (26, 32475), (31, 32538), (35, 32568), (36, 32595), (37, 32604), (40, 32622), (41, 32625), (45, 32679), (48, 32745), (68, 33138), (70, 33171), (77, 33291), (91, 33525), (114, 33729), (115, 33732), (120, 33789), (121, 33792), (122, 33804), (124, 33828), (125, 33846), (126, 33849), (127, 33861), (130, 33894), (133, 33936), (142, 34062), (143, 34065), (151, 34230), (153, 34284), (157, 34347), (159, 34356), (164, 34530), (167, 34635), (173, 34746), (176, 34767), (180, 34890), (181, 34896), (182, 34938), (183, 34956), (197, 35100), (199, 35142), (202, 35247),

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

Candidate Starts for Breeniome\_88:

(Start: 1 @30975 has 181 MA's), (3, 31056), (5, 31077), (6, 31101), (8, 31146), (9, 31173), (10, 31176), (11, 31188), (12, 31206), (13, 31209), (18, 31428), (20, 31566), (24, 31653), (26, 31701), (31, 31764), (35, 31794), (36, 31821), (37, 31830), (41, 31851), (45, 31905), (48, 31971), (68, 32364), (70, 32397), (77, 32517), (91, 32748), (114, 32952), (115, 32955), (120, 33012), (121, 33015), (122, 33027), (124, 33051), (125, 33069), (126, 33072), (127, 33084), (130, 33117), (133, 33159), (142, 33285), (143, 33288), (151, 33453), (157, 33570), (159, 33579), (164, 33753), (167, 33858), (173, 33969), (176, 33990), (180, 34113), (181, 34119), (182, 34161), (183, 34179), (197, 34323), (199, 34365), (202, 34470),

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

Candidate Starts for Burrough\_88:

(Start: 1 @32406 has 181 MA's), (3, 32487), (5, 32508), (6, 32532), (8, 32577), (9, 32604), (10, 32607), (11, 32619), (12, 32637), (13, 32640), (18, 32859), (20, 32997), (24, 33084), (26, 33132), (31, 33195), (35, 33225), (36, 33252), (37, 33261), (40, 33279), (41, 33282), (45, 33336), (48, 33402), (68, 33795), (70, 33828), (77, 33948), (91, 34182), (114, 34386), (115, 34389), (120, 34446), (121, 34449), (122, 34461), (124, 34485), (125, 34503), (126, 34506), (127, 34518), (130, 34551), (133, 34593), (142, 34719), (143, 34722), (151, 34887), (153, 34941), (157, 35004), (159, 35013), (164, 35187), (167, 35292), (173, 35403), (176, 35424), (180, 35547), (181, 35553), (182, 35595), (183, 35613), (197, 35757), (199, 35799), (202, 35904),

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

Candidate Starts for Bxz1\_87:

(Start: 1 @33457 has 181 MA's), (3, 33538), (5, 33559), (6, 33583), (8, 33628), (9, 33655), (10, 33658), (11, 33670), (12, 33688), (13, 33691), (18, 33910), (20, 34048), (24, 34135), (26, 34183), (31, 34246), (35, 34276), (36, 34303), (37, 34312), (40, 34330), (41, 34333), (45, 34387), (48, 34453), (68, 34846), (70, 34879), (77, 34999), (91, 35233), (114, 35437), (115, 35440), (120, 35497), (121, 35500), (122, 35512), (124, 35536), (125, 35554), (126, 35557), (127, 35569), (130, 35602), (133, 35644), (142, 35770), (143, 35773), (151, 35938), (153, 35992), (157, 36055), (159, 36064), (164, 36238), (167,

36343), (173, 36454), (176, 36475), (180, 36598), (181, 36604), (182, 36646), (183, 36664), (197, 36808), (199, 36850), (202, 36955),

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

Candidate Starts for Cactojaque\_83:

(Start: 1 @30462 has 181 MA's), (3, 30543), (5, 30564), (6, 30588), (8, 30633), (9, 30660), (10, 30663), (11, 30675), (12, 30693), (13, 30696), (18, 30915), (20, 31053), (24, 31140), (26, 31188), (29, 31239), (31, 31251), (35, 31281), (36, 31308), (37, 31317), (41, 31338), (45, 31392), (48, 31458), (68, 31851), (70, 31884), (81, 32130), (91, 32241), (114, 32445), (115, 32448), (120, 32505), (121, 32508), (122, 32520), (124, 32544), (125, 32562), (126, 32565), (127, 32577), (130, 32610), (133, 32652), (151, 32793), (153, 32847), (157, 32907), (159, 32916), (164, 33090), (167, 33195), (173, 33306), (176, 33327), (197, 33462), (199, 33504), (202, 33588),

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

Candidate Starts for Cali\_83:

(Start: 1 @31979 has 181 MA's), (3, 32060), (5, 32081), (6, 32105), (8, 32150), (9, 32177), (10, 32180), (11, 32192), (12, 32210), (13, 32213), (18, 32432), (20, 32570), (24, 32657), (26, 32705), (31, 32768), (35, 32798), (36, 32825), (37, 32834), (41, 32855), (45, 32909), (48, 32975), (68, 33368), (70, 33401), (77, 33521), (91, 33755), (114, 33959), (115, 33962), (120, 34019), (121, 34022), (122, 34034), (124, 34058), (125, 34076), (126, 34079), (127, 34091), (130, 34124), (133, 34166), (142, 34292), (143, 34295), (151, 34460), (157, 34577), (159, 34586), (164, 34760), (167, 34865), (173, 34976), (176, 34997), (180, 35120), (181, 35126), (182, 35168), (183, 35186), (197, 35330), (199, 35372), (202, 35477),

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

Candidate Starts for Cane17\_76:

(Start: 1 @28573 has 181 MA's), (3, 28654), (5, 28675), (6, 28699), (8, 28744), (9, 28771), (10, 28774), (11, 28786), (12, 28804), (13, 28807), (18, 29026), (19, 29128), (41, 29161), (45, 29215), (48, 29281), (68, 29674), (70, 29707), (77, 29827), (91, 30058), (114, 30262), (115, 30265), (120, 30322), (121, 30325), (122, 30337), (124, 30361), (125, 30379), (126, 30382), (127, 30394), (130, 30427), (133, 30469), (142, 30595), (143, 30598), (151, 30763), (153, 30817), (157, 30880), (159, 30889), (164, 31063), (167, 31168), (173, 31279), (176, 31300), (180, 31423), (181, 31429), (182, 31471), (183, 31489), (197, 31633), (199, 31675), (202, 31780),

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

Candidate Starts for Capablanca\_90:

(Start: 1 @32276 has 181 MA's), (3, 32357), (5, 32378), (6, 32402), (8, 32447), (9, 32474), (10, 32477), (11, 32489), (12, 32507), (13, 32510), (18, 32729), (20, 32867), (24, 32954), (26, 33002), (31, 33065), (35, 33095), (36, 33122), (37, 33131), (40, 33149), (41, 33152), (45, 33206), (48, 33272), (68, 33665), (70, 33698), (77, 33818), (91, 34052), (114, 34256), (115, 34259), (120, 34316), (121, 34319), (122, 34331), (124, 34355), (125, 34373), (126, 34376), (127, 34388), (130, 34421), (133, 34463), (142, 34589), (143, 34592), (151, 34757), (153, 34811), (157, 34874), (159, 34883), (164, 35057), (167, 35162), (173, 35273), (176, 35294), (180, 35417), (181, 35423), (182, 35465), (183, 35483), (197, 35627), (199, 35669), (202, 35774),

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

Candidate Starts for Caravan\_83:

(Start: 1 @31801 has 181 MA's), (3, 31882), (5, 31903), (6, 31927), (8, 31972), (9, 31999), (10, 32002), (11, 32014), (12, 32032), (13, 32035), (18, 32254), (20, 32392), (24, 32479), (26, 32527), (31, 32590), (35, 32620), (36, 32647), (37, 32656), (40, 32674), (41, 32677), (45, 32731), (48, 32797), (68, 33190), (70, 33223), (77, 33343), (91, 33577), (114, 33781), (115, 33784), (120, 33841), (121, 33844), (122, 33856), (124, 33880), (125, 33898), (126, 33901), (127, 33913), (130, 33946), (133, 33988), (142, 34114), (143, 34117), (151, 34282), (153, 34336), (157, 34399), (159, 34408), (164, 34582), (167,

34687), (173, 34798), (176, 34819), (180, 34942), (181, 34948), (182, 34990), (183, 35008), (197, 35152), (199, 35194), (202, 35299),

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

Candidate Starts for Catera\_87:

(Start: 1 @30602 has 181 MA's), (3, 30683), (5, 30704), (6, 30728), (8, 30773), (9, 30800), (10, 30803), (11, 30815), (12, 30833), (13, 30836), (18, 31055), (20, 31193), (24, 31280), (26, 31328), (31, 31391), (35, 31421), (36, 31448), (37, 31457), (41, 31478), (45, 31532), (48, 31598), (65, 31976), (68, 32012), (81, 32288), (91, 32399), (114, 32603), (115, 32606), (120, 32663), (121, 32666), (122, 32678), (124, 32702), (125, 32720), (126, 32723), (127, 32735), (130, 32768), (133, 32810), (151, 32951), (153, 33005), (157, 33068), (159, 33077), (164, 33251), (167, 33356), (173, 33467), (176, 33488), (197, 33623), (199, 33665), (202, 33749),

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

Candidate Starts for Chargie21\_84:

(Start: 1 @30538 has 181 MA's), (3, 30619), (5, 30640), (6, 30664), (8, 30709), (9, 30736), (10, 30739), (11, 30751), (12, 30769), (13, 30772), (18, 30991), (20, 31129), (24, 31216), (26, 31264), (31, 31327), (35, 31357), (36, 31384), (37, 31393), (41, 31414), (45, 31468), (48, 31534), (68, 31927), (70, 31960), (81, 32206), (91, 32317), (114, 32521), (115, 32524), (120, 32581), (121, 32584), (122, 32596), (124, 32620), (125, 32638), (126, 32641), (127, 32653), (130, 32686), (133, 32728), (151, 32869), (153, 32923), (157, 32983), (159, 32992), (164, 33166), (167, 33271), (173, 33382), (176, 33403), (197, 33538), (199, 33580), (202, 33664),

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

Candidate Starts for CharlieB\_83:

(Start: 1 @29977 has 181 MA's), (3, 30058), (5, 30079), (6, 30103), (8, 30148), (9, 30175), (10, 30178), (11, 30190), (12, 30208), (13, 30211), (18, 30430), (20, 30568), (24, 30655), (26, 30703), (31, 30766), (35, 30796), (36, 30823), (37, 30832), (41, 30853), (45, 30907), (48, 30973), (68, 31366), (70, 31399), (77, 31519), (91, 31753), (114, 31957), (115, 31960), (120, 32017), (121, 32020), (122, 32032), (124, 32056), (125, 32074), (126, 32077), (127, 32089), (130, 32122), (133, 32164), (142, 32290), (143, 32293), (151, 32458), (157, 32575), (159, 32584), (164, 32758), (167, 32863), (173, 32974), (176, 32995), (180, 33118), (181, 33124), (182, 33166), (183, 33184), (197, 33328), (199, 33370), (202, 33475),

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

Candidate Starts for ChaylaJr\_83:

(Start: 1 @30253 has 181 MA's), (3, 30334), (5, 30355), (6, 30379), (8, 30424), (9, 30451), (10, 30454), (11, 30466), (12, 30484), (13, 30487), (18, 30706), (20, 30844), (24, 30931), (26, 30979), (31, 31042), (35, 31072), (36, 31099), (37, 31108), (41, 31129), (45, 31183), (48, 31249), (68, 31642), (70, 31675), (81, 31921), (91, 32032), (114, 32236), (115, 32239), (120, 32296), (121, 32299), (122, 32311), (124, 32335), (125, 32353), (126, 32356), (127, 32368), (130, 32401), (133, 32443), (151, 32584), (153, 32638), (157, 32698), (159, 32707), (164, 32881), (167, 32986), (173, 33097), (176, 33118), (197, 33253), (199, 33295), (202, 33379),

Gene: CherryTomatoes\_86 Start: 33329, Stop: 36184, Start Num: 30

Candidate Starts for CherryTomatoes\_86:

(Start: 30 @33329 has 6 MA's), (40, 33410), (42, 33422), (46, 33500), (51, 33563), (53, 33572), (54, 33584), (56, 33647), (59, 33806), (60, 33812), (66, 33917), (104, 34412), (106, 34415), (110, 34448), (132, 34685), (134, 34709), (137, 34721), (145, 34802), (146, 34805), (147, 34856), (169, 35447), (170, 35453), (174, 35492), (175, 35495), (198, 35858), (200, 35927), (201, 35948), (202, 35987), (204, 36083), (205, 36098),

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

Candidate Starts for ChickenPhender\_84:

(Start: 1 @30586 has 181 MA's), (3, 30667), (5, 30688), (6, 30712), (8, 30757), (9, 30784), (10, 30787), (11, 30799), (12, 30817), (13, 30820), (18, 31039), (20, 31177), (24, 31264), (26, 31312), (31, 31375), (35, 31405), (36, 31432), (37, 31441), (41, 31462), (45, 31516), (48, 31582), (68, 31975), (70, 32008), (81, 32254), (91, 32365), (114, 32569), (115, 32572), (120, 32629), (121, 32632), (122, 32644), (124, 32668), (125, 32686), (126, 32689), (127, 32701), (130, 32734), (133, 32776), (151, 32917), (153, 32971), (157, 33031), (159, 33040), (164, 33214), (167, 33319), (173, 33430), (176, 33451), (197, 33586), (199, 33628), (202, 33712),

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

Candidate Starts for Chomp\_87:

(Start: 1 @31638 has 181 MA's), (3, 31719), (5, 31740), (6, 31764), (8, 31809), (9, 31836), (10, 31839), (11, 31851), (12, 31869), (13, 31872), (18, 32091), (20, 32229), (24, 32316), (26, 32364), (31, 32427), (35, 32457), (36, 32484), (37, 32493), (41, 32514), (45, 32568), (48, 32634), (68, 33027), (70, 33060), (77, 33180), (91, 33411), (114, 33615), (115, 33618), (120, 33675), (121, 33678), (122, 33690), (124, 33714), (125, 33732), (126, 33735), (127, 33747), (130, 33780), (133, 33822), (142, 33948), (143, 33951), (151, 34116), (157, 34233), (159, 34242), (164, 34416), (167, 34521), (173, 34632), (176, 34653), (180, 34776), (181, 34782), (182, 34824), (183, 34842), (197, 34986), (199, 35028), (202, 35133),

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

Candidate Starts for CindyLou\_89:

(Start: 1 @31676 has 181 MA's), (3, 31757), (5, 31778), (6, 31802), (8, 31847), (9, 31874), (10, 31877), (11, 31889), (12, 31907), (13, 31910), (18, 32129), (20, 32267), (24, 32354), (26, 32402), (31, 32465), (35, 32495), (36, 32522), (37, 32531), (40, 32549), (41, 32552), (45, 32606), (48, 32672), (68, 33065), (70, 33098), (77, 33218), (91, 33452), (114, 33656), (115, 33659), (120, 33716), (121, 33719), (122, 33731), (124, 33755), (125, 33773), (126, 33776), (127, 33788), (130, 33821), (133, 33863), (142, 33989), (143, 33992), (151, 34157), (153, 34211), (157, 34274), (159, 34283), (164, 34457), (167, 34562), (173, 34673), (176, 34694), (180, 34817), (181, 34823), (182, 34865), (183, 34883), (197, 35027), (199, 35069), (202, 35174),

Gene: Cleatunium\_83 Start: 31537, Stop: 35250, Start Num: 1

Candidate Starts for Cleatunium\_83:

(Start: 1 @31537 has 181 MA's), (3, 31618), (5, 31639), (6, 31663), (9, 31735), (10, 31738), (11, 31750), (12, 31768), (13, 31771), (18, 31990), (20, 32128), (24, 32215), (26, 32263), (31, 32326), (35, 32356), (36, 32383), (37, 32392), (41, 32413), (45, 32467), (48, 32533), (68, 32926), (70, 32959), (77, 33079), (91, 33313), (114, 33517), (115, 33520), (120, 33577), (121, 33580), (122, 33592), (124, 33616), (125, 33634), (126, 33637), (127, 33649), (130, 33682), (133, 33724), (142, 33850), (143, 33853), (151, 34018), (153, 34072), (157, 34135), (159, 34144), (164, 34318), (167, 34423), (173, 34534), (176, 34555), (180, 34678), (181, 34684), (182, 34726), (183, 34744), (197, 34888), (199, 34930), (202, 35035),

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

Candidate Starts for Colt\_78:

(Start: 1 @29635 has 181 MA's), (3, 29716), (5, 29737), (6, 29761), (8, 29806), (9, 29833), (10, 29836), (11, 29848), (12, 29866), (13, 29869), (18, 30088), (19, 30190), (41, 30223), (45, 30277), (48, 30343), (68, 30736), (70, 30769), (77, 30889), (91, 31120), (114, 31324), (115, 31327), (120, 31384), (121, 31387), (122, 31399), (124, 31423), (125, 31441), (126, 31444), (127, 31456), (130, 31489), (133, 31531), (142, 31657), (143, 31660), (151, 31825), (153, 31879), (157, 31942), (159, 31951), (164, 32125), (167, 32230), (173, 32341), (176, 32362), (180, 32485), (181, 32491), (182, 32533), (183, 32551), (197, 32695), (199, 32737), (202, 32842),

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

Candidate Starts for Concombre\_95:

(Start: 1 @34395 has 181 MA's), (3, 34476), (5, 34497), (6, 34521), (8, 34566), (9, 34593), (10, 34596), (11, 34608), (12, 34626), (13, 34629), (18, 34848), (20, 34986), (24, 35073), (26, 35121), (31, 35184), (35, 35214), (36, 35241), (37, 35250), (41, 35271), (45, 35325), (48, 35391), (68, 35784), (70, 35817), (77, 35937), (91, 36168), (114, 36372), (115, 36375), (120, 36432), (121, 36435), (122, 36447), (124, 36471), (125, 36489), (126, 36492), (127, 36504), (130, 36537), (133, 36579), (142, 36705), (143, 36708), (151, 36873), (153, 36927), (157, 36990), (159, 36999), (164, 37173), (167, 37278), (173, 37389), (176, 37410), (180, 37533), (181, 37539), (182, 37581), (183, 37599), (197, 37743), (199, 37785), (202, 37890),

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

Candidate Starts for DTDevon\_89:

(Start: 1 @32315 has 181 MA's), (3, 32396), (5, 32417), (6, 32441), (8, 32486), (9, 32513), (10, 32516), (11, 32528), (12, 32546), (13, 32549), (18, 32768), (20, 32906), (24, 32993), (26, 33041), (31, 33104), (35, 33134), (36, 33161), (37, 33170), (41, 33191), (45, 33245), (48, 33311), (68, 33704), (70, 33737), (77, 33857), (91, 34088), (114, 34292), (115, 34295), (120, 34352), (121, 34355), (122, 34367), (124, 34391), (125, 34409), (126, 34412), (127, 34424), (130, 34457), (133, 34499), (142, 34625), (143, 34628), (151, 34793), (157, 34910), (159, 34919), (164, 35093), (167, 35198), (173, 35309), (176, 35330), (180, 35453), (181, 35459), (182, 35501), (183, 35519), (197, 35663), (199, 35705), (202, 35810),

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

Candidate Starts for Daffodil\_93:

(Start: 1 @32145 has 181 MA's), (3, 32226), (5, 32247), (6, 32271), (8, 32316), (9, 32343), (10, 32346), (11, 32358), (12, 32376), (13, 32379), (18, 32598), (20, 32736), (24, 32823), (26, 32871), (31, 32934), (35, 32964), (36, 32991), (37, 33000), (40, 33018), (41, 33021), (45, 33075), (48, 33141), (68, 33534), (70, 33567), (77, 33687), (91, 33921), (114, 34125), (115, 34128), (120, 34185), (121, 34188), (122, 34200), (124, 34224), (125, 34242), (126, 34245), (127, 34257), (130, 34290), (133, 34332), (142, 34458), (143, 34461), (151, 34626), (153, 34680), (157, 34743), (159, 34752), (164, 34926), (167, 35031), (173, 35142), (176, 35163), (180, 35286), (181, 35292), (182, 35334), (183, 35352), (197, 35496), (199, 35538), (202, 35643),

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

Candidate Starts for Dandelion\_95:

(Start: 1 @34817 has 181 MA's), (3, 34898), (5, 34919), (6, 34943), (8, 34988), (9, 35015), (10, 35018), (11, 35030), (12, 35048), (13, 35051), (18, 35270), (20, 35408), (24, 35495), (26, 35543), (31, 35606), (35, 35636), (36, 35663), (37, 35672), (41, 35693), (45, 35747), (48, 35813), (65, 36191), (68, 36227), (81, 36503), (91, 36614), (114, 36818), (115, 36821), (120, 36878), (121, 36881), (122, 36893), (124, 36917), (125, 36935), (126, 36938), (127, 36950), (130, 36983), (133, 37025), (142, 37151), (143, 37154), (151, 37319), (157, 37436), (159, 37445), (164, 37619), (167, 37724), (173, 37835), (176, 37856), (180, 37979), (181, 37985), (182, 38027), (183, 38045), (197, 38189), (199, 38231), (202, 38336),

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

Candidate Starts for Darko\_88:

(Start: 1 @32076 has 181 MA's), (3, 32157), (5, 32178), (6, 32202), (9, 32274), (10, 32277), (11, 32289), (12, 32307), (13, 32310), (18, 32529), (20, 32667), (24, 32754), (26, 32802), (31, 32865), (35, 32895), (36, 32922), (37, 32931), (41, 32952), (45, 33006), (48, 33072), (68, 33465), (70, 33498), (77, 33618), (91, 33852), (114, 34056), (115, 34059), (120, 34116), (121, 34119), (122, 34131), (124, 34155), (125, 34173), (126, 34176), (127, 34188), (130, 34221), (133, 34263), (142, 34389), (143, 34392), (151, 34557), (153, 34611), (157, 34674), (159, 34683), (164, 34857), (167, 34962), (173, 35073), (176, 35094), (180, 35217), (181, 35223), (182, 35265), (183, 35283), (197, 35427), (199, 35469), (202, 35574),

Gene: DeejaClivia\_77 Start: 28393, Stop: 31731, Start Num: 1

Candidate Starts for DeejaClivia\_77:

(Start: 1 @28393 has 181 MA's), (3, 28474), (5, 28495), (6, 28519), (8, 28564), (9, 28591), (10, 28594), (11, 28606), (12, 28624), (13, 28627), (18, 28846), (20, 28984), (24, 29071), (26, 29119), (31, 29182), (35, 29212), (36, 29239), (37, 29248), (40, 29266), (41, 29269), (45, 29323), (48, 29389), (68, 29782), (70, 29815), (77, 29935), (81, 30058), (91, 30169), (114, 30373), (115, 30376), (120, 30433), (121, 30436), (122, 30448), (124, 30472), (125, 30490), (126, 30493), (127, 30505), (130, 30538), (133, 30580), (151, 30721), (153, 30775), (157, 30835), (159, 30844), (164, 31018), (167, 31123), (173, 31234), (176, 31255), (197, 31390), (199, 31432), (202, 31516),

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

Candidate Starts for Delilah\_88:

(Start: 1 @32146 has 181 MA's), (3, 32227), (5, 32248), (6, 32272), (8, 32317), (9, 32344), (10, 32347), (11, 32359), (12, 32377), (13, 32380), (18, 32599), (20, 32737), (24, 32824), (26, 32872), (31, 32935), (35, 32965), (36, 32992), (37, 33001), (40, 33019), (41, 33022), (45, 33076), (48, 33142), (68, 33535), (70, 33568), (77, 33688), (91, 33922), (114, 34126), (115, 34129), (120, 34186), (121, 34189), (122, 34201), (124, 34225), (125, 34243), (126, 34246), (127, 34258), (130, 34291), (133, 34333), (142, 34459), (143, 34462), (151, 34627), (153, 34681), (157, 34744), (159, 34753), (164, 34927), (167, 35032), (173, 35143), (176, 35164), (180, 35287), (181, 35293), (182, 35335), (183, 35353), (197, 35497), (199, 35539), (202, 35644),

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

Candidate Starts for Delylah\_91:

(Start: 1 @31939 has 181 MA's), (3, 32020), (5, 32041), (6, 32065), (8, 32110), (9, 32137), (10, 32140), (11, 32152), (12, 32170), (13, 32173), (18, 32392), (20, 32530), (24, 32617), (26, 32665), (31, 32728), (35, 32758), (36, 32785), (37, 32794), (40, 32812), (41, 32815), (45, 32869), (48, 32935), (68, 33328), (70, 33361), (77, 33481), (91, 33715), (114, 33919), (115, 33922), (120, 33979), (121, 33982), (122, 33994), (124, 34018), (125, 34036), (126, 34039), (127, 34051), (130, 34084), (133, 34126), (142, 34252), (143, 34255), (151, 34420), (153, 34474), (157, 34537), (159, 34546), (164, 34720), (167, 34825), (173, 34936), (176, 34957), (180, 35080), (181, 35086), (182, 35128), (183, 35146), (197, 35290), (199, 35332), (202, 35437),

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

Candidate Starts for Demodog\_95:

(Start: 1 @34395 has 181 MA's), (3, 34476), (5, 34497), (6, 34521), (8, 34566), (9, 34593), (10, 34596), (11, 34608), (12, 34626), (13, 34629), (18, 34848), (20, 34986), (24, 35073), (26, 35121), (31, 35184), (35, 35214), (36, 35241), (37, 35250), (41, 35271), (45, 35325), (48, 35391), (68, 35784), (70, 35817), (77, 35937), (91, 36168), (114, 36372), (115, 36375), (120, 36432), (121, 36435), (122, 36447), (124, 36471), (125, 36489), (126, 36492), (127, 36504), (130, 36537), (133, 36579), (142, 36705), (143, 36708), (151, 36873), (153, 36927), (157, 36990), (159, 36999), (164, 37173), (167, 37278), (173, 37389), (176, 37410), (180, 37533), (181, 37539), (182, 37581), (183, 37599), (197, 37743), (199, 37785), (202, 37890),

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

Candidate Starts for Derek\_88:

(Start: 1 @31440 has 181 MA's), (3, 31521), (5, 31542), (6, 31566), (8, 31611), (9, 31638), (10, 31641), (11, 31653), (12, 31671), (13, 31674), (18, 31893), (20, 32031), (24, 32118), (26, 32166), (31, 32229), (35, 32259), (36, 32286), (37, 32295), (41, 32316), (45, 32370), (48, 32436), (68, 32829), (70, 32862), (77, 32982), (91, 33213), (114, 33417), (115, 33420), (120, 33477), (121, 33480), (122, 33492), (124, 33516), (125, 33534), (126, 33537), (127, 33549), (130, 33582), (133, 33624), (142, 33750), (143, 33753), (151, 33918), (157, 34035), (159, 34044), (164, 34218), (167, 34323), (173, 34434), (176, 34455), (180, 34578), (181, 34584), (182, 34626), (183, 34644), (197, 34788), (199, 34830), (202,

34935),

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

Candidate Starts for Dessert\_86:

(Start: 1 @31151 has 181 MA's), (3, 31232), (5, 31253), (6, 31277), (8, 31322), (9, 31349), (10, 31352), (11, 31364), (12, 31382), (13, 31385), (18, 31604), (20, 31742), (24, 31829), (26, 31877), (31, 31940), (35, 31970), (36, 31997), (37, 32006), (40, 32024), (41, 32027), (45, 32081), (48, 32147), (68, 32540), (70, 32573), (77, 32693), (91, 32927), (114, 33131), (115, 33134), (120, 33191), (121, 33194), (122, 33206), (124, 33230), (125, 33248), (126, 33251), (127, 33263), (130, 33296), (133, 33338), (142, 33464), (143, 33467), (151, 33632), (153, 33686), (157, 33749), (159, 33758), (164, 33932), (167, 34037), (173, 34148), (176, 34169), (180, 34292), (181, 34298), (182, 34340), (183, 34358), (197, 34502), (199, 34544), (202, 34649),

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

Candidate Starts for Dietrick\_80:

(Start: 1 @30264 has 181 MA's), (3, 30345), (5, 30366), (6, 30390), (8, 30435), (9, 30462), (10, 30465), (11, 30477), (12, 30495), (13, 30498), (18, 30717), (20, 30855), (24, 30942), (26, 30990), (31, 31053), (35, 31083), (36, 31110), (37, 31119), (41, 31140), (45, 31194), (48, 31260), (65, 31638), (68, 31674), (81, 31950), (91, 32061), (114, 32265), (115, 32268), (120, 32325), (121, 32328), (122, 32340), (124, 32364), (125, 32382), (126, 32385), (127, 32397), (130, 32430), (133, 32472), (151, 32613), (153, 32667), (157, 32730), (159, 32739), (164, 32913), (167, 33018), (173, 33129), (176, 33150), (197, 33285), (199, 33327), (202, 33411),

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

Candidate Starts for DirtMonster\_81:

(Start: 1 @30741 has 181 MA's), (3, 30822), (5, 30843), (6, 30867), (8, 30912), (9, 30939), (10, 30942), (11, 30954), (12, 30972), (13, 30975), (18, 31194), (20, 31332), (24, 31419), (26, 31467), (31, 31530), (35, 31560), (36, 31587), (37, 31596), (41, 31617), (45, 31671), (48, 31737), (68, 32130), (70, 32163), (77, 32283), (91, 32514), (114, 32718), (115, 32721), (120, 32778), (121, 32781), (122, 32793), (124, 32817), (125, 32835), (126, 32838), (127, 32850), (130, 32883), (133, 32925), (142, 33051), (143, 33054), (151, 33219), (153, 33273), (157, 33336), (159, 33345), (164, 33519), (167, 33624), (173, 33735), (176, 33756), (180, 33879), (181, 33885), (182, 33927), (183, 33945), (197, 34089), (199, 34131), (202, 34236),

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

Candidate Starts for Domi\_82:

(Start: 1 @31470 has 181 MA's), (3, 31551), (5, 31572), (6, 31596), (9, 31668), (10, 31671), (11, 31683), (12, 31701), (13, 31704), (18, 31923), (20, 32061), (24, 32148), (26, 32196), (31, 32259), (35, 32289), (36, 32316), (37, 32325), (41, 32346), (45, 32400), (48, 32466), (68, 32859), (70, 32892), (77, 33012), (91, 33246), (114, 33450), (115, 33453), (120, 33510), (121, 33513), (122, 33525), (124, 33549), (125, 33567), (126, 33570), (127, 33582), (130, 33615), (133, 33657), (142, 33783), (143, 33786), (151, 33951), (153, 34005), (157, 34068), (159, 34077), (164, 34251), (167, 34356), (173, 34467), (176, 34488), (180, 34611), (181, 34617), (182, 34659), (183, 34677), (197, 34821), (199, 34863), (202, 34968),

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

Candidate Starts for DrPhinkDaddy\_87:

(Start: 1 @32201 has 181 MA's), (3, 32282), (5, 32303), (6, 32327), (8, 32372), (9, 32399), (10, 32402), (11, 32414), (12, 32432), (13, 32435), (18, 32654), (20, 32792), (24, 32879), (26, 32927), (31, 32990), (35, 33020), (36, 33047), (37, 33056), (40, 33074), (41, 33077), (45, 33131), (48, 33197), (68, 33590), (70, 33623), (77, 33743), (91, 33977), (114, 34181), (115, 34184), (120, 34241), (121, 34244), (122, 34256), (124, 34280), (125, 34298), (126, 34301), (127, 34313), (130, 34346), (133, 34388), (142, 34514), (143, 34517), (151, 34682), (153, 34736), (157, 34799), (159, 34808), (164, 34982), (167,

35087), (173, 35198), (176, 35219), (180, 35342), (181, 35348), (182, 35390), (183, 35408), (197, 35552), (199, 35594), (202, 35699),

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

Candidate Starts for Drazdys\_88:

(Start: 1 @31946 has 181 MA's), (3, 32027), (5, 32048), (6, 32072), (8, 32117), (9, 32144), (10, 32147), (11, 32159), (12, 32177), (13, 32180), (18, 32399), (20, 32537), (24, 32624), (26, 32672), (31, 32735), (35, 32765), (36, 32792), (37, 32801), (41, 32822), (45, 32876), (48, 32942), (68, 33335), (70, 33368), (77, 33488), (91, 33719), (114, 33923), (115, 33926), (120, 33983), (121, 33986), (122, 33998), (124, 34022), (125, 34040), (126, 34043), (127, 34055), (130, 34088), (133, 34130), (142, 34256), (143, 34259), (151, 34424), (157, 34541), (159, 34550), (164, 34724), (167, 34829), (173, 34940), (176, 34961), (180, 35084), (181, 35090), (182, 35132), (183, 35150), (197, 35294), (199, 35336), (202, 35441),

Gene: Duckfeet\_79 Start: 29944, Stop: 33657, Start Num: 1

Candidate Starts for Duckfeet\_79:

(Start: 1 @29944 has 181 MA's), (3, 30025), (5, 30046), (6, 30070), (8, 30115), (9, 30142), (10, 30145), (11, 30157), (12, 30175), (13, 30178), (18, 30397), (20, 30535), (24, 30622), (26, 30670), (31, 30733), (35, 30763), (36, 30790), (37, 30799), (41, 30820), (45, 30874), (48, 30940), (68, 31333), (70, 31366), (77, 31486), (91, 31720), (114, 31924), (115, 31927), (120, 31984), (121, 31987), (122, 31999), (124, 32023), (125, 32041), (126, 32044), (127, 32056), (130, 32089), (133, 32131), (142, 32257), (143, 32260), (151, 32425), (157, 32542), (159, 32551), (164, 32725), (167, 32830), (173, 32941), (176, 32962), (180, 33085), (181, 33091), (182, 33133), (183, 33151), (197, 33295), (199, 33337), (202, 33442),

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

Candidate Starts for ET08\_77:

(Start: 1 @29845 has 181 MA's), (3, 29926), (5, 29947), (6, 29971), (8, 30016), (9, 30043), (10, 30046), (11, 30058), (12, 30076), (13, 30079), (18, 30298), (20, 30436), (24, 30523), (26, 30571), (31, 30634), (35, 30664), (36, 30691), (37, 30700), (41, 30721), (45, 30775), (48, 30841), (68, 31234), (70, 31267), (77, 31387), (91, 31621), (114, 31825), (115, 31828), (120, 31885), (121, 31888), (122, 31900), (124, 31924), (125, 31942), (126, 31945), (127, 31957), (130, 31990), (133, 32032), (142, 32158), (143, 32161), (151, 32326), (157, 32443), (159, 32452), (164, 32626), (167, 32731), (173, 32842), (176, 32863), (180, 32986), (181, 32992), (182, 33034), (183, 33052), (197, 33196), (199, 33238), (202, 33343),

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

Candidate Starts for EasyJones\_91:

(Start: 1 @31645 has 181 MA's), (3, 31726), (5, 31747), (6, 31771), (8, 31816), (9, 31843), (10, 31846), (11, 31858), (12, 31876), (13, 31879), (18, 32098), (20, 32236), (24, 32323), (26, 32371), (31, 32434), (35, 32464), (36, 32491), (37, 32500), (41, 32521), (45, 32575), (48, 32641), (68, 33034), (70, 33067), (81, 33313), (91, 33424), (114, 33628), (115, 33631), (120, 33688), (121, 33691), (122, 33703), (124, 33727), (125, 33745), (126, 33748), (127, 33760), (130, 33793), (133, 33835), (151, 33976), (153, 34030), (157, 34090), (159, 34099), (164, 34273), (167, 34378), (173, 34489), (176, 34510), (197, 34645), (199, 34687), (202, 34771),

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

Candidate Starts for EggyFarm\_96:

(Start: 1 @34232 has 181 MA's), (3, 34313), (5, 34334), (6, 34358), (8, 34403), (9, 34430), (10, 34433), (11, 34445), (12, 34463), (13, 34466), (18, 34685), (19, 34787), (41, 34820), (45, 34874), (48, 34940), (68, 35333), (70, 35366), (77, 35486), (91, 35717), (114, 35921), (115, 35924), (120, 35981), (121, 35984), (122, 35996), (124, 36020), (125, 36038), (126, 36041), (127, 36053), (130, 36086), (133, 36128), (142, 36254), (143, 36257), (151, 36422), (157, 36539), (159, 36548), (164, 36722), (167,

36827), (173, 36938), (176, 36959), (180, 37082), (181, 37088), (182, 37130), (183, 37148), (192, 37409), (195, 37469), (197, 37550), (199, 37592), (202, 37697),

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

Candidate Starts for EmToTheThree\_91:

(Start: 1 @33618 has 181 MA's), (3, 33699), (5, 33720), (6, 33744), (8, 33789), (9, 33816), (10, 33819), (11, 33831), (12, 33849), (13, 33852), (18, 34071), (20, 34209), (24, 34296), (26, 34344), (31, 34407), (35, 34437), (36, 34464), (37, 34473), (41, 34494), (45, 34548), (48, 34614), (68, 35007), (70, 35040), (77, 35160), (91, 35394), (114, 35598), (115, 35601), (120, 35658), (121, 35661), (122, 35673), (124, 35697), (125, 35715), (126, 35718), (127, 35730), (130, 35763), (133, 35805), (142, 35931), (143, 35934), (151, 36099), (157, 36216), (159, 36225), (164, 36399), (167, 36504), (173, 36615), (176, 36636), (180, 36759), (181, 36765), (182, 36807), (183, 36825), (197, 36969), (199, 37011), (202, 37095),

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

Candidate Starts for EmmaElysia\_87:

(Start: 1 @30721 has 181 MA's), (3, 30802), (5, 30823), (6, 30847), (8, 30892), (9, 30919), (10, 30922), (11, 30934), (12, 30952), (13, 30955), (18, 31174), (20, 31312), (24, 31399), (26, 31447), (31, 31510), (35, 31540), (36, 31567), (37, 31576), (41, 31597), (45, 31651), (48, 31717), (68, 32110), (70, 32143), (77, 32263), (91, 32494), (114, 32698), (115, 32701), (120, 32758), (121, 32761), (122, 32773), (124, 32797), (125, 32815), (126, 32818), (127, 32830), (130, 32863), (133, 32905), (142, 33031), (143, 33034), (151, 33199), (157, 33316), (159, 33325), (164, 33499), (167, 33604), (173, 33715), (176, 33736), (180, 33859), (181, 33865), (182, 33907), (183, 33925), (197, 34069), (199, 34111), (202, 34216),

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

Candidate Starts for Erdmann\_89:

(Start: 1 @32146 has 181 MA's), (3, 32227), (5, 32248), (6, 32272), (8, 32317), (9, 32344), (10, 32347), (11, 32359), (12, 32377), (13, 32380), (18, 32599), (20, 32737), (24, 32824), (26, 32872), (31, 32935), (35, 32965), (36, 32992), (37, 33001), (40, 33019), (41, 33022), (45, 33076), (48, 33142), (68, 33535), (70, 33568), (77, 33688), (91, 33922), (114, 34126), (115, 34129), (120, 34186), (121, 34189), (122, 34201), (124, 34225), (125, 34243), (126, 34246), (127, 34258), (130, 34291), (133, 34333), (142, 34459), (143, 34462), (151, 34627), (153, 34681), (157, 34744), (159, 34753), (164, 34927), (167, 35032), (173, 35143), (176, 35164), (180, 35287), (181, 35293), (182, 35335), (183, 35353), (197, 35497), (199, 35539), (202, 35644),

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

Candidate Starts for ErnieJ\_84:

(Start: 1 @30542 has 181 MA's), (3, 30623), (5, 30644), (6, 30668), (8, 30713), (9, 30740), (10, 30743), (11, 30755), (12, 30773), (13, 30776), (18, 30995), (20, 31133), (24, 31220), (26, 31268), (31, 31331), (35, 31361), (36, 31388), (37, 31397), (41, 31418), (45, 31472), (48, 31538), (65, 31916), (68, 31952), (81, 32228), (91, 32339), (114, 32543), (115, 32546), (120, 32603), (121, 32606), (122, 32618), (124, 32642), (125, 32660), (126, 32663), (127, 32675), (130, 32708), (133, 32750), (151, 32891), (153, 32945), (157, 33008), (159, 33017), (164, 33191), (167, 33296), (173, 33407), (176, 33428), (197, 33563), (199, 33605), (202, 33689),

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

Candidate Starts for Essence\_85:

(Start: 1 @30901 has 181 MA's), (3, 30982), (5, 31003), (6, 31027), (8, 31072), (9, 31099), (10, 31102), (11, 31114), (12, 31132), (13, 31135), (18, 31354), (20, 31492), (24, 31579), (26, 31627), (31, 31690), (35, 31720), (36, 31747), (37, 31756), (40, 31774), (41, 31777), (45, 31831), (48, 31897), (68, 32290), (70, 32323), (77, 32443), (91, 32677), (114, 32881), (115, 32884), (120, 32941), (121, 32944), (122, 32956), (124, 32980), (125, 32998), (126, 33001), (127, 33013), (130, 33046), (133, 33088), (142,

33214), (143, 33217), (151, 33382), (153, 33436), (157, 33499), (159, 33508), (164, 33682), (167, 33787), (173, 33898), (176, 33919), (180, 34042), (181, 34048), (182, 34090), (183, 34108), (197, 34252), (199, 34294), (202, 34399),

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

Candidate Starts for Ewok\_89:

(Start: 1 @32148 has 181 MA's), (3, 32229), (5, 32250), (6, 32274), (8, 32319), (9, 32346), (10, 32349), (11, 32361), (12, 32379), (13, 32382), (18, 32601), (20, 32739), (24, 32826), (26, 32874), (31, 32937), (35, 32967), (36, 32994), (37, 33003), (40, 33021), (41, 33024), (45, 33078), (48, 33144), (68, 33537), (70, 33570), (77, 33690), (91, 33921), (114, 34125), (115, 34128), (120, 34185), (121, 34188), (122, 34200), (124, 34224), (125, 34242), (126, 34245), (127, 34257), (130, 34290), (133, 34332), (151, 34473), (153, 34527), (157, 34590), (159, 34599), (164, 34773), (167, 34878), (173, 34989), (176, 35010), (197, 35145), (199, 35187), (202, 35271),

Gene: Fixie\_83 Start: 30351, Stop: 34064, Start Num: 1

Candidate Starts for Fixie\_83:

(Start: 1 @30351 has 181 MA's), (3, 30432), (5, 30453), (6, 30477), (8, 30522), (9, 30549), (10, 30552), (11, 30564), (12, 30582), (13, 30585), (18, 30804), (20, 30942), (24, 31029), (26, 31077), (31, 31140), (35, 31170), (36, 31197), (37, 31206), (40, 31224), (41, 31227), (45, 31281), (48, 31347), (68, 31740), (70, 31773), (77, 31893), (91, 32127), (114, 32331), (115, 32334), (120, 32391), (121, 32394), (122, 32406), (124, 32430), (125, 32448), (126, 32451), (127, 32463), (130, 32496), (133, 32538), (142, 32664), (143, 32667), (151, 32832), (153, 32886), (157, 32949), (159, 32958), (164, 33132), (167, 33237), (173, 33348), (176, 33369), (180, 33492), (181, 33498), (182, 33540), (183, 33558), (197, 33702), (199, 33744), (202, 33849),

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

Candidate Starts for Flabslab\_83:

(Start: 1 @30323 has 181 MA's), (3, 30404), (5, 30425), (6, 30449), (8, 30494), (9, 30521), (10, 30524), (11, 30536), (12, 30554), (13, 30557), (18, 30776), (20, 30914), (24, 31001), (26, 31049), (31, 31112), (35, 31142), (36, 31169), (37, 31178), (41, 31199), (45, 31253), (48, 31319), (68, 31712), (70, 31745), (81, 31991), (91, 32102), (114, 32306), (115, 32309), (120, 32366), (121, 32369), (122, 32381), (124, 32405), (125, 32423), (126, 32426), (127, 32438), (130, 32471), (133, 32513), (151, 32654), (153, 32708), (157, 32768), (159, 32777), (164, 32951), (167, 33056), (173, 33167), (176, 33188), (197, 33323), (199, 33365), (202, 33449),

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

Candidate Starts for Fludd\_88:

(Start: 1 @30985 has 181 MA's), (3, 31066), (5, 31087), (6, 31111), (8, 31156), (9, 31183), (10, 31186), (11, 31198), (12, 31216), (13, 31219), (18, 31438), (20, 31576), (24, 31663), (26, 31711), (31, 31774), (35, 31804), (36, 31831), (37, 31840), (41, 31861), (45, 31915), (48, 31981), (68, 32374), (70, 32407), (81, 32653), (91, 32764), (114, 32968), (115, 32971), (120, 33028), (121, 33031), (122, 33043), (124, 33067), (125, 33085), (126, 33088), (127, 33100), (130, 33133), (133, 33175), (151, 33316), (153, 33370), (157, 33430), (159, 33439), (164, 33613), (167, 33718), (173, 33829), (176, 33850), (197, 33985), (199, 34027), (202, 34111),

Gene: Fongie\_86 Start: 32361, Stop: 35699, Start Num: 1

Candidate Starts for Fongie\_86:

(Start: 1 @32361 has 181 MA's), (3, 32442), (5, 32463), (6, 32487), (8, 32532), (9, 32559), (10, 32562), (11, 32574), (12, 32592), (13, 32595), (18, 32814), (20, 32952), (24, 33039), (26, 33087), (31, 33150), (35, 33180), (36, 33207), (37, 33216), (40, 33234), (41, 33237), (45, 33291), (48, 33357), (68, 33750), (70, 33783), (77, 33903), (91, 34134), (114, 34338), (115, 34341), (120, 34398), (121, 34401), (122, 34413), (124, 34437), (125, 34455), (126, 34458), (127, 34470), (130, 34503), (133, 34545), (151, 34686), (153, 34740), (157, 34803), (159, 34812), (164, 34986), (167, 35091), (173, 35202), (176,

35223), (197, 35358), (199, 35400), (202, 35484),

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

Candidate Starts for FoxtrotP1\_88:

(Start: 1 @32548 has 181 MA's), (3, 32629), (5, 32650), (6, 32674), (8, 32719), (9, 32746), (10, 32749), (11, 32761), (12, 32779), (13, 32782), (18, 33001), (20, 33139), (24, 33226), (26, 33274), (31, 33337), (35, 33367), (36, 33394), (37, 33403), (41, 33424), (45, 33478), (48, 33544), (68, 33937), (70, 33970), (77, 34090), (91, 34321), (114, 34525), (115, 34528), (120, 34585), (121, 34588), (122, 34600), (124, 34624), (125, 34642), (126, 34645), (127, 34657), (130, 34690), (133, 34732), (142, 34858), (143, 34861), (151, 35026), (153, 35080), (157, 35143), (159, 35152), (164, 35326), (167, 35431), (173, 35542), (176, 35563), (180, 35686), (181, 35692), (182, 35734), (183, 35752), (197, 35896), (199, 35938), (202, 36043),

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

Candidate Starts for FrayBell\_94:

(Start: 1 @33591 has 181 MA's), (3, 33672), (5, 33693), (6, 33717), (9, 33789), (10, 33792), (11, 33804), (12, 33822), (13, 33825), (18, 34044), (20, 34182), (24, 34269), (26, 34317), (31, 34380), (35, 34410), (36, 34437), (37, 34446), (41, 34467), (45, 34521), (48, 34587), (68, 34980), (70, 35013), (77, 35133), (91, 35367), (114, 35571), (115, 35574), (120, 35631), (121, 35634), (122, 35646), (124, 35670), (125, 35688), (126, 35691), (127, 35703), (130, 35736), (133, 35778), (142, 35904), (143, 35907), (151, 36072), (153, 36126), (157, 36189), (159, 36198), (164, 36372), (167, 36477), (173, 36588), (176, 36609), (180, 36732), (181, 36738), (182, 36780), (183, 36798), (197, 36942), (199, 36984), (202, 37089),

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

Candidate Starts for FudgeTart\_88:

(Start: 1 @31314 has 181 MA's), (3, 31395), (5, 31416), (6, 31440), (8, 31485), (9, 31512), (10, 31515), (11, 31527), (12, 31545), (13, 31548), (18, 31767), (20, 31905), (24, 31992), (26, 32040), (31, 32103), (35, 32133), (36, 32160), (37, 32169), (41, 32190), (45, 32244), (48, 32310), (65, 32688), (68, 32724), (81, 33000), (91, 33111), (114, 33315), (115, 33318), (120, 33375), (121, 33378), (122, 33390), (124, 33414), (125, 33432), (126, 33435), (127, 33447), (130, 33480), (133, 33522), (142, 33648), (143, 33651), (151, 33816), (157, 33933), (159, 33942), (164, 34116), (167, 34221), (173, 34332), (176, 34353), (180, 34476), (181, 34482), (182, 34524), (183, 34542), (197, 34686), (199, 34728), (202, 34833),

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

Candidate Starts for Gabriel\_90:

(Start: 1 @31384 has 181 MA's), (3, 31465), (5, 31486), (6, 31510), (8, 31555), (9, 31582), (10, 31585), (11, 31597), (12, 31615), (13, 31618), (18, 31837), (20, 31975), (24, 32062), (26, 32110), (31, 32173), (35, 32203), (36, 32230), (37, 32239), (41, 32260), (45, 32314), (48, 32380), (68, 32773), (70, 32806), (77, 32926), (91, 33157), (114, 33361), (115, 33364), (120, 33421), (121, 33424), (122, 33436), (124, 33460), (125, 33478), (126, 33481), (127, 33493), (130, 33526), (133, 33568), (142, 33694), (143, 33697), (151, 33862), (157, 33979), (159, 33988), (164, 34162), (167, 34267), (173, 34378), (176, 34399), (180, 34522), (181, 34528), (182, 34570), (183, 34588), (197, 34732), (199, 34774), (202, 34879),

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

Candidate Starts for Gamgam\_88:

(Start: 1 @31151 has 181 MA's), (3, 31232), (5, 31253), (6, 31277), (8, 31322), (9, 31349), (10, 31352), (11, 31364), (12, 31382), (13, 31385), (18, 31604), (20, 31742), (24, 31829), (26, 31877), (31, 31940), (35, 31970), (36, 31997), (37, 32006), (40, 32024), (41, 32027), (45, 32081), (48, 32147), (68, 32540), (70, 32573), (77, 32693), (91, 32927), (114, 33131), (115, 33134), (120, 33191), (121, 33194), (122, 33206), (124, 33230), (125, 33248), (126, 33251), (127, 33263), (130, 33296), (133, 33338), (142,

33464), (143, 33467), (151, 33632), (153, 33686), (157, 33749), (159, 33758), (164, 33932), (167, 34037), (173, 34148), (176, 34169), (180, 34292), (181, 34298), (182, 34340), (183, 34358), (197, 34502), (199, 34544), (202, 34649),

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

Candidate Starts for Ghost\_87:

(Start: 1 @31151 has 181 MA's), (3, 31232), (5, 31253), (6, 31277), (8, 31322), (9, 31349), (10, 31352), (11, 31364), (12, 31382), (13, 31385), (18, 31604), (20, 31742), (24, 31829), (26, 31877), (31, 31940), (35, 31970), (36, 31997), (37, 32006), (40, 32024), (41, 32027), (45, 32081), (48, 32147), (68, 32540), (70, 32573), (77, 32693), (91, 32927), (114, 33131), (115, 33134), (120, 33191), (121, 33194), (122, 33206), (124, 33230), (125, 33248), (126, 33251), (127, 33263), (130, 33296), (133, 33338), (142, 33464), (143, 33467), (151, 33632), (153, 33686), (157, 33749), (159, 33758), (164, 33932), (167, 34037), (173, 34148), (176, 34169), (180, 34292), (181, 34298), (182, 34340), (183, 34358), (197, 34502), (199, 34544), (202, 34649),

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

Candidate Starts for Gizmo\_92:

(Start: 1 @31829 has 181 MA's), (3, 31910), (5, 31931), (6, 31955), (8, 32000), (9, 32027), (10, 32030), (11, 32042), (12, 32060), (13, 32063), (18, 32282), (20, 32420), (24, 32507), (26, 32555), (31, 32618), (35, 32648), (36, 32675), (37, 32684), (40, 32702), (41, 32705), (45, 32759), (48, 32825), (68, 33218), (70, 33251), (77, 33371), (91, 33602), (114, 33806), (115, 33809), (120, 33866), (121, 33869), (122, 33881), (124, 33905), (125, 33923), (126, 33926), (127, 33938), (130, 33971), (133, 34013), (151, 34154), (153, 34208), (157, 34271), (159, 34280), (164, 34454), (167, 34559), (173, 34670), (176, 34691), (197, 34826), (199, 34868), (202, 34952),

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

Candidate Starts for GlutenPhree\_89:

(Start: 1 @31151 has 181 MA's), (3, 31232), (5, 31253), (6, 31277), (8, 31322), (9, 31349), (10, 31352), (11, 31364), (12, 31382), (13, 31385), (18, 31604), (20, 31742), (24, 31829), (26, 31877), (31, 31940), (35, 31970), (36, 31997), (37, 32006), (40, 32024), (41, 32027), (45, 32081), (48, 32147), (68, 32540), (70, 32573), (77, 32693), (91, 32927), (114, 33131), (115, 33134), (120, 33191), (121, 33194), (122, 33206), (124, 33230), (125, 33248), (126, 33251), (127, 33263), (130, 33296), (133, 33338), (142, 33464), (143, 33467), (151, 33632), (153, 33686), (157, 33749), (159, 33758), (164, 33932), (167, 34037), (173, 34148), (176, 34169), (180, 34292), (181, 34298), (182, 34340), (183, 34358), (197, 34502), (199, 34544), (202, 34649),

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

Candidate Starts for Grasshills\_95:

(Start: 1 @34232 has 181 MA's), (3, 34313), (5, 34334), (6, 34358), (8, 34403), (9, 34430), (10, 34433), (11, 34445), (12, 34463), (13, 34466), (18, 34685), (19, 34787), (41, 34820), (45, 34874), (48, 34940), (68, 35333), (70, 35366), (77, 35486), (91, 35717), (114, 35921), (115, 35924), (120, 35981), (121, 35984), (122, 35996), (124, 36020), (125, 36038), (126, 36041), (127, 36053), (130, 36086), (133, 36128), (142, 36254), (143, 36257), (151, 36422), (157, 36539), (159, 36548), (164, 36722), (167, 36827), (173, 36938), (176, 36959), (180, 37082), (181, 37088), (182, 37130), (183, 37148), (192, 37409), (195, 37469), (197, 37550), (199, 37592), (202, 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), (17, 33735), (22, 33882), (23, 33918), (32, 34053), (33, 34059), (61, 34560), (62, 34563), (66, 34659), (76, 34791), (79, 34881), (80, 34929), (82, 34941), (89, 35049), (92, 35070), (122, 35340), (124, 35364), (128, 35403), (130, 35430), (131, 35448), (133, 35472), (137, 35493), (138, 35508), (155, 35805), (158, 35844), (165, 36060), (167, 36126), (170, 36204), (172, 36228), (173, 36240), (175, 36246),

(189, 36390), (202, 36582),

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

Candidate Starts for Grungle\_75:

(Start: 1 @28529 has 181 MA's), (3, 28610), (5, 28631), (6, 28655), (8, 28700), (9, 28727), (10, 28730), (11, 28742), (12, 28760), (13, 28763), (18, 28982), (20, 29120), (24, 29207), (26, 29255), (31, 29318), (35, 29348), (36, 29375), (37, 29384), (41, 29405), (45, 29459), (48, 29525), (68, 29918), (70, 29951), (77, 30071), (91, 30305), (114, 30509), (115, 30512), (120, 30569), (121, 30572), (122, 30584), (124, 30608), (125, 30626), (126, 30629), (127, 30641), (130, 30674), (133, 30716), (142, 30842), (143, 30845), (151, 31010), (157, 31127), (159, 31136), (164, 31310), (167, 31415), (173, 31526), (176, 31547), (180, 31670), (181, 31676), (182, 31718), (183, 31736), (197, 31880), (199, 31922), (202, 32027),

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

Candidate Starts for Guwapp\_87:

(Start: 1 @31246 has 181 MA's), (3, 31327), (5, 31348), (6, 31372), (8, 31417), (9, 31444), (10, 31447), (11, 31459), (12, 31477), (13, 31480), (18, 31699), (20, 31837), (24, 31924), (26, 31972), (31, 32035), (35, 32065), (36, 32092), (37, 32101), (40, 32119), (41, 32122), (45, 32176), (48, 32242), (68, 32635), (70, 32668), (77, 32788), (91, 33022), (114, 33226), (115, 33229), (120, 33286), (121, 33289), (122, 33301), (124, 33325), (125, 33343), (126, 33346), (127, 33358), (130, 33391), (133, 33433), (142, 33559), (143, 33562), (151, 33727), (157, 33844), (159, 33853), (164, 34027), (167, 34132), (173, 34243), (176, 34264), (180, 34387), (181, 34393), (182, 34435), (183, 34453), (197, 34597), (199, 34639), (202, 34744),

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

Candidate Starts for Halldule\_81:

(Start: 1 @29559 has 181 MA's), (3, 29640), (5, 29661), (6, 29685), (8, 29730), (9, 29757), (10, 29760), (11, 29772), (12, 29790), (13, 29793), (18, 30012), (20, 30150), (24, 30237), (26, 30285), (31, 30348), (35, 30378), (36, 30405), (37, 30414), (41, 30435), (45, 30489), (48, 30555), (68, 30948), (70, 30981), (77, 31101), (91, 31335), (114, 31539), (115, 31542), (120, 31599), (121, 31602), (122, 31614), (124, 31638), (125, 31656), (126, 31659), (127, 31671), (130, 31704), (133, 31746), (142, 31872), (143, 31875), (151, 32040), (157, 32157), (159, 32166), (164, 32340), (167, 32445), (173, 32556), (176, 32577), (180, 32700), (181, 32706), (182, 32748), (183, 32766), (197, 32910), (199, 32952), (202, 33057),

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

Candidate Starts for HyRo\_80:

(Start: 1 @30714 has 181 MA's), (3, 30795), (5, 30816), (6, 30840), (8, 30885), (9, 30912), (10, 30915), (11, 30927), (12, 30945), (13, 30948), (18, 31167), (20, 31305), (24, 31392), (26, 31440), (31, 31503), (35, 31533), (36, 31560), (37, 31569), (40, 31587), (41, 31590), (45, 31644), (48, 31710), (68, 32103), (70, 32136), (77, 32256), (81, 32379), (91, 32490), (114, 32694), (115, 32697), (120, 32754), (121, 32757), (122, 32769), (124, 32793), (125, 32811), (126, 32814), (127, 32826), (130, 32859), (133, 32901), (151, 33042), (153, 33096), (157, 33159), (159, 33168), (164, 33342), (167, 33447), (173, 33558), (176, 33579), (197, 33714), (199, 33756), (202, 33840),

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

Candidate Starts for I3\_94:

(Start: 1 @32313 has 181 MA's), (3, 32394), (5, 32415), (6, 32439), (9, 32511), (10, 32514), (11, 32526), (12, 32544), (13, 32547), (18, 32766), (20, 32904), (24, 32991), (26, 33039), (31, 33102), (35, 33132), (36, 33159), (37, 33168), (41, 33189), (45, 33243), (48, 33309), (68, 33702), (70, 33735), (77, 33855), (91, 34086), (114, 34290), (115, 34293), (120, 34350), (121, 34353), (122, 34365), (124, 34389), (125, 34407), (126, 34410), (127, 34422), (130, 34455), (133, 34497), (142, 34623), (151, 34791), (153, 34845), (157, 34905), (159, 34914), (164, 35088), (167, 35193), (173, 35304), (176,

35325), (197, 35460), (199, 35502), (202, 35607),

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

Candidate Starts for IkeLoa\_82:

(Start: 1 @30507 has 181 MA's), (3, 30588), (5, 30609), (6, 30633), (9, 30705), (10, 30708), (11, 30720), (12, 30738), (13, 30741), (18, 30960), (20, 31098), (24, 31185), (26, 31233), (31, 31296), (35, 31326), (36, 31353), (37, 31362), (41, 31383), (45, 31437), (48, 31503), (68, 31896), (70, 31929), (77, 32049), (91, 32283), (114, 32487), (115, 32490), (120, 32547), (121, 32550), (122, 32562), (124, 32586), (125, 32604), (126, 32607), (127, 32619), (130, 32652), (133, 32694), (142, 32820), (143, 32823), (151, 32988), (153, 33042), (157, 33105), (159, 33114), (164, 33288), (167, 33393), (173, 33504), (176, 33525), (180, 33648), (181, 33654), (182, 33696), (183, 33714), (197, 33858), (199, 33900), (202, 34005),

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

Candidate Starts for InigoMontoya\_89:

(Start: 1 @31112 has 181 MA's), (3, 31193), (5, 31214), (6, 31238), (8, 31283), (9, 31310), (10, 31313), (11, 31325), (12, 31343), (13, 31346), (18, 31565), (20, 31703), (24, 31790), (26, 31838), (31, 31901), (35, 31931), (36, 31958), (37, 31967), (40, 31985), (41, 31988), (45, 32042), (48, 32108), (68, 32501), (70, 32534), (77, 32654), (91, 32888), (114, 33092), (115, 33095), (120, 33152), (121, 33155), (122, 33167), (124, 33191), (125, 33209), (126, 33212), (127, 33224), (130, 33257), (133, 33299), (142, 33425), (143, 33428), (151, 33593), (153, 33647), (157, 33710), (159, 33719), (164, 33893), (167, 33998), (173, 34109), (176, 34130), (180, 34253), (181, 34259), (182, 34301), (183, 34319), (197, 34463), (199, 34505), (202, 34610),

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

Candidate Starts for InterFolia\_97:

(Start: 1 @34554 has 181 MA's), (3, 34635), (5, 34656), (6, 34680), (8, 34725), (9, 34752), (10, 34755), (11, 34767), (12, 34785), (13, 34788), (18, 35007), (20, 35145), (24, 35232), (26, 35280), (31, 35343), (35, 35373), (36, 35400), (37, 35409), (41, 35430), (45, 35484), (48, 35550), (68, 35943), (70, 35976), (77, 36096), (91, 36327), (114, 36531), (115, 36534), (120, 36591), (121, 36594), (122, 36606), (124, 36630), (125, 36648), (126, 36651), (127, 36663), (130, 36696), (133, 36738), (142, 36864), (143, 36867), (151, 37014), (153, 37068), (157, 37131), (159, 37140), (164, 37314), (167, 37419), (173, 37530), (176, 37551), (180, 37674), (181, 37680), (182, 37722), (183, 37740), (197, 37884), (199, 37926), (202, 38031),

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

Candidate Starts for Iota\_82:

(Start: 1 @30888 has 181 MA's), (3, 30969), (5, 30990), (6, 31014), (8, 31059), (9, 31086), (10, 31089), (11, 31101), (12, 31119), (13, 31122), (18, 31341), (20, 31479), (24, 31566), (26, 31614), (31, 31677), (35, 31707), (36, 31734), (37, 31743), (41, 31764), (45, 31818), (48, 31884), (68, 32277), (70, 32310), (77, 32430), (91, 32664), (114, 32868), (115, 32871), (120, 32928), (121, 32931), (122, 32943), (124, 32967), (125, 32985), (126, 32988), (127, 33000), (130, 33033), (133, 33075), (142, 33201), (143, 33204), (151, 33369), (157, 33486), (159, 33495), (164, 33669), (167, 33774), (173, 33885), (176, 33906), (180, 34029), (181, 34035), (182, 34077), (183, 34095), (197, 34239), (199, 34281), (202, 34386),

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

Candidate Starts for Issimir\_87:

(Start: 1 @32089 has 181 MA's), (3, 32170), (5, 32191), (6, 32215), (8, 32260), (9, 32287), (10, 32290), (11, 32302), (12, 32320), (13, 32323), (18, 32542), (20, 32680), (24, 32767), (26, 32815), (31, 32878), (35, 32908), (36, 32935), (37, 32944), (40, 32962), (41, 32965), (45, 33019), (48, 33085), (68, 33478), (70, 33511), (77, 33631), (91, 33865), (114, 34069), (115, 34072), (120, 34129), (121, 34132), (122, 34144), (124, 34168), (125, 34186), (126, 34189), (127, 34201), (130, 34234), (133, 34276), (142,

34402), (143, 34405), (151, 34570), (157, 34687), (159, 34696), (164, 34870), (167, 34975), (173, 35086), (176, 35107), (180, 35230), (181, 35236), (182, 35278), (183, 35296), (197, 35440), (199, 35482), (202, 35587),

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

Candidate Starts for Izajani\_88:

(Start: 1 @32162 has 181 MA's), (3, 32243), (5, 32264), (6, 32288), (8, 32333), (9, 32360), (10, 32363), (11, 32375), (12, 32393), (13, 32396), (18, 32615), (20, 32753), (24, 32840), (26, 32888), (31, 32951), (35, 32981), (36, 33008), (37, 33017), (40, 33035), (41, 33038), (45, 33092), (48, 33158), (68, 33551), (70, 33584), (77, 33704), (91, 33938), (114, 34142), (115, 34145), (120, 34202), (121, 34205), (122, 34217), (124, 34241), (125, 34259), (126, 34262), (127, 34274), (130, 34307), (133, 34349), (142, 34475), (143, 34478), (151, 34643), (153, 34697), (157, 34760), (159, 34769), (164, 34943), (167, 35048), (173, 35159), (176, 35180), (180, 35303), (181, 35309), (182, 35351), (183, 35369), (197, 35513), (199, 35555), (202, 35660),

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

Candidate Starts for JPickles\_86:

(Start: 1 @29578 has 181 MA's), (3, 29659), (5, 29680), (6, 29704), (8, 29749), (9, 29776), (10, 29779), (11, 29791), (12, 29809), (13, 29812), (18, 30031), (20, 30169), (24, 30256), (26, 30304), (31, 30367), (35, 30397), (36, 30424), (37, 30433), (40, 30451), (41, 30454), (45, 30508), (48, 30574), (68, 30967), (70, 31000), (77, 31120), (91, 31354), (114, 31558), (115, 31561), (120, 31618), (121, 31621), (122, 31633), (124, 31657), (125, 31675), (126, 31678), (127, 31690), (130, 31723), (133, 31765), (142, 31891), (143, 31894), (151, 32059), (153, 32113), (157, 32176), (159, 32185), (164, 32359), (167, 32464), (173, 32575), (176, 32596), (180, 32719), (181, 32725), (182, 32767), (183, 32785), (197, 32929), (199, 32971), (202, 33076),

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

Candidate Starts for Janiyra\_90:

(Start: 1 @31815 has 181 MA's), (3, 31896), (5, 31917), (6, 31941), (8, 31986), (9, 32013), (10, 32016), (11, 32028), (12, 32046), (13, 32049), (18, 32268), (20, 32406), (24, 32493), (26, 32541), (31, 32604), (35, 32634), (36, 32661), (37, 32670), (41, 32691), (45, 32745), (48, 32811), (68, 33204), (70, 33237), (81, 33483), (91, 33594), (114, 33798), (115, 33801), (120, 33858), (121, 33861), (122, 33873), (124, 33897), (125, 33915), (126, 33918), (127, 33930), (130, 33963), (133, 34005), (151, 34146), (153, 34200), (157, 34260), (159, 34269), (164, 34443), (167, 34548), (173, 34659), (176, 34680), (197, 34815), (199, 34857), (202, 34941),

Gene: JayJay\_94 Start: 32642, Stop: 36355, Start Num: 1

Candidate Starts for JayJay\_94:

(Start: 1 @32642 has 181 MA's), (3, 32723), (5, 32744), (6, 32768), (8, 32813), (9, 32840), (10, 32843), (11, 32855), (12, 32873), (13, 32876), (18, 33095), (20, 33233), (24, 33320), (26, 33368), (31, 33431), (35, 33461), (36, 33488), (37, 33497), (41, 33518), (45, 33572), (48, 33638), (68, 34031), (70, 34064), (77, 34184), (91, 34418), (114, 34622), (115, 34625), (120, 34682), (121, 34685), (122, 34697), (124, 34721), (125, 34739), (126, 34742), (127, 34754), (130, 34787), (133, 34829), (142, 34955), (143, 34958), (151, 35123), (157, 35240), (159, 35249), (164, 35423), (167, 35528), (173, 35639), (176, 35660), (180, 35783), (181, 35789), (182, 35831), (183, 35849), (197, 35993), (199, 36035), (202, 36140),

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

Candidate Starts for Jaygup\_88:

(Start: 1 @31106 has 181 MA's), (3, 31187), (5, 31208), (6, 31232), (9, 31304), (10, 31307), (11, 31319), (12, 31337), (13, 31340), (18, 31559), (20, 31697), (24, 31784), (26, 31832), (31, 31895), (35, 31925), (36, 31952), (37, 31961), (41, 31982), (45, 32036), (48, 32102), (68, 32495), (70, 32528), (77, 32648), (91, 32879), (114, 33083), (115, 33086), (120, 33143), (121, 33146), (122, 33158), (124,

33182), (125, 33200), (126, 33203), (127, 33215), (130, 33248), (133, 33290), (142, 33416), (143, 33419), (151, 33584), (157, 33701), (159, 33710), (164, 33884), (167, 33989), (173, 34100), (176, 34121), (180, 34244), (181, 34250), (182, 34292), (183, 34310), (197, 34454), (199, 34496), (202, 34601),

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

Candidate Starts for Jedediah\_91:

(Start: 1 @31606 has 181 MA's), (3, 31687), (5, 31708), (6, 31732), (8, 31777), (9, 31804), (10, 31807), (11, 31819), (12, 31837), (13, 31840), (18, 32059), (20, 32197), (24, 32284), (26, 32332), (31, 32395), (35, 32425), (36, 32452), (37, 32461), (41, 32482), (45, 32536), (48, 32602), (68, 32995), (70, 33028), (77, 33148), (91, 33379), (114, 33583), (115, 33586), (120, 33643), (121, 33646), (122, 33658), (124, 33682), (125, 33700), (126, 33703), (127, 33715), (130, 33748), (133, 33790), (142, 33916), (143, 33919), (151, 34084), (157, 34201), (159, 34210), (164, 34384), (167, 34489), (173, 34600), (176, 34621), (180, 34744), (181, 34750), (182, 34792), (183, 34810), (197, 34954), (199, 34996), (202, 35101),

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

Candidate Starts for Jemmno\_88:

(Start: 1 @31056 has 181 MA's), (3, 31137), (5, 31158), (6, 31182), (8, 31227), (9, 31254), (10, 31257), (11, 31269), (12, 31287), (13, 31290), (18, 31509), (20, 31647), (24, 31734), (26, 31782), (31, 31845), (35, 31875), (36, 31902), (37, 31911), (41, 31932), (45, 31986), (48, 32052), (68, 32445), (70, 32478), (77, 32598), (91, 32829), (114, 33033), (115, 33036), (120, 33093), (121, 33096), (122, 33108), (124, 33132), (125, 33150), (126, 33153), (127, 33165), (130, 33198), (133, 33240), (142, 33366), (143, 33369), (151, 33534), (157, 33651), (159, 33660), (164, 33834), (167, 33939), (173, 34050), (176, 34071), (180, 34194), (181, 34200), (182, 34242), (183, 34260), (197, 34404), (199, 34446), (202, 34551),

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

Candidate Starts for Jessibeth14\_87:

(Start: 1 @31931 has 181 MA's), (3, 32012), (5, 32033), (6, 32057), (8, 32102), (9, 32129), (10, 32132), (11, 32144), (12, 32162), (13, 32165), (18, 32384), (20, 32522), (24, 32609), (26, 32657), (31, 32720), (35, 32750), (36, 32777), (37, 32786), (40, 32804), (41, 32807), (45, 32861), (48, 32927), (68, 33320), (70, 33353), (77, 33473), (91, 33707), (114, 33911), (115, 33914), (120, 33971), (121, 33974), (122, 33986), (124, 34010), (125, 34028), (126, 34031), (127, 34043), (130, 34076), (133, 34118), (142, 34244), (143, 34247), (151, 34412), (153, 34466), (157, 34529), (159, 34538), (164, 34712), (167, 34817), (173, 34928), (176, 34949), (180, 35072), (181, 35078), (182, 35120), (183, 35138), (197, 35282), (199, 35324), (202, 35429),

Gene: Jezreel\_88 Start: 31841, Stop: 35554, Start Num: 1

Candidate Starts for Jezreel\_88:

(Start: 1 @31841 has 181 MA's), (3, 31922), (5, 31943), (6, 31967), (9, 32039), (10, 32042), (11, 32054), (12, 32072), (13, 32075), (18, 32294), (20, 32432), (24, 32519), (26, 32567), (31, 32630), (35, 32660), (36, 32687), (37, 32696), (41, 32717), (45, 32771), (48, 32837), (68, 33230), (70, 33263), (77, 33383), (91, 33617), (114, 33821), (115, 33824), (120, 33881), (121, 33884), (122, 33896), (124, 33920), (125, 33938), (126, 33941), (127, 33953), (130, 33986), (133, 34028), (142, 34154), (143, 34157), (151, 34322), (153, 34376), (157, 34439), (159, 34448), (164, 34622), (167, 34727), (173, 34838), (176, 34859), (180, 34982), (181, 34988), (182, 35030), (183, 35048), (197, 35192), (199, 35234), (202, 35339),

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

Candidate Starts for JigglyPuff\_94:

(Start: 1 @33726 has 181 MA's), (3, 33807), (5, 33828), (6, 33852), (8, 33897), (9, 33924), (10, 33927), (11, 33939), (12, 33957), (13, 33960), (18, 34179), (20, 34317), (24, 34404), (26, 34452), (31, 34515),

(35, 34545), (36, 34572), (37, 34581), (41, 34602), (45, 34656), (48, 34722), (68, 35115), (70, 35148), (77, 35268), (91, 35499), (114, 35703), (115, 35706), (120, 35763), (121, 35766), (122, 35778), (124, 35802), (125, 35820), (126, 35823), (127, 35835), (130, 35868), (133, 35910), (142, 36036), (143, 36039), (151, 36186), (157, 36303), (159, 36312), (164, 36486), (167, 36591), (173, 36702), (176, 36723), (180, 36846), (181, 36852), (182, 36894), (183, 36912), (197, 37056), (199, 37098), (202, 37203),

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

Candidate Starts for JulietS\_81:

(Start: 1 @29410 has 181 MA's), (3, 29491), (5, 29512), (6, 29536), (8, 29581), (9, 29608), (10, 29611), (11, 29623), (12, 29641), (13, 29644), (18, 29863), (20, 30001), (24, 30088), (26, 30136), (31, 30199), (35, 30229), (36, 30256), (37, 30265), (41, 30286), (45, 30340), (48, 30406), (68, 30799), (70, 30832), (77, 30952), (91, 31186), (114, 31390), (115, 31393), (120, 31450), (121, 31453), (122, 31465), (124, 31489), (125, 31507), (126, 31510), (127, 31522), (130, 31555), (133, 31597), (142, 31723), (143, 31726), (151, 31891), (157, 32008), (159, 32017), (164, 32191), (167, 32296), (173, 32407), (176, 32428), (180, 32551), (181, 32557), (182, 32599), (183, 32617), (197, 32761), (199, 32803), (202, 32908),

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

Candidate Starts for JustHall\_84:

(Start: 1 @31428 has 181 MA's), (3, 31509), (5, 31530), (6, 31554), (8, 31599), (9, 31626), (10, 31629), (11, 31641), (12, 31659), (13, 31662), (18, 31881), (20, 32019), (24, 32106), (26, 32154), (31, 32217), (35, 32247), (36, 32274), (37, 32283), (41, 32304), (45, 32358), (48, 32424), (65, 32802), (68, 32838), (81, 33114), (91, 33225), (114, 33429), (115, 33432), (120, 33489), (121, 33492), (122, 33504), (124, 33528), (125, 33546), (126, 33549), (127, 33561), (130, 33594), (133, 33636), (151, 33777), (153, 33831), (157, 33894), (159, 33903), (164, 34077), (167, 34182), (173, 34293), (176, 34314), (197, 34449), (199, 34491), (202, 34575),

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

Candidate Starts for Kamryn\_88:

(Start: 1 @32670 has 181 MA's), (3, 32751), (5, 32772), (6, 32796), (8, 32841), (9, 32868), (10, 32871), (11, 32883), (12, 32901), (13, 32904), (18, 33123), (20, 33261), (24, 33348), (26, 33396), (31, 33459), (35, 33489), (36, 33516), (37, 33525), (40, 33543), (41, 33546), (45, 33600), (48, 33666), (68, 34059), (70, 34092), (77, 34212), (91, 34446), (114, 34650), (115, 34653), (120, 34710), (121, 34713), (122, 34725), (124, 34749), (125, 34767), (126, 34770), (127, 34782), (130, 34815), (133, 34857), (142, 34983), (143, 34986), (151, 35151), (153, 35205), (157, 35268), (159, 35277), (164, 35451), (167, 35556), (173, 35667), (176, 35688), (180, 35811), (181, 35817), (182, 35859), (183, 35877), (197, 36021), (199, 36063), (202, 36168),

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

Candidate Starts for Kboogie\_91:

(Start: 1 @31097 has 181 MA's), (3, 31178), (5, 31199), (6, 31223), (8, 31268), (9, 31295), (10, 31298), (11, 31310), (12, 31328), (13, 31331), (18, 31550), (20, 31688), (24, 31775), (26, 31823), (31, 31886), (35, 31916), (36, 31943), (37, 31952), (41, 31973), (45, 32027), (48, 32093), (68, 32486), (70, 32519), (81, 32765), (91, 32876), (114, 33080), (115, 33083), (120, 33140), (121, 33143), (122, 33155), (124, 33179), (125, 33197), (126, 33200), (127, 33212), (130, 33245), (133, 33287), (151, 33428), (153, 33482), (157, 33542), (159, 33551), (164, 33725), (167, 33830), (173, 33941), (176, 33962), (197, 34097), (199, 34139), (202, 34223),

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

Candidate Starts for Khaleesi\_87:

(Start: 1 @31893 has 181 MA's), (3, 31974), (5, 31995), (6, 32019), (8, 32064), (9, 32091), (10, 32094), (11, 32106), (12, 32124), (13, 32127), (18, 32346), (20, 32484), (24, 32571), (26, 32619), (31, 32682),

(35, 32712), (36, 32739), (37, 32748), (40, 32766), (41, 32769), (45, 32823), (48, 32889), (68, 33282), (70, 33315), (77, 33435), (91, 33669), (114, 33873), (115, 33876), (120, 33933), (121, 33936), (122, 33948), (124, 33972), (125, 33990), (126, 33993), (127, 34005), (130, 34038), (133, 34080), (142, 34206), (143, 34209), (151, 34374), (153, 34428), (157, 34491), (159, 34500), (164, 34674), (167, 34779), (173, 34890), (176, 34911), (180, 35034), (181, 35040), (182, 35082), (183, 35100), (197, 35244), (199, 35286), (202, 35391),

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

Candidate Starts for Koguma\_84:

(Start: 1 @29630 has 181 MA's), (3, 29711), (5, 29732), (6, 29756), (8, 29801), (9, 29828), (10, 29831), (11, 29843), (12, 29861), (13, 29864), (18, 30083), (20, 30221), (24, 30308), (26, 30356), (31, 30419), (35, 30449), (36, 30476), (37, 30485), (41, 30506), (45, 30560), (48, 30626), (68, 31019), (70, 31052), (77, 31172), (91, 31406), (114, 31610), (115, 31613), (120, 31670), (121, 31673), (122, 31685), (124, 31709), (125, 31727), (126, 31730), (127, 31742), (130, 31775), (133, 31817), (142, 31943), (143, 31946), (151, 32111), (157, 32228), (159, 32237), (164, 32411), (167, 32516), (173, 32627), (176, 32648), (180, 32771), (181, 32777), (182, 32819), (183, 32837), (197, 32981), (199, 33023), (202, 33128),

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

Candidate Starts for LRRHood\_82:

(Start: 1 @31449 has 181 MA's), (3, 31530), (5, 31551), (6, 31575), (8, 31620), (9, 31647), (10, 31650), (11, 31662), (12, 31680), (13, 31683), (18, 31902), (20, 32040), (24, 32127), (26, 32175), (31, 32238), (35, 32268), (36, 32295), (37, 32304), (41, 32325), (45, 32379), (48, 32445), (68, 32838), (70, 32871), (77, 32991), (91, 33225), (114, 33429), (115, 33432), (120, 33489), (121, 33492), (122, 33504), (124, 33528), (125, 33546), (126, 33549), (127, 33561), (130, 33594), (133, 33636), (142, 33762), (143, 33765), (151, 33930), (157, 34047), (159, 34056), (164, 34230), (167, 34335), (173, 34446), (176, 34467), (180, 34590), (181, 34596), (182, 34638), (183, 34656), (197, 34800), (199, 34842), (202, 34947),

Gene: Labradorite\_88 Start: 31226, Stop: 34939, Start Num: 1

Candidate Starts for Labradorite\_88:

(Start: 1 @31226 has 181 MA's), (3, 31307), (5, 31328), (6, 31352), (9, 31424), (10, 31427), (11, 31439), (12, 31457), (13, 31460), (18, 31679), (20, 31817), (24, 31904), (26, 31952), (31, 32015), (35, 32045), (36, 32072), (37, 32081), (41, 32102), (45, 32156), (48, 32222), (68, 32615), (70, 32648), (77, 32768), (91, 33002), (114, 33206), (115, 33209), (120, 33266), (121, 33269), (122, 33281), (124, 33305), (125, 33323), (126, 33326), (127, 33338), (130, 33371), (133, 33413), (142, 33539), (143, 33542), (151, 33707), (157, 33824), (159, 33833), (164, 34007), (167, 34112), (173, 34223), (176, 34244), (180, 34367), (181, 34373), (182, 34415), (183, 34433), (197, 34577), (199, 34619), (202, 34724),

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

Candidate Starts for Latch\_88:

(Start: 1 @31151 has 181 MA's), (3, 31232), (5, 31253), (6, 31277), (8, 31322), (9, 31349), (10, 31352), (11, 31364), (12, 31382), (13, 31385), (18, 31604), (20, 31742), (24, 31829), (26, 31877), (31, 31940), (35, 31970), (36, 31997), (37, 32006), (40, 32024), (41, 32027), (45, 32081), (48, 32147), (68, 32540), (70, 32573), (77, 32693), (91, 32927), (114, 33131), (115, 33134), (120, 33191), (121, 33194), (122, 33206), (124, 33230), (125, 33248), (126, 33251), (127, 33263), (130, 33296), (133, 33338), (142, 33464), (143, 33467), (151, 33632), (153, 33686), (157, 33749), (159, 33758), (164, 33932), (167, 34037), (173, 34148), (176, 34169), (180, 34292), (181, 34298), (182, 34340), (183, 34358), (197, 34502), (199, 34544), (202, 34649),

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

Candidate Starts for Lee7\_86:

(Start: 1 @32146 has 181 MA's), (3, 32227), (5, 32248), (6, 32272), (8, 32317), (9, 32344), (10, 32347), (11, 32359), (12, 32377), (13, 32380), (18, 32599), (20, 32737), (24, 32824), (26, 32872), (31, 32935), (35, 32965), (36, 32992), (37, 33001), (40, 33019), (41, 33022), (45, 33076), (48, 33142), (68, 33520), (70, 33553), (77, 33673), (91, 33904), (114, 34108), (115, 34111), (120, 34168), (121, 34171), (122, 34183), (124, 34207), (125, 34225), (126, 34228), (127, 34240), (130, 34273), (133, 34315), (151, 34456), (153, 34510), (157, 34573), (159, 34582), (164, 34756), (167, 34861), (173, 34972), (176, 34993), (197, 35128), (199, 35170), (202, 35254),

Gene: Lethe\_87 Start: 32341, Stop: 36054, Start Num: 1

Candidate Starts for Lethe\_87:

(Start: 1 @32341 has 181 MA's), (3, 32422), (5, 32443), (6, 32467), (8, 32512), (9, 32539), (10, 32542), (11, 32554), (12, 32572), (13, 32575), (18, 32794), (20, 32932), (24, 33019), (26, 33067), (31, 33130), (35, 33160), (36, 33187), (37, 33196), (40, 33214), (41, 33217), (45, 33271), (48, 33337), (68, 33730), (70, 33763), (77, 33883), (91, 34117), (114, 34321), (115, 34324), (120, 34381), (121, 34384), (122, 34396), (124, 34420), (125, 34438), (126, 34441), (127, 34453), (130, 34486), (133, 34528), (142, 34654), (143, 34657), (151, 34822), (157, 34939), (159, 34948), (164, 35122), (167, 35227), (173, 35338), (176, 35359), (180, 35482), (181, 35488), (182, 35530), (183, 35548), (197, 35692), (199, 35734), (202, 35839),

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

Candidate Starts for LifeSavor\_87:

(Start: 1 @30871 has 181 MA's), (3, 30952), (5, 30973), (6, 30997), (9, 31069), (10, 31072), (11, 31084), (12, 31102), (13, 31105), (18, 31324), (20, 31462), (24, 31549), (26, 31597), (31, 31660), (35, 31690), (36, 31717), (37, 31726), (41, 31747), (45, 31801), (48, 31867), (68, 32260), (70, 32293), (77, 32413), (91, 32644), (114, 32848), (115, 32851), (120, 32908), (121, 32911), (122, 32923), (124, 32947), (125, 32965), (126, 32968), (127, 32980), (130, 33013), (133, 33055), (142, 33181), (143, 33184), (151, 33349), (157, 33466), (159, 33475), (164, 33649), (167, 33754), (173, 33865), (176, 33886), (180, 34009), (181, 34015), (182, 34057), (183, 34075), (197, 34219), (199, 34261), (202, 34366),

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

Candidate Starts for LinStu\_88:

(Start: 1 @32513 has 181 MA's), (3, 32594), (5, 32615), (6, 32639), (8, 32684), (9, 32711), (10, 32714), (11, 32726), (12, 32744), (13, 32747), (18, 32966), (20, 33104), (24, 33191), (26, 33239), (31, 33302), (35, 33332), (36, 33359), (37, 33368), (41, 33389), (45, 33443), (48, 33509), (68, 33902), (70, 33935), (77, 34055), (91, 34289), (114, 34493), (115, 34496), (120, 34553), (121, 34556), (122, 34568), (124, 34592), (125, 34610), (126, 34613), (127, 34625), (130, 34658), (133, 34700), (142, 34826), (143, 34829), (151, 34994), (157, 35111), (159, 35120), (164, 35294), (167, 35399), (173, 35510), (176, 35531), (180, 35654), (181, 35660), (182, 35702), (183, 35720), (197, 35864), (199, 35906), (202, 36011),

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

Candidate Starts for Littleton\_88:

(Start: 1 @31109 has 181 MA's), (3, 31190), (5, 31211), (6, 31235), (8, 31280), (9, 31307), (10, 31310), (11, 31322), (12, 31340), (13, 31343), (18, 31562), (20, 31700), (24, 31787), (26, 31835), (31, 31898), (35, 31928), (36, 31955), (37, 31964), (41, 31985), (45, 32039), (48, 32105), (68, 32498), (70, 32531), (77, 32651), (91, 32882), (114, 33086), (115, 33089), (120, 33146), (121, 33149), (122, 33161), (124, 33185), (125, 33203), (126, 33206), (127, 33218), (130, 33251), (133, 33293), (142, 33419), (143, 33422), (151, 33587), (157, 33704), (159, 33713), (164, 33887), (167, 33992), (173, 34103), (176, 34124), (180, 34247), (181, 34253), (182, 34295), (183, 34313), (197, 34457), (199, 34499), (202, 34604),

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

Candidate Starts for Loanshark\_88:

(Start: 1 @32146 has 181 MA's), (3, 32227), (5, 32248), (6, 32272), (8, 32317), (9, 32344), (10, 32347), (11, 32359), (12, 32377), (13, 32380), (18, 32599), (20, 32737), (24, 32824), (26, 32872), (31, 32935), (35, 32965), (36, 32992), (37, 33001), (40, 33019), (41, 33022), (45, 33076), (48, 33142), (68, 33535), (70, 33568), (77, 33688), (91, 33922), (114, 34126), (115, 34129), (120, 34186), (121, 34189), (122, 34201), (124, 34225), (125, 34243), (126, 34246), (127, 34258), (130, 34291), (133, 34333), (142, 34459), (143, 34462), (151, 34627), (157, 34744), (159, 34753), (164, 34927), (167, 35032), (173, 35143), (176, 35164), (180, 35287), (181, 35293), (182, 35335), (183, 35353), (197, 35497), (199, 35539), (202, 35644),

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

Candidate Starts for LolaVinca\_90:

(Start: 1 @33306 has 181 MA's), (3, 33387), (5, 33408), (6, 33432), (8, 33477), (9, 33504), (10, 33507), (11, 33519), (12, 33537), (13, 33540), (18, 33759), (20, 33897), (24, 33984), (26, 34032), (31, 34095), (35, 34125), (36, 34152), (37, 34161), (40, 34179), (41, 34182), (45, 34236), (48, 34302), (68, 34695), (70, 34728), (77, 34848), (81, 34962), (91, 35046), (114, 35250), (115, 35253), (120, 35310), (121, 35313), (122, 35325), (124, 35349), (125, 35367), (126, 35370), (127, 35382), (130, 35415), (133, 35457), (142, 35583), (143, 35586), (151, 35733), (153, 35787), (157, 35850), (159, 35859), (164, 36033), (167, 36138), (173, 36249), (176, 36270), (180, 36393), (181, 36399), (182, 36441), (183, 36459), (197, 36603), (199, 36645), (202, 36750),

Gene: LookingGlass\_89 Start: 32251, Stop: 35964, Start Num: 1

Candidate Starts for LookingGlass\_89:

(Start: 1 @32251 has 181 MA's), (3, 32332), (5, 32353), (6, 32377), (9, 32449), (10, 32452), (11, 32464), (12, 32482), (13, 32485), (18, 32704), (20, 32842), (24, 32929), (26, 32977), (31, 33040), (35, 33070), (36, 33097), (37, 33106), (41, 33127), (45, 33181), (48, 33247), (68, 33640), (70, 33673), (77, 33793), (91, 34027), (114, 34231), (115, 34234), (120, 34291), (121, 34294), (122, 34306), (124, 34330), (125, 34348), (126, 34351), (127, 34363), (130, 34396), (133, 34438), (142, 34564), (143, 34567), (151, 34732), (153, 34786), (157, 34849), (159, 34858), (164, 35032), (167, 35137), (173, 35248), (176, 35269), (180, 35392), (181, 35398), (182, 35440), (183, 35458), (197, 35602), (199, 35644), (202, 35749),

Gene: LordLeafolot\_94 Start: 34239, Stop: 37952, Start Num: 1

Candidate Starts for LordLeafolot\_94:

(Start: 1 @34239 has 181 MA's), (3, 34320), (5, 34341), (6, 34365), (8, 34410), (9, 34437), (10, 34440), (11, 34452), (12, 34470), (13, 34473), (18, 34692), (20, 34830), (24, 34917), (26, 34965), (31, 35028), (35, 35058), (36, 35085), (37, 35094), (40, 35112), (41, 35115), (45, 35169), (48, 35235), (68, 35628), (70, 35661), (77, 35781), (91, 36015), (114, 36219), (115, 36222), (120, 36279), (121, 36282), (122, 36294), (124, 36318), (125, 36336), (126, 36339), (127, 36351), (130, 36384), (133, 36426), (142, 36552), (143, 36555), (151, 36720), (153, 36774), (157, 36837), (159, 36846), (164, 37020), (167, 37125), (173, 37236), (176, 37257), (180, 37380), (181, 37386), (182, 37428), (183, 37446), (197, 37590), (199, 37632), (202, 37737),

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

Candidate Starts for Lukilu\_79:

(Start: 1 @31361 has 181 MA's), (3, 31442), (5, 31463), (6, 31487), (8, 31532), (9, 31559), (10, 31562), (11, 31574), (12, 31592), (13, 31595), (18, 31814), (20, 31952), (24, 32039), (26, 32087), (31, 32150), (35, 32180), (36, 32207), (37, 32216), (40, 32234), (41, 32237), (45, 32291), (48, 32357), (68, 32750), (70, 32783), (77, 32903), (91, 33134), (114, 33338), (115, 33341), (120, 33398), (121, 33401), (122, 33413), (124, 33437), (125, 33455), (126, 33458), (127, 33470), (130, 33503), (133, 33545), (151, 33686), (153, 33740), (157, 33803), (159, 33812), (164, 33986), (167, 34091), (173, 34202), (176, 34223), (197, 34358), (199, 34400), (202, 34484),

Gene: Lunareta\_85 Start: 32994, Stop: 36485, Start Num: 1

Candidate Starts for Lunareta\_85:

(Start: 1 @32994 has 181 MA's), (3, 33075), (5, 33096), (6, 33120), (8, 33165), (9, 33192), (10, 33195), (11, 33207), (12, 33225), (13, 33228), (18, 33447), (20, 33585), (24, 33672), (26, 33720), (31, 33783), (35, 33813), (36, 33840), (37, 33849), (41, 33870), (45, 33924), (48, 33990), (68, 34383), (70, 34416), (77, 34536), (91, 34767), (114, 34971), (115, 34974), (120, 35031), (121, 35034), (122, 35046), (124, 35070), (125, 35088), (126, 35091), (127, 35103), (130, 35136), (133, 35178), (142, 35304), (143, 35307), (151, 35472), (157, 35589), (159, 35598), (164, 35772), (167, 35877), (173, 35988), (176, 36009), (197, 36144), (199, 36186), (202, 36270),

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

Candidate Starts for Maby2021\_88:

(Start: 1 @31827 has 181 MA's), (3, 31908), (5, 31929), (6, 31953), (8, 31998), (9, 32025), (10, 32028), (11, 32040), (12, 32058), (13, 32061), (18, 32280), (20, 32418), (24, 32505), (26, 32553), (31, 32616), (35, 32646), (36, 32673), (37, 32682), (40, 32700), (41, 32703), (45, 32757), (48, 32823), (68, 33216), (70, 33249), (77, 33369), (91, 33603), (114, 33807), (115, 33810), (120, 33867), (121, 33870), (122, 33882), (124, 33906), (125, 33924), (126, 33927), (127, 33939), (130, 33972), (133, 34014), (142, 34140), (143, 34143), (151, 34308), (153, 34362), (157, 34425), (159, 34434), (164, 34608), (167, 34713), (173, 34824), (176, 34845), (180, 34968), (181, 34974), (182, 35016), (183, 35034), (197, 35178), (199, 35220), (202, 35325),

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

Candidate Starts for Mangeria\_88:

(Start: 1 @32105 has 181 MA's), (3, 32186), (5, 32207), (6, 32231), (8, 32276), (9, 32303), (10, 32306), (11, 32318), (12, 32336), (13, 32339), (18, 32558), (20, 32696), (24, 32783), (26, 32831), (31, 32894), (35, 32924), (36, 32951), (37, 32960), (41, 32981), (45, 33035), (48, 33101), (68, 33494), (70, 33527), (77, 33647), (91, 33878), (114, 34082), (115, 34085), (120, 34142), (121, 34145), (122, 34157), (124, 34181), (125, 34199), (126, 34202), (127, 34214), (130, 34247), (133, 34289), (142, 34415), (143, 34418), (151, 34583), (157, 34700), (159, 34709), (164, 34883), (167, 34988), (173, 35099), (176, 35120), (180, 35243), (181, 35249), (182, 35291), (183, 35309), (197, 35453), (199, 35495), (202, 35606),

Gene: Matsumoto\_87 Start: 31070, Stop: 34780, Start Num: 1

Candidate Starts for Matsumoto\_87:

(Start: 1 @31070 has 181 MA's), (3, 31151), (5, 31172), (6, 31196), (9, 31268), (10, 31271), (11, 31283), (12, 31301), (13, 31304), (18, 31523), (20, 31661), (24, 31748), (26, 31796), (31, 31859), (35, 31889), (36, 31916), (37, 31925), (41, 31946), (45, 32000), (48, 32066), (68, 32459), (70, 32492), (77, 32612), (91, 32843), (114, 33047), (115, 33050), (120, 33107), (121, 33110), (122, 33122), (124, 33146), (125, 33164), (126, 33167), (127, 33179), (130, 33212), (133, 33254), (142, 33380), (143, 33383), (151, 33548), (157, 33665), (159, 33674), (164, 33848), (167, 33953), (173, 34064), (176, 34085), (180, 34208), (181, 34214), (182, 34256), (183, 34274), (197, 34418), (199, 34460), (202, 34565),

Gene: Maturis\_85 Start: 31553, Stop: 35449, Start Num: 1

Candidate Starts for Maturis\_85:

(Start: 1 @31553 has 181 MA's), (3, 31634), (5, 31655), (6, 31679), (8, 31724), (9, 31751), (10, 31754), (11, 31766), (12, 31784), (13, 31787), (18, 32006), (20, 32144), (24, 32231), (26, 32279), (31, 32342), (35, 32372), (36, 32399), (37, 32408), (41, 32429), (45, 32483), (48, 32549), (68, 32942), (70, 32975), (77, 33095), (91, 33326), (114, 33530), (115, 33533), (120, 33590), (121, 33593), (122, 33605), (124, 33629), (125, 33647), (126, 33650), (127, 33662), (130, 33695), (133, 33737), (142, 33863), (143, 33866), (151, 34031), (153, 34085), (157, 34145), (159, 34154), (164, 34328), (167, 34433), (173, 34544), (176, 34565), (180, 34688), (181, 34694), (182, 34736), (183, 34754), (190, 34916), (191, 34955), (197, 35081), (199, 35123), (202, 35234),

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

Candidate Starts for McGee\_89:

(Start: 1 @30335 has 181 MA's), (3, 30416), (5, 30437), (6, 30461), (8, 30506), (9, 30533), (10, 30536), (11, 30548), (12, 30566), (13, 30569), (18, 30788), (20, 30926), (24, 31013), (26, 31061), (31, 31124), (35, 31154), (36, 31181), (37, 31190), (40, 31208), (41, 31211), (45, 31265), (48, 31331), (68, 31724), (70, 31757), (77, 31877), (91, 32111), (114, 32315), (115, 32318), (120, 32375), (121, 32378), (122, 32390), (124, 32414), (125, 32432), (126, 32435), (127, 32447), (130, 32480), (133, 32522), (142, 32648), (143, 32651), (151, 32816), (153, 32870), (157, 32933), (159, 32942), (164, 33116), (167, 33221), (173, 33332), (176, 33353), (180, 33476), (181, 33482), (182, 33524), (183, 33542), (197, 33686), (199, 33728), (202, 33833),

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

Candidate Starts for McWolfish\_86:

(Start: 1 @31574 has 181 MA's), (3, 31655), (5, 31676), (6, 31700), (8, 31745), (9, 31772), (10, 31775), (11, 31787), (12, 31805), (13, 31808), (18, 32027), (20, 32165), (24, 32252), (26, 32300), (31, 32363), (35, 32393), (36, 32420), (37, 32429), (40, 32447), (41, 32450), (45, 32504), (48, 32570), (68, 32963), (70, 32996), (77, 33116), (91, 33350), (114, 33554), (115, 33557), (120, 33614), (121, 33617), (122, 33629), (124, 33653), (125, 33671), (126, 33674), (127, 33686), (130, 33719), (133, 33761), (142, 33887), (143, 33890), (151, 34055), (153, 34109), (157, 34172), (159, 34181), (164, 34355), (167, 34460), (173, 34571), (176, 34592), (180, 34715), (181, 34721), (182, 34763), (183, 34781), (197, 34925), (199, 34967), (202, 35072),

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

Candidate Starts for Megamind\_87:

(Start: 1 @31812 has 181 MA's), (3, 31893), (5, 31914), (6, 31938), (8, 31983), (9, 32010), (10, 32013), (11, 32025), (12, 32043), (13, 32046), (18, 32265), (20, 32403), (24, 32490), (26, 32538), (31, 32601), (35, 32631), (36, 32658), (37, 32667), (40, 32685), (41, 32688), (45, 32742), (48, 32808), (68, 33201), (70, 33234), (77, 33354), (91, 33588), (114, 33792), (115, 33795), (120, 33852), (121, 33855), (122, 33867), (124, 33891), (125, 33909), (126, 33912), (127, 33924), (130, 33957), (133, 33999), (142, 34125), (143, 34128), (151, 34293), (153, 34347), (157, 34410), (159, 34419), (164, 34593), (167, 34698), (173, 34809), (176, 34830), (180, 34953), (181, 34959), (182, 35001), (183, 35019), (197, 35163), (199, 35205), (202, 35310),

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

Candidate Starts for Melpomini\_82:

(Start: 1 @29705 has 181 MA's), (3, 29786), (5, 29807), (6, 29831), (8, 29876), (9, 29903), (10, 29906), (11, 29918), (12, 29936), (13, 29939), (18, 30158), (20, 30296), (24, 30383), (26, 30431), (31, 30494), (35, 30524), (36, 30551), (37, 30560), (41, 30581), (45, 30635), (48, 30701), (65, 31079), (68, 31115), (81, 31391), (91, 31502), (114, 31706), (115, 31709), (120, 31766), (121, 31769), (122, 31781), (124, 31805), (125, 31823), (126, 31826), (127, 31838), (130, 31871), (133, 31913), (151, 32054), (153, 32108), (157, 32171), (159, 32180), (164, 32354), (167, 32459), (173, 32570), (176, 32591), (197, 32726), (199, 32768), (202, 32852),

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

Candidate Starts for MikeLiesIn\_89:

(Start: 1 @32159 has 181 MA's), (3, 32240), (5, 32261), (6, 32285), (8, 32330), (9, 32357), (10, 32360), (11, 32372), (12, 32390), (13, 32393), (18, 32612), (20, 32750), (24, 32837), (26, 32885), (31, 32948), (35, 32978), (36, 33005), (37, 33014), (40, 33032), (41, 33035), (45, 33089), (48, 33155), (68, 33548), (70, 33581), (77, 33701), (91, 33935), (114, 34139), (115, 34142), (120, 34199), (121, 34202), (122, 34214), (124, 34238), (125, 34256), (126, 34259), (127, 34271), (130, 34304), (133, 34346), (142, 34472), (143, 34475), (151, 34640), (153, 34694), (157, 34757), (159, 34766), (164, 34940), (167, 35045), (173, 35156), (176, 35177), (180, 35300), (181, 35306), (182, 35348), (183, 35366), (197,

35510), (199, 35552), (202, 35657),

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

Candidate Starts for Mikro\_86:

(Start: 1 @33066 has 181 MA's), (3, 33147), (5, 33168), (6, 33192), (9, 33264), (10, 33267), (11, 33279), (12, 33297), (13, 33300), (18, 33519), (20, 33657), (24, 33744), (26, 33792), (31, 33855), (35, 33885), (36, 33912), (37, 33921), (41, 33942), (45, 33996), (48, 34062), (68, 34455), (70, 34488), (77, 34608), (91, 34842), (114, 35046), (115, 35049), (120, 35106), (121, 35109), (122, 35121), (124, 35145), (125, 35163), (126, 35166), (127, 35178), (130, 35211), (133, 35253), (142, 35379), (143, 35382), (151, 35547), (153, 35601), (157, 35664), (159, 35673), (164, 35847), (167, 35952), (173, 36063), (176, 36084), (180, 36207), (181, 36213), (182, 36255), (183, 36273), (197, 36417), (199, 36459), (202, 36564),

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

Candidate Starts for MoMoMixon\_89:

(Start: 1 @32259 has 181 MA's), (3, 32340), (5, 32361), (6, 32385), (8, 32430), (9, 32457), (10, 32460), (11, 32472), (12, 32490), (13, 32493), (18, 32712), (20, 32850), (24, 32937), (26, 32985), (31, 33048), (35, 33078), (36, 33105), (37, 33114), (41, 33135), (45, 33189), (48, 33255), (65, 33633), (68, 33669), (81, 33945), (91, 34056), (114, 34260), (115, 34263), (120, 34320), (121, 34323), (122, 34335), (124, 34359), (125, 34377), (126, 34380), (127, 34392), (130, 34425), (133, 34467), (151, 34608), (153, 34662), (157, 34722), (159, 34731), (164, 34905), (167, 35010), (173, 35121), (176, 35142), (197, 35277), (199, 35319), (202, 35403),

Gene: Moby\_79 Start: 27808, Stop: 31146, Start Num: 1

Candidate Starts for Moby\_79:

(Start: 1 @27808 has 181 MA's), (3, 27889), (5, 27910), (6, 27934), (8, 27979), (9, 28006), (10, 28009), (11, 28021), (12, 28039), (13, 28042), (18, 28261), (20, 28399), (24, 28486), (26, 28534), (31, 28597), (36, 28654), (37, 28663), (41, 28684), (45, 28738), (48, 28804), (68, 29197), (81, 29473), (91, 29584), (114, 29788), (115, 29791), (120, 29848), (121, 29851), (122, 29863), (124, 29887), (125, 29905), (126, 29908), (127, 29920), (130, 29953), (133, 29995), (151, 30136), (153, 30190), (157, 30250), (159, 30259), (164, 30433), (167, 30538), (173, 30649), (176, 30670), (197, 30805), (199, 30847), (202, 30931),

Gene: Moiqah\_79 Start: 27808, Stop: 31146, Start Num: 1

Candidate Starts for Moiqah\_79:

(Start: 1 @27808 has 181 MA's), (3, 27889), (5, 27910), (6, 27934), (8, 27979), (9, 28006), (10, 28009), (11, 28021), (12, 28039), (13, 28042), (18, 28261), (20, 28399), (24, 28486), (26, 28534), (31, 28597), (36, 28654), (37, 28663), (41, 28684), (45, 28738), (48, 28804), (68, 29197), (81, 29473), (91, 29584), (114, 29788), (115, 29791), (120, 29848), (121, 29851), (122, 29863), (124, 29887), (125, 29905), (126, 29908), (127, 29920), (130, 29953), (133, 29995), (151, 30136), (153, 30190), (157, 30250), (159, 30259), (164, 30433), (167, 30538), (173, 30649), (176, 30670), (197, 30805), (199, 30847), (202, 30931),

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

Candidate Starts for Momo\_87:

(Start: 1 @31151 has 181 MA's), (3, 31232), (5, 31253), (6, 31277), (8, 31322), (9, 31349), (10, 31352), (11, 31364), (12, 31382), (13, 31385), (18, 31604), (20, 31742), (24, 31829), (26, 31877), (31, 31940), (35, 31970), (36, 31997), (37, 32006), (40, 32024), (41, 32027), (45, 32081), (48, 32147), (68, 32540), (70, 32573), (77, 32693), (91, 32927), (114, 33131), (115, 33134), (120, 33191), (121, 33194), (122, 33206), (124, 33230), (125, 33248), (126, 33251), (127, 33263), (130, 33296), (133, 33338), (142, 33464), (143, 33467), (151, 33632), (153, 33686), (157, 33749), (159, 33758), (164, 33932), (167, 34037), (173, 34148), (176, 34169), (180, 34292), (181, 34298), (182, 34340), (183, 34358), (197, 34502), (199, 34544), (202, 34649),

Gene: Montpel\_85 Start: 32994, Stop: 36485, Start Num: 1

Candidate Starts for Montpel\_85:

(Start: 1 @32994 has 181 MA's), (3, 33075), (5, 33096), (6, 33120), (8, 33165), (9, 33192), (10, 33195), (11, 33207), (12, 33225), (13, 33228), (18, 33447), (20, 33585), (24, 33672), (26, 33720), (31, 33783), (35, 33813), (36, 33840), (37, 33849), (41, 33870), (45, 33924), (48, 33990), (68, 34383), (70, 34416), (77, 34536), (91, 34767), (114, 34971), (115, 34974), (120, 35031), (121, 35034), (122, 35046), (124, 35070), (125, 35088), (126, 35091), (127, 35103), (130, 35136), (133, 35178), (142, 35304), (143, 35307), (151, 35472), (157, 35589), (159, 35598), (164, 35772), (167, 35877), (173, 35988), (176, 36009), (197, 36144), (199, 36186), (202, 36270),

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

Candidate Starts for Morizzled23\_88:

(Start: 1 @31225 has 181 MA's), (3, 31306), (5, 31327), (6, 31351), (8, 31396), (9, 31423), (10, 31426), (11, 31438), (12, 31456), (13, 31459), (18, 31678), (20, 31816), (24, 31903), (26, 31951), (31, 32014), (35, 32044), (36, 32071), (37, 32080), (41, 32101), (45, 32155), (48, 32221), (65, 32599), (68, 32635), (81, 32911), (91, 33022), (114, 33226), (115, 33229), (120, 33286), (121, 33289), (122, 33301), (124, 33325), (125, 33343), (126, 33346), (127, 33358), (130, 33391), (133, 33433), (151, 33574), (153, 33628), (157, 33691), (159, 33700), (164, 33874), (167, 33979), (173, 34090), (176, 34111), (197, 34246), (199, 34288), (202, 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), (17, 34063), (22, 34345), (23, 34381), (27, 34480), (39, 34585), (66, 35089), (76, 35221), (79, 35311), (80, 35359), (82, 35371), (103, 35614), (122, 35785), (124, 35809), (128, 35848), (130, 35875), (131, 35893), (133, 35917), (136, 35932), (137, 35938), (139, 35959), (140, 36061), (141, 36118), (154, 36403), (157, 36448), (165, 36667), (167, 36733), (170, 36811), (172, 36835), (173, 36847), (175, 36853), (189, 36997), (196, 37153), (202, 37342),

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

Candidate Starts for Naija\_87:

(Start: 1 @31151 has 181 MA's), (3, 31232), (5, 31253), (6, 31277), (8, 31322), (9, 31349), (10, 31352), (11, 31364), (12, 31382), (13, 31385), (18, 31604), (20, 31742), (24, 31829), (26, 31877), (31, 31940), (35, 31970), (36, 31997), (37, 32006), (40, 32024), (41, 32027), (45, 32081), (48, 32147), (68, 32540), (70, 32573), (77, 32693), (91, 32927), (114, 33131), (115, 33134), (120, 33191), (121, 33194), (122, 33206), (124, 33230), (125, 33248), (126, 33251), (127, 33263), (130, 33296), (133, 33338), (142, 33464), (143, 33467), (151, 33632), (153, 33686), (157, 33749), (159, 33758), (164, 33932), (167, 34037), (173, 34148), (176, 34169), (180, 34292), (181, 34298), (182, 34340), (183, 34358), (197, 34502), (199, 34544), (202, 34649),

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

Candidate Starts for Napoleon13\_84:

(Start: 1 @29954 has 181 MA's), (3, 30035), (5, 30056), (6, 30080), (8, 30125), (9, 30152), (10, 30155), (11, 30167), (12, 30185), (13, 30188), (18, 30407), (20, 30545), (24, 30632), (26, 30680), (31, 30743), (35, 30773), (36, 30800), (37, 30809), (40, 30827), (41, 30830), (45, 30884), (48, 30950), (68, 31343), (70, 31376), (77, 31496), (91, 31730), (114, 31934), (115, 31937), (120, 31994), (121, 31997), (122, 32009), (124, 32033), (125, 32051), (126, 32054), (127, 32066), (130, 32099), (133, 32141), (142, 32267), (143, 32270), (151, 32435), (153, 32489), (157, 32552), (159, 32561), (164, 32735), (167, 32840), (173, 32951), (176, 32972), (180, 33095), (181, 33101), (182, 33143), (183, 33161), (197, 33305), (199, 33347), (202, 33452),

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

Candidate Starts for Nappy\_89:

(Start: 1 @32448 has 181 MA's), (3, 32529), (5, 32550), (6, 32574), (8, 32619), (9, 32646), (10, 32649), (11, 32661), (12, 32679), (13, 32682), (18, 32901), (20, 33039), (24, 33126), (26, 33174), (31, 33237), (35, 33267), (36, 33294), (37, 33303), (41, 33324), (45, 33378), (48, 33444), (68, 33837), (70, 33870), (77, 33990), (91, 34221), (114, 34425), (115, 34428), (120, 34485), (121, 34488), (122, 34500), (124, 34524), (125, 34542), (126, 34545), (127, 34557), (130, 34590), (133, 34632), (142, 34758), (143, 34761), (151, 34926), (153, 34980), (157, 35043), (159, 35052), (164, 35226), (167, 35331), (173, 35442), (176, 35463), (197, 35598), (199, 35640), (202, 35745),

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

Candidate Starts for Naval22\_93:

(Start: 1 @33750 has 181 MA's), (3, 33831), (5, 33852), (6, 33876), (8, 33921), (9, 33948), (10, 33951), (11, 33963), (12, 33981), (13, 33984), (18, 34203), (20, 34341), (24, 34428), (26, 34476), (31, 34539), (35, 34569), (36, 34596), (37, 34605), (40, 34623), (41, 34626), (45, 34680), (48, 34746), (68, 35139), (70, 35172), (77, 35292), (91, 35526), (114, 35730), (115, 35733), (120, 35790), (121, 35793), (122, 35805), (124, 35829), (125, 35847), (126, 35850), (127, 35862), (130, 35895), (133, 35937), (142, 36063), (143, 36066), (151, 36231), (153, 36285), (157, 36348), (159, 36357), (164, 36531), (167, 36636), (173, 36747), (176, 36768), (180, 36891), (181, 36897), (182, 36939), (183, 36957), (197, 37101), (199, 37143), (202, 37248),

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

Candidate Starts for NedWong\_89:

(Start: 1 @32146 has 181 MA's), (3, 32227), (5, 32248), (6, 32272), (8, 32317), (9, 32344), (10, 32347), (11, 32359), (12, 32377), (13, 32380), (18, 32599), (20, 32737), (24, 32824), (26, 32872), (31, 32935), (35, 32965), (36, 32992), (37, 33001), (40, 33019), (41, 33022), (45, 33076), (48, 33142), (68, 33535), (70, 33568), (77, 33688), (91, 33922), (114, 34126), (115, 34129), (120, 34186), (121, 34189), (122, 34201), (124, 34225), (125, 34243), (126, 34246), (127, 34258), (130, 34291), (133, 34333), (142, 34459), (143, 34462), (151, 34627), (153, 34681), (157, 34744), (159, 34753), (164, 34927), (167, 35032), (173, 35143), (176, 35164), (180, 35287), (181, 35293), (182, 35335), (183, 35353), (197, 35497), (199, 35539), (202, 35644),

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

Candidate Starts for Ngannou\_84:

(Start: 1 @30133 has 181 MA's), (3, 30214), (5, 30235), (6, 30259), (8, 30304), (9, 30331), (10, 30334), (11, 30346), (12, 30364), (13, 30367), (18, 30586), (20, 30724), (24, 30811), (26, 30859), (31, 30922), (35, 30952), (36, 30979), (37, 30988), (40, 31006), (41, 31009), (45, 31063), (48, 31129), (68, 31522), (70, 31555), (77, 31675), (91, 31909), (114, 32113), (115, 32116), (120, 32173), (121, 32176), (122, 32188), (124, 32212), (125, 32230), (126, 32233), (127, 32245), (130, 32278), (133, 32320), (142, 32446), (143, 32449), (151, 32614), (153, 32668), (157, 32731), (159, 32740), (164, 32914), (167, 33019), (173, 33130), (176, 33151), (180, 33274), (181, 33280), (182, 33322), (183, 33340), (197, 33484), (199, 33526), (202, 33631),

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

Candidate Starts for Nidhogg\_89:

(Start: 1 @32000 has 181 MA's), (3, 32081), (5, 32102), (6, 32126), (8, 32171), (9, 32198), (10, 32201), (11, 32213), (12, 32231), (13, 32234), (18, 32453), (20, 32591), (24, 32678), (26, 32726), (31, 32789), (35, 32819), (36, 32846), (37, 32855), (40, 32873), (41, 32876), (45, 32930), (48, 32996), (68, 33389), (70, 33422), (77, 33542), (91, 33776), (114, 33980), (115, 33983), (120, 34040), (121, 34043), (122, 34055), (124, 34079), (125, 34097), (126, 34100), (127, 34112), (130, 34145), (133, 34187), (142, 34313), (143, 34316), (151, 34481), (153, 34535), (157, 34598), (159, 34607), (164, 34781), (167, 34886), (173, 34997), (176, 35018), (180, 35141), (181, 35147), (182, 35189), (183, 35207), (197, 35351), (199, 35393), (202, 35498),

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

Candidate Starts for NoodleTree\_96:

(Start: 1 @33177 has 181 MA's), (3, 33258), (5, 33279), (6, 33303), (8, 33348), (9, 33375), (10, 33378), (11, 33390), (12, 33408), (13, 33411), (18, 33630), (20, 33768), (24, 33855), (26, 33903), (31, 33966), (35, 33996), (36, 34023), (37, 34032), (40, 34050), (41, 34053), (45, 34107), (48, 34173), (68, 34566), (70, 34599), (77, 34719), (91, 34953), (114, 35157), (115, 35160), (120, 35217), (121, 35220), (122, 35232), (124, 35256), (125, 35274), (126, 35277), (127, 35289), (130, 35322), (133, 35364), (142, 35490), (143, 35493), (151, 35658), (153, 35712), (157, 35775), (159, 35784), (164, 35958), (167, 36063), (173, 36174), (176, 36195), (180, 36318), (181, 36324), (182, 36366), (183, 36384), (197, 36528), (199, 36570), (202, 36675),

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

Candidate Starts for Norm\_89:

(Start: 1 @32148 has 181 MA's), (3, 32229), (5, 32250), (6, 32274), (8, 32319), (9, 32346), (10, 32349), (11, 32361), (12, 32379), (13, 32382), (18, 32601), (20, 32739), (24, 32826), (26, 32874), (31, 32937), (35, 32967), (36, 32994), (37, 33003), (40, 33021), (41, 33024), (45, 33078), (48, 33144), (68, 33537), (70, 33570), (77, 33690), (91, 33924), (114, 34128), (115, 34131), (120, 34188), (121, 34191), (122, 34203), (124, 34227), (125, 34245), (126, 34248), (127, 34260), (130, 34293), (133, 34335), (142, 34461), (143, 34464), (151, 34629), (153, 34683), (157, 34746), (159, 34755), (164, 34929), (167, 35034), (173, 35145), (176, 35166), (180, 35289), (181, 35295), (182, 35337), (183, 35355), (197, 35499), (199, 35541), (202, 35646),

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

Candidate Starts for NuevoMundo\_94:

(Start: 1 @34107 has 181 MA's), (3, 34188), (5, 34209), (6, 34233), (8, 34278), (9, 34305), (10, 34308), (11, 34320), (12, 34338), (13, 34341), (18, 34560), (20, 34698), (24, 34785), (26, 34833), (31, 34896), (35, 34926), (36, 34953), (37, 34962), (40, 34980), (41, 34983), (45, 35037), (48, 35103), (68, 35496), (70, 35529), (77, 35649), (91, 35883), (114, 36087), (115, 36090), (120, 36147), (121, 36150), (122, 36162), (124, 36186), (125, 36204), (126, 36207), (127, 36219), (130, 36252), (133, 36294), (142, 36420), (143, 36423), (151, 36588), (153, 36642), (157, 36705), (159, 36714), (164, 36888), (167, 36993), (173, 37104), (176, 37125), (180, 37248), (181, 37254), (182, 37296), (183, 37314), (197, 37458), (199, 37500), (202, 37605),

Gene: OrediggerDelux\_86 Start: 32148, Stop: 35858, Start Num: 1

Candidate Starts for OrediggerDelux\_86:

(Start: 1 @32148 has 181 MA's), (3, 32229), (5, 32250), (6, 32274), (8, 32319), (9, 32346), (10, 32349), (11, 32361), (12, 32379), (13, 32382), (18, 32601), (20, 32739), (24, 32826), (26, 32874), (31, 32937), (35, 32967), (36, 32994), (37, 33003), (41, 33024), (45, 33078), (48, 33144), (68, 33537), (70, 33570), (77, 33690), (91, 33921), (114, 34125), (115, 34128), (120, 34185), (121, 34188), (122, 34200), (124, 34224), (125, 34242), (126, 34245), (127, 34257), (130, 34290), (133, 34332), (142, 34458), (143, 34461), (151, 34626), (153, 34680), (157, 34743), (159, 34752), (164, 34926), (167, 35031), (173, 35142), (176, 35163), (180, 35286), (181, 35292), (182, 35334), (183, 35352), (197, 35496), (199, 35538), (202, 35643),

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

Candidate Starts for ParkTD\_89:

(Start: 1 @32142 has 181 MA's), (3, 32223), (5, 32244), (6, 32268), (8, 32313), (9, 32340), (10, 32343), (11, 32355), (12, 32373), (13, 32376), (18, 32595), (20, 32733), (24, 32820), (26, 32868), (31, 32931), (35, 32961), (36, 32988), (37, 32997), (40, 33015), (41, 33018), (45, 33072), (48, 33138), (68, 33531), (70, 33564), (77, 33684), (91, 33918), (114, 34122), (115, 34125), (120, 34182), (121, 34185), (122, 34197), (124, 34221), (125, 34239), (126, 34242), (127, 34254), (130, 34287), (133, 34329), (142, 34455), (143, 34458), (151, 34623), (153, 34677), (157, 34740), (159, 34749), (164, 34923), (167, 35028), (173, 35139), (176, 35160), (180, 35283), (181, 35289), (182, 35331), (183, 35349), (197,

35493), (199, 35535), (202, 35640),

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

Candidate Starts for Patter\_88:

(Start: 1 @31168 has 181 MA's), (3, 31249), (5, 31270), (6, 31294), (8, 31339), (9, 31366), (10, 31369), (11, 31381), (12, 31399), (13, 31402), (18, 31621), (20, 31759), (24, 31846), (26, 31894), (31, 31957), (35, 31987), (36, 32014), (37, 32023), (40, 32041), (41, 32044), (45, 32098), (48, 32164), (68, 32557), (70, 32590), (77, 32710), (91, 32944), (114, 33148), (115, 33151), (120, 33208), (121, 33211), (122, 33223), (124, 33247), (125, 33265), (126, 33268), (127, 33280), (130, 33313), (133, 33355), (142, 33481), (143, 33484), (151, 33649), (153, 33703), (157, 33766), (159, 33775), (164, 33949), (167, 34054), (173, 34165), (176, 34186), (180, 34309), (181, 34315), (182, 34357), (183, 34375), (197, 34519), (199, 34561), (202, 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), (17, 33584), (22, 33731), (23, 33767), (33, 33908), (57, 34295), (66, 34499), (72, 34571), (76, 34631), (79, 34721), (80, 34769), (82, 34781), (88, 34883), (89, 34889), (92, 34910), (93, 34916), (122, 35183), (124, 35207), (128, 35246), (130, 35273), (131, 35291), (133, 35315), (138, 35351), (158, 35687), (162, 35825), (165, 35903), (167, 35969), (170, 36047), (172, 36071), (173, 36083), (175, 36089), (189, 36233), (202, 36425),

Gene: PharkleMinkus\_93 Start: 33591, Stop: 37304, Start Num: 1

Candidate Starts for PharkleMinkus\_93:

(Start: 1 @33591 has 181 MA's), (3, 33672), (5, 33693), (6, 33717), (9, 33789), (10, 33792), (11, 33804), (12, 33822), (13, 33825), (18, 34044), (20, 34182), (24, 34269), (26, 34317), (31, 34380), (35, 34410), (36, 34437), (37, 34446), (41, 34467), (45, 34521), (48, 34587), (68, 34980), (70, 35013), (77, 35133), (91, 35367), (114, 35571), (115, 35574), (120, 35631), (121, 35634), (122, 35646), (124, 35670), (125, 35688), (126, 35691), (127, 35703), (130, 35736), (133, 35778), (142, 35904), (143, 35907), (151, 36072), (153, 36126), (157, 36189), (159, 36198), (164, 36372), (167, 36477), (173, 36588), (176, 36609), (180, 36732), (181, 36738), (182, 36780), (183, 36798), (197, 36942), (199, 36984), (202, 37089),

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

Candidate Starts for Phlegm\_90:

(Start: 1 @31151 has 181 MA's), (3, 31232), (5, 31253), (6, 31277), (8, 31322), (9, 31349), (10, 31352), (11, 31364), (12, 31382), (13, 31385), (18, 31604), (20, 31742), (24, 31829), (26, 31877), (31, 31940), (35, 31970), (36, 31997), (37, 32006), (40, 32024), (41, 32027), (45, 32081), (48, 32147), (68, 32540), (70, 32573), (77, 32693), (91, 32927), (114, 33131), (115, 33134), (120, 33191), (121, 33194), (122, 33206), (124, 33230), (125, 33248), (126, 33251), (127, 33263), (130, 33296), (133, 33338), (142, 33464), (143, 33467), (151, 33632), (153, 33686), (157, 33749), (159, 33758), (164, 33932), (167, 34037), (173, 34148), (176, 34169), (180, 34292), (181, 34298), (182, 34340), (183, 34358), (197, 34502), (199, 34544), (202, 34649),

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

Candidate Starts for Phox\_85:

(Start: 1 @32036 has 181 MA's), (3, 32117), (5, 32138), (6, 32162), (8, 32207), (9, 32234), (10, 32237), (11, 32249), (12, 32267), (13, 32270), (18, 32489), (20, 32627), (24, 32714), (26, 32762), (31, 32825), (35, 32855), (36, 32882), (37, 32891), (41, 32912), (45, 32966), (48, 33032), (65, 33380), (68, 33416), (81, 33692), (91, 33803), (114, 34007), (115, 34010), (120, 34067), (121, 34070), (122, 34082), (124, 34106), (125, 34124), (126, 34127), (127, 34139), (130, 34172), (133, 34214), (142, 34340), (143, 34343), (151, 34508), (157, 34625), (159, 34634), (164, 34808), (167, 34913), (173, 35024), (176, 35045), (177, 35108), (178, 35174), (179, 35180), (184, 35273), (197, 35405), (199, 35447), (202,

35531),

Gene: Phrappuccino\_44 Start: 23839, Stop: 26178, Start Num: 30

Candidate Starts for Phrappuccino\_44:

(Start: 30 @23839 has 6 MA's), (34, 23869), (44, 23968), (47, 24025), (49, 24067), (50, 24070), (52, 24079), (55, 24151), (63, 24334), (67, 24418), (69, 24454), (71, 24472), (83, 24724), (84, 24742), (85, 24745), (90, 24793), (93, 24814), (94, 24817), (96, 24856), (97, 24877), (99, 24886), (101, 24898), (102, 24919), (105, 24931), (107, 24940), (108, 24952), (109, 24964), (111, 24973), (112, 24985), (113, 24997), (115, 25006), (116, 25018), (117, 25027), (118, 25054), (119, 25057), (123, 25090), (144, 25309), (149, 25408), (150, 25423), (152, 25492), (155, 25561), (156, 25564), (161, 25747), (166, 25876), (168, 25927), (171, 25978), (186, 26098), (188, 26107),

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

Candidate Starts for Phusco\_88:

(Start: 1 @31919 has 181 MA's), (3, 32000), (5, 32021), (6, 32045), (8, 32090), (9, 32117), (10, 32120), (11, 32132), (12, 32150), (13, 32153), (18, 32372), (20, 32510), (24, 32597), (26, 32645), (31, 32708), (35, 32738), (36, 32765), (37, 32774), (41, 32795), (45, 32849), (48, 32915), (68, 33308), (70, 33341), (77, 33461), (91, 33692), (114, 33896), (115, 33899), (120, 33956), (121, 33959), (122, 33971), (124, 33995), (125, 34013), (126, 34016), (127, 34028), (130, 34061), (133, 34103), (142, 34229), (143, 34232), (151, 34397), (157, 34514), (159, 34523), (164, 34697), (167, 34802), (173, 34913), (176, 34934), (180, 35057), (181, 35063), (182, 35105), (183, 35123), (197, 35267), (199, 35309), (202, 35414),

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

Candidate Starts for Pier\_92:

(Start: 1 @32339 has 181 MA's), (3, 32420), (5, 32441), (6, 32465), (9, 32537), (10, 32540), (11, 32552), (12, 32570), (13, 32573), (18, 32792), (20, 32930), (24, 33017), (26, 33065), (31, 33128), (35, 33158), (36, 33185), (37, 33194), (40, 33212), (41, 33215), (45, 33269), (48, 33335), (68, 33728), (70, 33761), (77, 33881), (91, 34115), (114, 34319), (115, 34322), (120, 34379), (121, 34382), (122, 34394), (124, 34418), (125, 34436), (126, 34439), (127, 34451), (130, 34484), (133, 34526), (142, 34652), (143, 34655), (151, 34820), (153, 34874), (157, 34937), (159, 34946), (164, 35120), (167, 35225), (173, 35336), (176, 35357), (180, 35480), (181, 35486), (182, 35528), (183, 35546), (197, 35690), (199, 35732), (202, 35837),

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

Candidate Starts for Pinkcreek\_79:

(Start: 1 @29119 has 181 MA's), (3, 29200), (5, 29221), (6, 29245), (8, 29290), (9, 29317), (10, 29320), (11, 29332), (12, 29350), (13, 29353), (18, 29572), (20, 29710), (24, 29797), (26, 29845), (31, 29908), (35, 29938), (36, 29965), (37, 29974), (41, 29995), (45, 30049), (48, 30115), (65, 30463), (68, 30499), (81, 30775), (91, 30886), (114, 31090), (115, 31093), (120, 31150), (121, 31153), (122, 31165), (124, 31189), (125, 31207), (126, 31210), (127, 31222), (130, 31255), (133, 31297), (142, 31423), (143, 31426), (151, 31591), (157, 31708), (159, 31717), (164, 31891), (167, 31996), (173, 32107), (176, 32128), (177, 32191), (178, 32257), (179, 32263), (184, 32356), (197, 32488), (199, 32530), (202, 32614),

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

Candidate Starts for Pio\_92:

(Start: 1 @33075 has 181 MA's), (3, 33156), (5, 33177), (6, 33201), (8, 33246), (9, 33273), (10, 33276), (11, 33288), (12, 33306), (13, 33309), (18, 33528), (20, 33666), (24, 33753), (26, 33801), (31, 33864), (35, 33894), (36, 33921), (37, 33930), (40, 33948), (41, 33951), (45, 34005), (48, 34071), (68, 34464), (70, 34497), (77, 34617), (91, 34851), (114, 35055), (115, 35058), (120, 35115), (121, 35118), (122, 35130), (124, 35154), (125, 35172), (126, 35175), (127, 35187), (130, 35220), (133, 35262), (142, 35388), (143, 35391), (151, 35556), (153, 35610), (157, 35673), (159, 35682), (164, 35856), (167,

35961), (173, 36072), (176, 36093), (180, 36216), (181, 36222), (182, 36264), (183, 36282), (197, 36426), (199, 36468), (202, 36573),

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

Candidate Starts for Pivoine\_87:

(Start: 1 @31151 has 181 MA's), (3, 31232), (5, 31253), (6, 31277), (8, 31322), (9, 31349), (10, 31352), (11, 31364), (12, 31382), (13, 31385), (18, 31604), (20, 31742), (24, 31829), (26, 31877), (31, 31940), (35, 31970), (36, 31997), (37, 32006), (40, 32024), (41, 32027), (45, 32081), (48, 32147), (68, 32540), (70, 32573), (77, 32693), (91, 32927), (114, 33131), (115, 33134), (120, 33191), (121, 33194), (122, 33206), (124, 33230), (125, 33248), (126, 33251), (127, 33263), (130, 33296), (133, 33338), (142, 33464), (143, 33467), (151, 33632), (153, 33686), (157, 33749), (159, 33758), (164, 33932), (167, 34037), (173, 34148), (176, 34169), (180, 34292), (181, 34298), (182, 34340), (183, 34358), (197, 34502), (199, 34544), (202, 34649),

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

Candidate Starts for Pleione\_91:

(Start: 1 @32145 has 181 MA's), (3, 32226), (5, 32247), (6, 32271), (8, 32316), (9, 32343), (10, 32346), (11, 32358), (12, 32376), (13, 32379), (18, 32598), (20, 32736), (24, 32823), (26, 32871), (31, 32934), (35, 32964), (36, 32991), (37, 33000), (40, 33018), (41, 33021), (45, 33075), (48, 33141), (68, 33534), (70, 33567), (77, 33687), (91, 33921), (114, 34125), (115, 34128), (120, 34185), (121, 34188), (122, 34200), (124, 34224), (125, 34242), (126, 34245), (127, 34257), (130, 34290), (133, 34332), (142, 34458), (143, 34461), (151, 34626), (153, 34680), (157, 34743), (159, 34752), (164, 34926), (167, 35031), (173, 35142), (176, 35163), (180, 35286), (181, 35292), (182, 35334), (183, 35352), (197, 35496), (199, 35538), (202, 35643),

Gene: Primadonna\_82 Start: 31040, Stop: 34750, Start Num: 1

Candidate Starts for Primadonna\_82:

(Start: 1 @31040 has 181 MA's), (3, 31121), (5, 31142), (6, 31166), (8, 31211), (9, 31238), (10, 31241), (11, 31253), (12, 31271), (13, 31274), (18, 31493), (20, 31631), (24, 31718), (26, 31766), (31, 31829), (35, 31859), (36, 31886), (37, 31895), (41, 31916), (45, 31970), (48, 32036), (68, 32429), (70, 32462), (77, 32582), (91, 32813), (114, 33017), (115, 33020), (120, 33077), (121, 33080), (122, 33092), (124, 33116), (125, 33134), (126, 33137), (127, 33149), (130, 33182), (133, 33224), (142, 33350), (143, 33353), (151, 33518), (157, 33635), (159, 33644), (164, 33818), (167, 33923), (173, 34034), (176, 34055), (180, 34178), (181, 34184), (182, 34226), (183, 34244), (197, 34388), (199, 34430), (202, 34535),

Gene: Pupper\_86 Start: 33513, Stop: 36311, Start Num: 30

Candidate Starts for Pupper\_86:

(Start: 30 @33513 has 6 MA's), (40, 33594), (42, 33606), (46, 33684), (51, 33747), (53, 33756), (54, 33768), (56, 33831), (59, 33990), (60, 33996), (66, 34101), (104, 34590), (106, 34593), (110, 34626), (132, 34863), (134, 34887), (137, 34899), (146, 34983), (147, 35034), (169, 35625), (170, 35631), (174, 35670), (175, 35673), (187, 35769), (194, 35913), (198, 35985), (200, 36054), (201, 36075), (202, 36114), (204, 36210), (205, 36225),

Gene: Pupusa\_93 Start: 33958, Stop: 37671, Start Num: 1

Candidate Starts for Pupusa\_93:

(Start: 1 @33958 has 181 MA's), (3, 34039), (5, 34060), (6, 34084), (9, 34156), (10, 34159), (11, 34171), (12, 34189), (13, 34192), (18, 34411), (20, 34549), (24, 34636), (26, 34684), (31, 34747), (35, 34777), (36, 34804), (37, 34813), (41, 34834), (45, 34888), (48, 34954), (68, 35347), (70, 35380), (77, 35500), (91, 35734), (114, 35938), (115, 35941), (120, 35998), (121, 36001), (122, 36013), (124, 36037), (125, 36055), (126, 36058), (127, 36070), (130, 36103), (133, 36145), (142, 36271), (143, 36274), (151, 36439), (153, 36493), (157, 36556), (159, 36565), (164, 36739), (167, 36844), (173, 36955), (176, 36976), (180, 37099), (181, 37105), (182, 37147), (183, 37165), (197, 37309), (199,

37351), (202, 37456),

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

Candidate Starts for PurduePete\_88:

(Start: 1 @32190 has 181 MA's), (3, 32271), (5, 32292), (6, 32316), (8, 32361), (9, 32388), (10, 32391), (11, 32403), (12, 32421), (13, 32424), (18, 32643), (20, 32781), (24, 32868), (26, 32916), (31, 32979), (35, 33009), (36, 33036), (37, 33045), (40, 33063), (41, 33066), (45, 33120), (48, 33186), (68, 33579), (70, 33612), (77, 33732), (91, 33966), (114, 34170), (115, 34173), (120, 34230), (121, 34233), (122, 34245), (124, 34269), (125, 34287), (126, 34290), (127, 34302), (130, 34335), (133, 34377), (142, 34503), (143, 34506), (151, 34671), (153, 34725), (157, 34788), (159, 34797), (164, 34971), (167, 35076), (173, 35187), (176, 35208), (180, 35331), (181, 35337), (182, 35379), (183, 35397), (197, 35541), (199, 35583), (202, 35688),

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

Candidate Starts for QBert\_82:

(Start: 1 @31642 has 181 MA's), (3, 31723), (5, 31744), (6, 31768), (8, 31813), (9, 31840), (10, 31843), (11, 31855), (12, 31873), (13, 31876), (18, 32095), (20, 32233), (24, 32320), (26, 32368), (31, 32431), (35, 32461), (36, 32488), (37, 32497), (41, 32518), (45, 32572), (48, 32638), (68, 33031), (70, 33064), (77, 33184), (91, 33418), (114, 33622), (115, 33625), (120, 33682), (121, 33685), (122, 33697), (124, 33721), (125, 33739), (126, 33742), (127, 33754), (130, 33787), (133, 33829), (142, 33955), (143, 33958), (151, 34123), (157, 34240), (159, 34249), (164, 34423), (167, 34528), (173, 34639), (176, 34660), (180, 34783), (181, 34789), (182, 34831), (183, 34849), (197, 34993), (199, 35035), (202, 35140),

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

Candidate Starts for Quasimodo\_88:

(Start: 1 @32074 has 181 MA's), (3, 32155), (5, 32176), (6, 32200), (8, 32245), (9, 32272), (10, 32275), (11, 32287), (12, 32305), (13, 32308), (18, 32527), (20, 32665), (24, 32752), (26, 32800), (31, 32863), (35, 32893), (36, 32920), (37, 32929), (41, 32950), (45, 33004), (48, 33070), (68, 33463), (70, 33496), (81, 33742), (91, 33853), (114, 34057), (115, 34060), (120, 34117), (121, 34120), (122, 34132), (124, 34156), (125, 34174), (126, 34177), (127, 34189), (130, 34222), (133, 34264), (151, 34405), (153, 34459), (157, 34519), (159, 34528), (164, 34702), (167, 34807), (173, 34918), (176, 34939), (197, 35074), (199, 35116), (202, 35200),

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

Candidate Starts for Rabinovish\_85:

(Start: 1 @32386 has 181 MA's), (3, 32467), (5, 32488), (6, 32512), (8, 32557), (9, 32584), (10, 32587), (11, 32599), (12, 32617), (13, 32620), (18, 32839), (20, 32977), (24, 33064), (26, 33112), (31, 33175), (35, 33205), (36, 33232), (37, 33241), (41, 33262), (45, 33316), (48, 33382), (65, 33730), (68, 33766), (81, 34042), (91, 34153), (114, 34357), (115, 34360), (120, 34417), (121, 34420), (122, 34432), (124, 34456), (125, 34474), (126, 34477), (127, 34489), (130, 34522), (133, 34564), (151, 34705), (153, 34759), (157, 34822), (159, 34831), (164, 35005), (167, 35110), (173, 35221), (176, 35242), (197, 35377), (199, 35419), (202, 35503),

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

Candidate Starts for Rahel\_87:

(Start: 1 @30707 has 181 MA's), (3, 30788), (5, 30809), (6, 30833), (8, 30878), (9, 30905), (10, 30908), (11, 30920), (12, 30938), (13, 30941), (18, 31160), (20, 31298), (24, 31385), (26, 31433), (31, 31496), (35, 31526), (36, 31553), (37, 31562), (41, 31583), (45, 31637), (48, 31703), (68, 32096), (70, 32129), (77, 32249), (91, 32480), (114, 32684), (115, 32687), (120, 32744), (121, 32747), (122, 32759), (124, 32783), (125, 32801), (126, 32804), (127, 32816), (130, 32849), (133, 32891), (142, 33017), (143, 33020), (151, 33185), (157, 33302), (159, 33311), (164, 33485), (167, 33590), (173, 33701), (176, 33722), (180, 33845), (181, 33851), (182, 33893), (183, 33911), (197, 34055), (199, 34097), (202,

34202),

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

Candidate Starts for Rizal\_86:

(Start: 1 @31063 has 181 MA's), (3, 31144), (5, 31165), (6, 31189), (8, 31234), (9, 31261), (10, 31264), (11, 31276), (12, 31294), (13, 31297), (18, 31516), (20, 31654), (24, 31741), (26, 31789), (31, 31852), (35, 31882), (36, 31909), (37, 31918), (40, 31936), (41, 31939), (45, 31993), (48, 32059), (68, 32452), (70, 32485), (77, 32605), (91, 32839), (114, 33043), (115, 33046), (120, 33103), (121, 33106), (122, 33118), (124, 33142), (125, 33160), (126, 33163), (127, 33175), (130, 33208), (133, 33250), (142, 33376), (143, 33379), (151, 33544), (153, 33598), (157, 33661), (159, 33670), (164, 33844), (167, 33949), (173, 34060), (176, 34081), (180, 34204), (181, 34210), (182, 34252), (183, 34270), (197, 34414), (199, 34456), (202, 34561),

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

Candidate Starts for RoMag\_83:

(Start: 1 @31501 has 181 MA's), (3, 31582), (5, 31603), (6, 31627), (9, 31699), (10, 31702), (11, 31714), (12, 31732), (13, 31735), (18, 31954), (20, 32092), (24, 32179), (26, 32227), (31, 32290), (35, 32320), (36, 32347), (37, 32356), (41, 32377), (45, 32431), (48, 32497), (68, 32890), (70, 32923), (77, 33043), (91, 33277), (114, 33481), (115, 33484), (120, 33541), (121, 33544), (122, 33556), (124, 33580), (125, 33598), (126, 33601), (127, 33613), (130, 33646), (133, 33688), (142, 33814), (143, 33817), (151, 33982), (153, 34036), (157, 34099), (159, 34108), (164, 34282), (167, 34387), (173, 34498), (176, 34519), (180, 34642), (181, 34648), (182, 34690), (183, 34708), (197, 34852), (199, 34894), (202, 34999),

Gene: Rocha\_87 Start: 31588, Stop: 35301, Start Num: 1

Candidate Starts for Rocha\_87:

(Start: 1 @31588 has 181 MA's), (3, 31669), (5, 31690), (6, 31714), (9, 31786), (10, 31789), (11, 31801), (12, 31819), (13, 31822), (18, 32041), (20, 32179), (24, 32266), (26, 32314), (31, 32377), (35, 32407), (36, 32434), (37, 32443), (41, 32464), (45, 32518), (48, 32584), (68, 32977), (70, 33010), (77, 33130), (91, 33364), (114, 33568), (115, 33571), (120, 33628), (121, 33631), (122, 33643), (124, 33667), (125, 33685), (126, 33688), (127, 33700), (130, 33733), (133, 33775), (142, 33901), (143, 33904), (151, 34069), (153, 34123), (157, 34186), (159, 34195), (164, 34369), (167, 34474), (173, 34585), (176, 34606), (180, 34729), (181, 34735), (182, 34777), (183, 34795), (197, 34939), (199, 34981), (202, 35086),

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

Candidate Starts for Ronan\_81:

(Start: 1 @28948 has 181 MA's), (3, 29029), (5, 29050), (6, 29074), (8, 29119), (9, 29146), (10, 29149), (11, 29161), (12, 29179), (13, 29182), (18, 29401), (20, 29539), (24, 29626), (26, 29674), (31, 29737), (35, 29767), (36, 29794), (37, 29803), (41, 29824), (45, 29878), (48, 29944), (68, 30337), (70, 30370), (77, 30490), (91, 30724), (114, 30928), (115, 30931), (120, 30988), (121, 30991), (122, 31003), (124, 31027), (125, 31045), (126, 31048), (127, 31060), (130, 31093), (133, 31135), (142, 31261), (143, 31264), (151, 31429), (157, 31546), (159, 31555), (164, 31729), (167, 31834), (173, 31945), (176, 31966), (180, 32089), (181, 32095), (182, 32137), (183, 32155), (197, 32299), (199, 32341), (202, 32446),

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

Candidate Starts for Roots515\_87:

(Start: 1 @31568 has 181 MA's), (3, 31649), (5, 31670), (6, 31694), (8, 31739), (9, 31766), (10, 31769), (11, 31781), (12, 31799), (13, 31802), (18, 32021), (20, 32159), (24, 32246), (26, 32294), (31, 32357), (35, 32387), (36, 32414), (37, 32423), (40, 32441), (41, 32444), (45, 32498), (48, 32564), (68, 32957), (70, 32990), (77, 33110), (91, 33344), (114, 33548), (115, 33551), (120, 33608), (121, 33611), (122, 33623), (124, 33647), (125, 33665), (126, 33668), (127, 33680), (130, 33713), (133, 33755), (142,

33881), (143, 33884), (151, 34049), (153, 34103), (157, 34166), (159, 34175), (164, 34349), (167, 34454), (173, 34565), (176, 34586), (180, 34709), (181, 34715), (182, 34757), (183, 34775), (197, 34919), (199, 34961), (202, 35066),

Gene: SCentae\_84 Start: 33187, Stop: 35985, Start Num: 30

Candidate Starts for SCentae\_84:

(Start: 30 @33187 has 6 MA's), (40, 33268), (42, 33280), (46, 33358), (51, 33421), (53, 33430), (54, 33442), (56, 33505), (59, 33664), (60, 33670), (66, 33775), (104, 34264), (106, 34267), (110, 34300), (132, 34537), (134, 34561), (137, 34573), (146, 34657), (147, 34708), (169, 35299), (170, 35305), (174, 35344), (175, 35347), (187, 35443), (194, 35587), (198, 35659), (200, 35728), (201, 35749), (202, 35788), (204, 35884), (205, 35899),

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

Candidate Starts for SVoro\_86:

(Start: 1 @32140 has 181 MA's), (3, 32221), (5, 32242), (6, 32266), (8, 32311), (9, 32338), (10, 32341), (11, 32353), (12, 32371), (13, 32374), (18, 32593), (20, 32731), (24, 32818), (26, 32866), (31, 32929), (35, 32959), (36, 32986), (37, 32995), (40, 33013), (41, 33016), (45, 33070), (48, 33136), (68, 33529), (70, 33562), (77, 33682), (91, 33916), (114, 34120), (115, 34123), (120, 34180), (121, 34183), (122, 34195), (124, 34219), (125, 34237), (126, 34240), (127, 34252), (130, 34285), (133, 34327), (142, 34453), (143, 34456), (151, 34621), (153, 34675), (157, 34738), (159, 34747), (164, 34921), (167, 35026), (173, 35137), (176, 35158), (180, 35281), (181, 35287), (182, 35329), (183, 35347), (197, 35491), (199, 35533), (202, 35638),

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

Candidate Starts for Salacia\_92:

(Start: 1 @32263 has 181 MA's), (3, 32344), (5, 32365), (6, 32389), (8, 32434), (9, 32461), (10, 32464), (11, 32476), (12, 32494), (13, 32497), (18, 32716), (20, 32854), (24, 32941), (26, 32989), (31, 33052), (35, 33082), (36, 33109), (37, 33118), (41, 33139), (45, 33193), (48, 33259), (68, 33652), (70, 33685), (77, 33805), (91, 34036), (114, 34240), (115, 34243), (120, 34300), (121, 34303), (122, 34315), (124, 34339), (125, 34357), (126, 34360), (127, 34372), (130, 34405), (133, 34447), (142, 34573), (143, 34576), (151, 34741), (157, 34858), (159, 34867), (164, 35041), (167, 35146), (173, 35257), (176, 35278), (180, 35401), (181, 35407), (182, 35449), (183, 35467), (197, 35611), (199, 35653), (202, 35758),

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

Candidate Starts for Sauce\_88:

(Start: 1 @30996 has 181 MA's), (3, 31077), (5, 31098), (6, 31122), (8, 31167), (9, 31194), (10, 31197), (11, 31209), (12, 31227), (13, 31230), (18, 31449), (20, 31587), (24, 31674), (26, 31722), (31, 31785), (35, 31815), (36, 31842), (37, 31851), (41, 31872), (45, 31926), (48, 31992), (68, 32385), (70, 32418), (77, 32538), (91, 32772), (114, 32976), (115, 32979), (120, 33036), (121, 33039), (122, 33051), (124, 33075), (125, 33093), (126, 33096), (127, 33108), (130, 33141), (133, 33183), (142, 33309), (143, 33312), (151, 33477), (157, 33594), (159, 33603), (164, 33777), (167, 33882), (173, 33993), (176, 34014), (180, 34137), (181, 34143), (182, 34185), (183, 34203), (197, 34347), (199, 34389), (202, 34494),

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

Candidate Starts for ScoobyDoobyDoo\_81:

(Start: 1 @30092 has 181 MA's), (4, 30185), (7, 30221), (12, 30323), (13, 30326), (14, 30347), (16, 30461), (21, 30587), (22, 30620), (25, 30716), (28, 30761), (39, 30860), (58, 31235), (74, 31484), (76, 31667), (78, 31739), (79, 31757), (80, 31805), (86, 31898), (95, 31970), (98, 32015), (100, 32030), (121, 32210), (122, 32222), (124, 32246), (130, 32312), (133, 32354), (136, 32369), (137, 32375), (158, 32738), (160, 32789), (165, 32954), (167, 33020), (170, 33098), (172, 33122), (173, 33134), (175, 33140), (189, 33254), (202, 33389),

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

Candidate Starts for ScottMcG\_85:

(Start: 1 @31500 has 181 MA's), (3, 31581), (5, 31602), (6, 31626), (8, 31671), (9, 31698), (10, 31701), (11, 31713), (12, 31731), (13, 31734), (18, 31953), (20, 32091), (24, 32178), (26, 32226), (31, 32289), (35, 32319), (36, 32346), (37, 32355), (41, 32376), (45, 32430), (48, 32496), (65, 32874), (68, 32910), (81, 33186), (91, 33297), (114, 33501), (115, 33504), (120, 33561), (121, 33564), (122, 33576), (124, 33600), (125, 33618), (126, 33621), (127, 33633), (130, 33666), (133, 33708), (151, 33849), (153, 33903), (157, 33966), (159, 33975), (164, 34149), (167, 34254), (173, 34365), (176, 34386), (197, 34521), (199, 34563), (202, 34647),

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

Candidate Starts for Sebata\_89:

(Start: 1 @32632 has 181 MA's), (3, 32713), (5, 32734), (6, 32758), (8, 32803), (9, 32830), (10, 32833), (11, 32845), (12, 32863), (13, 32866), (18, 33085), (20, 33223), (24, 33310), (26, 33358), (31, 33421), (35, 33451), (36, 33478), (37, 33487), (41, 33508), (45, 33562), (48, 33628), (68, 34021), (70, 34054), (77, 34174), (91, 34408), (114, 34612), (115, 34615), (120, 34672), (121, 34675), (122, 34687), (124, 34711), (125, 34729), (126, 34732), (127, 34744), (130, 34777), (133, 34819), (142, 34945), (143, 34948), (151, 35113), (157, 35230), (159, 35239), (164, 35413), (167, 35518), (173, 35629), (176, 35650), (180, 35773), (181, 35779), (182, 35821), (183, 35839), (197, 35983), (199, 36025), (202, 36130),

Gene: Settecandela\_44 Start: 23839, Stop: 26178, Start Num: 30

Candidate Starts for Settecandela\_44:

(Start: 30 @23839 has 6 MA's), (34, 23869), (44, 23968), (47, 24025), (49, 24067), (50, 24070), (52, 24079), (55, 24151), (63, 24334), (67, 24418), (69, 24454), (71, 24472), (83, 24724), (84, 24742), (85, 24745), (90, 24793), (93, 24814), (94, 24817), (96, 24856), (97, 24877), (99, 24886), (101, 24898), (102, 24919), (105, 24931), (107, 24940), (108, 24952), (109, 24964), (111, 24973), (112, 24985), (113, 24997), (115, 25006), (116, 25018), (117, 25027), (118, 25054), (119, 25057), (123, 25090), (144, 25309), (149, 25408), (150, 25423), (152, 25492), (155, 25561), (156, 25564), (161, 25747), (166, 25876), (168, 25927), (171, 25978), (186, 26098), (188, 26107),

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

Candidate Starts for Shaqnato\_80:

(Start: 1 @29871 has 181 MA's), (3, 29952), (5, 29973), (6, 29997), (8, 30042), (9, 30069), (10, 30072), (11, 30084), (12, 30102), (13, 30105), (18, 30324), (20, 30462), (24, 30549), (26, 30597), (31, 30660), (35, 30690), (36, 30717), (37, 30726), (41, 30747), (45, 30801), (48, 30867), (68, 31260), (70, 31293), (77, 31413), (91, 31647), (114, 31851), (115, 31854), (120, 31911), (121, 31914), (122, 31926), (124, 31950), (125, 31968), (126, 31971), (127, 31983), (130, 32016), (133, 32058), (142, 32184), (143, 32187), (151, 32352), (157, 32469), (159, 32478), (164, 32652), (167, 32757), (173, 32868), (176, 32889), (180, 33012), (181, 33018), (182, 33060), (183, 33078), (197, 33222), (199, 33264), (202, 33369),

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

Candidate Starts for Shelob\_90:

(Start: 1 @33138 has 181 MA's), (3, 33219), (5, 33240), (6, 33264), (8, 33309), (9, 33336), (10, 33339), (11, 33351), (12, 33369), (13, 33372), (18, 33591), (20, 33729), (24, 33816), (26, 33864), (31, 33927), (35, 33957), (36, 33984), (37, 33993), (40, 34011), (41, 34014), (45, 34068), (48, 34134), (68, 34527), (70, 34560), (77, 34680), (91, 34914), (114, 35118), (115, 35121), (120, 35178), (121, 35181), (122, 35193), (124, 35217), (125, 35235), (126, 35238), (127, 35250), (130, 35283), (133, 35325), (142, 35451), (143, 35454), (151, 35619), (153, 35673), (157, 35736), (159, 35745), (164, 35919), (167, 36024), (173, 36135), (176, 36156), (180, 36279), (181, 36285), (182, 36327), (183, 36345), (197, 36489), (199, 36531), (202, 36636),

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

Candidate Starts for ShiaLabeouf\_88:

(Start: 1 @31546 has 181 MA's), (3, 31627), (5, 31648), (6, 31672), (9, 31744), (10, 31747), (11, 31759), (12, 31777), (13, 31780), (18, 31999), (20, 32137), (24, 32224), (26, 32272), (31, 32335), (35, 32365), (36, 32392), (37, 32401), (41, 32422), (45, 32476), (48, 32542), (68, 32935), (70, 32968), (77, 33088), (91, 33319), (114, 33523), (115, 33526), (120, 33583), (121, 33586), (122, 33598), (124, 33622), (125, 33640), (126, 33643), (127, 33655), (130, 33688), (133, 33730), (142, 33856), (143, 33859), (151, 34024), (157, 34141), (159, 34150), (164, 34324), (167, 34429), (173, 34540), (176, 34561), (180, 34684), (181, 34690), (182, 34732), (183, 34750), (197, 34894), (199, 34936), (202, 35041),

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

Candidate Starts for Shifa\_77:

(Start: 1 @29738 has 181 MA's), (3, 29819), (5, 29840), (6, 29864), (8, 29909), (9, 29936), (10, 29939), (11, 29951), (12, 29969), (13, 29972), (18, 30191), (20, 30329), (24, 30416), (26, 30464), (31, 30527), (35, 30557), (36, 30584), (37, 30593), (40, 30611), (41, 30614), (45, 30668), (48, 30734), (68, 31142), (70, 31175), (77, 31295), (81, 31418), (91, 31529), (114, 31733), (115, 31736), (120, 31793), (121, 31796), (122, 31808), (124, 31832), (125, 31850), (126, 31853), (127, 31865), (130, 31898), (133, 31940), (151, 32081), (153, 32135), (157, 32195), (159, 32204), (164, 32378), (167, 32483), (173, 32594), (176, 32615), (177, 32678), (178, 32744), (179, 32750), (184, 32843), (197, 32975), (199, 33017), (202, 33101),

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

Candidate Starts for Shnickers\_88:

(Start: 1 @31106 has 181 MA's), (3, 31187), (5, 31208), (6, 31232), (9, 31304), (10, 31307), (11, 31319), (12, 31337), (13, 31340), (18, 31559), (20, 31697), (24, 31784), (26, 31832), (31, 31895), (35, 31925), (36, 31952), (37, 31961), (41, 31982), (45, 32036), (48, 32102), (68, 32495), (70, 32528), (77, 32648), (91, 32879), (114, 33083), (115, 33086), (120, 33143), (121, 33146), (122, 33158), (124, 33182), (125, 33200), (126, 33203), (127, 33215), (130, 33248), (133, 33290), (142, 33416), (143, 33419), (151, 33584), (157, 33701), (159, 33710), (164, 33884), (167, 33989), (173, 34100), (176, 34121), (180, 34244), (181, 34250), (182, 34292), (183, 34310), (197, 34454), (199, 34496), (202, 34601),

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

Candidate Starts for Shrimp\_88:

(Start: 1 @32150 has 181 MA's), (3, 32231), (5, 32252), (6, 32276), (8, 32321), (9, 32348), (10, 32351), (11, 32363), (12, 32381), (13, 32384), (18, 32603), (20, 32741), (24, 32828), (26, 32876), (31, 32939), (35, 32969), (36, 32996), (37, 33005), (40, 33023), (41, 33026), (45, 33080), (48, 33146), (68, 33539), (70, 33572), (77, 33692), (91, 33926), (114, 34130), (115, 34133), (120, 34190), (121, 34193), (122, 34205), (124, 34229), (125, 34247), (126, 34250), (127, 34262), (130, 34295), (133, 34337), (142, 34463), (143, 34466), (151, 34631), (153, 34685), (157, 34748), (159, 34757), (164, 34931), (167, 35036), (173, 35147), (176, 35168), (180, 35291), (181, 35297), (182, 35339), (183, 35357), (197, 35501), (199, 35543), (202, 35648),

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

Candidate Starts for SilverDipper\_89:

(Start: 1 @31151 has 181 MA's), (3, 31232), (5, 31253), (6, 31277), (8, 31322), (9, 31349), (10, 31352), (11, 31364), (12, 31382), (13, 31385), (18, 31604), (20, 31742), (24, 31829), (26, 31877), (31, 31940), (35, 31970), (36, 31997), (37, 32006), (40, 32024), (41, 32027), (45, 32081), (48, 32147), (68, 32540), (70, 32573), (77, 32693), (91, 32927), (114, 33131), (115, 33134), (120, 33191), (121, 33194), (122, 33206), (124, 33230), (125, 33248), (126, 33251), (127, 33263), (130, 33296), (133, 33338), (142, 33464), (143, 33467), (151, 33632), (153, 33686), (157, 33749), (159, 33758), (164, 33932), (167,

34037), (173, 34148), (176, 34169), (180, 34292), (181, 34298), (182, 34340), (183, 34358), (197, 34502), (199, 34544), (202, 34649),

Gene: Skog\_149 Start: 63157, Stop: 66045, Start Num: 30

Candidate Starts for Skog\_149:

(Start: 30 @63157 has 6 MA's), (42, 63250), (43, 63259), (51, 63391), (53, 63400), (56, 63478), (59, 63637), (60, 63643), (64, 63685), (73, 63820), (104, 64282), (106, 64285), (110, 64318), (132, 64552), (135, 64579), (137, 64588), (148, 64735), (163, 65134), (169, 65329), (170, 65335), (174, 65374), (175, 65377), (185, 65440), (193, 65617), (201, 65809), (202, 65848), (203, 65869),

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

Candidate Starts for SmallFry\_88:

(Start: 1 @31105 has 181 MA's), (3, 31186), (5, 31207), (6, 31231), (8, 31276), (9, 31303), (10, 31306), (11, 31318), (12, 31336), (13, 31339), (18, 31558), (20, 31696), (24, 31783), (26, 31831), (31, 31894), (35, 31924), (36, 31951), (37, 31960), (41, 31981), (45, 32035), (48, 32101), (68, 32494), (70, 32527), (77, 32647), (91, 32878), (114, 33082), (115, 33085), (120, 33142), (121, 33145), (122, 33157), (124, 33181), (125, 33199), (126, 33202), (127, 33214), (130, 33247), (133, 33289), (142, 33415), (143, 33418), (151, 33583), (157, 33700), (159, 33709), (164, 33883), (167, 33988), (173, 34099), (176, 34120), (180, 34243), (181, 34249), (182, 34291), (183, 34309), (197, 34453), (199, 34495), (202, 34600),

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

Candidate Starts for Spec\_83:

(Start: 1 @30871 has 181 MA's), (3, 30952), (5, 30973), (6, 30997), (8, 31042), (9, 31069), (10, 31072), (11, 31084), (12, 31102), (13, 31105), (18, 31324), (20, 31462), (24, 31549), (26, 31597), (31, 31660), (35, 31690), (36, 31717), (37, 31726), (41, 31747), (45, 31801), (48, 31867), (68, 32260), (70, 32293), (77, 32413), (91, 32644), (114, 32848), (115, 32851), (120, 32908), (121, 32911), (122, 32923), (124, 32947), (125, 32965), (126, 32968), (127, 32980), (130, 33013), (133, 33055), (142, 33181), (143, 33184), (151, 33349), (157, 33466), (159, 33475), (164, 33649), (167, 33754), (173, 33865), (176, 33886), (180, 34009), (181, 34015), (182, 34057), (183, 34075), (197, 34219), (199, 34261), (202, 34366),

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

Candidate Starts for Specks\_94:

(Start: 1 @33940 has 181 MA's), (3, 34021), (5, 34042), (6, 34066), (8, 34111), (9, 34138), (10, 34141), (11, 34153), (12, 34171), (13, 34174), (18, 34393), (20, 34531), (24, 34618), (26, 34666), (31, 34729), (35, 34759), (36, 34786), (37, 34795), (40, 34813), (41, 34816), (45, 34870), (48, 34936), (68, 35329), (70, 35362), (77, 35482), (81, 35596), (91, 35680), (114, 35884), (115, 35887), (120, 35944), (121, 35947), (122, 35959), (124, 35983), (125, 36001), (126, 36004), (127, 36016), (130, 36049), (133, 36091), (142, 36217), (143, 36220), (151, 36367), (153, 36421), (157, 36484), (159, 36493), (164, 36667), (167, 36772), (173, 36883), (176, 36904), (180, 37027), (181, 37033), (182, 37075), (183, 37093), (197, 37237), (199, 37279), (202, 37384),

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

Candidate Starts for Sprinklers\_83:

(Start: 1 @30368 has 181 MA's), (3, 30449), (5, 30470), (6, 30494), (8, 30539), (9, 30566), (10, 30569), (11, 30581), (12, 30599), (13, 30602), (18, 30821), (20, 30959), (24, 31046), (26, 31094), (31, 31157), (35, 31187), (36, 31214), (37, 31223), (41, 31244), (45, 31298), (48, 31364), (68, 31757), (70, 31790), (77, 31910), (91, 32144), (114, 32348), (115, 32351), (120, 32408), (121, 32411), (122, 32423), (124, 32447), (125, 32465), (126, 32468), (127, 32480), (130, 32513), (133, 32555), (142, 32681), (143, 32684), (151, 32849), (157, 32966), (159, 32975), (164, 33149), (167, 33254), (173, 33365), (176, 33386), (180, 33509), (181, 33515), (182, 33557), (183, 33575), (197, 33719), (199, 33761), (202, 33866),

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

Candidate Starts for Spud\_88:

(Start: 1 @32461 has 181 MA's), (3, 32542), (5, 32563), (6, 32587), (8, 32632), (9, 32659), (10, 32662), (11, 32674), (12, 32692), (13, 32695), (18, 32914), (20, 33052), (24, 33139), (26, 33187), (31, 33250), (35, 33280), (36, 33307), (37, 33316), (41, 33337), (45, 33391), (48, 33457), (65, 33835), (68, 33871), (81, 34147), (91, 34258), (114, 34462), (115, 34465), (120, 34522), (121, 34525), (122, 34537), (124, 34561), (125, 34579), (126, 34582), (127, 34594), (130, 34627), (133, 34669), (151, 34810), (153, 34864), (157, 34927), (159, 34936), (164, 35110), (167, 35215), (173, 35326), (176, 35347), (197, 35482), (199, 35524), (202, 35608),

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

Candidate Starts for SrishMeg2525\_87:

(Start: 1 @31857 has 181 MA's), (3, 31938), (5, 31959), (6, 31983), (8, 32028), (9, 32055), (10, 32058), (11, 32070), (12, 32088), (13, 32091), (18, 32310), (20, 32448), (24, 32535), (26, 32583), (31, 32646), (35, 32676), (36, 32703), (37, 32712), (40, 32730), (41, 32733), (45, 32787), (48, 32853), (68, 33246), (70, 33279), (77, 33399), (91, 33630), (114, 33834), (115, 33837), (120, 33894), (121, 33897), (122, 33909), (124, 33933), (125, 33951), (126, 33954), (127, 33966), (130, 33999), (133, 34041), (151, 34182), (153, 34236), (157, 34299), (159, 34308), (164, 34482), (167, 34587), (173, 34698), (176, 34719), (197, 34854), (199, 34896), (202, 34980),

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

Candidate Starts for StephanieG\_87:

(Start: 1 @32958 has 181 MA's), (3, 33039), (5, 33060), (6, 33084), (9, 33156), (10, 33159), (11, 33171), (12, 33189), (13, 33192), (18, 33411), (20, 33549), (24, 33636), (26, 33684), (31, 33747), (35, 33777), (36, 33804), (37, 33813), (41, 33834), (45, 33888), (48, 33954), (68, 34347), (70, 34380), (77, 34500), (91, 34734), (114, 34938), (115, 34941), (120, 34998), (121, 35001), (122, 35013), (124, 35037), (125, 35055), (126, 35058), (127, 35070), (130, 35103), (133, 35145), (142, 35271), (143, 35274), (151, 35439), (153, 35493), (157, 35556), (159, 35565), (164, 35739), (167, 35844), (173, 35955), (176, 35976), (180, 36099), (181, 36105), (182, 36147), (183, 36165), (197, 36309), (199, 36351), (202, 36456),

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

Candidate Starts for Stubby\_81:

(Start: 1 @30428 has 181 MA's), (3, 30509), (5, 30530), (6, 30554), (8, 30599), (9, 30626), (10, 30629), (11, 30641), (12, 30659), (13, 30662), (18, 30881), (20, 31019), (24, 31106), (26, 31154), (31, 31217), (35, 31247), (36, 31274), (37, 31283), (41, 31304), (45, 31358), (48, 31424), (65, 31772), (68, 31808), (81, 32084), (91, 32195), (114, 32399), (115, 32402), (120, 32459), (121, 32462), (122, 32474), (124, 32498), (125, 32516), (126, 32519), (127, 32531), (130, 32564), (133, 32606), (142, 32732), (143, 32735), (151, 32900), (157, 33017), (159, 33026), (164, 33200), (167, 33305), (173, 33416), (176, 33437), (197, 33572), (199, 33614), (202, 33698),

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

Candidate Starts for StubbySaigey\_90:

(Start: 1 @30786 has 181 MA's), (3, 30867), (5, 30888), (6, 30912), (8, 30957), (9, 30984), (10, 30987), (11, 30999), (12, 31017), (13, 31020), (18, 31239), (20, 31377), (24, 31464), (26, 31512), (31, 31575), (35, 31605), (36, 31632), (37, 31641), (40, 31659), (41, 31662), (45, 31716), (48, 31782), (65, 32160), (68, 32196), (81, 32472), (91, 32583), (114, 32787), (115, 32790), (120, 32847), (121, 32850), (122, 32862), (124, 32886), (125, 32904), (126, 32907), (127, 32919), (130, 32952), (133, 32994), (151, 33135), (153, 33189), (157, 33252), (159, 33261), (164, 33435), (167, 33540), (173, 33651), (176, 33672), (197, 33807), (199, 33849), (202, 33933),

Gene: Substance289\_85 Start: 30621, Stop: 34334, Start Num: 1

Candidate Starts for Substance289\_85:

(Start: 1 @30621 has 181 MA's), (3, 30702), (5, 30723), (6, 30747), (8, 30792), (9, 30819), (10, 30822), (11, 30834), (12, 30852), (13, 30855), (18, 31074), (20, 31212), (24, 31299), (26, 31347), (31, 31410), (35, 31440), (36, 31467), (37, 31476), (40, 31494), (41, 31497), (45, 31551), (48, 31617), (68, 32010), (70, 32043), (77, 32163), (91, 32397), (114, 32601), (115, 32604), (120, 32661), (121, 32664), (122, 32676), (124, 32700), (125, 32718), (126, 32721), (127, 32733), (130, 32766), (133, 32808), (142, 32934), (143, 32937), (151, 33102), (153, 33156), (157, 33219), (159, 33228), (164, 33402), (167, 33507), (173, 33618), (176, 33639), (180, 33762), (181, 33768), (182, 33810), (183, 33828), (197, 33972), (199, 34014), (202, 34119),

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

Candidate Starts for Tainan\_93:

(Start: 1 @33590 has 181 MA's), (3, 33671), (5, 33692), (6, 33716), (9, 33788), (10, 33791), (11, 33803), (12, 33821), (13, 33824), (18, 34043), (20, 34181), (24, 34268), (26, 34316), (31, 34379), (36, 34436), (37, 34445), (41, 34466), (45, 34520), (48, 34586), (68, 34979), (70, 35012), (77, 35132), (81, 35246), (91, 35330), (114, 35534), (115, 35537), (120, 35594), (121, 35597), (122, 35609), (124, 35633), (125, 35651), (126, 35654), (127, 35666), (130, 35699), (133, 35741), (142, 35867), (143, 35870), (151, 36017), (153, 36071), (157, 36134), (159, 36143), (164, 36317), (167, 36422), (173, 36533), (176, 36554), (180, 36677), (181, 36683), (182, 36725), (183, 36743), (197, 36887), (199, 36929), (202, 37034),

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

Candidate Starts for Teardrop\_88:

(Start: 1 @31264 has 181 MA's), (3, 31345), (5, 31366), (6, 31390), (8, 31435), (9, 31462), (10, 31465), (11, 31477), (12, 31495), (13, 31498), (18, 31717), (20, 31855), (24, 31942), (26, 31990), (31, 32053), (35, 32083), (36, 32110), (37, 32119), (40, 32137), (41, 32140), (45, 32194), (48, 32260), (68, 32653), (70, 32686), (77, 32806), (81, 32920), (91, 33004), (114, 33208), (115, 33211), (120, 33268), (121, 33271), (122, 33283), (124, 33307), (125, 33325), (126, 33328), (127, 33340), (130, 33373), (133, 33415), (142, 33541), (143, 33544), (151, 33691), (153, 33745), (157, 33808), (159, 33817), (164, 33991), (167, 34096), (173, 34207), (176, 34228), (180, 34351), (181, 34357), (182, 34399), (183, 34417), (197, 34561), (199, 34603), (202, 34708),

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

Candidate Starts for TinyTim\_88:

(Start: 1 @32146 has 181 MA's), (3, 32227), (5, 32248), (6, 32272), (8, 32317), (9, 32344), (10, 32347), (11, 32359), (12, 32377), (13, 32380), (18, 32599), (20, 32737), (24, 32824), (26, 32872), (31, 32935), (35, 32965), (36, 32992), (37, 33001), (40, 33019), (41, 33022), (45, 33076), (48, 33142), (68, 33535), (70, 33568), (77, 33688), (91, 33922), (114, 34126), (115, 34129), (120, 34186), (121, 34189), (122, 34201), (124, 34225), (125, 34243), (126, 34246), (127, 34258), (130, 34291), (133, 34333), (142, 34459), (143, 34462), (151, 34627), (153, 34681), (157, 34744), (159, 34753), (164, 34927), (167, 35032), (173, 35143), (176, 35164), (180, 35287), (181, 35293), (182, 35335), (183, 35353), (197, 35497), (199, 35539), (202, 35644),

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

Candidate Starts for Tonenili\_102:

(Start: 1 @36564 has 181 MA's), (3, 36645), (5, 36666), (6, 36690), (8, 36735), (9, 36762), (10, 36765), (11, 36777), (12, 36795), (13, 36798), (18, 37014), (38, 37140), (45, 37203), (68, 37701), (70, 37734), (77, 37854), (87, 38067), (91, 38085), (114, 38289), (115, 38292), (120, 38349), (121, 38352), (122, 38364), (124, 38388), (125, 38406), (126, 38409), (127, 38421), (129, 38433), (130, 38454), (133, 38496), (151, 38637), (153, 38691), (157, 38751), (159, 38760), (164, 38934), (165, 38973), (167, 39039), (174, 39153), (176, 39171), (190, 39324), (191, 39363), (197, 39489), (199, 39531), (202, 39636),

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

Candidate Starts for Tortoise16\_86:

(Start: 1 @32007 has 181 MA's), (3, 32088), (5, 32109), (6, 32133), (8, 32178), (9, 32205), (10, 32208), (11, 32220), (12, 32238), (13, 32241), (18, 32460), (20, 32598), (24, 32685), (26, 32733), (31, 32796), (35, 32826), (36, 32853), (37, 32862), (41, 32883), (45, 32937), (48, 33003), (68, 33396), (70, 33429), (77, 33549), (91, 33780), (114, 33984), (115, 33987), (120, 34044), (121, 34047), (122, 34059), (124, 34083), (125, 34101), (126, 34104), (127, 34116), (130, 34149), (133, 34191), (142, 34317), (143, 34320), (151, 34485), (157, 34602), (159, 34611), (164, 34785), (167, 34890), (173, 35001), (176, 35022), (180, 35145), (181, 35151), (182, 35193), (183, 35211), (197, 35355), (199, 35397), (202, 35502),

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

Candidate Starts for Trinitium\_84:

(Start: 1 @30571 has 181 MA's), (3, 30652), (5, 30673), (6, 30697), (8, 30742), (9, 30769), (10, 30772), (11, 30784), (12, 30802), (13, 30805), (18, 31024), (20, 31162), (24, 31249), (26, 31297), (31, 31360), (35, 31390), (36, 31417), (37, 31426), (41, 31447), (45, 31501), (48, 31567), (68, 31960), (70, 31993), (81, 32239), (91, 32350), (114, 32554), (115, 32557), (120, 32614), (121, 32617), (122, 32629), (124, 32653), (125, 32671), (126, 32674), (127, 32686), (130, 32719), (133, 32761), (151, 32902), (153, 32956), (157, 33016), (159, 33025), (164, 33199), (167, 33304), (173, 33415), (176, 33436), (197, 33571), (199, 33613), (202, 33697),

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

Candidate Starts for Turret\_83:

(Start: 1 @30237 has 181 MA's), (3, 30318), (5, 30339), (6, 30363), (8, 30408), (9, 30435), (10, 30438), (11, 30450), (12, 30468), (13, 30471), (18, 30690), (20, 30828), (24, 30915), (26, 30963), (31, 31026), (35, 31056), (36, 31083), (37, 31092), (41, 31113), (45, 31167), (48, 31233), (68, 31626), (70, 31659), (81, 31905), (91, 32016), (114, 32220), (115, 32223), (120, 32280), (121, 32283), (122, 32295), (124, 32319), (125, 32337), (126, 32340), (127, 32352), (130, 32385), (133, 32427), (151, 32568), (153, 32622), (157, 32682), (159, 32691), (164, 32865), (167, 32970), (173, 33081), (176, 33102), (197, 33237), (199, 33279), (202, 33363),

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

Candidate Starts for Tyke\_90:

(Start: 1 @32911 has 181 MA's), (3, 32992), (5, 33013), (6, 33037), (8, 33082), (9, 33109), (10, 33112), (11, 33124), (12, 33142), (13, 33145), (18, 33364), (20, 33502), (24, 33589), (26, 33637), (31, 33700), (35, 33730), (36, 33757), (37, 33766), (41, 33787), (45, 33841), (48, 33907), (68, 34300), (70, 34333), (77, 34453), (91, 34684), (114, 34888), (115, 34891), (120, 34948), (121, 34951), (122, 34963), (124, 34987), (125, 35005), (126, 35008), (127, 35020), (130, 35053), (133, 35095), (142, 35221), (143, 35224), (151, 35389), (157, 35506), (159, 35515), (164, 35689), (167, 35794), (173, 35905), (176, 35926), (180, 36049), (181, 36055), (182, 36097), (183, 36115), (197, 36259), (199, 36301), (202, 36406),

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

Candidate Starts for ValleyTerrace\_88:

(Start: 1 @31151 has 181 MA's), (3, 31232), (5, 31253), (6, 31277), (8, 31322), (9, 31349), (10, 31352), (11, 31364), (12, 31382), (13, 31385), (18, 31604), (20, 31742), (24, 31829), (26, 31877), (31, 31940), (35, 31970), (36, 31997), (37, 32006), (40, 32024), (41, 32027), (45, 32081), (48, 32147), (68, 32540), (70, 32573), (77, 32693), (91, 32927), (114, 33131), (115, 33134), (120, 33191), (121, 33194), (122, 33206), (124, 33230), (125, 33248), (126, 33251), (127, 33263), (130, 33296), (133, 33338), (142, 33464), (143, 33467), (151, 33632), (153, 33686), (157, 33749), (159, 33758), (164, 33932), (167, 34037), (173, 34148), (176, 34169), (180, 34292), (181, 34298), (182, 34340), (183, 34358), (197, 34502), (199, 34544), (202, 34649),

Gene: Vortrix\_103 Start: 36108, Stop: 39257, Start Num: 1

Candidate Starts for Vortrix\_103:

(Start: 1 @36108 has 181 MA's), (3, 36189), (5, 36210), (6, 36234), (8, 36279), (9, 36306), (10, 36309), (11, 36321), (12, 36339), (13, 36342), (18, 36558), (38, 36684), (45, 36747), (68, 37239), (70, 37272), (75, 37320), (77, 37392), (87, 37605), (91, 37623), (114, 37827), (115, 37830), (120, 37887), (121, 37890), (122, 37902), (124, 37926), (125, 37944), (126, 37947), (127, 37959), (129, 37971), (130, 37992), (133, 38034), (151, 38175), (153, 38229), (157, 38289), (159, 38298), (164, 38472), (165, 38511), (167, 38577), (174, 38691), (176, 38709), (190, 38862), (191, 38901), (202, 39042),

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

Candidate Starts for Wally\_87:

(Start: 1 @30701 has 181 MA's), (3, 30782), (5, 30803), (6, 30827), (8, 30872), (9, 30899), (10, 30902), (11, 30914), (12, 30932), (13, 30935), (18, 31154), (20, 31292), (24, 31379), (26, 31427), (31, 31490), (35, 31520), (36, 31547), (37, 31556), (40, 31574), (41, 31577), (45, 31631), (48, 31697), (68, 32090), (70, 32123), (77, 32243), (91, 32477), (114, 32681), (115, 32684), (120, 32741), (121, 32744), (122, 32756), (124, 32780), (125, 32798), (126, 32801), (127, 32813), (130, 32846), (133, 32888), (142, 33014), (143, 33017), (151, 33182), (153, 33236), (157, 33299), (159, 33308), (164, 33482), (167, 33587), (173, 33698), (176, 33719), (180, 33842), (181, 33848), (182, 33890), (183, 33908), (197, 34052), (199, 34094), (202, 34199),

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

Candidate Starts for Willis\_89:

(Start: 1 @32041 has 181 MA's), (3, 32122), (5, 32143), (6, 32167), (8, 32212), (9, 32239), (10, 32242), (11, 32254), (12, 32272), (13, 32275), (18, 32494), (20, 32632), (24, 32719), (26, 32767), (31, 32830), (35, 32860), (36, 32887), (37, 32896), (40, 32914), (41, 32917), (45, 32971), (48, 33037), (68, 33430), (70, 33463), (77, 33583), (91, 33817), (114, 34021), (115, 34024), (120, 34081), (121, 34084), (122, 34096), (124, 34120), (125, 34138), (126, 34141), (127, 34153), (130, 34186), (133, 34228), (142, 34354), (143, 34357), (151, 34522), (153, 34576), (157, 34639), (159, 34648), (164, 34822), (167, 34927), (173, 35038), (176, 35059), (180, 35182), (181, 35188), (182, 35230), (183, 35248), (197, 35392), (199, 35434), (202, 35539),

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

Candidate Starts for Yassified\_84:

(Start: 1 @30651 has 181 MA's), (3, 30732), (5, 30753), (6, 30777), (8, 30822), (9, 30849), (10, 30852), (11, 30864), (12, 30882), (13, 30885), (18, 31104), (20, 31242), (24, 31329), (26, 31377), (31, 31440), (35, 31470), (36, 31497), (37, 31506), (41, 31527), (45, 31581), (48, 31647), (68, 32040), (70, 32073), (77, 32193), (91, 32427), (114, 32631), (115, 32634), (120, 32691), (121, 32694), (122, 32706), (124, 32730), (125, 32748), (126, 32751), (127, 32763), (130, 32796), (133, 32838), (142, 32964), (143, 32967), (151, 33132), (153, 33186), (157, 33249), (159, 33258), (164, 33432), (167, 33537), (173, 33648), (176, 33669), (197, 33804), (199, 33846), (202, 33930),

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

Candidate Starts for YemiJoy2021\_89:

(Start: 1 @32143 has 181 MA's), (3, 32224), (5, 32245), (6, 32269), (8, 32314), (9, 32341), (10, 32344), (11, 32356), (12, 32374), (13, 32377), (18, 32596), (20, 32734), (24, 32821), (26, 32869), (31, 32932), (35, 32962), (36, 32989), (37, 32998), (40, 33016), (41, 33019), (45, 33073), (48, 33139), (68, 33532), (70, 33565), (77, 33685), (91, 33919), (114, 34123), (115, 34126), (120, 34183), (121, 34186), (122, 34198), (124, 34222), (125, 34240), (126, 34243), (127, 34255), (130, 34288), (133, 34330), (142, 34456), (143, 34459), (151, 34624), (153, 34678), (157, 34741), (159, 34750), (164, 34924), (167, 35029), (173, 35140), (176, 35161), (180, 35284), (181, 35290), (182, 35332), (183, 35350), (197, 35494), (199, 35536), (202, 35641),

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

Candidate Starts for YoungMoneyMata\_88:

(Start: 1 @30902 has 181 MA's), (3, 30983), (5, 31004), (6, 31028), (8, 31073), (9, 31100), (10, 31103), (11, 31115), (12, 31133), (13, 31136), (18, 31355), (20, 31493), (24, 31580), (26, 31628), (31, 31691), (35, 31721), (36, 31748), (37, 31757), (40, 31775), (41, 31778), (45, 31832), (48, 31898), (68, 32291), (70, 32324), (77, 32444), (91, 32678), (114, 32882), (115, 32885), (120, 32942), (121, 32945), (122, 32957), (124, 32981), (125, 32999), (126, 33002), (127, 33014), (130, 33047), (133, 33089), (142, 33215), (143, 33218), (151, 33383), (153, 33437), (157, 33500), (159, 33509), (164, 33683), (167, 33788), (173, 33899), (176, 33920), (180, 34043), (181, 34049), (182, 34091), (183, 34109), (197, 34253), (199, 34295), (202, 34400),

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

Candidate Starts for Yucca\_88:

(Start: 1 @32068 has 181 MA's), (3, 32149), (5, 32170), (6, 32194), (8, 32239), (9, 32266), (10, 32269), (11, 32281), (12, 32299), (13, 32302), (18, 32521), (20, 32659), (24, 32746), (26, 32794), (31, 32857), (35, 32887), (36, 32914), (37, 32923), (41, 32944), (45, 32998), (48, 33064), (68, 33457), (70, 33490), (77, 33610), (91, 33841), (114, 34045), (115, 34048), (120, 34105), (121, 34108), (122, 34120), (124, 34144), (125, 34162), (126, 34165), (127, 34177), (130, 34210), (133, 34252), (142, 34378), (143, 34381), (151, 34546), (153, 34600), (157, 34663), (159, 34672), (164, 34846), (167, 34951), (173, 35062), (176, 35083), (180, 35206), (181, 35212), (182, 35254), (183, 35272), (197, 35416), (199, 35458), (202, 35563),

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

Candidate Starts for Zalkecks\_89:

(Start: 1 @31831 has 181 MA's), (3, 31912), (5, 31933), (6, 31957), (8, 32002), (9, 32029), (10, 32032), (11, 32044), (12, 32062), (13, 32065), (18, 32284), (20, 32422), (24, 32509), (26, 32557), (31, 32620), (35, 32650), (36, 32677), (37, 32686), (40, 32704), (41, 32707), (45, 32761), (48, 32827), (68, 33220), (70, 33253), (77, 33373), (91, 33607), (114, 33811), (115, 33814), (120, 33871), (121, 33874), (122, 33886), (124, 33910), (125, 33928), (126, 33931), (127, 33943), (130, 33976), (133, 34018), (142, 34144), (143, 34147), (151, 34312), (153, 34366), (157, 34429), (159, 34438), (164, 34612), (167, 34717), (173, 34828), (176, 34849), (180, 34972), (181, 34978), (182, 35020), (183, 35038), (197, 35182), (199, 35224), (202, 35329),

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

Candidate Starts for Zeenon\_90:

(Start: 1 @32133 has 181 MA's), (3, 32214), (5, 32235), (6, 32259), (8, 32304), (9, 32331), (10, 32334), (11, 32346), (12, 32364), (13, 32367), (18, 32586), (20, 32724), (24, 32811), (26, 32859), (31, 32922), (35, 32952), (36, 32979), (37, 32988), (40, 33006), (41, 33009), (45, 33063), (48, 33129), (68, 33522), (70, 33555), (77, 33675), (91, 33906), (114, 34110), (115, 34113), (120, 34170), (121, 34173), (122, 34185), (124, 34209), (125, 34227), (126, 34230), (127, 34242), (130, 34275), (133, 34317), (151, 34458), (153, 34512), (157, 34575), (159, 34584), (164, 34758), (167, 34863), (173, 34974), (176, 34995), (197, 35130), (199, 35172), (202, 35256),

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

Candidate Starts for ZygoTaiga\_87:

(Start: 1 @32147 has 181 MA's), (3, 32228), (5, 32249), (6, 32273), (8, 32318), (9, 32345), (10, 32348), (11, 32360), (12, 32378), (13, 32381), (18, 32600), (20, 32738), (24, 32825), (26, 32873), (31, 32936), (35, 32966), (36, 32993), (37, 33002), (40, 33020), (41, 33023), (45, 33077), (48, 33143), (68, 33536), (70, 33569), (77, 33689), (91, 33923), (114, 34127), (115, 34130), (120, 34187), (121, 34190), (122, 34202), (124, 34226), (125, 34244), (126, 34247), (127, 34259), (130, 34292), (133, 34334), (142, 34460), (143, 34463), (151, 34628), (153, 34682), (157, 34745), (159, 34754), (164, 34928), (167, 35033), (173, 35144), (176, 35165), (180, 35288), (181, 35294), (182, 35336), (183, 35354), (197, 35498), (199, 35540), (202, 35645),