



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 290830 Report

This analysis was run 03/28/26 on database version 641.

Pham number 290830 has 225 members, 38 are drafts.

Phages represented in each track:

- Track 1 : 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 2 : EggyFarm\_96, Grasshills\_95, BigCity\_96
- Track 3 : Lethe\_87, Ading\_88, Guwapp\_87, Loanshark\_88, Issimir\_87
- Track 4 : Chargie21\_84, Fludd\_88, Flabslab\_83, Basquiat\_84, Janiyr\_90, Quasimodo\_88, ChaylaJr\_83, Trinitium\_84, Turret\_83, BobaPhatt\_82, ChickenPhender\_84, Kboogie\_91, EasyJones\_91
- Track 5 : 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, Zalkecks\_89, 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, Megamind\_87, Daffodil\_93, Phlegm\_90, McGee\_89
- Track 6 : Moby\_79, Moiqah\_79
- Track 7 : ErnieJ\_84, ScottMcG\_85, Catera\_87, Ablatia\_86, Melpomini\_82, Spud\_88, Rabinovish\_85, JustHall\_84, Dietrick\_80, Morizzled23\_88, MoMoMixon\_89
- Track 8 : 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 9 : OrediggerDelux\_86, DirtMonster\_81, Concombre\_95, ArcherS7\_87, Yucca\_88, FoxtrotP1\_88, Demodog\_95, InterFolia\_97
- Track 10 : Montpel\_85, Lunareta\_85
- Track 11 : Tonenili\_102
- Track 12 : Bigswole\_93

- Track 13 : BackyardAgain\_85
- Track 14 : Shifa\_77
- Track 15 : StubbySaigey\_90
- Track 16 : DeejaClivia\_77, HyRo\_80
- Track 17 : Ewok\_89, Gizmo\_92, SrishMeg2525\_87, Lukilu\_79, Lee7\_86, Fongie\_86, Zeenon\_90, Ava3\_89
- Track 18 : Vortrix\_103
- Track 19 : Phox\_85, Pinkcreek\_79, Bezza\_77, Alice\_81
- Track 20 : Cactojaque\_83, Blackbrain\_83
- Track 21 : Tainan\_93
- Track 22 : Nappy\_89, Yassified\_84
- Track 23 : LifeSavor\_87, Jaygup\_88, ShiaLabeouf\_88, Adlitam\_88, Labradorite\_88, Matsumoto\_87, Shnickers\_88
- Track 24 : Colt\_78, Blubba\_77, Cane17\_76
- Track 25 : Teardrop\_88, Specks\_94, LolaVinca\_90
- Track 26 : Maturis\_85
- Track 27 : FudgeTart\_88, Dandelion\_95
- Track 28 : Stubby\_81
- Track 29 : I3\_94
- Track 30 : Pier\_92
- Track 31 : Myrna\_87
- Track 32 : Greely\_89
- Track 33 : ScoobyDoobyDoo\_81
- Track 34 : Phabba\_92
- Track 35 : SCentae\_84, Pupper\_86
- Track 36 : CherryTomatoes\_86
- Track 37 : 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 187 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, Rabinovich\_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, Shaqato\_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, Pupper\_86, SCentae\_84, Skog\_149,

### Summary by start number:

Start 1:

- Found in 218 of 225 ( 96.9% ) of genes in pham
- Manual Annotations of this start: 181 of 187
- 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), LolaVinca\_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), Shaq nato\_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 225 ( 1.3% ) of genes in pham
- Manual Annotations of this start: 2 of 187
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Greely\_89 (C2), Myrna\_87 (C2), Phabba\_92 (C2),

#### Start 22:

- Found in 4 of 225 ( 1.8% ) of genes in pham
- Manual Annotations of this start: 4 of 187
- Called 100.0% of time when present
- Phage (with cluster) where this start called: CherryTomatoes\_86 (DO), Pupper\_86 (DO), SCentae\_84 (DO), Skog\_149 (DO),

#### Summary by clusters:

There are 3 clusters represented in this pham: DO, C1, C2,

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 22 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), (23, 31671), (25, 31719), (31, 31782), (32, 31812), (35, 31839), (37, 31848), (42, 31869), (47, 31923), (48, 31989), (59, 32367), (60, 32403), (67, 32679), (72, 32790), (84, 32994), (85, 32997), (87, 33054), (88, 33057), (90, 33069), (91, 33093), (92, 33111), (93, 33114), (94, 33126), (99, 33159), (101, 33201), (112, 33342), (113, 33396), (117, 33459), (118, 33468), (122, 33642), (124, 33747), (128, 33858), (131, 33879), (150, 34014), (152, 34056), (155, 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), (23, 31766), (25, 31814), (31, 31877), (32, 31907), (35, 31934), (37, 31943), (41, 31961), (42, 31964), (47, 32018), (48, 32084), (60, 32477), (61, 32510), (65, 32630), (72, 32861), (84, 33065), (85, 33068), (87, 33125), (88, 33128), (90, 33140), (91, 33164), (92, 33182), (93, 33185), (94, 33197), (99, 33230), (101, 33272), (110, 33398), (111, 33401), (112, 33566), (117, 33683), (118, 33692), (122, 33866), (124, 33971), (128, 34082), (131, 34103), (135, 34226), (136, 34232), (137, 34274), (138, 34292), (150, 34436), (152, 34478), (155, 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), (23, 31783), (25, 31831), (31, 31894), (32, 31924), (35, 31951), (37, 31960), (42, 31981), (47, 32035), (48, 32101), (60, 32494), (61, 32527), (65, 32647), (72, 32878), (84, 33082), (85, 33085), (87, 33142), (88, 33145), (90, 33157), (91, 33181), (92, 33199), (93, 33202), (94, 33214), (99, 33247), (101, 33289), (110, 33415), (111, 33418), (112, 33583), (117, 33700), (118, 33709), (122, 33883), (124, 33988), (128, 34099), (131, 34120), (135, 34243), (136, 34249), (137, 34291), (138, 34309), (150, 34453), (152, 34495), (155, 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), (23, 30468), (25, 30516), (31, 30579), (32, 30609), (35, 30636), (37, 30645), (42, 30666), (47, 30720), (48, 30786), (59, 31134), (60, 31170), (67, 31446), (72, 31557), (84, 31761), (85, 31764), (87, 31821), (88, 31824), (90, 31836), (91, 31860), (92, 31878), (93, 31881), (94, 31893), (99, 31926), (101, 31968), (110, 32094), (111, 32097), (112,

32262), (117, 32379), (118, 32388), (122, 32562), (124, 32667), (128, 32778), (131, 32799), (132, 32862), (133, 32928), (134, 32934), (139, 33027), (150, 33159), (152, 33201), (155, 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), (23, 31829), (25, 31877), (31, 31940), (32, 31970), (35, 31997), (37, 32006), (41, 32024), (42, 32027), (47, 32081), (48, 32147), (60, 32540), (61, 32573), (65, 32693), (72, 32927), (84, 33131), (85, 33134), (87, 33191), (88, 33194), (90, 33206), (91, 33230), (92, 33248), (93, 33251), (94, 33263), (99, 33296), (101, 33338), (110, 33464), (111, 33467), (112, 33632), (113, 33686), (117, 33749), (118, 33758), (122, 33932), (124, 34037), (128, 34148), (131, 34169), (135, 34292), (136, 34298), (137, 34340), (138, 34358), (150, 34502), (152, 34544), (155, 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), (23, 32150), (25, 32198), (31, 32261), (32, 32291), (35, 32318), (37, 32327), (42, 32348), (47, 32402), (48, 32468), (60, 32861), (61, 32894), (65, 33014), (72, 33245), (84, 33449), (85, 33452), (87, 33509), (88, 33512), (90, 33524), (91, 33548), (92, 33566), (93, 33569), (94, 33581), (99, 33614), (101, 33656), (110, 33782), (111, 33785), (112, 33950), (113, 34004), (117, 34067), (118, 34076), (122, 34250), (124, 34355), (128, 34466), (131, 34487), (135, 34610), (136, 34616), (137, 34658), (138, 34676), (150, 34820), (152, 34862), (155, 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), (23, 32132), (25, 32180), (31, 32243), (32, 32273), (35, 32300), (37, 32309), (41, 32327), (42, 32330), (47, 32384), (48, 32450), (60, 32843), (61, 32876), (65, 32996), (72, 33230), (84, 33434), (85, 33437), (87, 33494), (88, 33497), (90, 33509), (91, 33533), (92, 33551), (93, 33554), (94, 33566), (99, 33599), (101, 33641), (110, 33767), (111, 33770), (112, 33935), (113, 33989), (117, 34052), (118, 34061), (122, 34235), (124, 34340), (128, 34451), (131, 34472), (135, 34595), (136, 34601), (137, 34643), (138, 34661), (150, 34805), (152, 34847), (155, 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), (23, 32011), (25, 32059), (31, 32122), (32, 32152), (35, 32179), (37, 32188), (42, 32209), (47, 32263), (48, 32329), (60, 32722), (61, 32755), (65, 32875), (72, 33106), (84, 33310), (85, 33313), (87, 33370), (88, 33373), (90, 33385), (91, 33409), (92, 33427), (93, 33430), (94, 33442), (99, 33475), (101, 33517), (110, 33643), (111, 33646), (112, 33811), (117, 33928), (118, 33937), (122, 34111), (124, 34216), (128, 34327), (131, 34348), (135, 34471), (136, 34477), (137, 34519), (138, 34537), (150, 34681), (152, 34723), (155, 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), (23, 31829), (25, 31877), (31, 31940), (32, 31970), (35, 31997), (37, 32006), (41, 32024), (42, 32027), (47, 32081), (48, 32147), (60, 32540), (61, 32573), (65, 32693), (72, 32927), (84, 33131), (85, 33134), (87, 33191), (88, 33194), (90, 33206), (91, 33230), (92, 33248), (93, 33251), (94, 33263), (99, 33296), (101, 33338), (110, 33464), (111,

33467), (112, 33632), (113, 33686), (117, 33749), (118, 33758), (122, 33932), (124, 34037), (128, 34148), (131, 34169), (135, 34292), (136, 34298), (137, 34340), (138, 34358), (150, 34502), (152, 34544), (155, 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), (23, 31808), (25, 31856), (31, 31919), (32, 31949), (35, 31976), (37, 31985), (41, 32003), (42, 32006), (47, 32060), (48, 32126), (60, 32519), (61, 32552), (65, 32672), (72, 32906), (84, 33110), (85, 33113), (87, 33170), (88, 33173), (90, 33185), (91, 33209), (92, 33227), (93, 33230), (94, 33242), (99, 33275), (101, 33317), (110, 33443), (111, 33446), (112, 33611), (113, 33665), (117, 33728), (118, 33737), (122, 33911), (124, 34016), (128, 34127), (131, 34148), (135, 34271), (136, 34277), (137, 34319), (138, 34337), (150, 34481), (152, 34523), (155, 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), (23, 32883), (25, 32931), (31, 32994), (32, 33024), (35, 33051), (37, 33060), (41, 33078), (42, 33081), (47, 33135), (48, 33201), (60, 33594), (61, 33627), (65, 33747), (72, 33978), (84, 34182), (85, 34185), (87, 34242), (88, 34245), (90, 34257), (91, 34281), (92, 34299), (93, 34302), (94, 34314), (99, 34347), (101, 34389), (112, 34530), (113, 34584), (117, 34644), (118, 34653), (122, 34827), (124, 34932), (128, 35043), (131, 35064), (150, 35199), (152, 35241), (155, 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), (23, 31268), (25, 31316), (31, 31379), (32, 31409), (35, 31436), (37, 31445), (41, 31463), (42, 31466), (47, 31520), (48, 31586), (60, 31979), (61, 32012), (65, 32132), (72, 32366), (84, 32570), (85, 32573), (87, 32630), (88, 32633), (90, 32645), (91, 32669), (92, 32687), (93, 32690), (94, 32702), (99, 32735), (101, 32777), (110, 32903), (111, 32906), (112, 33071), (113, 33125), (117, 33188), (118, 33197), (122, 33371), (124, 33476), (128, 33587), (131, 33608), (135, 33731), (136, 33737), (137, 33779), (138, 33797), (150, 33941), (152, 33983), (155, 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), (23, 31718), (25, 31766), (31, 31829), (32, 31859), (35, 31886), (37, 31895), (42, 31916), (47, 31970), (48, 32036), (60, 32429), (61, 32462), (65, 32582), (72, 32813), (84, 33017), (85, 33020), (87, 33077), (88, 33080), (90, 33092), (91, 33116), (92, 33134), (93, 33137), (94, 33149), (99, 33182), (101, 33224), (112, 33365), (113, 33419), (117, 33482), (118, 33491), (122, 33665), (124, 33770), (128, 33881), (131, 33902), (150, 34037), (152, 34079), (155, 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), (23, 32884), (25, 32932), (31, 32995), (32, 33025), (35, 33052), (37, 33061), (42, 33082), (47, 33136), (48, 33202), (60, 33595), (61, 33628), (65, 33748), (72, 33982), (84, 34186), (85, 34189), (87, 34246), (88, 34249), (90, 34261), (91, 34285), (92, 34303), (93, 34306), (94, 34318), (99, 34351), (101, 34393), (110, 34519), (111, 34522), (112, 34687),

(113, 34741), (117, 34804), (118, 34813), (122, 34987), (124, 35092), (128, 35203), (131, 35224), (135, 35347), (136, 35353), (137, 35395), (138, 35413), (150, 35557), (152, 35599), (155, 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), (23, 32366), (25, 32414), (31, 32477), (32, 32507), (35, 32534), (37, 32543), (42, 32564), (47, 32618), (48, 32684), (60, 33077), (61, 33110), (65, 33230), (72, 33464), (84, 33668), (85, 33671), (87, 33728), (88, 33731), (90, 33743), (91, 33767), (92, 33785), (93, 33788), (94, 33800), (99, 33833), (101, 33875), (110, 34001), (111, 34004), (112, 34169), (113, 34223), (117, 34286), (118, 34295), (122, 34469), (124, 34574), (128, 34685), (131, 34706), (135, 34829), (136, 34835), (137, 34877), (138, 34895), (150, 35039), (152, 35081), (155, 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), (23, 32280), (25, 32328), (31, 32391), (32, 32421), (35, 32448), (37, 32457), (42, 32478), (47, 32532), (48, 32598), (60, 32991), (61, 33024), (65, 33144), (72, 33375), (84, 33579), (85, 33582), (87, 33639), (88, 33642), (90, 33654), (91, 33678), (92, 33696), (93, 33699), (94, 33711), (99, 33744), (101, 33786), (110, 33912), (111, 33915), (112, 34080), (117, 34197), (118, 34206), (122, 34380), (124, 34485), (128, 34596), (131, 34617), (135, 34740), (136, 34746), (137, 34788), (138, 34806), (150, 34950), (152, 34992), (155, 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), (23, 31216), (25, 31264), (31, 31327), (32, 31357), (35, 31384), (37, 31393), (42, 31414), (47, 31468), (48, 31534), (60, 31927), (61, 31960), (67, 32206), (72, 32317), (84, 32521), (85, 32524), (87, 32581), (88, 32584), (90, 32596), (91, 32620), (92, 32638), (93, 32641), (94, 32653), (99, 32686), (101, 32728), (112, 32869), (113, 32923), (117, 32983), (118, 32992), (122, 33166), (124, 33271), (128, 33382), (131, 33403), (150, 33538), (152, 33580), (155, 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), (23, 31420), (25, 31468), (31, 31531), (32, 31561), (35, 31588), (37, 31597), (42, 31618), (47, 31672), (48, 31738), (60, 32131), (61, 32164), (65, 32284), (72, 32515), (84, 32719), (85, 32722), (87, 32779), (88, 32782), (90, 32794), (91, 32818), (92, 32836), (93, 32839), (94, 32851), (99, 32884), (101, 32926), (110, 33052), (111, 33055), (112, 33220), (117, 33337), (118, 33346), (122, 33520), (124, 33625), (128, 33736), (131, 33757), (135, 33880), (136, 33886), (137, 33928), (138, 33946), (150, 34090), (152, 34132), (155, 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), (23, 31181), (25, 31229), (31, 31292), (32, 31322), (35, 31349), (37, 31358), (41, 31376), (42, 31379), (47, 31433), (48, 31499), (60, 31892), (61, 31925), (65, 32045), (72, 32279), (84, 32483), (85, 32486), (87, 32543), (88, 32546), (90, 32558), (91, 32582), (92, 32600), (93, 32603), (94, 32615), (99, 32648), (101, 32690), (110, 32816), (111, 32819), (112, 32984), (113, 33038), (117, 33101), (118, 33110), (122, 33284), (124, 33389), (128, 33500), (131, 33521), (135, 33644), (136, 33650), (137, 33692), (138, 33710), (150, 33854), (152, 33896), (155, 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), (23, 31159), (25, 31207), (31, 31270), (32, 31300), (35, 31327), (37, 31336), (42, 31357), (47, 31411), (48, 31477), (59, 31825), (60, 31861), (67, 32137), (72, 32248), (84, 32452), (85, 32455), (87, 32512), (88, 32515), (90, 32527), (91, 32551), (92, 32569), (93, 32572), (94, 32584), (99, 32617), (101, 32659), (110, 32785), (111, 32788), (112, 32953), (117, 33070), (118, 33079), (122, 33253), (124, 33358), (128, 33469), (131, 33490), (132, 33553), (133, 33619), (134, 33625), (139, 33718), (150, 33850), (152, 33892), (155, 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), (42, 34820), (47, 34874), (48, 34940), (60, 35333), (61, 35366), (65, 35486), (72, 35717), (84, 35921), (85, 35924), (87, 35981), (88, 35984), (90, 35996), (91, 36020), (92, 36038), (93, 36041), (94, 36053), (99, 36086), (101, 36128), (110, 36254), (111, 36257), (112, 36422), (117, 36539), (118, 36548), (122, 36722), (124, 36827), (128, 36938), (131, 36959), (135, 37082), (136, 37088), (137, 37130), (138, 37148), (145, 37409), (149, 37469), (150, 37550), (152, 37592), (155, 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), (42, 35462), (47, 35516), (48, 35582), (60, 35960), (61, 35993), (65, 36113), (72, 36344), (84, 36548), (85, 36551), (87, 36608), (88, 36611), (90, 36623), (91, 36647), (92, 36665), (93, 36668), (94, 36680), (99, 36713), (101, 36755), (110, 36881), (111, 36884), (112, 37049), (117, 37166), (118, 37175), (122, 37349), (124, 37454), (128, 37565), (131, 37586), (135, 37709), (136, 37715), (137, 37757), (138, 37775), (150, 37919), (152, 37961), (155, 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), (23, 32535), (25, 32583), (31, 32646), (32, 32676), (35, 32703), (37, 32712), (41, 32730), (42, 32733), (47, 32787), (48, 32853), (60, 33246), (61, 33279), (65, 33399), (72, 33633), (84, 33837), (85, 33840), (87, 33897), (88, 33900), (90, 33912), (91, 33936), (92, 33954), (93, 33957), (94, 33969), (99, 34002), (101, 34044), (110, 34170), (111, 34173), (112, 34338), (113, 34392), (117, 34455), (118, 34464), (122, 34638), (124, 34743), (128, 34854), (131, 34875), (135, 34998), (136, 35004), (137, 35046), (138, 35064), (150, 35208), (152, 35250), (155, 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), (23, 31033), (25, 31081), (28, 31132), (31, 31144), (32, 31174), (35, 31201), (37, 31210), (42, 31231), (47, 31285), (48, 31351), (60, 31744), (61, 31777), (67, 32023), (72, 32134), (84, 32338), (85, 32341), (87, 32398), (88, 32401), (90, 32413), (91, 32437), (92, 32455), (93, 32458), (94, 32470), (99, 32503), (101, 32545), (112, 32686), (113, 32740), (117, 32800), (118, 32809), (122, 32983), (124, 33088), (128, 33199), (131, 33220), (150, 33355), (152, 33397), (155, 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), (23, 31356), (25, 31404), (31, 31467), (32, 31497), (35, 31524), (37, 31533), (42, 31554), (47, 31608), (48, 31674), (60, 32067), (61, 32100), (65, 32220), (72, 32451), (84, 32655), (85, 32658), (87, 32715), (88, 32718), (90, 32730), (91, 32754), (92, 32772), (93, 32775), (94, 32787), (99, 32820), (101, 32862), (110, 32988), (111, 32991), (112, 33156), (117, 33273), (118, 33282), (122, 33456), (124, 33561), (128, 33672), (131, 33693), (135, 33816), (136, 33822), (137, 33864), (138, 33882), (150, 34026), (152, 34068), (155, 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), (42, 29551), (47, 29605), (48, 29671), (60, 30064), (61, 30097), (65, 30217), (72, 30448), (84, 30652), (85, 30655), (87, 30712), (88, 30715), (90, 30727), (91, 30751), (92, 30769), (93, 30772), (94, 30784), (99, 30817), (101, 30859), (110, 30985), (111, 30988), (112, 31153), (113, 31207), (117, 31270), (118, 31279), (122, 31453), (124, 31558), (128, 31669), (131, 31690), (135, 31813), (136, 31819), (137, 31861), (138, 31879), (150, 32023), (152, 32065), (155, 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), (23, 30855), (25, 30903), (31, 30966), (32, 30996), (35, 31023), (37, 31032), (42, 31053), (47, 31107), (48, 31173), (60, 31566), (61, 31599), (67, 31845), (72, 31956), (84, 32160), (85, 32163), (87, 32220), (88, 32223), (90, 32235), (91, 32259), (92, 32277), (93, 32280), (94, 32292), (99, 32325), (101, 32367), (112, 32508), (113, 32562), (117, 32622), (118, 32631), (122, 32805), (124, 32910), (128, 33021), (131, 33042), (150, 33177), (152, 33219), (155, 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), (23, 32928), (25, 32976), (31, 33039), (32, 33069), (35, 33096), (37, 33105), (42, 33126), (47, 33180), (48, 33246), (60, 33639), (61, 33672), (65, 33792), (72, 34026), (84, 34230), (85, 34233), (87, 34290), (88, 34293), (90, 34305), (91, 34329), (92, 34347), (93, 34350), (94, 34362), (99, 34395), (101, 34437), (110, 34563), (111, 34566), (112, 34731), (113, 34785), (117, 34848), (118, 34857), (122, 35031), (124, 35136), (128, 35247), (131, 35268), (135, 35391), (136, 35397), (137, 35439), (138, 35457), (150, 35601), (152, 35643), (155, 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), (23, 33119), (25, 33167), (31, 33230), (32, 33260), (35, 33287), (37, 33296), (42, 33317), (47, 33371), (48, 33437), (60, 33830), (61, 33863), (65, 33983), (72, 34217), (84, 34421), (85, 34424), (87, 34481), (88, 34484), (90, 34496), (91, 34520), (92, 34538), (93, 34541), (94, 34553), (99, 34586), (101, 34628), (110, 34754), (111, 34757), (112, 34922), (113, 34976), (117, 35039), (118, 35048), (122, 35222), (124, 35327), (128, 35438), (131, 35459), (135, 35582), (136, 35588), (137, 35630), (138, 35648), (150, 35792), (152, 35834), (155, 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), (23, 32427), (25, 32475), (31, 32538),

(32, 32568), (35, 32595), (37, 32604), (41, 32622), (42, 32625), (47, 32679), (48, 32745), (60, 33138), (61, 33171), (65, 33291), (72, 33525), (84, 33729), (85, 33732), (87, 33789), (88, 33792), (90, 33804), (91, 33828), (92, 33846), (93, 33849), (94, 33861), (99, 33894), (101, 33936), (110, 34062), (111, 34065), (112, 34230), (113, 34284), (117, 34347), (118, 34356), (122, 34530), (124, 34635), (128, 34746), (131, 34767), (135, 34890), (136, 34896), (137, 34938), (138, 34956), (150, 35100), (152, 35142), (155, 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), (23, 31653), (25, 31701), (31, 31764), (32, 31794), (35, 31821), (37, 31830), (42, 31851), (47, 31905), (48, 31971), (60, 32364), (61, 32397), (65, 32517), (72, 32748), (84, 32952), (85, 32955), (87, 33012), (88, 33015), (90, 33027), (91, 33051), (92, 33069), (93, 33072), (94, 33084), (99, 33117), (101, 33159), (110, 33285), (111, 33288), (112, 33453), (117, 33570), (118, 33579), (122, 33753), (124, 33858), (128, 33969), (131, 33990), (135, 34113), (136, 34119), (137, 34161), (138, 34179), (150, 34323), (152, 34365), (155, 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), (23, 33084), (25, 33132), (31, 33195), (32, 33225), (35, 33252), (37, 33261), (41, 33279), (42, 33282), (47, 33336), (48, 33402), (60, 33795), (61, 33828), (65, 33948), (72, 34182), (84, 34386), (85, 34389), (87, 34446), (88, 34449), (90, 34461), (91, 34485), (92, 34503), (93, 34506), (94, 34518), (99, 34551), (101, 34593), (110, 34719), (111, 34722), (112, 34887), (113, 34941), (117, 35004), (118, 35013), (122, 35187), (124, 35292), (128, 35403), (131, 35424), (135, 35547), (136, 35553), (137, 35595), (138, 35613), (150, 35757), (152, 35799), (155, 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), (23, 34135), (25, 34183), (31, 34246), (32, 34276), (35, 34303), (37, 34312), (41, 34330), (42, 34333), (47, 34387), (48, 34453), (60, 34846), (61, 34879), (65, 34999), (72, 35233), (84, 35437), (85, 35440), (87, 35497), (88, 35500), (90, 35512), (91, 35536), (92, 35554), (93, 35557), (94, 35569), (99, 35602), (101, 35644), (110, 35770), (111, 35773), (112, 35938), (113, 35992), (117, 36055), (118, 36064), (122, 36238), (124, 36343), (128, 36454), (131, 36475), (135, 36598), (136, 36604), (137, 36646), (138, 36664), (150, 36808), (152, 36850), (155, 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), (23, 31140), (25, 31188), (28, 31239), (31, 31251), (32, 31281), (35, 31308), (37, 31317), (42, 31338), (47, 31392), (48, 31458), (60, 31851), (61, 31884), (67, 32130), (72, 32241), (84, 32445), (85, 32448), (87, 32505), (88, 32508), (90, 32520), (91, 32544), (92, 32562), (93, 32565), (94, 32577), (99, 32610), (101, 32652), (112, 32793), (113, 32847), (117, 32907), (118, 32916), (122, 33090), (124, 33195), (128, 33306), (131, 33327), (150, 33462), (152, 33504), (155, 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), (23, 32657), (25, 32705), (31, 32768),

(32, 32798), (35, 32825), (37, 32834), (42, 32855), (47, 32909), (48, 32975), (60, 33368), (61, 33401), (65, 33521), (72, 33755), (84, 33959), (85, 33962), (87, 34019), (88, 34022), (90, 34034), (91, 34058), (92, 34076), (93, 34079), (94, 34091), (99, 34124), (101, 34166), (110, 34292), (111, 34295), (112, 34460), (117, 34577), (118, 34586), (122, 34760), (124, 34865), (128, 34976), (131, 34997), (135, 35120), (136, 35126), (137, 35168), (138, 35186), (150, 35330), (152, 35372), (155, 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), (42, 29161), (47, 29215), (48, 29281), (60, 29674), (61, 29707), (65, 29827), (72, 30058), (84, 30262), (85, 30265), (87, 30322), (88, 30325), (90, 30337), (91, 30361), (92, 30379), (93, 30382), (94, 30394), (99, 30427), (101, 30469), (110, 30595), (111, 30598), (112, 30763), (113, 30817), (117, 30880), (118, 30889), (122, 31063), (124, 31168), (128, 31279), (131, 31300), (135, 31423), (136, 31429), (137, 31471), (138, 31489), (150, 31633), (152, 31675), (155, 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), (23, 32954), (25, 33002), (31, 33065), (32, 33095), (35, 33122), (37, 33131), (41, 33149), (42, 33152), (47, 33206), (48, 33272), (60, 33665), (61, 33698), (65, 33818), (72, 34052), (84, 34256), (85, 34259), (87, 34316), (88, 34319), (90, 34331), (91, 34355), (92, 34373), (93, 34376), (94, 34388), (99, 34421), (101, 34463), (110, 34589), (111, 34592), (112, 34757), (113, 34811), (117, 34874), (118, 34883), (122, 35057), (124, 35162), (128, 35273), (131, 35294), (135, 35417), (136, 35423), (137, 35465), (138, 35483), (150, 35627), (152, 35669), (155, 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), (23, 32479), (25, 32527), (31, 32590), (32, 32620), (35, 32647), (37, 32656), (41, 32674), (42, 32677), (47, 32731), (48, 32797), (60, 33190), (61, 33223), (65, 33343), (72, 33577), (84, 33781), (85, 33784), (87, 33841), (88, 33844), (90, 33856), (91, 33880), (92, 33898), (93, 33901), (94, 33913), (99, 33946), (101, 33988), (110, 34114), (111, 34117), (112, 34282), (113, 34336), (117, 34399), (118, 34408), (122, 34582), (124, 34687), (128, 34798), (131, 34819), (135, 34942), (136, 34948), (137, 34990), (138, 35008), (150, 35152), (152, 35194), (155, 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), (23, 31280), (25, 31328), (31, 31391), (32, 31421), (35, 31448), (37, 31457), (42, 31478), (47, 31532), (48, 31598), (59, 31976), (60, 32012), (67, 32288), (72, 32399), (84, 32603), (85, 32606), (87, 32663), (88, 32666), (90, 32678), (91, 32702), (92, 32720), (93, 32723), (94, 32735), (99, 32768), (101, 32810), (112, 32951), (113, 33005), (117, 33068), (118, 33077), (122, 33251), (124, 33356), (128, 33467), (131, 33488), (150, 33623), (152, 33665), (155, 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), (23, 31216), (25, 31264), (31, 31327), (32, 31357), (35, 31384), (37, 31393), (42, 31414), (47, 31468), (48, 31534), (60, 31927), (61, 31960),

(67, 32206), (72, 32317), (84, 32521), (85, 32524), (87, 32581), (88, 32584), (90, 32596), (91, 32620), (92, 32638), (93, 32641), (94, 32653), (99, 32686), (101, 32728), (112, 32869), (113, 32923), (117, 32983), (118, 32992), (122, 33166), (124, 33271), (128, 33382), (131, 33403), (150, 33538), (152, 33580), (155, 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), (23, 30655), (25, 30703), (31, 30766), (32, 30796), (35, 30823), (37, 30832), (42, 30853), (47, 30907), (48, 30973), (60, 31366), (61, 31399), (65, 31519), (72, 31753), (84, 31957), (85, 31960), (87, 32017), (88, 32020), (90, 32032), (91, 32056), (92, 32074), (93, 32077), (94, 32089), (99, 32122), (101, 32164), (110, 32290), (111, 32293), (112, 32458), (117, 32575), (118, 32584), (122, 32758), (124, 32863), (128, 32974), (131, 32995), (135, 33118), (136, 33124), (137, 33166), (138, 33184), (150, 33328), (152, 33370), (155, 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), (23, 30931), (25, 30979), (31, 31042), (32, 31072), (35, 31099), (37, 31108), (42, 31129), (47, 31183), (48, 31249), (60, 31642), (61, 31675), (67, 31921), (72, 32032), (84, 32236), (85, 32239), (87, 32296), (88, 32299), (90, 32311), (91, 32335), (92, 32353), (93, 32356), (94, 32368), (99, 32401), (101, 32443), (112, 32584), (113, 32638), (117, 32698), (118, 32707), (122, 32881), (124, 32986), (128, 33097), (131, 33118), (150, 33253), (152, 33295), (155, 33379),

Gene: CherryTomatoes\_86 Start: 33329, Stop: 36184, Start Num: 22

Candidate Starts for CherryTomatoes\_86:

(Start: 22 @33329 has 4 MA's), (26, 33410), (27, 33422), (36, 33500), (43, 33563), (44, 33572), (46, 33584), (49, 33647), (50, 33806), (51, 33812), (54, 33917), (72, 34412), (73, 34415), (74, 34448), (86, 34685), (88, 34709), (90, 34721), (97, 34802), (98, 34805), (102, 34856), (125, 35447), (126, 35453), (129, 35492), (130, 35495), (151, 35858), (153, 35927), (154, 35948), (155, 35987), (157, 36083), (158, 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), (23, 31264), (25, 31312), (31, 31375), (32, 31405), (35, 31432), (37, 31441), (42, 31462), (47, 31516), (48, 31582), (60, 31975), (61, 32008), (67, 32254), (72, 32365), (84, 32569), (85, 32572), (87, 32629), (88, 32632), (90, 32644), (91, 32668), (92, 32686), (93, 32689), (94, 32701), (99, 32734), (101, 32776), (112, 32917), (113, 32971), (117, 33031), (118, 33040), (122, 33214), (124, 33319), (128, 33430), (131, 33451), (150, 33586), (152, 33628), (155, 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), (23, 32316), (25, 32364), (31, 32427), (32, 32457), (35, 32484), (37, 32493), (42, 32514), (47, 32568), (48, 32634), (60, 33027), (61, 33060), (65, 33180), (72, 33411), (84, 33615), (85, 33618), (87, 33675), (88, 33678), (90, 33690), (91, 33714), (92, 33732), (93, 33735), (94, 33747), (99, 33780), (101, 33822), (110, 33948), (111, 33951), (112, 34116), (117, 34233), (118, 34242), (122, 34416), (124, 34521), (128, 34632), (131, 34653), (135, 34776), (136, 34782), (137, 34824), (138, 34842), (150, 34986), (152, 35028), (155, 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), (23, 32354), (25, 32402), (31, 32465), (32, 32495), (35, 32522), (37, 32531), (41, 32549), (42, 32552), (47, 32606), (48, 32672), (60, 33065), (61, 33098), (65, 33218), (72, 33452), (84, 33656), (85, 33659), (87, 33716), (88, 33719), (90, 33731), (91, 33755), (92, 33773), (93, 33776), (94, 33788), (99, 33821), (101, 33863), (110, 33989), (111, 33992), (112, 34157), (113, 34211), (117, 34274), (118, 34283), (122, 34457), (124, 34562), (128, 34673), (131, 34694), (135, 34817), (136, 34823), (137, 34865), (138, 34883), (150, 35027), (152, 35069), (155, 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), (23, 32215), (25, 32263), (31, 32326), (32, 32356), (35, 32383), (37, 32392), (42, 32413), (47, 32467), (48, 32533), (60, 32926), (61, 32959), (65, 33079), (72, 33313), (84, 33517), (85, 33520), (87, 33577), (88, 33580), (90, 33592), (91, 33616), (92, 33634), (93, 33637), (94, 33649), (99, 33682), (101, 33724), (110, 33850), (111, 33853), (112, 34018), (113, 34072), (117, 34135), (118, 34144), (122, 34318), (124, 34423), (128, 34534), (131, 34555), (135, 34678), (136, 34684), (137, 34726), (138, 34744), (150, 34888), (152, 34930), (155, 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), (42, 30223), (47, 30277), (48, 30343), (60, 30736), (61, 30769), (65, 30889), (72, 31120), (84, 31324), (85, 31327), (87, 31384), (88, 31387), (90, 31399), (91, 31423), (92, 31441), (93, 31444), (94, 31456), (99, 31489), (101, 31531), (110, 31657), (111, 31660), (112, 31825), (113, 31879), (117, 31942), (118, 31951), (122, 32125), (124, 32230), (128, 32341), (131, 32362), (135, 32485), (136, 32491), (137, 32533), (138, 32551), (150, 32695), (152, 32737), (155, 32842),

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

Candidate Starts for Concombres\_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), (23, 35073), (25, 35121), (31, 35184), (32, 35214), (35, 35241), (37, 35250), (42, 35271), (47, 35325), (48, 35391), (60, 35784), (61, 35817), (65, 35937), (72, 36168), (84, 36372), (85, 36375), (87, 36432), (88, 36435), (90, 36447), (91, 36471), (92, 36489), (93, 36492), (94, 36504), (99, 36537), (101, 36579), (110, 36705), (111, 36708), (112, 36873), (113, 36927), (117, 36990), (118, 36999), (122, 37173), (124, 37278), (128, 37389), (131, 37410), (135, 37533), (136, 37539), (137, 37581), (138, 37599), (150, 37743), (152, 37785), (155, 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), (23, 32993), (25, 33041), (31, 33104), (32, 33134), (35, 33161), (37, 33170), (42, 33191), (47, 33245), (48, 33311), (60, 33704), (61, 33737), (65, 33857), (72, 34088), (84, 34292), (85, 34295), (87, 34352), (88, 34355), (90, 34367), (91, 34391), (92, 34409), (93, 34412), (94, 34424), (99, 34457), (101, 34499), (110, 34625), (111, 34628), (112, 34793), (117, 34910), (118, 34919), (122, 35093), (124, 35198), (128, 35309), (131, 35330), (135, 35453), (136, 35459), (137, 35501), (138, 35519), (150, 35663), (152, 35705), (155, 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), (23, 32823), (25, 32871), (31, 32934), (32, 32964), (35, 32991), (37, 33000), (41, 33018), (42, 33021), (47, 33075), (48, 33141), (60, 33534), (61, 33567), (65, 33687), (72, 33921), (84, 34125), (85, 34128), (87, 34185), (88, 34188), (90, 34200), (91, 34224), (92, 34242), (93, 34245), (94, 34257), (99, 34290), (101, 34332), (110, 34458), (111, 34461), (112, 34626), (113, 34680), (117, 34743), (118, 34752), (122, 34926), (124, 35031), (128, 35142), (131, 35163), (135, 35286), (136, 35292), (137, 35334), (138, 35352), (150, 35496), (152, 35538), (155, 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), (23, 35495), (25, 35543), (31, 35606), (32, 35636), (35, 35663), (37, 35672), (42, 35693), (47, 35747), (48, 35813), (59, 36191), (60, 36227), (67, 36503), (72, 36614), (84, 36818), (85, 36821), (87, 36878), (88, 36881), (90, 36893), (91, 36917), (92, 36935), (93, 36938), (94, 36950), (99, 36983), (101, 37025), (110, 37151), (111, 37154), (112, 37319), (117, 37436), (118, 37445), (122, 37619), (124, 37724), (128, 37835), (131, 37856), (135, 37979), (136, 37985), (137, 38027), (138, 38045), (150, 38189), (152, 38231), (155, 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), (23, 32754), (25, 32802), (31, 32865), (32, 32895), (35, 32922), (37, 32931), (42, 32952), (47, 33006), (48, 33072), (60, 33465), (61, 33498), (65, 33618), (72, 33852), (84, 34056), (85, 34059), (87, 34116), (88, 34119), (90, 34131), (91, 34155), (92, 34173), (93, 34176), (94, 34188), (99, 34221), (101, 34263), (110, 34389), (111, 34392), (112, 34557), (113, 34611), (117, 34674), (118, 34683), (122, 34857), (124, 34962), (128, 35073), (131, 35094), (135, 35217), (136, 35223), (137, 35265), (138, 35283), (150, 35427), (152, 35469), (155, 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), (23, 29071), (25, 29119), (31, 29182), (32, 29212), (35, 29239), (37, 29248), (41, 29266), (42, 29269), (47, 29323), (48, 29389), (60, 29782), (61, 29815), (65, 29935), (67, 30058), (72, 30169), (84, 30373), (85, 30376), (87, 30433), (88, 30436), (90, 30448), (91, 30472), (92, 30490), (93, 30493), (94, 30505), (99, 30538), (101, 30580), (112, 30721), (113, 30775), (117, 30835), (118, 30844), (122, 31018), (124, 31123), (128, 31234), (131, 31255), (150, 31390), (152, 31432), (155, 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), (23, 32824), (25, 32872), (31, 32935), (32, 32965), (35, 32992), (37, 33001), (41, 33019), (42, 33022), (47, 33076), (48, 33142), (60, 33535), (61, 33568), (65, 33688), (72, 33922), (84, 34126), (85, 34129), (87, 34186), (88, 34189), (90, 34201), (91, 34225), (92, 34243), (93, 34246), (94, 34258), (99, 34291), (101, 34333), (110, 34459), (111, 34462), (112, 34627), (113, 34681), (117, 34744), (118, 34753), (122, 34927), (124, 35032), (128, 35143), (131, 35164), (135, 35287), (136, 35293), (137, 35335), (138, 35353), (150, 35497), (152, 35539), (155, 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), (23, 32617), (25, 32665), (31, 32728), (32, 32758), (35, 32785), (37, 32794), (41, 32812), (42, 32815), (47, 32869), (48, 32935), (60, 33328), (61, 33361), (65, 33481), (72, 33715), (84, 33919), (85, 33922), (87, 33979), (88, 33982), (90, 33994), (91, 34018), (92, 34036), (93, 34039), (94, 34051), (99, 34084), (101, 34126), (110, 34252), (111, 34255), (112, 34420), (113, 34474), (117, 34537), (118, 34546), (122, 34720), (124, 34825), (128, 34936), (131, 34957), (135, 35080), (136, 35086), (137, 35128), (138, 35146), (150, 35290), (152, 35332), (155, 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), (23, 35073), (25, 35121), (31, 35184), (32, 35214), (35, 35241), (37, 35250), (42, 35271), (47, 35325), (48, 35391), (60, 35784), (61, 35817), (65, 35937), (72, 36168), (84, 36372), (85, 36375), (87, 36432), (88, 36435), (90, 36447), (91, 36471), (92, 36489), (93, 36492), (94, 36504), (99, 36537), (101, 36579), (110, 36705), (111, 36708), (112, 36873), (113, 36927), (117, 36990), (118, 36999), (122, 37173), (124, 37278), (128, 37389), (131, 37410), (135, 37533), (136, 37539), (137, 37581), (138, 37599), (150, 37743), (152, 37785), (155, 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), (23, 32118), (25, 32166), (31, 32229), (32, 32259), (35, 32286), (37, 32295), (42, 32316), (47, 32370), (48, 32436), (60, 32829), (61, 32862), (65, 32982), (72, 33213), (84, 33417), (85, 33420), (87, 33477), (88, 33480), (90, 33492), (91, 33516), (92, 33534), (93, 33537), (94, 33549), (99, 33582), (101, 33624), (110, 33750), (111, 33753), (112, 33918), (117, 34035), (118, 34044), (122, 34218), (124, 34323), (128, 34434), (131, 34455), (135, 34578), (136, 34584), (137, 34626), (138, 34644), (150, 34788), (152, 34830), (155, 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), (23, 31829), (25, 31877), (31, 31940), (32, 31970), (35, 31997), (37, 32006), (41, 32024), (42, 32027), (47, 32081), (48, 32147), (60, 32540), (61, 32573), (65, 32693), (72, 32927), (84, 33131), (85, 33134), (87, 33191), (88, 33194), (90, 33206), (91, 33230), (92, 33248), (93, 33251), (94, 33263), (99, 33296), (101, 33338), (110, 33464), (111, 33467), (112, 33632), (113, 33686), (117, 33749), (118, 33758), (122, 33932), (124, 34037), (128, 34148), (131, 34169), (135, 34292), (136, 34298), (137, 34340), (138, 34358), (150, 34502), (152, 34544), (155, 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), (23, 30942), (25, 30990), (31, 31053), (32, 31083), (35, 31110), (37, 31119), (42, 31140), (47, 31194), (48, 31260), (59, 31638), (60, 31674), (67, 31950), (72, 32061), (84, 32265), (85, 32268), (87, 32325), (88, 32328), (90, 32340), (91, 32364), (92, 32382), (93, 32385), (94, 32397), (99, 32430), (101, 32472), (112, 32613), (113, 32667), (117, 32730), (118, 32739), (122, 32913), (124, 33018), (128, 33129), (131, 33150), (150, 33285), (152, 33327), (155, 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), (23, 31419), (25, 31467), (31, 31530), (32, 31560), (35, 31587), (37, 31596), (42, 31617), (47, 31671), (48, 31737), (60, 32130), (61, 32163), (65, 32283), (72, 32514), (84, 32718), (85, 32721), (87, 32778), (88, 32781), (90, 32793), (91, 32817), (92, 32835), (93, 32838), (94, 32850), (99, 32883), (101, 32925), (110, 33051), (111, 33054), (112, 33219), (113, 33273), (117, 33336), (118, 33345), (122, 33519), (124, 33624), (128, 33735), (131, 33756), (135, 33879), (136, 33885), (137, 33927), (138, 33945), (150, 34089), (152, 34131), (155, 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), (23, 32148), (25, 32196), (31, 32259), (32, 32289), (35, 32316), (37, 32325), (42, 32346), (47, 32400), (48, 32466), (60, 32859), (61, 32892), (65, 33012), (72, 33246), (84, 33450), (85, 33453), (87, 33510), (88, 33513), (90, 33525), (91, 33549), (92, 33567), (93, 33570), (94, 33582), (99, 33615), (101, 33657), (110, 33783), (111, 33786), (112, 33951), (113, 34005), (117, 34068), (118, 34077), (122, 34251), (124, 34356), (128, 34467), (131, 34488), (135, 34611), (136, 34617), (137, 34659), (138, 34677), (150, 34821), (152, 34863), (155, 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), (23, 32879), (25, 32927), (31, 32990), (32, 33020), (35, 33047), (37, 33056), (41, 33074), (42, 33077), (47, 33131), (48, 33197), (60, 33590), (61, 33623), (65, 33743), (72, 33977), (84, 34181), (85, 34184), (87, 34241), (88, 34244), (90, 34256), (91, 34280), (92, 34298), (93, 34301), (94, 34313), (99, 34346), (101, 34388), (110, 34514), (111, 34517), (112, 34682), (113, 34736), (117, 34799), (118, 34808), (122, 34982), (124, 35087), (128, 35198), (131, 35219), (135, 35342), (136, 35348), (137, 35390), (138, 35408), (150, 35552), (152, 35594), (155, 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), (23, 32624), (25, 32672), (31, 32735), (32, 32765), (35, 32792), (37, 32801), (42, 32822), (47, 32876), (48, 32942), (60, 33335), (61, 33368), (65, 33488), (72, 33719), (84, 33923), (85, 33926), (87, 33983), (88, 33986), (90, 33998), (91, 34022), (92, 34040), (93, 34043), (94, 34055), (99, 34088), (101, 34130), (110, 34256), (111, 34259), (112, 34424), (117, 34541), (118, 34550), (122, 34724), (124, 34829), (128, 34940), (131, 34961), (135, 35084), (136, 35090), (137, 35132), (138, 35150), (150, 35294), (152, 35336), (155, 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), (23, 30622), (25, 30670), (31, 30733), (32, 30763), (35, 30790), (37, 30799), (42, 30820), (47, 30874), (48, 30940), (60, 31333), (61, 31366), (65, 31486), (72, 31720), (84, 31924), (85, 31927), (87, 31984), (88, 31987), (90, 31999), (91, 32023), (92, 32041), (93, 32044), (94, 32056), (99, 32089), (101, 32131), (110, 32257), (111, 32260), (112, 32425), (117, 32542), (118, 32551), (122, 32725), (124, 32830), (128, 32941), (131, 32962), (135, 33085), (136, 33091), (137, 33133), (138, 33151), (150, 33295), (152, 33337), (155, 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), (23, 30523), (25, 30571), (31, 30634), (32, 30664), (35, 30691), (37, 30700), (42, 30721), (47, 30775), (48, 30841), (60, 31234), (61, 31267), (65, 31387), (72, 31621), (84, 31825), (85, 31828), (87, 31885), (88, 31888), (90, 31900), (91, 31924), (92, 31942), (93, 31945), (94, 31957), (99, 31990), (101, 32032), (110, 32158), (111, 32161), (112, 32326), (117, 32443), (118, 32452), (122, 32626), (124, 32731), (128, 32842), (131, 32863), (135, 32986), (136, 32992), (137, 33034), (138, 33052), (150, 33196), (152, 33238), (155, 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), (23, 32323), (25, 32371), (31, 32434), (32, 32464), (35, 32491), (37, 32500), (42, 32521), (47, 32575), (48, 32641), (60, 33034), (61, 33067), (67, 33313), (72, 33424), (84, 33628), (85, 33631), (87, 33688), (88, 33691), (90, 33703), (91, 33727), (92, 33745), (93, 33748), (94, 33760), (99, 33793), (101, 33835), (112, 33976), (113, 34030), (117, 34090), (118, 34099), (122, 34273), (124, 34378), (128, 34489), (131, 34510), (150, 34645), (152, 34687), (155, 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), (42, 34820), (47, 34874), (48, 34940), (60, 35333), (61, 35366), (65, 35486), (72, 35717), (84, 35921), (85, 35924), (87, 35981), (88, 35984), (90, 35996), (91, 36020), (92, 36038), (93, 36041), (94, 36053), (99, 36086), (101, 36128), (110, 36254), (111, 36257), (112, 36422), (117, 36539), (118, 36548), (122, 36722), (124, 36827), (128, 36938), (131, 36959), (135, 37082), (136, 37088), (137, 37130), (138, 37148), (145, 37409), (149, 37469), (150, 37550), (152, 37592), (155, 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), (23, 34296), (25, 34344), (31, 34407), (32, 34437), (35, 34464), (37, 34473), (42, 34494), (47, 34548), (48, 34614), (60, 35007), (61, 35040), (65, 35160), (72, 35394), (84, 35598), (85, 35601), (87, 35658), (88, 35661), (90, 35673), (91, 35697), (92, 35715), (93, 35718), (94, 35730), (99, 35763), (101, 35805), (110, 35931), (111, 35934), (112, 36099), (117, 36216), (118, 36225), (122, 36399), (124, 36504), (128, 36615), (131, 36636), (135, 36759), (136, 36765), (137, 36807), (138, 36825), (150, 36969), (152, 37011), (155, 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), (23, 31399), (25, 31447), (31, 31510), (32, 31540), (35, 31567), (37, 31576), (42, 31597), (47, 31651), (48, 31717), (60, 32110), (61, 32143), (65, 32263), (72, 32494), (84, 32698), (85, 32701), (87, 32758), (88, 32761), (90, 32773), (91, 32797), (92, 32815), (93, 32818), (94, 32830), (99, 32863), (101, 32905), (110, 33031), (111, 33034), (112, 33199), (117, 33316), (118, 33325), (122, 33499), (124, 33604), (128, 33715), (131, 33736), (135, 33859), (136, 33865), (137, 33907), (138, 33925), (150, 34069), (152, 34111), (155, 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), (23, 32824), (25, 32872), (31, 32935), (32, 32965), (35, 32992), (37, 33001), (41, 33019), (42, 33022), (47, 33076), (48, 33142), (60, 33535),

(61, 33568), (65, 33688), (72, 33922), (84, 34126), (85, 34129), (87, 34186), (88, 34189), (90, 34201), (91, 34225), (92, 34243), (93, 34246), (94, 34258), (99, 34291), (101, 34333), (110, 34459), (111, 34462), (112, 34627), (113, 34681), (117, 34744), (118, 34753), (122, 34927), (124, 35032), (128, 35143), (131, 35164), (135, 35287), (136, 35293), (137, 35335), (138, 35353), (150, 35497), (152, 35539), (155, 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), (23, 31220), (25, 31268), (31, 31331), (32, 31361), (35, 31388), (37, 31397), (42, 31418), (47, 31472), (48, 31538), (59, 31916), (60, 31952), (67, 32228), (72, 32339), (84, 32543), (85, 32546), (87, 32603), (88, 32606), (90, 32618), (91, 32642), (92, 32660), (93, 32663), (94, 32675), (99, 32708), (101, 32750), (112, 32891), (113, 32945), (117, 33008), (118, 33017), (122, 33191), (124, 33296), (128, 33407), (131, 33428), (150, 33563), (152, 33605), (155, 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), (23, 31579), (25, 31627), (31, 31690), (32, 31720), (35, 31747), (37, 31756), (41, 31774), (42, 31777), (47, 31831), (48, 31897), (60, 32290), (61, 32323), (65, 32443), (72, 32677), (84, 32881), (85, 32884), (87, 32941), (88, 32944), (90, 32956), (91, 32980), (92, 32998), (93, 33001), (94, 33013), (99, 33046), (101, 33088), (110, 33214), (111, 33217), (112, 33382), (113, 33436), (117, 33499), (118, 33508), (122, 33682), (124, 33787), (128, 33898), (131, 33919), (135, 34042), (136, 34048), (137, 34090), (138, 34108), (150, 34252), (152, 34294), (155, 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), (23, 32826), (25, 32874), (31, 32937), (32, 32967), (35, 32994), (37, 33003), (41, 33021), (42, 33024), (47, 33078), (48, 33144), (60, 33537), (61, 33570), (65, 33690), (72, 33921), (84, 34125), (85, 34128), (87, 34185), (88, 34188), (90, 34200), (91, 34224), (92, 34242), (93, 34245), (94, 34257), (99, 34290), (101, 34332), (112, 34473), (113, 34527), (117, 34590), (118, 34599), (122, 34773), (124, 34878), (128, 34989), (131, 35010), (150, 35145), (152, 35187), (155, 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), (23, 31029), (25, 31077), (31, 31140), (32, 31170), (35, 31197), (37, 31206), (41, 31224), (42, 31227), (47, 31281), (48, 31347), (60, 31740), (61, 31773), (65, 31893), (72, 32127), (84, 32331), (85, 32334), (87, 32391), (88, 32394), (90, 32406), (91, 32430), (92, 32448), (93, 32451), (94, 32463), (99, 32496), (101, 32538), (110, 32664), (111, 32667), (112, 32832), (113, 32886), (117, 32949), (118, 32958), (122, 33132), (124, 33237), (128, 33348), (131, 33369), (135, 33492), (136, 33498), (137, 33540), (138, 33558), (150, 33702), (152, 33744), (155, 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), (23, 31001), (25, 31049), (31, 31112), (32, 31142), (35, 31169), (37, 31178), (42, 31199), (47, 31253), (48, 31319), (60, 31712), (61, 31745),

(67, 31991), (72, 32102), (84, 32306), (85, 32309), (87, 32366), (88, 32369), (90, 32381), (91, 32405), (92, 32423), (93, 32426), (94, 32438), (99, 32471), (101, 32513), (112, 32654), (113, 32708), (117, 32768), (118, 32777), (122, 32951), (124, 33056), (128, 33167), (131, 33188), (150, 33323), (152, 33365), (155, 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), (23, 31663), (25, 31711), (31, 31774), (32, 31804), (35, 31831), (37, 31840), (42, 31861), (47, 31915), (48, 31981), (60, 32374), (61, 32407), (67, 32653), (72, 32764), (84, 32968), (85, 32971), (87, 33028), (88, 33031), (90, 33043), (91, 33067), (92, 33085), (93, 33088), (94, 33100), (99, 33133), (101, 33175), (112, 33316), (113, 33370), (117, 33430), (118, 33439), (122, 33613), (124, 33718), (128, 33829), (131, 33850), (150, 33985), (152, 34027), (155, 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), (23, 33039), (25, 33087), (31, 33150), (32, 33180), (35, 33207), (37, 33216), (41, 33234), (42, 33237), (47, 33291), (48, 33357), (60, 33750), (61, 33783), (65, 33903), (72, 34134), (84, 34338), (85, 34341), (87, 34398), (88, 34401), (90, 34413), (91, 34437), (92, 34455), (93, 34458), (94, 34470), (99, 34503), (101, 34545), (112, 34686), (113, 34740), (117, 34803), (118, 34812), (122, 34986), (124, 35091), (128, 35202), (131, 35223), (150, 35358), (152, 35400), (155, 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), (23, 33226), (25, 33274), (31, 33337), (32, 33367), (35, 33394), (37, 33403), (42, 33424), (47, 33478), (48, 33544), (60, 33937), (61, 33970), (65, 34090), (72, 34321), (84, 34525), (85, 34528), (87, 34585), (88, 34588), (90, 34600), (91, 34624), (92, 34642), (93, 34645), (94, 34657), (99, 34690), (101, 34732), (110, 34858), (111, 34861), (112, 35026), (113, 35080), (117, 35143), (118, 35152), (122, 35326), (124, 35431), (128, 35542), (131, 35563), (135, 35686), (136, 35692), (137, 35734), (138, 35752), (150, 35896), (152, 35938), (155, 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), (23, 34269), (25, 34317), (31, 34380), (32, 34410), (35, 34437), (37, 34446), (42, 34467), (47, 34521), (48, 34587), (60, 34980), (61, 35013), (65, 35133), (72, 35367), (84, 35571), (85, 35574), (87, 35631), (88, 35634), (90, 35646), (91, 35670), (92, 35688), (93, 35691), (94, 35703), (99, 35736), (101, 35778), (110, 35904), (111, 35907), (112, 36072), (113, 36126), (117, 36189), (118, 36198), (122, 36372), (124, 36477), (128, 36588), (131, 36609), (135, 36732), (136, 36738), (137, 36780), (138, 36798), (150, 36942), (152, 36984), (155, 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), (23, 31992), (25, 32040), (31, 32103), (32, 32133), (35, 32160), (37, 32169), (42, 32190), (47, 32244), (48, 32310), (59, 32688), (60, 32724), (67, 33000), (72, 33111), (84, 33315), (85, 33318), (87, 33375), (88, 33378), (90, 33390), (91, 33414), (92, 33432), (93, 33435), (94, 33447), (99, 33480), (101, 33522), (110, 33648), (111, 33651), (112,

33816), (117, 33933), (118, 33942), (122, 34116), (124, 34221), (128, 34332), (131, 34353), (135, 34476), (136, 34482), (137, 34524), (138, 34542), (150, 34686), (152, 34728), (155, 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), (23, 32062), (25, 32110), (31, 32173), (32, 32203), (35, 32230), (37, 32239), (42, 32260), (47, 32314), (48, 32380), (60, 32773), (61, 32806), (65, 32926), (72, 33157), (84, 33361), (85, 33364), (87, 33421), (88, 33424), (90, 33436), (91, 33460), (92, 33478), (93, 33481), (94, 33493), (99, 33526), (101, 33568), (110, 33694), (111, 33697), (112, 33862), (117, 33979), (118, 33988), (122, 34162), (124, 34267), (128, 34378), (131, 34399), (135, 34522), (136, 34528), (137, 34570), (138, 34588), (150, 34732), (152, 34774), (155, 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), (23, 31829), (25, 31877), (31, 31940), (32, 31970), (35, 31997), (37, 32006), (41, 32024), (42, 32027), (47, 32081), (48, 32147), (60, 32540), (61, 32573), (65, 32693), (72, 32927), (84, 33131), (85, 33134), (87, 33191), (88, 33194), (90, 33206), (91, 33230), (92, 33248), (93, 33251), (94, 33263), (99, 33296), (101, 33338), (110, 33464), (111, 33467), (112, 33632), (113, 33686), (117, 33749), (118, 33758), (122, 33932), (124, 34037), (128, 34148), (131, 34169), (135, 34292), (136, 34298), (137, 34340), (138, 34358), (150, 34502), (152, 34544), (155, 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), (23, 31829), (25, 31877), (31, 31940), (32, 31970), (35, 31997), (37, 32006), (41, 32024), (42, 32027), (47, 32081), (48, 32147), (60, 32540), (61, 32573), (65, 32693), (72, 32927), (84, 33131), (85, 33134), (87, 33191), (88, 33194), (90, 33206), (91, 33230), (92, 33248), (93, 33251), (94, 33263), (99, 33296), (101, 33338), (110, 33464), (111, 33467), (112, 33632), (113, 33686), (117, 33749), (118, 33758), (122, 33932), (124, 34037), (128, 34148), (131, 34169), (135, 34292), (136, 34298), (137, 34340), (138, 34358), (150, 34502), (152, 34544), (155, 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), (23, 32507), (25, 32555), (31, 32618), (32, 32648), (35, 32675), (37, 32684), (41, 32702), (42, 32705), (47, 32759), (48, 32825), (60, 33218), (61, 33251), (65, 33371), (72, 33602), (84, 33806), (85, 33809), (87, 33866), (88, 33869), (90, 33881), (91, 33905), (92, 33923), (93, 33926), (94, 33938), (99, 33971), (101, 34013), (112, 34154), (113, 34208), (117, 34271), (118, 34280), (122, 34454), (124, 34559), (128, 34670), (131, 34691), (150, 34826), (152, 34868), (155, 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), (23, 31829), (25, 31877), (31, 31940), (32, 31970), (35, 31997), (37, 32006), (41, 32024), (42, 32027), (47, 32081), (48, 32147), (60, 32540), (61, 32573), (65, 32693), (72, 32927), (84, 33131), (85, 33134), (87, 33191), (88, 33194), (90, 33206), (91, 33230), (92, 33248), (93, 33251), (94, 33263), (99, 33296), (101, 33338), (110, 33464), (111, 33467), (112, 33632), (113, 33686), (117, 33749), (118, 33758), (122, 33932), (124, 34037), (128,

34148), (131, 34169), (135, 34292), (136, 34298), (137, 34340), (138, 34358), (150, 34502), (152, 34544), (155, 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), (42, 34820), (47, 34874), (48, 34940), (60, 35333), (61, 35366), (65, 35486), (72, 35717), (84, 35921), (85, 35924), (87, 35981), (88, 35984), (90, 35996), (91, 36020), (92, 36038), (93, 36041), (94, 36053), (99, 36086), (101, 36128), (110, 36254), (111, 36257), (112, 36422), (117, 36539), (118, 36548), (122, 36722), (124, 36827), (128, 36938), (131, 36959), (135, 37082), (136, 37088), (137, 37130), (138, 37148), (145, 37409), (149, 37469), (150, 37550), (152, 37592), (155, 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), (24, 33882), (25, 33918), (38, 34053), (39, 34059), (57, 34560), (58, 34563), (61, 34659), (66, 34791), (69, 34881), (71, 34929), (73, 34941), (77, 35049), (78, 35070), (90, 35340), (91, 35364), (95, 35403), (99, 35430), (100, 35448), (101, 35472), (104, 35493), (106, 35508), (114, 35805), (116, 35844), (123, 36060), (124, 36126), (126, 36204), (127, 36228), (128, 36240), (130, 36246), (142, 36390), (155, 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), (23, 29207), (25, 29255), (31, 29318), (32, 29348), (35, 29375), (37, 29384), (42, 29405), (47, 29459), (48, 29525), (60, 29918), (61, 29951), (65, 30071), (72, 30305), (84, 30509), (85, 30512), (87, 30569), (88, 30572), (90, 30584), (91, 30608), (92, 30626), (93, 30629), (94, 30641), (99, 30674), (101, 30716), (110, 30842), (111, 30845), (112, 31010), (117, 31127), (118, 31136), (122, 31310), (124, 31415), (128, 31526), (131, 31547), (135, 31670), (136, 31676), (137, 31718), (138, 31736), (150, 31880), (152, 31922), (155, 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), (23, 31924), (25, 31972), (31, 32035), (32, 32065), (35, 32092), (37, 32101), (41, 32119), (42, 32122), (47, 32176), (48, 32242), (60, 32635), (61, 32668), (65, 32788), (72, 33022), (84, 33226), (85, 33229), (87, 33286), (88, 33289), (90, 33301), (91, 33325), (92, 33343), (93, 33346), (94, 33358), (99, 33391), (101, 33433), (110, 33559), (111, 33562), (112, 33727), (117, 33844), (118, 33853), (122, 34027), (124, 34132), (128, 34243), (131, 34264), (135, 34387), (136, 34393), (137, 34435), (138, 34453), (150, 34597), (152, 34639), (155, 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), (23, 30237), (25, 30285), (31, 30348), (32, 30378), (35, 30405), (37, 30414), (42, 30435), (47, 30489), (48, 30555), (60, 30948), (61, 30981), (65, 31101), (72, 31335), (84, 31539), (85, 31542), (87, 31599), (88, 31602), (90, 31614), (91, 31638), (92, 31656), (93, 31659), (94, 31671), (99, 31704), (101, 31746), (110, 31872), (111, 31875), (112, 32040), (117, 32157), (118, 32166), (122, 32340), (124, 32445), (128, 32556), (131, 32577), (135, 32700), (136, 32706), (137, 32748), (138, 32766), (150, 32910), (152, 32952), (155, 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), (23, 31392), (25, 31440), (31, 31503), (32, 31533), (35, 31560), (37, 31569), (41, 31587), (42, 31590), (47, 31644), (48, 31710), (60, 32103), (61, 32136), (65, 32256), (67, 32379), (72, 32490), (84, 32694), (85, 32697), (87, 32754), (88, 32757), (90, 32769), (91, 32793), (92, 32811), (93, 32814), (94, 32826), (99, 32859), (101, 32901), (112, 33042), (113, 33096), (117, 33159), (118, 33168), (122, 33342), (124, 33447), (128, 33558), (131, 33579), (150, 33714), (152, 33756), (155, 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), (23, 32991), (25, 33039), (31, 33102), (32, 33132), (35, 33159), (37, 33168), (42, 33189), (47, 33243), (48, 33309), (60, 33702), (61, 33735), (65, 33855), (72, 34086), (84, 34290), (85, 34293), (87, 34350), (88, 34353), (90, 34365), (91, 34389), (92, 34407), (93, 34410), (94, 34422), (99, 34455), (101, 34497), (110, 34623), (112, 34791), (113, 34845), (117, 34905), (118, 34914), (122, 35088), (124, 35193), (128, 35304), (131, 35325), (150, 35460), (152, 35502), (155, 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), (23, 31185), (25, 31233), (31, 31296), (32, 31326), (35, 31353), (37, 31362), (42, 31383), (47, 31437), (48, 31503), (60, 31896), (61, 31929), (65, 32049), (72, 32283), (84, 32487), (85, 32490), (87, 32547), (88, 32550), (90, 32562), (91, 32586), (92, 32604), (93, 32607), (94, 32619), (99, 32652), (101, 32694), (110, 32820), (111, 32823), (112, 32988), (113, 33042), (117, 33105), (118, 33114), (122, 33288), (124, 33393), (128, 33504), (131, 33525), (135, 33648), (136, 33654), (137, 33696), (138, 33714), (150, 33858), (152, 33900), (155, 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), (23, 31790), (25, 31838), (31, 31901), (32, 31931), (35, 31958), (37, 31967), (41, 31985), (42, 31988), (47, 32042), (48, 32108), (60, 32501), (61, 32534), (65, 32654), (72, 32888), (84, 33092), (85, 33095), (87, 33152), (88, 33155), (90, 33167), (91, 33191), (92, 33209), (93, 33212), (94, 33224), (99, 33257), (101, 33299), (110, 33425), (111, 33428), (112, 33593), (113, 33647), (117, 33710), (118, 33719), (122, 33893), (124, 33998), (128, 34109), (131, 34130), (135, 34253), (136, 34259), (137, 34301), (138, 34319), (150, 34463), (152, 34505), (155, 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), (23, 35232), (25, 35280), (31, 35343), (32, 35373), (35, 35400), (37, 35409), (42, 35430), (47, 35484), (48, 35550), (60, 35943), (61, 35976), (65, 36096), (72, 36327), (84, 36531), (85, 36534), (87, 36591), (88, 36594), (90, 36606), (91, 36630), (92, 36648), (93, 36651), (94, 36663), (99, 36696), (101, 36738), (110, 36864), (111, 36867), (112, 37014), (113, 37068), (117, 37131), (118, 37140), (122, 37314), (124, 37419), (128, 37530), (131, 37551), (135, 37674), (136, 37680), (137, 37722), (138, 37740), (150, 37884), (152, 37926), (155, 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), (23, 31566), (25, 31614), (31, 31677), (32, 31707), (35, 31734), (37, 31743), (42, 31764), (47, 31818), (48, 31884), (60, 32277), (61, 32310), (65, 32430), (72, 32664), (84, 32868), (85, 32871), (87, 32928), (88, 32931), (90, 32943), (91, 32967), (92, 32985), (93, 32988), (94, 33000), (99, 33033), (101, 33075), (110, 33201), (111, 33204), (112, 33369), (117, 33486), (118, 33495), (122, 33669), (124, 33774), (128, 33885), (131, 33906), (135, 34029), (136, 34035), (137, 34077), (138, 34095), (150, 34239), (152, 34281), (155, 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), (23, 32767), (25, 32815), (31, 32878), (32, 32908), (35, 32935), (37, 32944), (41, 32962), (42, 32965), (47, 33019), (48, 33085), (60, 33478), (61, 33511), (65, 33631), (72, 33865), (84, 34069), (85, 34072), (87, 34129), (88, 34132), (90, 34144), (91, 34168), (92, 34186), (93, 34189), (94, 34201), (99, 34234), (101, 34276), (110, 34402), (111, 34405), (112, 34570), (117, 34687), (118, 34696), (122, 34870), (124, 34975), (128, 35086), (131, 35107), (135, 35230), (136, 35236), (137, 35278), (138, 35296), (150, 35440), (152, 35482), (155, 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), (23, 32840), (25, 32888), (31, 32951), (32, 32981), (35, 33008), (37, 33017), (41, 33035), (42, 33038), (47, 33092), (48, 33158), (60, 33551), (61, 33584), (65, 33704), (72, 33938), (84, 34142), (85, 34145), (87, 34202), (88, 34205), (90, 34217), (91, 34241), (92, 34259), (93, 34262), (94, 34274), (99, 34307), (101, 34349), (110, 34475), (111, 34478), (112, 34643), (113, 34697), (117, 34760), (118, 34769), (122, 34943), (124, 35048), (128, 35159), (131, 35180), (135, 35303), (136, 35309), (137, 35351), (138, 35369), (150, 35513), (152, 35555), (155, 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), (23, 30256), (25, 30304), (31, 30367), (32, 30397), (35, 30424), (37, 30433), (41, 30451), (42, 30454), (47, 30508), (48, 30574), (60, 30967), (61, 31000), (65, 31120), (72, 31354), (84, 31558), (85, 31561), (87, 31618), (88, 31621), (90, 31633), (91, 31657), (92, 31675), (93, 31678), (94, 31690), (99, 31723), (101, 31765), (110, 31891), (111, 31894), (112, 32059), (113, 32113), (117, 32176), (118, 32185), (122, 32359), (124, 32464), (128, 32575), (131, 32596), (135, 32719), (136, 32725), (137, 32767), (138, 32785), (150, 32929), (152, 32971), (155, 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), (23, 32493), (25, 32541), (31, 32604), (32, 32634), (35, 32661), (37, 32670), (42, 32691), (47, 32745), (48, 32811), (60, 33204), (61, 33237), (67, 33483), (72, 33594), (84, 33798), (85, 33801), (87, 33858), (88, 33861), (90, 33873), (91, 33897), (92, 33915), (93, 33918), (94, 33930), (99, 33963), (101, 34005), (112, 34146), (113, 34200), (117, 34260), (118, 34269), (122, 34443), (124, 34548), (128, 34659), (131, 34680), (150, 34815), (152, 34857), (155, 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), (23, 33320), (25, 33368), (31, 33431), (32, 33461), (35, 33488), (37, 33497), (42, 33518), (47, 33572), (48, 33638), (60, 34031), (61, 34064), (65, 34184), (72, 34418), (84, 34622), (85, 34625), (87, 34682), (88, 34685), (90, 34697), (91, 34721), (92, 34739), (93, 34742), (94, 34754), (99, 34787), (101, 34829), (110, 34955), (111, 34958), (112, 35123), (117, 35240), (118, 35249), (122, 35423), (124, 35528), (128, 35639), (131, 35660), (135, 35783), (136, 35789), (137, 35831), (138, 35849), (150, 35993), (152, 36035), (155, 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), (23, 31784), (25, 31832), (31, 31895), (32, 31925), (35, 31952), (37, 31961), (42, 31982), (47, 32036), (48, 32102), (60, 32495), (61, 32528), (65, 32648), (72, 32879), (84, 33083), (85, 33086), (87, 33143), (88, 33146), (90, 33158), (91, 33182), (92, 33200), (93, 33203), (94, 33215), (99, 33248), (101, 33290), (110, 33416), (111, 33419), (112, 33584), (117, 33701), (118, 33710), (122, 33884), (124, 33989), (128, 34100), (131, 34121), (135, 34244), (136, 34250), (137, 34292), (138, 34310), (150, 34454), (152, 34496), (155, 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), (23, 32284), (25, 32332), (31, 32395), (32, 32425), (35, 32452), (37, 32461), (42, 32482), (47, 32536), (48, 32602), (60, 32995), (61, 33028), (65, 33148), (72, 33379), (84, 33583), (85, 33586), (87, 33643), (88, 33646), (90, 33658), (91, 33682), (92, 33700), (93, 33703), (94, 33715), (99, 33748), (101, 33790), (110, 33916), (111, 33919), (112, 34084), (117, 34201), (118, 34210), (122, 34384), (124, 34489), (128, 34600), (131, 34621), (135, 34744), (136, 34750), (137, 34792), (138, 34810), (150, 34954), (152, 34996), (155, 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), (23, 31734), (25, 31782), (31, 31845), (32, 31875), (35, 31902), (37, 31911), (42, 31932), (47, 31986), (48, 32052), (60, 32445), (61, 32478), (65, 32598), (72, 32829), (84, 33033), (85, 33036), (87, 33093), (88, 33096), (90, 33108), (91, 33132), (92, 33150), (93, 33153), (94, 33165), (99, 33198), (101, 33240), (110, 33366), (111, 33369), (112, 33534), (117, 33651), (118, 33660), (122, 33834), (124, 33939), (128, 34050), (131, 34071), (135, 34194), (136, 34200), (137, 34242), (138, 34260), (150, 34404), (152, 34446), (155, 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), (23, 32609), (25, 32657), (31, 32720), (32, 32750), (35, 32777), (37, 32786), (41, 32804), (42, 32807), (47, 32861), (48, 32927), (60, 33320), (61, 33353), (65, 33473), (72, 33707), (84, 33911), (85, 33914), (87, 33971), (88, 33974), (90, 33986), (91, 34010), (92, 34028), (93, 34031), (94, 34043), (99, 34076), (101, 34118), (110, 34244), (111, 34247), (112, 34412), (113, 34466), (117, 34529), (118, 34538), (122, 34712), (124, 34817), (128, 34928), (131, 34949), (135, 35072), (136, 35078), (137, 35120), (138, 35138), (150, 35282), (152, 35324), (155, 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), (23, 32519), (25, 32567), (31, 32630), (32, 32660), (35, 32687), (37, 32696), (42, 32717), (47, 32771), (48, 32837), (60, 33230), (61, 33263), (65, 33383), (72, 33617), (84, 33821), (85, 33824), (87, 33881), (88, 33884), (90, 33896), (91, 33920), (92, 33938), (93, 33941), (94, 33953), (99, 33986), (101, 34028), (110, 34154), (111, 34157), (112, 34322), (113, 34376), (117, 34439), (118, 34448), (122, 34622), (124, 34727), (128, 34838), (131, 34859), (135, 34982), (136, 34988), (137, 35030), (138, 35048), (150, 35192), (152, 35234), (155, 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), (23, 34404), (25, 34452), (31, 34515), (32, 34545), (35, 34572), (37, 34581), (42, 34602), (47, 34656), (48, 34722), (60, 35115), (61, 35148), (65, 35268), (72, 35499), (84, 35703), (85, 35706), (87, 35763), (88, 35766), (90, 35778), (91, 35802), (92, 35820), (93, 35823), (94, 35835), (99, 35868), (101, 35910), (110, 36036), (111, 36039), (112, 36186), (117, 36303), (118, 36312), (122, 36486), (124, 36591), (128, 36702), (131, 36723), (135, 36846), (136, 36852), (137, 36894), (138, 36912), (150, 37056), (152, 37098), (155, 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), (23, 30088), (25, 30136), (31, 30199), (32, 30229), (35, 30256), (37, 30265), (42, 30286), (47, 30340), (48, 30406), (60, 30799), (61, 30832), (65, 30952), (72, 31186), (84, 31390), (85, 31393), (87, 31450), (88, 31453), (90, 31465), (91, 31489), (92, 31507), (93, 31510), (94, 31522), (99, 31555), (101, 31597), (110, 31723), (111, 31726), (112, 31891), (117, 32008), (118, 32017), (122, 32191), (124, 32296), (128, 32407), (131, 32428), (135, 32551), (136, 32557), (137, 32599), (138, 32617), (150, 32761), (152, 32803), (155, 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), (23, 32106), (25, 32154), (31, 32217), (32, 32247), (35, 32274), (37, 32283), (42, 32304), (47, 32358), (48, 32424), (59, 32802), (60, 32838), (67, 33114), (72, 33225), (84, 33429), (85, 33432), (87, 33489), (88, 33492), (90, 33504), (91, 33528), (92, 33546), (93, 33549), (94, 33561), (99, 33594), (101, 33636), (112, 33777), (113, 33831), (117, 33894), (118, 33903), (122, 34077), (124, 34182), (128, 34293), (131, 34314), (150, 34449), (152, 34491), (155, 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), (23, 33348), (25, 33396), (31, 33459), (32, 33489), (35, 33516), (37, 33525), (41, 33543), (42, 33546), (47, 33600), (48, 33666), (60, 34059), (61, 34092), (65, 34212), (72, 34446), (84, 34650), (85, 34653), (87, 34710), (88, 34713), (90, 34725), (91, 34749), (92, 34767), (93, 34770), (94, 34782), (99, 34815), (101, 34857), (110, 34983), (111, 34986), (112, 35151), (113, 35205), (117, 35268), (118, 35277), (122, 35451), (124, 35556), (128, 35667), (131, 35688), (135, 35811), (136, 35817), (137, 35859), (138, 35877), (150, 36021), (152, 36063), (155, 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), (23, 31775), (25, 31823), (31, 31886),

(32, 31916), (35, 31943), (37, 31952), (42, 31973), (47, 32027), (48, 32093), (60, 32486), (61, 32519), (67, 32765), (72, 32876), (84, 33080), (85, 33083), (87, 33140), (88, 33143), (90, 33155), (91, 33179), (92, 33197), (93, 33200), (94, 33212), (99, 33245), (101, 33287), (112, 33428), (113, 33482), (117, 33542), (118, 33551), (122, 33725), (124, 33830), (128, 33941), (131, 33962), (150, 34097), (152, 34139), (155, 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), (23, 32571), (25, 32619), (31, 32682), (32, 32712), (35, 32739), (37, 32748), (41, 32766), (42, 32769), (47, 32823), (48, 32889), (60, 33282), (61, 33315), (65, 33435), (72, 33669), (84, 33873), (85, 33876), (87, 33933), (88, 33936), (90, 33948), (91, 33972), (92, 33990), (93, 33993), (94, 34005), (99, 34038), (101, 34080), (110, 34206), (111, 34209), (112, 34374), (113, 34428), (117, 34491), (118, 34500), (122, 34674), (124, 34779), (128, 34890), (131, 34911), (135, 35034), (136, 35040), (137, 35082), (138, 35100), (150, 35244), (152, 35286), (155, 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), (23, 30308), (25, 30356), (31, 30419), (32, 30449), (35, 30476), (37, 30485), (42, 30506), (47, 30560), (48, 30626), (60, 31019), (61, 31052), (65, 31172), (72, 31406), (84, 31610), (85, 31613), (87, 31670), (88, 31673), (90, 31685), (91, 31709), (92, 31727), (93, 31730), (94, 31742), (99, 31775), (101, 31817), (110, 31943), (111, 31946), (112, 32111), (117, 32228), (118, 32237), (122, 32411), (124, 32516), (128, 32627), (131, 32648), (135, 32771), (136, 32777), (137, 32819), (138, 32837), (150, 32981), (152, 33023), (155, 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), (23, 32127), (25, 32175), (31, 32238), (32, 32268), (35, 32295), (37, 32304), (42, 32325), (47, 32379), (48, 32445), (60, 32838), (61, 32871), (65, 32991), (72, 33225), (84, 33429), (85, 33432), (87, 33489), (88, 33492), (90, 33504), (91, 33528), (92, 33546), (93, 33549), (94, 33561), (99, 33594), (101, 33636), (110, 33762), (111, 33765), (112, 33930), (117, 34047), (118, 34056), (122, 34230), (124, 34335), (128, 34446), (131, 34467), (135, 34590), (136, 34596), (137, 34638), (138, 34656), (150, 34800), (152, 34842), (155, 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), (23, 31904), (25, 31952), (31, 32015), (32, 32045), (35, 32072), (37, 32081), (42, 32102), (47, 32156), (48, 32222), (60, 32615), (61, 32648), (65, 32768), (72, 33002), (84, 33206), (85, 33209), (87, 33266), (88, 33269), (90, 33281), (91, 33305), (92, 33323), (93, 33326), (94, 33338), (99, 33371), (101, 33413), (110, 33539), (111, 33542), (112, 33707), (117, 33824), (118, 33833), (122, 34007), (124, 34112), (128, 34223), (131, 34244), (135, 34367), (136, 34373), (137, 34415), (138, 34433), (150, 34577), (152, 34619), (155, 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), (23, 31829), (25, 31877), (31, 31940), (32, 31970), (35, 31997), (37, 32006), (41, 32024), (42, 32027), (47, 32081), (48, 32147), (60, 32540), (61, 32573), (65, 32693), (72, 32927), (84, 33131), (85, 33134), (87, 33191), (88, 33194), (90, 33206),

(91, 33230), (92, 33248), (93, 33251), (94, 33263), (99, 33296), (101, 33338), (110, 33464), (111, 33467), (112, 33632), (113, 33686), (117, 33749), (118, 33758), (122, 33932), (124, 34037), (128, 34148), (131, 34169), (135, 34292), (136, 34298), (137, 34340), (138, 34358), (150, 34502), (152, 34544), (155, 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), (23, 32824), (25, 32872), (31, 32935), (32, 32965), (35, 32992), (37, 33001), (41, 33019), (42, 33022), (47, 33076), (48, 33142), (60, 33520), (61, 33553), (65, 33673), (72, 33904), (84, 34108), (85, 34111), (87, 34168), (88, 34171), (90, 34183), (91, 34207), (92, 34225), (93, 34228), (94, 34240), (99, 34273), (101, 34315), (112, 34456), (113, 34510), (117, 34573), (118, 34582), (122, 34756), (124, 34861), (128, 34972), (131, 34993), (150, 35128), (152, 35170), (155, 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), (23, 33019), (25, 33067), (31, 33130), (32, 33160), (35, 33187), (37, 33196), (41, 33214), (42, 33217), (47, 33271), (48, 33337), (60, 33730), (61, 33763), (65, 33883), (72, 34117), (84, 34321), (85, 34324), (87, 34381), (88, 34384), (90, 34396), (91, 34420), (92, 34438), (93, 34441), (94, 34453), (99, 34486), (101, 34528), (110, 34654), (111, 34657), (112, 34822), (117, 34939), (118, 34948), (122, 35122), (124, 35227), (128, 35338), (131, 35359), (135, 35482), (136, 35488), (137, 35530), (138, 35548), (150, 35692), (152, 35734), (155, 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), (23, 31549), (25, 31597), (31, 31660), (32, 31690), (35, 31717), (37, 31726), (42, 31747), (47, 31801), (48, 31867), (60, 32260), (61, 32293), (65, 32413), (72, 32644), (84, 32848), (85, 32851), (87, 32908), (88, 32911), (90, 32923), (91, 32947), (92, 32965), (93, 32968), (94, 32980), (99, 33013), (101, 33055), (110, 33181), (111, 33184), (112, 33349), (117, 33466), (118, 33475), (122, 33649), (124, 33754), (128, 33865), (131, 33886), (135, 34009), (136, 34015), (137, 34057), (138, 34075), (150, 34219), (152, 34261), (155, 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), (23, 33191), (25, 33239), (31, 33302), (32, 33332), (35, 33359), (37, 33368), (42, 33389), (47, 33443), (48, 33509), (60, 33902), (61, 33935), (65, 34055), (72, 34289), (84, 34493), (85, 34496), (87, 34553), (88, 34556), (90, 34568), (91, 34592), (92, 34610), (93, 34613), (94, 34625), (99, 34658), (101, 34700), (110, 34826), (111, 34829), (112, 34994), (117, 35111), (118, 35120), (122, 35294), (124, 35399), (128, 35510), (131, 35531), (135, 35654), (136, 35660), (137, 35702), (138, 35720), (150, 35864), (152, 35906), (155, 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), (23, 31787), (25, 31835), (31, 31898), (32, 31928), (35, 31955), (37, 31964), (42, 31985), (47, 32039), (48, 32105), (60, 32498), (61, 32531), (65, 32651), (72, 32882), (84, 33086), (85, 33089), (87, 33146), (88, 33149), (90, 33161), (91, 33185), (92, 33203), (93, 33206), (94, 33218), (99, 33251), (101, 33293), (110, 33419), (111, 33422), (112,

33587), (117, 33704), (118, 33713), (122, 33887), (124, 33992), (128, 34103), (131, 34124), (135, 34247), (136, 34253), (137, 34295), (138, 34313), (150, 34457), (152, 34499), (155, 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), (23, 32824), (25, 32872), (31, 32935), (32, 32965), (35, 32992), (37, 33001), (41, 33019), (42, 33022), (47, 33076), (48, 33142), (60, 33535), (61, 33568), (65, 33688), (72, 33922), (84, 34126), (85, 34129), (87, 34186), (88, 34189), (90, 34201), (91, 34225), (92, 34243), (93, 34246), (94, 34258), (99, 34291), (101, 34333), (110, 34459), (111, 34462), (112, 34627), (117, 34744), (118, 34753), (122, 34927), (124, 35032), (128, 35143), (131, 35164), (135, 35287), (136, 35293), (137, 35335), (138, 35353), (150, 35497), (152, 35539), (155, 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), (23, 33984), (25, 34032), (31, 34095), (32, 34125), (35, 34152), (37, 34161), (41, 34179), (42, 34182), (47, 34236), (48, 34302), (60, 34695), (61, 34728), (65, 34848), (67, 34962), (72, 35046), (84, 35250), (85, 35253), (87, 35310), (88, 35313), (90, 35325), (91, 35349), (92, 35367), (93, 35370), (94, 35382), (99, 35415), (101, 35457), (110, 35583), (111, 35586), (112, 35733), (113, 35787), (117, 35850), (118, 35859), (122, 36033), (124, 36138), (128, 36249), (131, 36270), (135, 36393), (136, 36399), (137, 36441), (138, 36459), (150, 36603), (152, 36645), (155, 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), (23, 32929), (25, 32977), (31, 33040), (32, 33070), (35, 33097), (37, 33106), (42, 33127), (47, 33181), (48, 33247), (60, 33640), (61, 33673), (65, 33793), (72, 34027), (84, 34231), (85, 34234), (87, 34291), (88, 34294), (90, 34306), (91, 34330), (92, 34348), (93, 34351), (94, 34363), (99, 34396), (101, 34438), (110, 34564), (111, 34567), (112, 34732), (113, 34786), (117, 34849), (118, 34858), (122, 35032), (124, 35137), (128, 35248), (131, 35269), (135, 35392), (136, 35398), (137, 35440), (138, 35458), (150, 35602), (152, 35644), (155, 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), (23, 34917), (25, 34965), (31, 35028), (32, 35058), (35, 35085), (37, 35094), (41, 35112), (42, 35115), (47, 35169), (48, 35235), (60, 35628), (61, 35661), (65, 35781), (72, 36015), (84, 36219), (85, 36222), (87, 36279), (88, 36282), (90, 36294), (91, 36318), (92, 36336), (93, 36339), (94, 36351), (99, 36384), (101, 36426), (110, 36552), (111, 36555), (112, 36720), (113, 36774), (117, 36837), (118, 36846), (122, 37020), (124, 37125), (128, 37236), (131, 37257), (135, 37380), (136, 37386), (137, 37428), (138, 37446), (150, 37590), (152, 37632), (155, 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), (23, 32039), (25, 32087), (31, 32150), (32, 32180), (35, 32207), (37, 32216), (41, 32234), (42, 32237), (47, 32291), (48, 32357), (60, 32750), (61, 32783), (65, 32903), (72, 33134), (84, 33338), (85, 33341), (87, 33398), (88, 33401), (90, 33413), (91, 33437), (92, 33455), (93, 33458), (94, 33470), (99, 33503), (101, 33545), (112, 33686), (113,

33740), (117, 33803), (118, 33812), (122, 33986), (124, 34091), (128, 34202), (131, 34223), (150, 34358), (152, 34400), (155, 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), (23, 33672), (25, 33720), (31, 33783), (32, 33813), (35, 33840), (37, 33849), (42, 33870), (47, 33924), (48, 33990), (60, 34383), (61, 34416), (65, 34536), (72, 34767), (84, 34971), (85, 34974), (87, 35031), (88, 35034), (90, 35046), (91, 35070), (92, 35088), (93, 35091), (94, 35103), (99, 35136), (101, 35178), (110, 35304), (111, 35307), (112, 35472), (117, 35589), (118, 35598), (122, 35772), (124, 35877), (128, 35988), (131, 36009), (150, 36144), (152, 36186), (155, 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), (23, 32505), (25, 32553), (31, 32616), (32, 32646), (35, 32673), (37, 32682), (41, 32700), (42, 32703), (47, 32757), (48, 32823), (60, 33216), (61, 33249), (65, 33369), (72, 33603), (84, 33807), (85, 33810), (87, 33867), (88, 33870), (90, 33882), (91, 33906), (92, 33924), (93, 33927), (94, 33939), (99, 33972), (101, 34014), (110, 34140), (111, 34143), (112, 34308), (113, 34362), (117, 34425), (118, 34434), (122, 34608), (124, 34713), (128, 34824), (131, 34845), (135, 34968), (136, 34974), (137, 35016), (138, 35034), (150, 35178), (152, 35220), (155, 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), (23, 32783), (25, 32831), (31, 32894), (32, 32924), (35, 32951), (37, 32960), (42, 32981), (47, 33035), (48, 33101), (60, 33494), (61, 33527), (65, 33647), (72, 33878), (84, 34082), (85, 34085), (87, 34142), (88, 34145), (90, 34157), (91, 34181), (92, 34199), (93, 34202), (94, 34214), (99, 34247), (101, 34289), (110, 34415), (111, 34418), (112, 34583), (117, 34700), (118, 34709), (122, 34883), (124, 34988), (128, 35099), (131, 35120), (135, 35243), (136, 35249), (137, 35291), (138, 35309), (150, 35453), (152, 35495), (155, 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), (23, 31748), (25, 31796), (31, 31859), (32, 31889), (35, 31916), (37, 31925), (42, 31946), (47, 32000), (48, 32066), (60, 32459), (61, 32492), (65, 32612), (72, 32843), (84, 33047), (85, 33050), (87, 33107), (88, 33110), (90, 33122), (91, 33146), (92, 33164), (93, 33167), (94, 33179), (99, 33212), (101, 33254), (110, 33380), (111, 33383), (112, 33548), (117, 33665), (118, 33674), (122, 33848), (124, 33953), (128, 34064), (131, 34085), (135, 34208), (136, 34214), (137, 34256), (138, 34274), (150, 34418), (152, 34460), (155, 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), (23, 32231), (25, 32279), (31, 32342), (32, 32372), (35, 32399), (37, 32408), (42, 32429), (47, 32483), (48, 32549), (60, 32942), (61, 32975), (65, 33095), (72, 33326), (84, 33530), (85, 33533), (87, 33590), (88, 33593), (90, 33605), (91, 33629), (92, 33647), (93, 33650), (94, 33662), (99, 33695), (101, 33737), (110, 33863), (111, 33866), (112, 34031), (113, 34085), (117, 34145), (118, 34154), (122, 34328), (124, 34433), (128, 34544), (131, 34565), (135, 34688), (136, 34694), (137, 34736), (138, 34754), (143, 34916), (144, 34955), (150,

35081), (152, 35123), (155, 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), (23, 31013), (25, 31061), (31, 31124), (32, 31154), (35, 31181), (37, 31190), (41, 31208), (42, 31211), (47, 31265), (48, 31331), (60, 31724), (61, 31757), (65, 31877), (72, 32111), (84, 32315), (85, 32318), (87, 32375), (88, 32378), (90, 32390), (91, 32414), (92, 32432), (93, 32435), (94, 32447), (99, 32480), (101, 32522), (110, 32648), (111, 32651), (112, 32816), (113, 32870), (117, 32933), (118, 32942), (122, 33116), (124, 33221), (128, 33332), (131, 33353), (135, 33476), (136, 33482), (137, 33524), (138, 33542), (150, 33686), (152, 33728), (155, 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), (23, 32252), (25, 32300), (31, 32363), (32, 32393), (35, 32420), (37, 32429), (41, 32447), (42, 32450), (47, 32504), (48, 32570), (60, 32963), (61, 32996), (65, 33116), (72, 33350), (84, 33554), (85, 33557), (87, 33614), (88, 33617), (90, 33629), (91, 33653), (92, 33671), (93, 33674), (94, 33686), (99, 33719), (101, 33761), (110, 33887), (111, 33890), (112, 34055), (113, 34109), (117, 34172), (118, 34181), (122, 34355), (124, 34460), (128, 34571), (131, 34592), (135, 34715), (136, 34721), (137, 34763), (138, 34781), (150, 34925), (152, 34967), (155, 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), (23, 32490), (25, 32538), (31, 32601), (32, 32631), (35, 32658), (37, 32667), (41, 32685), (42, 32688), (47, 32742), (48, 32808), (60, 33201), (61, 33234), (65, 33354), (72, 33588), (84, 33792), (85, 33795), (87, 33852), (88, 33855), (90, 33867), (91, 33891), (92, 33909), (93, 33912), (94, 33924), (99, 33957), (101, 33999), (110, 34125), (111, 34128), (112, 34293), (113, 34347), (117, 34410), (118, 34419), (122, 34593), (124, 34698), (128, 34809), (131, 34830), (135, 34953), (136, 34959), (137, 35001), (138, 35019), (150, 35163), (152, 35205), (155, 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), (23, 30383), (25, 30431), (31, 30494), (32, 30524), (35, 30551), (37, 30560), (42, 30581), (47, 30635), (48, 30701), (59, 31079), (60, 31115), (67, 31391), (72, 31502), (84, 31706), (85, 31709), (87, 31766), (88, 31769), (90, 31781), (91, 31805), (92, 31823), (93, 31826), (94, 31838), (99, 31871), (101, 31913), (112, 32054), (113, 32108), (117, 32171), (118, 32180), (122, 32354), (124, 32459), (128, 32570), (131, 32591), (150, 32726), (152, 32768), (155, 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), (23, 32837), (25, 32885), (31, 32948), (32, 32978), (35, 33005), (37, 33014), (41, 33032), (42, 33035), (47, 33089), (48, 33155), (60, 33548), (61, 33581), (65, 33701), (72, 33935), (84, 34139), (85, 34142), (87, 34199), (88, 34202), (90, 34214), (91, 34238), (92, 34256), (93, 34259), (94, 34271), (99, 34304), (101, 34346), (110, 34472), (111, 34475), (112, 34640), (113, 34694), (117, 34757), (118, 34766), (122, 34940), (124, 35045), (128,

35156), (131, 35177), (135, 35300), (136, 35306), (137, 35348), (138, 35366), (150, 35510), (152, 35552), (155, 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), (23, 33744), (25, 33792), (31, 33855), (32, 33885), (35, 33912), (37, 33921), (42, 33942), (47, 33996), (48, 34062), (60, 34455), (61, 34488), (65, 34608), (72, 34842), (84, 35046), (85, 35049), (87, 35106), (88, 35109), (90, 35121), (91, 35145), (92, 35163), (93, 35166), (94, 35178), (99, 35211), (101, 35253), (110, 35379), (111, 35382), (112, 35547), (113, 35601), (117, 35664), (118, 35673), (122, 35847), (124, 35952), (128, 36063), (131, 36084), (135, 36207), (136, 36213), (137, 36255), (138, 36273), (150, 36417), (152, 36459), (155, 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), (23, 32937), (25, 32985), (31, 33048), (32, 33078), (35, 33105), (37, 33114), (42, 33135), (47, 33189), (48, 33255), (59, 33633), (60, 33669), (67, 33945), (72, 34056), (84, 34260), (85, 34263), (87, 34320), (88, 34323), (90, 34335), (91, 34359), (92, 34377), (93, 34380), (94, 34392), (99, 34425), (101, 34467), (112, 34608), (113, 34662), (117, 34722), (118, 34731), (122, 34905), (124, 35010), (128, 35121), (131, 35142), (150, 35277), (152, 35319), (155, 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), (23, 28486), (25, 28534), (31, 28597), (35, 28654), (37, 28663), (42, 28684), (47, 28738), (48, 28804), (60, 29197), (67, 29473), (72, 29584), (84, 29788), (85, 29791), (87, 29848), (88, 29851), (90, 29863), (91, 29887), (92, 29905), (93, 29908), (94, 29920), (99, 29953), (101, 29995), (112, 30136), (113, 30190), (117, 30250), (118, 30259), (122, 30433), (124, 30538), (128, 30649), (131, 30670), (150, 30805), (152, 30847), (155, 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), (23, 28486), (25, 28534), (31, 28597), (35, 28654), (37, 28663), (42, 28684), (47, 28738), (48, 28804), (60, 29197), (67, 29473), (72, 29584), (84, 29788), (85, 29791), (87, 29848), (88, 29851), (90, 29863), (91, 29887), (92, 29905), (93, 29908), (94, 29920), (99, 29953), (101, 29995), (112, 30136), (113, 30190), (117, 30250), (118, 30259), (122, 30433), (124, 30538), (128, 30649), (131, 30670), (150, 30805), (152, 30847), (155, 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), (23, 31829), (25, 31877), (31, 31940), (32, 31970), (35, 31997), (37, 32006), (41, 32024), (42, 32027), (47, 32081), (48, 32147), (60, 32540), (61, 32573), (65, 32693), (72, 32927), (84, 33131), (85, 33134), (87, 33191), (88, 33194), (90, 33206), (91, 33230), (92, 33248), (93, 33251), (94, 33263), (99, 33296), (101, 33338), (110, 33464), (111, 33467), (112, 33632), (113, 33686), (117, 33749), (118, 33758), (122, 33932), (124, 34037), (128, 34148), (131, 34169), (135, 34292), (136, 34298), (137, 34340), (138, 34358), (150, 34502), (152, 34544), (155, 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), (23, 33672), (25, 33720), (31, 33783), (32, 33813), (35, 33840), (37, 33849), (42, 33870), (47, 33924), (48, 33990), (60, 34383), (61, 34416), (65, 34536), (72, 34767), (84, 34971), (85, 34974), (87, 35031), (88, 35034), (90, 35046), (91, 35070), (92, 35088), (93, 35091), (94, 35103), (99, 35136), (101, 35178), (110, 35304), (111, 35307), (112, 35472), (117, 35589), (118, 35598), (122, 35772), (124, 35877), (128, 35988), (131, 36009), (150, 36144), (152, 36186), (155, 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), (23, 31903), (25, 31951), (31, 32014), (32, 32044), (35, 32071), (37, 32080), (42, 32101), (47, 32155), (48, 32221), (59, 32599), (60, 32635), (67, 32911), (72, 33022), (84, 33226), (85, 33229), (87, 33286), (88, 33289), (90, 33301), (91, 33325), (92, 33343), (93, 33346), (94, 33358), (99, 33391), (101, 33433), (112, 33574), (113, 33628), (117, 33691), (118, 33700), (122, 33874), (124, 33979), (128, 34090), (131, 34111), (150, 34246), (152, 34288), (155, 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), (24, 34345), (25, 34381), (33, 34480), (45, 34585), (61, 35089), (66, 35221), (69, 35311), (71, 35359), (73, 35371), (83, 35614), (90, 35785), (91, 35809), (95, 35848), (99, 35875), (100, 35893), (101, 35917), (103, 35932), (104, 35938), (107, 35959), (108, 36061), (109, 36118), (113, 36403), (115, 36448), (123, 36667), (124, 36733), (126, 36811), (127, 36835), (128, 36847), (130, 36853), (142, 36997), (148, 37153), (155, 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), (23, 31829), (25, 31877), (31, 31940), (32, 31970), (35, 31997), (37, 32006), (41, 32024), (42, 32027), (47, 32081), (48, 32147), (60, 32540), (61, 32573), (65, 32693), (72, 32927), (84, 33131), (85, 33134), (87, 33191), (88, 33194), (90, 33206), (91, 33230), (92, 33248), (93, 33251), (94, 33263), (99, 33296), (101, 33338), (110, 33464), (111, 33467), (112, 33632), (113, 33686), (117, 33749), (118, 33758), (122, 33932), (124, 34037), (128, 34148), (131, 34169), (135, 34292), (136, 34298), (137, 34340), (138, 34358), (150, 34502), (152, 34544), (155, 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), (23, 30632), (25, 30680), (31, 30743), (32, 30773), (35, 30800), (37, 30809), (41, 30827), (42, 30830), (47, 30884), (48, 30950), (60, 31343), (61, 31376), (65, 31496), (72, 31730), (84, 31934), (85, 31937), (87, 31994), (88, 31997), (90, 32009), (91, 32033), (92, 32051), (93, 32054), (94, 32066), (99, 32099), (101, 32141), (110, 32267), (111, 32270), (112, 32435), (113, 32489), (117, 32552), (118, 32561), (122, 32735), (124, 32840), (128, 32951), (131, 32972), (135, 33095), (136, 33101), (137, 33143), (138, 33161), (150, 33305), (152, 33347), (155, 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), (23, 33126), (25, 33174), (31, 33237), (32, 33267), (35, 33294), (37, 33303), (42, 33324), (47, 33378), (48, 33444), (60, 33837), (61, 33870), (65, 33990), (72, 34221), (84, 34425), (85, 34428), (87, 34485), (88, 34488), (90, 34500), (91, 34524), (92, 34542), (93, 34545), (94, 34557), (99, 34590), (101, 34632), (110, 34758), (111, 34761), (112, 34926), (113, 34980), (117, 35043), (118, 35052), (122, 35226), (124, 35331), (128, 35442), (131, 35463), (150, 35598), (152, 35640), (155, 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), (23, 34428), (25, 34476), (31, 34539), (32, 34569), (35, 34596), (37, 34605), (41, 34623), (42, 34626), (47, 34680), (48, 34746), (60, 35139), (61, 35172), (65, 35292), (72, 35526), (84, 35730), (85, 35733), (87, 35790), (88, 35793), (90, 35805), (91, 35829), (92, 35847), (93, 35850), (94, 35862), (99, 35895), (101, 35937), (110, 36063), (111, 36066), (112, 36231), (113, 36285), (117, 36348), (118, 36357), (122, 36531), (124, 36636), (128, 36747), (131, 36768), (135, 36891), (136, 36897), (137, 36939), (138, 36957), (150, 37101), (152, 37143), (155, 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), (23, 32824), (25, 32872), (31, 32935), (32, 32965), (35, 32992), (37, 33001), (41, 33019), (42, 33022), (47, 33076), (48, 33142), (60, 33535), (61, 33568), (65, 33688), (72, 33922), (84, 34126), (85, 34129), (87, 34186), (88, 34189), (90, 34201), (91, 34225), (92, 34243), (93, 34246), (94, 34258), (99, 34291), (101, 34333), (110, 34459), (111, 34462), (112, 34627), (113, 34681), (117, 34744), (118, 34753), (122, 34927), (124, 35032), (128, 35143), (131, 35164), (135, 35287), (136, 35293), (137, 35335), (138, 35353), (150, 35497), (152, 35539), (155, 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), (23, 30811), (25, 30859), (31, 30922), (32, 30952), (35, 30979), (37, 30988), (41, 31006), (42, 31009), (47, 31063), (48, 31129), (60, 31522), (61, 31555), (65, 31675), (72, 31909), (84, 32113), (85, 32116), (87, 32173), (88, 32176), (90, 32188), (91, 32212), (92, 32230), (93, 32233), (94, 32245), (99, 32278), (101, 32320), (110, 32446), (111, 32449), (112, 32614), (113, 32668), (117, 32731), (118, 32740), (122, 32914), (124, 33019), (128, 33130), (131, 33151), (135, 33274), (136, 33280), (137, 33322), (138, 33340), (150, 33484), (152, 33526), (155, 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), (23, 32678), (25, 32726), (31, 32789), (32, 32819), (35, 32846), (37, 32855), (41, 32873), (42, 32876), (47, 32930), (48, 32996), (60, 33389), (61, 33422), (65, 33542), (72, 33776), (84, 33980), (85, 33983), (87, 34040), (88, 34043), (90, 34055), (91, 34079), (92, 34097), (93, 34100), (94, 34112), (99, 34145), (101, 34187), (110, 34313), (111, 34316), (112, 34481), (113, 34535), (117, 34598), (118, 34607), (122, 34781), (124, 34886), (128, 34997), (131, 35018), (135, 35141), (136, 35147), (137, 35189), (138, 35207), (150, 35351), (152, 35393), (155, 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), (23, 33855), (25, 33903), (31, 33966), (32, 33996), (35, 34023), (37, 34032), (41, 34050), (42, 34053), (47, 34107), (48, 34173), (60, 34566), (61, 34599), (65, 34719), (72, 34953), (84, 35157), (85, 35160), (87, 35217), (88, 35220), (90, 35232), (91, 35256), (92, 35274), (93, 35277), (94, 35289), (99, 35322), (101, 35364), (110, 35490), (111, 35493), (112, 35658), (113, 35712), (117, 35775), (118, 35784), (122, 35958), (124, 36063), (128, 36174), (131, 36195), (135, 36318), (136, 36324), (137, 36366), (138, 36384), (150, 36528), (152, 36570), (155, 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), (23, 32826), (25, 32874), (31, 32937), (32, 32967), (35, 32994), (37, 33003), (41, 33021), (42, 33024), (47, 33078), (48, 33144), (60, 33537), (61, 33570), (65, 33690), (72, 33924), (84, 34128), (85, 34131), (87, 34188), (88, 34191), (90, 34203), (91, 34227), (92, 34245), (93, 34248), (94, 34260), (99, 34293), (101, 34335), (110, 34461), (111, 34464), (112, 34629), (113, 34683), (117, 34746), (118, 34755), (122, 34929), (124, 35034), (128, 35145), (131, 35166), (135, 35289), (136, 35295), (137, 35337), (138, 35355), (150, 35499), (152, 35541), (155, 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), (23, 34785), (25, 34833), (31, 34896), (32, 34926), (35, 34953), (37, 34962), (41, 34980), (42, 34983), (47, 35037), (48, 35103), (60, 35496), (61, 35529), (65, 35649), (72, 35883), (84, 36087), (85, 36090), (87, 36147), (88, 36150), (90, 36162), (91, 36186), (92, 36204), (93, 36207), (94, 36219), (99, 36252), (101, 36294), (110, 36420), (111, 36423), (112, 36588), (113, 36642), (117, 36705), (118, 36714), (122, 36888), (124, 36993), (128, 37104), (131, 37125), (135, 37248), (136, 37254), (137, 37296), (138, 37314), (150, 37458), (152, 37500), (155, 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), (23, 32826), (25, 32874), (31, 32937), (32, 32967), (35, 32994), (37, 33003), (42, 33024), (47, 33078), (48, 33144), (60, 33537), (61, 33570), (65, 33690), (72, 33921), (84, 34125), (85, 34128), (87, 34185), (88, 34188), (90, 34200), (91, 34224), (92, 34242), (93, 34245), (94, 34257), (99, 34290), (101, 34332), (110, 34458), (111, 34461), (112, 34626), (113, 34680), (117, 34743), (118, 34752), (122, 34926), (124, 35031), (128, 35142), (131, 35163), (135, 35286), (136, 35292), (137, 35334), (138, 35352), (150, 35496), (152, 35538), (155, 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), (23, 32820), (25, 32868), (31, 32931), (32, 32961), (35, 32988), (37, 32997), (41, 33015), (42, 33018), (47, 33072), (48, 33138), (60, 33531), (61, 33564), (65, 33684), (72, 33918), (84, 34122), (85, 34125), (87, 34182), (88, 34185), (90, 34197), (91, 34221), (92, 34239), (93, 34242), (94, 34254), (99, 34287), (101, 34329), (110, 34455), (111, 34458), (112, 34623), (113, 34677), (117, 34740), (118, 34749), (122, 34923), (124, 35028), (128, 35139), (131, 35160), (135, 35283), (136, 35289), (137, 35331), (138, 35349), (150, 35493), (152, 35535), (155, 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), (23, 31846), (25, 31894), (31, 31957), (32, 31987), (35, 32014), (37, 32023), (41, 32041), (42, 32044), (47, 32098), (48, 32164), (60, 32557), (61, 32590), (65, 32710), (72, 32944), (84, 33148), (85, 33151), (87, 33208), (88, 33211), (90, 33223), (91, 33247), (92, 33265), (93, 33268), (94, 33280), (99, 33313), (101, 33355), (110, 33481), (111, 33484), (112, 33649), (113, 33703), (117, 33766), (118, 33775), (122, 33949), (124, 34054), (128, 34165), (131, 34186), (135, 34309), (136, 34315), (137, 34357), (138, 34375), (150, 34519), (152, 34561), (155, 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), (24, 33731), (25, 33767), (39, 33908), (53, 34295), (61, 34499), (63, 34571), (66, 34631), (69, 34721), (71, 34769), (73, 34781), (76, 34883), (77, 34889), (78, 34910), (79, 34916), (90, 35183), (91, 35207), (95, 35246), (99, 35273), (100, 35291), (101, 35315), (106, 35351), (116, 35687), (120, 35825), (123, 35903), (124, 35969), (126, 36047), (127, 36071), (128, 36083), (130, 36089), (142, 36233), (155, 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), (23, 34269), (25, 34317), (31, 34380), (32, 34410), (35, 34437), (37, 34446), (42, 34467), (47, 34521), (48, 34587), (60, 34980), (61, 35013), (65, 35133), (72, 35367), (84, 35571), (85, 35574), (87, 35631), (88, 35634), (90, 35646), (91, 35670), (92, 35688), (93, 35691), (94, 35703), (99, 35736), (101, 35778), (110, 35904), (111, 35907), (112, 36072), (113, 36126), (117, 36189), (118, 36198), (122, 36372), (124, 36477), (128, 36588), (131, 36609), (135, 36732), (136, 36738), (137, 36780), (138, 36798), (150, 36942), (152, 36984), (155, 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), (23, 31829), (25, 31877), (31, 31940), (32, 31970), (35, 31997), (37, 32006), (41, 32024), (42, 32027), (47, 32081), (48, 32147), (60, 32540), (61, 32573), (65, 32693), (72, 32927), (84, 33131), (85, 33134), (87, 33191), (88, 33194), (90, 33206), (91, 33230), (92, 33248), (93, 33251), (94, 33263), (99, 33296), (101, 33338), (110, 33464), (111, 33467), (112, 33632), (113, 33686), (117, 33749), (118, 33758), (122, 33932), (124, 34037), (128, 34148), (131, 34169), (135, 34292), (136, 34298), (137, 34340), (138, 34358), (150, 34502), (152, 34544), (155, 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), (23, 32714), (25, 32762), (31, 32825), (32, 32855), (35, 32882), (37, 32891), (42, 32912), (47, 32966), (48, 33032), (59, 33380), (60, 33416), (67, 33692), (72, 33803), (84, 34007), (85, 34010), (87, 34067), (88, 34070), (90, 34082), (91, 34106), (92, 34124), (93, 34127), (94, 34139), (99, 34172), (101, 34214), (110, 34340), (111, 34343), (112, 34508), (117, 34625), (118, 34634), (122, 34808), (124, 34913), (128, 35024), (131, 35045), (132, 35108), (133, 35174), (134, 35180), (139, 35273), (150, 35405), (152, 35447), (155, 35531),

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), (23, 32597), (25, 32645), (31, 32708), (32, 32738), (35, 32765), (37, 32774), (42, 32795), (47, 32849), (48, 32915), (60, 33308), (61, 33341), (65, 33461), (72, 33692), (84, 33896), (85, 33899), (87, 33956), (88, 33959), (90, 33971), (91, 33995), (92, 34013), (93, 34016), (94, 34028), (99, 34061), (101, 34103), (110, 34229), (111, 34232), (112, 34397), (117, 34514), (118, 34523), (122, 34697), (124, 34802), (128, 34913), (131, 34934), (135, 35057), (136, 35063), (137, 35105), (138, 35123), (150, 35267), (152, 35309), (155, 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), (23, 33017), (25, 33065), (31, 33128), (32, 33158), (35, 33185), (37, 33194), (41, 33212), (42, 33215), (47, 33269), (48, 33335), (60, 33728), (61, 33761), (65, 33881), (72, 34115), (84, 34319), (85, 34322), (87, 34379), (88, 34382), (90, 34394), (91, 34418), (92, 34436), (93, 34439), (94, 34451), (99, 34484), (101, 34526), (110, 34652), (111, 34655), (112, 34820), (113, 34874), (117, 34937), (118, 34946), (122, 35120), (124, 35225), (128, 35336), (131, 35357), (135, 35480), (136, 35486), (137, 35528), (138, 35546), (150, 35690), (152, 35732), (155, 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), (23, 29797), (25, 29845), (31, 29908), (32, 29938), (35, 29965), (37, 29974), (42, 29995), (47, 30049), (48, 30115), (59, 30463), (60, 30499), (67, 30775), (72, 30886), (84, 31090), (85, 31093), (87, 31150), (88, 31153), (90, 31165), (91, 31189), (92, 31207), (93, 31210), (94, 31222), (99, 31255), (101, 31297), (110, 31423), (111, 31426), (112, 31591), (117, 31708), (118, 31717), (122, 31891), (124, 31996), (128, 32107), (131, 32128), (132, 32191), (133, 32257), (134, 32263), (139, 32356), (150, 32488), (152, 32530), (155, 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), (23, 33753), (25, 33801), (31, 33864), (32, 33894), (35, 33921), (37, 33930), (41, 33948), (42, 33951), (47, 34005), (48, 34071), (60, 34464), (61, 34497), (65, 34617), (72, 34851), (84, 35055), (85, 35058), (87, 35115), (88, 35118), (90, 35130), (91, 35154), (92, 35172), (93, 35175), (94, 35187), (99, 35220), (101, 35262), (110, 35388), (111, 35391), (112, 35556), (113, 35610), (117, 35673), (118, 35682), (122, 35856), (124, 35961), (128, 36072), (131, 36093), (135, 36216), (136, 36222), (137, 36264), (138, 36282), (150, 36426), (152, 36468), (155, 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), (23, 31829), (25, 31877), (31, 31940), (32, 31970), (35, 31997), (37, 32006), (41, 32024), (42, 32027), (47, 32081), (48, 32147), (60, 32540), (61, 32573), (65, 32693), (72, 32927), (84, 33131), (85, 33134), (87, 33191), (88, 33194), (90, 33206), (91, 33230), (92, 33248), (93, 33251), (94, 33263), (99, 33296), (101, 33338), (110, 33464), (111, 33467), (112, 33632), (113, 33686), (117, 33749), (118, 33758), (122, 33932), (124, 34037), (128, 34148), (131, 34169), (135, 34292), (136, 34298), (137, 34340), (138, 34358), (150, 34502), (152, 34544), (155, 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), (23, 32823), (25, 32871), (31, 32934), (32, 32964), (35, 32991), (37, 33000), (41, 33018), (42, 33021), (47, 33075), (48, 33141), (60, 33534), (61, 33567), (65, 33687), (72, 33921), (84, 34125), (85, 34128), (87, 34185), (88, 34188), (90, 34200), (91, 34224), (92, 34242), (93, 34245), (94, 34257), (99, 34290), (101, 34332), (110, 34458), (111, 34461), (112, 34626), (113, 34680), (117, 34743), (118, 34752), (122, 34926), (124, 35031), (128, 35142), (131, 35163), (135, 35286), (136, 35292), (137, 35334), (138, 35352), (150, 35496), (152, 35538), (155, 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), (23, 31718), (25, 31766), (31, 31829), (32, 31859), (35, 31886), (37, 31895), (42, 31916), (47, 31970), (48, 32036), (60, 32429), (61, 32462), (65, 32582), (72, 32813), (84, 33017), (85, 33020), (87, 33077), (88, 33080), (90, 33092), (91, 33116), (92, 33134), (93, 33137), (94, 33149), (99, 33182), (101, 33224), (110, 33350), (111, 33353), (112, 33518), (117, 33635), (118, 33644), (122, 33818), (124, 33923), (128, 34034), (131, 34055), (135, 34178), (136, 34184), (137, 34226), (138, 34244), (150, 34388), (152, 34430), (155, 34535),

Gene: Pupper\_86 Start: 33513, Stop: 36311, Start Num: 22

Candidate Starts for Pupper\_86:

(Start: 22 @33513 has 4 MA's), (26, 33594), (27, 33606), (36, 33684), (43, 33747), (44, 33756), (46, 33768), (49, 33831), (50, 33990), (51, 33996), (54, 34101), (72, 34590), (73, 34593), (74, 34626), (86, 34863), (88, 34887), (90, 34899), (98, 34983), (102, 35034), (125, 35625), (126, 35631), (129, 35670), (130, 35673), (141, 35769), (147, 35913), (151, 35985), (153, 36054), (154, 36075), (155, 36114), (157, 36210), (158, 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), (23, 34636), (25, 34684), (31, 34747), (32, 34777), (35, 34804), (37, 34813), (42, 34834), (47, 34888), (48, 34954), (60, 35347), (61, 35380), (65, 35500), (72, 35734), (84, 35938), (85, 35941), (87, 35998), (88, 36001), (90, 36013), (91, 36037), (92, 36055), (93, 36058), (94, 36070), (99, 36103), (101, 36145), (110, 36271), (111, 36274), (112, 36439), (113, 36493), (117, 36556), (118, 36565), (122, 36739), (124, 36844), (128, 36955), (131, 36976), (135, 37099), (136, 37105), (137, 37147), (138, 37165), (150, 37309), (152, 37351), (155, 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), (23, 32868), (25, 32916), (31, 32979), (32, 33009), (35, 33036), (37, 33045), (41, 33063), (42, 33066), (47, 33120), (48, 33186), (60, 33579), (61, 33612), (65, 33732), (72, 33966), (84, 34170), (85, 34173), (87, 34230), (88, 34233), (90, 34245), (91, 34269), (92, 34287), (93, 34290), (94, 34302), (99, 34335), (101, 34377), (110, 34503), (111, 34506), (112, 34671), (113, 34725), (117, 34788), (118, 34797), (122, 34971), (124, 35076), (128, 35187), (131, 35208), (135, 35331), (136, 35337), (137, 35379), (138, 35397), (150, 35541), (152, 35583), (155, 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), (23, 32320), (25, 32368), (31, 32431),

(32, 32461), (35, 32488), (37, 32497), (42, 32518), (47, 32572), (48, 32638), (60, 33031), (61, 33064), (65, 33184), (72, 33418), (84, 33622), (85, 33625), (87, 33682), (88, 33685), (90, 33697), (91, 33721), (92, 33739), (93, 33742), (94, 33754), (99, 33787), (101, 33829), (110, 33955), (111, 33958), (112, 34123), (117, 34240), (118, 34249), (122, 34423), (124, 34528), (128, 34639), (131, 34660), (135, 34783), (136, 34789), (137, 34831), (138, 34849), (150, 34993), (152, 35035), (155, 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), (23, 32752), (25, 32800), (31, 32863), (32, 32893), (35, 32920), (37, 32929), (42, 32950), (47, 33004), (48, 33070), (60, 33463), (61, 33496), (67, 33742), (72, 33853), (84, 34057), (85, 34060), (87, 34117), (88, 34120), (90, 34132), (91, 34156), (92, 34174), (93, 34177), (94, 34189), (99, 34222), (101, 34264), (112, 34405), (113, 34459), (117, 34519), (118, 34528), (122, 34702), (124, 34807), (128, 34918), (131, 34939), (150, 35074), (152, 35116), (155, 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), (23, 33064), (25, 33112), (31, 33175), (32, 33205), (35, 33232), (37, 33241), (42, 33262), (47, 33316), (48, 33382), (59, 33730), (60, 33766), (67, 34042), (72, 34153), (84, 34357), (85, 34360), (87, 34417), (88, 34420), (90, 34432), (91, 34456), (92, 34474), (93, 34477), (94, 34489), (99, 34522), (101, 34564), (112, 34705), (113, 34759), (117, 34822), (118, 34831), (122, 35005), (124, 35110), (128, 35221), (131, 35242), (150, 35377), (152, 35419), (155, 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), (23, 31385), (25, 31433), (31, 31496), (32, 31526), (35, 31553), (37, 31562), (42, 31583), (47, 31637), (48, 31703), (60, 32096), (61, 32129), (65, 32249), (72, 32480), (84, 32684), (85, 32687), (87, 32744), (88, 32747), (90, 32759), (91, 32783), (92, 32801), (93, 32804), (94, 32816), (99, 32849), (101, 32891), (110, 33017), (111, 33020), (112, 33185), (117, 33302), (118, 33311), (122, 33485), (124, 33590), (128, 33701), (131, 33722), (135, 33845), (136, 33851), (137, 33893), (138, 33911), (150, 34055), (152, 34097), (155, 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), (23, 31741), (25, 31789), (31, 31852), (32, 31882), (35, 31909), (37, 31918), (41, 31936), (42, 31939), (47, 31993), (48, 32059), (60, 32452), (61, 32485), (65, 32605), (72, 32839), (84, 33043), (85, 33046), (87, 33103), (88, 33106), (90, 33118), (91, 33142), (92, 33160), (93, 33163), (94, 33175), (99, 33208), (101, 33250), (110, 33376), (111, 33379), (112, 33544), (113, 33598), (117, 33661), (118, 33670), (122, 33844), (124, 33949), (128, 34060), (131, 34081), (135, 34204), (136, 34210), (137, 34252), (138, 34270), (150, 34414), (152, 34456), (155, 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), (23, 32179), (25, 32227), (31, 32290), (32, 32320), (35, 32347), (37, 32356), (42, 32377), (47, 32431), (48, 32497), (60, 32890), (61, 32923), (65, 33043), (72, 33277), (84, 33481), (85, 33484), (87, 33541), (88, 33544), (90, 33556), (91, 33580), (92,

33598), (93, 33601), (94, 33613), (99, 33646), (101, 33688), (110, 33814), (111, 33817), (112, 33982), (113, 34036), (117, 34099), (118, 34108), (122, 34282), (124, 34387), (128, 34498), (131, 34519), (135, 34642), (136, 34648), (137, 34690), (138, 34708), (150, 34852), (152, 34894), (155, 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), (23, 32266), (25, 32314), (31, 32377), (32, 32407), (35, 32434), (37, 32443), (42, 32464), (47, 32518), (48, 32584), (60, 32977), (61, 33010), (65, 33130), (72, 33364), (84, 33568), (85, 33571), (87, 33628), (88, 33631), (90, 33643), (91, 33667), (92, 33685), (93, 33688), (94, 33700), (99, 33733), (101, 33775), (110, 33901), (111, 33904), (112, 34069), (113, 34123), (117, 34186), (118, 34195), (122, 34369), (124, 34474), (128, 34585), (131, 34606), (135, 34729), (136, 34735), (137, 34777), (138, 34795), (150, 34939), (152, 34981), (155, 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), (23, 29626), (25, 29674), (31, 29737), (32, 29767), (35, 29794), (37, 29803), (42, 29824), (47, 29878), (48, 29944), (60, 30337), (61, 30370), (65, 30490), (72, 30724), (84, 30928), (85, 30931), (87, 30988), (88, 30991), (90, 31003), (91, 31027), (92, 31045), (93, 31048), (94, 31060), (99, 31093), (101, 31135), (110, 31261), (111, 31264), (112, 31429), (117, 31546), (118, 31555), (122, 31729), (124, 31834), (128, 31945), (131, 31966), (135, 32089), (136, 32095), (137, 32137), (138, 32155), (150, 32299), (152, 32341), (155, 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), (23, 32246), (25, 32294), (31, 32357), (32, 32387), (35, 32414), (37, 32423), (41, 32441), (42, 32444), (47, 32498), (48, 32564), (60, 32957), (61, 32990), (65, 33110), (72, 33344), (84, 33548), (85, 33551), (87, 33608), (88, 33611), (90, 33623), (91, 33647), (92, 33665), (93, 33668), (94, 33680), (99, 33713), (101, 33755), (110, 33881), (111, 33884), (112, 34049), (113, 34103), (117, 34166), (118, 34175), (122, 34349), (124, 34454), (128, 34565), (131, 34586), (135, 34709), (136, 34715), (137, 34757), (138, 34775), (150, 34919), (152, 34961), (155, 35066),

Gene: SCentae\_84 Start: 33187, Stop: 35985, Start Num: 22

Candidate Starts for SCentae\_84:

(Start: 22 @33187 has 4 MA's), (26, 33268), (27, 33280), (36, 33358), (43, 33421), (44, 33430), (46, 33442), (49, 33505), (50, 33664), (51, 33670), (54, 33775), (72, 34264), (73, 34267), (74, 34300), (86, 34537), (88, 34561), (90, 34573), (98, 34657), (102, 34708), (125, 35299), (126, 35305), (129, 35344), (130, 35347), (141, 35443), (147, 35587), (151, 35659), (153, 35728), (154, 35749), (155, 35788), (157, 35884), (158, 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), (23, 32818), (25, 32866), (31, 32929), (32, 32959), (35, 32986), (37, 32995), (41, 33013), (42, 33016), (47, 33070), (48, 33136), (60, 33529), (61, 33562), (65, 33682), (72, 33916), (84, 34120), (85, 34123), (87, 34180), (88, 34183), (90, 34195), (91, 34219), (92, 34237), (93, 34240), (94, 34252), (99, 34285), (101, 34327), (110, 34453), (111, 34456), (112, 34621), (113, 34675), (117, 34738), (118, 34747), (122, 34921), (124, 35026), (128, 35137), (131, 35158), (135, 35281), (136, 35287), (137, 35329), (138, 35347), (150, 35491), (152, 35533), (155, 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), (23, 32941), (25, 32989), (31, 33052), (32, 33082), (35, 33109), (37, 33118), (42, 33139), (47, 33193), (48, 33259), (60, 33652), (61, 33685), (65, 33805), (72, 34036), (84, 34240), (85, 34243), (87, 34300), (88, 34303), (90, 34315), (91, 34339), (92, 34357), (93, 34360), (94, 34372), (99, 34405), (101, 34447), (110, 34573), (111, 34576), (112, 34741), (117, 34858), (118, 34867), (122, 35041), (124, 35146), (128, 35257), (131, 35278), (135, 35401), (136, 35407), (137, 35449), (138, 35467), (150, 35611), (152, 35653), (155, 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), (23, 31674), (25, 31722), (31, 31785), (32, 31815), (35, 31842), (37, 31851), (42, 31872), (47, 31926), (48, 31992), (60, 32385), (61, 32418), (65, 32538), (72, 32772), (84, 32976), (85, 32979), (87, 33036), (88, 33039), (90, 33051), (91, 33075), (92, 33093), (93, 33096), (94, 33108), (99, 33141), (101, 33183), (110, 33309), (111, 33312), (112, 33477), (117, 33594), (118, 33603), (122, 33777), (124, 33882), (128, 33993), (131, 34014), (135, 34137), (136, 34143), (137, 34185), (138, 34203), (150, 34347), (152, 34389), (155, 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), (24, 30620), (30, 30716), (34, 30761), (45, 30860), (55, 31235), (64, 31484), (66, 31667), (68, 31739), (69, 31757), (71, 31805), (75, 31898), (80, 31970), (81, 32015), (82, 32030), (88, 32210), (90, 32222), (91, 32246), (99, 32312), (101, 32354), (103, 32369), (104, 32375), (116, 32738), (119, 32789), (123, 32954), (124, 33020), (126, 33098), (127, 33122), (128, 33134), (130, 33140), (142, 33254), (155, 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), (23, 32178), (25, 32226), (31, 32289), (32, 32319), (35, 32346), (37, 32355), (42, 32376), (47, 32430), (48, 32496), (59, 32874), (60, 32910), (67, 33186), (72, 33297), (84, 33501), (85, 33504), (87, 33561), (88, 33564), (90, 33576), (91, 33600), (92, 33618), (93, 33621), (94, 33633), (99, 33666), (101, 33708), (112, 33849), (113, 33903), (117, 33966), (118, 33975), (122, 34149), (124, 34254), (128, 34365), (131, 34386), (150, 34521), (152, 34563), (155, 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), (23, 33310), (25, 33358), (31, 33421), (32, 33451), (35, 33478), (37, 33487), (42, 33508), (47, 33562), (48, 33628), (60, 34021), (61, 34054), (65, 34174), (72, 34408), (84, 34612), (85, 34615), (87, 34672), (88, 34675), (90, 34687), (91, 34711), (92, 34729), (93, 34732), (94, 34744), (99, 34777), (101, 34819), (110, 34945), (111, 34948), (112, 35113), (117, 35230), (118, 35239), (122, 35413), (124, 35518), (128, 35629), (131, 35650), (135, 35773), (136, 35779), (137, 35821), (138, 35839), (150, 35983), (152, 36025), (155, 36130),

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), (23, 30549), (25, 30597), (31, 30660), (32, 30690), (35, 30717), (37, 30726), (42, 30747), (47, 30801), (48, 30867), (60, 31260), (61, 31293), (65, 31413), (72, 31647), (84, 31851), (85, 31854), (87, 31911), (88, 31914), (90, 31926), (91, 31950), (92, 31968), (93, 31971), (94, 31983), (99, 32016), (101, 32058), (110, 32184), (111, 32187), (112, 32352), (117, 32469), (118, 32478), (122, 32652), (124, 32757), (128, 32868), (131, 32889), (135, 33012), (136, 33018), (137, 33060), (138, 33078), (150, 33222), (152, 33264), (155, 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), (23, 33816), (25, 33864), (31, 33927), (32, 33957), (35, 33984), (37, 33993), (41, 34011), (42, 34014), (47, 34068), (48, 34134), (60, 34527), (61, 34560), (65, 34680), (72, 34914), (84, 35118), (85, 35121), (87, 35178), (88, 35181), (90, 35193), (91, 35217), (92, 35235), (93, 35238), (94, 35250), (99, 35283), (101, 35325), (110, 35451), (111, 35454), (112, 35619), (113, 35673), (117, 35736), (118, 35745), (122, 35919), (124, 36024), (128, 36135), (131, 36156), (135, 36279), (136, 36285), (137, 36327), (138, 36345), (150, 36489), (152, 36531), (155, 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), (23, 32224), (25, 32272), (31, 32335), (32, 32365), (35, 32392), (37, 32401), (42, 32422), (47, 32476), (48, 32542), (60, 32935), (61, 32968), (65, 33088), (72, 33319), (84, 33523), (85, 33526), (87, 33583), (88, 33586), (90, 33598), (91, 33622), (92, 33640), (93, 33643), (94, 33655), (99, 33688), (101, 33730), (110, 33856), (111, 33859), (112, 34024), (117, 34141), (118, 34150), (122, 34324), (124, 34429), (128, 34540), (131, 34561), (135, 34684), (136, 34690), (137, 34732), (138, 34750), (150, 34894), (152, 34936), (155, 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), (23, 30416), (25, 30464), (31, 30527), (32, 30557), (35, 30584), (37, 30593), (41, 30611), (42, 30614), (47, 30668), (48, 30734), (60, 31142), (61, 31175), (65, 31295), (67, 31418), (72, 31529), (84, 31733), (85, 31736), (87, 31793), (88, 31796), (90, 31808), (91, 31832), (92, 31850), (93, 31853), (94, 31865), (99, 31898), (101, 31940), (112, 32081), (113, 32135), (117, 32195), (118, 32204), (122, 32378), (124, 32483), (128, 32594), (131, 32615), (132, 32678), (133, 32744), (134, 32750), (139, 32843), (150, 32975), (152, 33017), (155, 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), (23, 31784), (25, 31832), (31, 31895), (32, 31925), (35, 31952), (37, 31961), (42, 31982), (47, 32036), (48, 32102), (60, 32495), (61, 32528), (65, 32648), (72, 32879), (84, 33083), (85, 33086), (87, 33143), (88, 33146), (90, 33158), (91, 33182), (92, 33200), (93, 33203), (94, 33215), (99, 33248), (101, 33290), (110, 33416), (111, 33419), (112, 33584), (117, 33701), (118, 33710), (122, 33884), (124, 33989), (128, 34100), (131, 34121), (135, 34244), (136, 34250), (137, 34292), (138, 34310), (150, 34454), (152, 34496), (155, 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), (23, 32828), (25, 32876), (31, 32939), (32, 32969), (35, 32996), (37, 33005), (41, 33023), (42, 33026), (47, 33080), (48, 33146), (60, 33539), (61, 33572), (65, 33692), (72, 33926), (84, 34130), (85, 34133), (87, 34190), (88, 34193), (90, 34205), (91, 34229), (92, 34247), (93, 34250), (94, 34262), (99, 34295), (101, 34337), (110, 34463), (111, 34466), (112, 34631), (113, 34685), (117, 34748), (118, 34757), (122, 34931), (124, 35036), (128, 35147), (131, 35168), (135, 35291), (136, 35297), (137, 35339), (138, 35357), (150, 35501), (152, 35543), (155, 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), (23, 31829), (25, 31877), (31, 31940), (32, 31970), (35, 31997), (37, 32006), (41, 32024), (42, 32027), (47, 32081), (48, 32147), (60, 32540), (61, 32573), (65, 32693), (72, 32927), (84, 33131), (85, 33134), (87, 33191), (88, 33194), (90, 33206), (91, 33230), (92, 33248), (93, 33251), (94, 33263), (99, 33296), (101, 33338), (110, 33464), (111, 33467), (112, 33632), (113, 33686), (117, 33749), (118, 33758), (122, 33932), (124, 34037), (128, 34148), (131, 34169), (135, 34292), (136, 34298), (137, 34340), (138, 34358), (150, 34502), (152, 34544), (155, 34649),

Gene: Skog\_149 Start: 63157, Stop: 66045, Start Num: 22

Candidate Starts for Skog\_149:

(Start: 22 @63157 has 4 MA's), (27, 63250), (29, 63259), (43, 63391), (44, 63400), (49, 63478), (50, 63637), (51, 63643), (52, 63685), (56, 63820), (72, 64282), (73, 64285), (74, 64318), (86, 64552), (89, 64579), (90, 64588), (105, 64735), (121, 65134), (125, 65329), (126, 65335), (129, 65374), (130, 65377), (140, 65440), (146, 65617), (154, 65809), (155, 65848), (156, 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), (23, 31783), (25, 31831), (31, 31894), (32, 31924), (35, 31951), (37, 31960), (42, 31981), (47, 32035), (48, 32101), (60, 32494), (61, 32527), (65, 32647), (72, 32878), (84, 33082), (85, 33085), (87, 33142), (88, 33145), (90, 33157), (91, 33181), (92, 33199), (93, 33202), (94, 33214), (99, 33247), (101, 33289), (110, 33415), (111, 33418), (112, 33583), (117, 33700), (118, 33709), (122, 33883), (124, 33988), (128, 34099), (131, 34120), (135, 34243), (136, 34249), (137, 34291), (138, 34309), (150, 34453), (152, 34495), (155, 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), (23, 31549), (25, 31597), (31, 31660), (32, 31690), (35, 31717), (37, 31726), (42, 31747), (47, 31801), (48, 31867), (60, 32260), (61, 32293), (65, 32413), (72, 32644), (84, 32848), (85, 32851), (87, 32908), (88, 32911), (90, 32923), (91, 32947), (92, 32965), (93, 32968), (94, 32980), (99, 33013), (101, 33055), (110, 33181), (111, 33184), (112, 33349), (117, 33466), (118, 33475), (122, 33649), (124, 33754), (128, 33865), (131, 33886), (135, 34009), (136, 34015), (137, 34057), (138, 34075), (150, 34219), (152, 34261), (155, 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), (23, 34618), (25, 34666), (31, 34729), (32, 34759), (35, 34786), (37, 34795), (41, 34813), (42, 34816), (47, 34870), (48, 34936), (60, 35329), (61, 35362), (65, 35482), (67, 35596), (72, 35680), (84, 35884), (85, 35887), (87, 35944), (88, 35947),

(90, 35959), (91, 35983), (92, 36001), (93, 36004), (94, 36016), (99, 36049), (101, 36091), (110, 36217), (111, 36220), (112, 36367), (113, 36421), (117, 36484), (118, 36493), (122, 36667), (124, 36772), (128, 36883), (131, 36904), (135, 37027), (136, 37033), (137, 37075), (138, 37093), (150, 37237), (152, 37279), (155, 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), (23, 31046), (25, 31094), (31, 31157), (32, 31187), (35, 31214), (37, 31223), (42, 31244), (47, 31298), (48, 31364), (60, 31757), (61, 31790), (65, 31910), (72, 32144), (84, 32348), (85, 32351), (87, 32408), (88, 32411), (90, 32423), (91, 32447), (92, 32465), (93, 32468), (94, 32480), (99, 32513), (101, 32555), (110, 32681), (111, 32684), (112, 32849), (117, 32966), (118, 32975), (122, 33149), (124, 33254), (128, 33365), (131, 33386), (135, 33509), (136, 33515), (137, 33557), (138, 33575), (150, 33719), (152, 33761), (155, 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), (23, 33139), (25, 33187), (31, 33250), (32, 33280), (35, 33307), (37, 33316), (42, 33337), (47, 33391), (48, 33457), (59, 33835), (60, 33871), (67, 34147), (72, 34258), (84, 34462), (85, 34465), (87, 34522), (88, 34525), (90, 34537), (91, 34561), (92, 34579), (93, 34582), (94, 34594), (99, 34627), (101, 34669), (112, 34810), (113, 34864), (117, 34927), (118, 34936), (122, 35110), (124, 35215), (128, 35326), (131, 35347), (150, 35482), (152, 35524), (155, 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), (23, 32535), (25, 32583), (31, 32646), (32, 32676), (35, 32703), (37, 32712), (41, 32730), (42, 32733), (47, 32787), (48, 32853), (60, 33246), (61, 33279), (65, 33399), (72, 33630), (84, 33834), (85, 33837), (87, 33894), (88, 33897), (90, 33909), (91, 33933), (92, 33951), (93, 33954), (94, 33966), (99, 33999), (101, 34041), (112, 34182), (113, 34236), (117, 34299), (118, 34308), (122, 34482), (124, 34587), (128, 34698), (131, 34719), (150, 34854), (152, 34896), (155, 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), (23, 33636), (25, 33684), (31, 33747), (32, 33777), (35, 33804), (37, 33813), (42, 33834), (47, 33888), (48, 33954), (60, 34347), (61, 34380), (65, 34500), (72, 34734), (84, 34938), (85, 34941), (87, 34998), (88, 35001), (90, 35013), (91, 35037), (92, 35055), (93, 35058), (94, 35070), (99, 35103), (101, 35145), (110, 35271), (111, 35274), (112, 35439), (113, 35493), (117, 35556), (118, 35565), (122, 35739), (124, 35844), (128, 35955), (131, 35976), (135, 36099), (136, 36105), (137, 36147), (138, 36165), (150, 36309), (152, 36351), (155, 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), (23, 31106), (25, 31154), (31, 31217), (32, 31247), (35, 31274), (37, 31283), (42, 31304), (47, 31358), (48, 31424), (59, 31772), (60, 31808), (67, 32084), (72, 32195), (84, 32399), (85, 32402), (87, 32459), (88, 32462), (90, 32474), (91, 32498), (92, 32516), (93, 32519), (94, 32531), (99, 32564), (101, 32606), (110, 32732), (111, 32735), (112, 32900), (117, 33017), (118, 33026), (122, 33200), (124, 33305), (128, 33416), (131, 33437), (150,

33572), (152, 33614), (155, 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), (23, 31464), (25, 31512), (31, 31575), (32, 31605), (35, 31632), (37, 31641), (41, 31659), (42, 31662), (47, 31716), (48, 31782), (59, 32160), (60, 32196), (67, 32472), (72, 32583), (84, 32787), (85, 32790), (87, 32847), (88, 32850), (90, 32862), (91, 32886), (92, 32904), (93, 32907), (94, 32919), (99, 32952), (101, 32994), (112, 33135), (113, 33189), (117, 33252), (118, 33261), (122, 33435), (124, 33540), (128, 33651), (131, 33672), (150, 33807), (152, 33849), (155, 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), (23, 31299), (25, 31347), (31, 31410), (32, 31440), (35, 31467), (37, 31476), (41, 31494), (42, 31497), (47, 31551), (48, 31617), (60, 32010), (61, 32043), (65, 32163), (72, 32397), (84, 32601), (85, 32604), (87, 32661), (88, 32664), (90, 32676), (91, 32700), (92, 32718), (93, 32721), (94, 32733), (99, 32766), (101, 32808), (110, 32934), (111, 32937), (112, 33102), (113, 33156), (117, 33219), (118, 33228), (122, 33402), (124, 33507), (128, 33618), (131, 33639), (135, 33762), (136, 33768), (137, 33810), (138, 33828), (150, 33972), (152, 34014), (155, 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), (23, 34268), (25, 34316), (31, 34379), (35, 34436), (37, 34445), (42, 34466), (47, 34520), (48, 34586), (60, 34979), (61, 35012), (65, 35132), (67, 35246), (72, 35330), (84, 35534), (85, 35537), (87, 35594), (88, 35597), (90, 35609), (91, 35633), (92, 35651), (93, 35654), (94, 35666), (99, 35699), (101, 35741), (110, 35867), (111, 35870), (112, 36017), (113, 36071), (117, 36134), (118, 36143), (122, 36317), (124, 36422), (128, 36533), (131, 36554), (135, 36677), (136, 36683), (137, 36725), (138, 36743), (150, 36887), (152, 36929), (155, 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), (23, 31942), (25, 31990), (31, 32053), (32, 32083), (35, 32110), (37, 32119), (41, 32137), (42, 32140), (47, 32194), (48, 32260), (60, 32653), (61, 32686), (65, 32806), (67, 32920), (72, 33004), (84, 33208), (85, 33211), (87, 33268), (88, 33271), (90, 33283), (91, 33307), (92, 33325), (93, 33328), (94, 33340), (99, 33373), (101, 33415), (110, 33541), (111, 33544), (112, 33691), (113, 33745), (117, 33808), (118, 33817), (122, 33991), (124, 34096), (128, 34207), (131, 34228), (135, 34351), (136, 34357), (137, 34399), (138, 34417), (150, 34561), (152, 34603), (155, 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), (23, 32824), (25, 32872), (31, 32935), (32, 32965), (35, 32992), (37, 33001), (41, 33019), (42, 33022), (47, 33076), (48, 33142), (60, 33535), (61, 33568), (65, 33688), (72, 33922), (84, 34126), (85, 34129), (87, 34186), (88, 34189), (90, 34201), (91, 34225), (92, 34243), (93, 34246), (94, 34258), (99, 34291), (101, 34333), (110, 34459), (111, 34462), (112, 34627), (113, 34681), (117, 34744), (118, 34753), (122, 34927), (124, 35032), (128, 35143), (131, 35164), (135, 35287), (136, 35293), (137, 35335), (138, 35353), (150, 35497), (152,

35539), (155, 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), (40, 37140), (47, 37203), (60, 37701), (61, 37734), (65, 37854), (70, 38067), (72, 38085), (84, 38289), (85, 38292), (87, 38349), (88, 38352), (90, 38364), (91, 38388), (92, 38406), (93, 38409), (94, 38421), (96, 38433), (99, 38454), (101, 38496), (112, 38637), (113, 38691), (117, 38751), (118, 38760), (122, 38934), (123, 38973), (124, 39039), (129, 39153), (131, 39171), (143, 39324), (144, 39363), (150, 39489), (152, 39531), (155, 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), (23, 32685), (25, 32733), (31, 32796), (32, 32826), (35, 32853), (37, 32862), (42, 32883), (47, 32937), (48, 33003), (60, 33396), (61, 33429), (65, 33549), (72, 33780), (84, 33984), (85, 33987), (87, 34044), (88, 34047), (90, 34059), (91, 34083), (92, 34101), (93, 34104), (94, 34116), (99, 34149), (101, 34191), (110, 34317), (111, 34320), (112, 34485), (117, 34602), (118, 34611), (122, 34785), (124, 34890), (128, 35001), (131, 35022), (135, 35145), (136, 35151), (137, 35193), (138, 35211), (150, 35355), (152, 35397), (155, 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), (23, 31249), (25, 31297), (31, 31360), (32, 31390), (35, 31417), (37, 31426), (42, 31447), (47, 31501), (48, 31567), (60, 31960), (61, 31993), (67, 32239), (72, 32350), (84, 32554), (85, 32557), (87, 32614), (88, 32617), (90, 32629), (91, 32653), (92, 32671), (93, 32674), (94, 32686), (99, 32719), (101, 32761), (112, 32902), (113, 32956), (117, 33016), (118, 33025), (122, 33199), (124, 33304), (128, 33415), (131, 33436), (150, 33571), (152, 33613), (155, 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), (23, 30915), (25, 30963), (31, 31026), (32, 31056), (35, 31083), (37, 31092), (42, 31113), (47, 31167), (48, 31233), (60, 31626), (61, 31659), (67, 31905), (72, 32016), (84, 32220), (85, 32223), (87, 32280), (88, 32283), (90, 32295), (91, 32319), (92, 32337), (93, 32340), (94, 32352), (99, 32385), (101, 32427), (112, 32568), (113, 32622), (117, 32682), (118, 32691), (122, 32865), (124, 32970), (128, 33081), (131, 33102), (150, 33237), (152, 33279), (155, 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), (23, 33589), (25, 33637), (31, 33700), (32, 33730), (35, 33757), (37, 33766), (42, 33787), (47, 33841), (48, 33907), (60, 34300), (61, 34333), (65, 34453), (72, 34684), (84, 34888), (85, 34891), (87, 34948), (88, 34951), (90, 34963), (91, 34987), (92, 35005), (93, 35008), (94, 35020), (99, 35053), (101, 35095), (110, 35221), (111, 35224), (112, 35389), (117, 35506), (118, 35515), (122, 35689), (124, 35794), (128, 35905), (131, 35926), (135, 36049), (136, 36055), (137, 36097), (138, 36115), (150, 36259), (152, 36301), (155, 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), (23, 31829), (25, 31877), (31, 31940), (32, 31970), (35, 31997), (37, 32006), (41, 32024), (42, 32027), (47, 32081), (48, 32147), (60, 32540), (61, 32573), (65, 32693), (72, 32927), (84, 33131), (85, 33134), (87, 33191), (88, 33194), (90, 33206), (91, 33230), (92, 33248), (93, 33251), (94, 33263), (99, 33296), (101, 33338), (110, 33464), (111, 33467), (112, 33632), (113, 33686), (117, 33749), (118, 33758), (122, 33932), (124, 34037), (128, 34148), (131, 34169), (135, 34292), (136, 34298), (137, 34340), (138, 34358), (150, 34502), (152, 34544), (155, 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), (40, 36684), (47, 36747), (60, 37239), (61, 37272), (62, 37320), (65, 37392), (70, 37605), (72, 37623), (84, 37827), (85, 37830), (87, 37887), (88, 37890), (90, 37902), (91, 37926), (92, 37944), (93, 37947), (94, 37959), (96, 37971), (99, 37992), (101, 38034), (112, 38175), (113, 38229), (117, 38289), (118, 38298), (122, 38472), (123, 38511), (124, 38577), (129, 38691), (131, 38709), (143, 38862), (144, 38901), (155, 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), (23, 31379), (25, 31427), (31, 31490), (32, 31520), (35, 31547), (37, 31556), (41, 31574), (42, 31577), (47, 31631), (48, 31697), (60, 32090), (61, 32123), (65, 32243), (72, 32477), (84, 32681), (85, 32684), (87, 32741), (88, 32744), (90, 32756), (91, 32780), (92, 32798), (93, 32801), (94, 32813), (99, 32846), (101, 32888), (110, 33014), (111, 33017), (112, 33182), (113, 33236), (117, 33299), (118, 33308), (122, 33482), (124, 33587), (128, 33698), (131, 33719), (135, 33842), (136, 33848), (137, 33890), (138, 33908), (150, 34052), (152, 34094), (155, 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), (23, 32719), (25, 32767), (31, 32830), (32, 32860), (35, 32887), (37, 32896), (41, 32914), (42, 32917), (47, 32971), (48, 33037), (60, 33430), (61, 33463), (65, 33583), (72, 33817), (84, 34021), (85, 34024), (87, 34081), (88, 34084), (90, 34096), (91, 34120), (92, 34138), (93, 34141), (94, 34153), (99, 34186), (101, 34228), (110, 34354), (111, 34357), (112, 34522), (113, 34576), (117, 34639), (118, 34648), (122, 34822), (124, 34927), (128, 35038), (131, 35059), (135, 35182), (136, 35188), (137, 35230), (138, 35248), (150, 35392), (152, 35434), (155, 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), (23, 31329), (25, 31377), (31, 31440), (32, 31470), (35, 31497), (37, 31506), (42, 31527), (47, 31581), (48, 31647), (60, 32040), (61, 32073), (65, 32193), (72, 32427), (84, 32631), (85, 32634), (87, 32691), (88, 32694), (90, 32706), (91, 32730), (92, 32748), (93, 32751), (94, 32763), (99, 32796), (101, 32838), (110, 32964), (111, 32967), (112, 33132), (113, 33186), (117, 33249), (118, 33258), (122, 33432), (124, 33537), (128, 33648), (131, 33669), (150, 33804), (152, 33846), (155, 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), (23, 32821), (25, 32869), (31, 32932), (32, 32962), (35, 32989), (37, 32998), (41, 33016), (42, 33019), (47, 33073), (48, 33139), (60, 33532), (61, 33565), (65, 33685), (72, 33919), (84, 34123), (85, 34126), (87, 34183), (88, 34186), (90, 34198), (91, 34222), (92, 34240), (93, 34243), (94, 34255), (99, 34288), (101, 34330), (110, 34456), (111, 34459), (112, 34624), (113, 34678), (117, 34741), (118, 34750), (122, 34924), (124, 35029), (128, 35140), (131, 35161), (135, 35284), (136, 35290), (137, 35332), (138, 35350), (150, 35494), (152, 35536), (155, 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), (23, 31580), (25, 31628), (31, 31691), (32, 31721), (35, 31748), (37, 31757), (41, 31775), (42, 31778), (47, 31832), (48, 31898), (60, 32291), (61, 32324), (65, 32444), (72, 32678), (84, 32882), (85, 32885), (87, 32942), (88, 32945), (90, 32957), (91, 32981), (92, 32999), (93, 33002), (94, 33014), (99, 33047), (101, 33089), (110, 33215), (111, 33218), (112, 33383), (113, 33437), (117, 33500), (118, 33509), (122, 33683), (124, 33788), (128, 33899), (131, 33920), (135, 34043), (136, 34049), (137, 34091), (138, 34109), (150, 34253), (152, 34295), (155, 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), (23, 32746), (25, 32794), (31, 32857), (32, 32887), (35, 32914), (37, 32923), (42, 32944), (47, 32998), (48, 33064), (60, 33457), (61, 33490), (65, 33610), (72, 33841), (84, 34045), (85, 34048), (87, 34105), (88, 34108), (90, 34120), (91, 34144), (92, 34162), (93, 34165), (94, 34177), (99, 34210), (101, 34252), (110, 34378), (111, 34381), (112, 34546), (113, 34600), (117, 34663), (118, 34672), (122, 34846), (124, 34951), (128, 35062), (131, 35083), (135, 35206), (136, 35212), (137, 35254), (138, 35272), (150, 35416), (152, 35458), (155, 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), (23, 32509), (25, 32557), (31, 32620), (32, 32650), (35, 32677), (37, 32686), (41, 32704), (42, 32707), (47, 32761), (48, 32827), (60, 33220), (61, 33253), (65, 33373), (72, 33607), (84, 33811), (85, 33814), (87, 33871), (88, 33874), (90, 33886), (91, 33910), (92, 33928), (93, 33931), (94, 33943), (99, 33976), (101, 34018), (110, 34144), (111, 34147), (112, 34312), (113, 34366), (117, 34429), (118, 34438), (122, 34612), (124, 34717), (128, 34828), (131, 34849), (135, 34972), (136, 34978), (137, 35020), (138, 35038), (150, 35182), (152, 35224), (155, 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), (23, 32811), (25, 32859), (31, 32922), (32, 32952), (35, 32979), (37, 32988), (41, 33006), (42, 33009), (47, 33063), (48, 33129), (60, 33522), (61, 33555), (65, 33675), (72, 33906), (84, 34110), (85, 34113), (87, 34170), (88, 34173), (90, 34185), (91, 34209), (92, 34227), (93, 34230), (94, 34242), (99, 34275), (101, 34317), (112, 34458), (113, 34512), (117, 34575), (118, 34584), (122, 34758), (124, 34863), (128, 34974), (131, 34995), (150, 35130), (152, 35172), (155, 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), (23, 32825), (25, 32873), (31, 32936), (32, 32966), (35, 32993), (37, 33002), (41, 33020), (42, 33023), (47, 33077), (48, 33143), (60, 33536), (61, 33569), (65, 33689), (72, 33923), (84, 34127), (85, 34130), (87, 34187), (88, 34190), (90, 34202), (91, 34226), (92, 34244), (93, 34247), (94, 34259), (99, 34292), (101, 34334), (110, 34460), (111, 34463), (112, 34628), (113, 34682), (117, 34745), (118, 34754), (122, 34928), (124, 35033), (128, 35144), (131, 35165), (135, 35288), (136, 35294), (137, 35336), (138, 35354), (150, 35498), (152, 35540), (155, 35645),