



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 311260 Report

This analysis was run 06/27/26 on database version 652.

Pham number 311260 has 188 members, 31 are drafts.

Phages represented in each track:

- Track 1 : JayJay\_233, Audrick\_232, Koguma\_229, LinStu\_229, Caravan\_221, Sebata\_233, Babyland\_233, DTDevon\_233, CharlieB\_224, Drazdys\_229, Breeniome\_229, Roots515\_232, ErnieJ\_223, Phlegm\_234, Burrough\_232, Gizmo\_236, Daffodil\_235, Erdmann\_231, Bread\_225, Atlantean\_230, Jedediah\_231, Pier\_231, ArcherS7\_231, Naval22\_237, Rabinovish\_223, Shrimp\_232, Megamind\_227, Sprinklers\_228, Pio\_238, Zalkecks\_229, Zeenon\_232, Sauce\_227, StubbySaigey\_235, Bangla1971\_231, FudgeTart\_225, InigoMontoya\_233, BeanWater\_223, ZygoTaiga\_227, Phox\_231, Yucca\_230, Willis\_231
- Track 2 : Jessibeth14\_230, Cleatunium\_223, Moiqah\_226, Moby\_226, Stubby\_214, McWolfish\_227, Bonray\_232, HyRo\_217, Flabslab\_226, EmToTheThree\_230, Khaleesi\_229, Pinkcreek\_214
- Track 3 : ChaylaJr\_229, Rizal\_222, Pleione\_234, Ava3\_229, Blubba\_220
- Track 4 : Shelob\_231, I3\_240, SilverDipper\_234, Pivoine\_231, SrishMeg2525\_227, DeejaClivia\_219, Blackdragon\_225, Patter\_232, Gangam\_231, Kboogie\_234, GlutenPhree\_231, CindyLou\_231, Naija\_231, ShiaLabeouf\_228, Loanshark\_227, Tainan\_231, SVoro\_226, Dietrick\_219, Issimir\_223, InterFolia\_233, Mikro\_226, Melpomini\_225, LordLeafot\_231, NedWong\_229, JPickles\_227, ValleyTerrace\_231, YemiJoy2021\_231, Darko\_229, OrediggerDelux\_226, Amataga\_231, Capablanca\_235, Maby2021\_230, Bigswole\_235, Latch\_230, Lukilu\_221, DirtMonster\_223, Mangeria\_231, Colt\_222, Belieber\_223, Quasimodo\_233, Shaqnato\_221, RoMag\_225, PharkleMinkus\_232, Rocha\_227, EasyJones\_233, StephanieG\_226, TinyTim\_228, SmallFry\_231, Salacia\_231, LolaVinca\_228, Jaygup\_227, Basquiat\_227, Cane17\_222, Delylah\_232, Ngannou\_227, Delilah\_228, Maturis\_227, Spec\_225, Napoleon13\_227, DrPhinkDaddy\_227, FoxtrotP1\_228, Essence\_228, Momo\_231, Chargie21\_227, Kamryn\_229, McGee\_230, Bowman\_228, ChickenPhender\_226, Yassified\_227, Tortoise16\_228, Ewok\_229, Ading\_232, Derek\_228, Jemmno\_230, Astraea\_224, Turret\_223, Pupusa\_234, Rahel\_232, JustHall\_224, Asterius\_232, Izajani\_228, QBert\_222, NuevoMundo\_233, Adlitam\_230, JulietS\_221, Guwapp\_226, Shnickers\_229, Nidhogg\_231, Trinitium\_226, Janiyr\_233, YoungMoneyMata\_230, BananaFence\_227, Gabriel\_233, Fixie\_230, Norm\_230, Concombre\_235, Fongie\_231, NoodleTree\_236, Blackbrain\_228, Cactojaque\_226, Chomp\_231, Bezza\_219, Specks\_234, Teardrop\_228, Substance289\_227, Morizzled23\_227, Demodog\_236, EmmaElysia\_235, PurduePete\_230, SoilZilla\_225, Ablatia\_229, LookingGlass\_229, FrayBell\_233, Lee7\_230, Fludd\_230, BadAgartude\_224, JigglyPuff\_237, Duckfeet\_224, Matsumoto\_228, IkeLoa\_223, Iota\_225, Labradorite\_228, Bipolarisk\_228, BobaPhatt\_222, Primadonna\_225, Domi\_224, Halldule\_223

- Track 5 : Shifa\_208
- Track 6 : Tonenili\_252
- Track 7 : Vortrix\_249

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

The start number called the most often in the published annotations is 2, it was called in 110 of the 157 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Ablatia\_229, Ading\_232, Adlitam\_230, Amataga\_231, Asterius\_232, Astraea\_224, BadAgartude\_224, BananaFence\_227, Basquiat\_227, Belieber\_223, Bezza\_219, Bigswole\_235, Bipolarisk\_228, Blackbrain\_228, Blackdragon\_225, BobaPhatt\_222, Bonray\_232, Bowman\_228, Cactojaque\_226, Cane17\_222, Capablanca\_235, Chargie21\_227, ChickenPhender\_226, Chomp\_231, CindyLou\_231, Cleatunium\_223, Colt\_222, Concombre\_235, Darko\_229, DeejaClivia\_219, Delilah\_228, Delylah\_232, Demodog\_236, Derek\_228, Dietrick\_219, DirtMonster\_223, Domi\_224, DrPhinkDaddy\_227, Duckfeet\_224, EasyJones\_233, EmToTheThree\_230, EmmaElysia\_235, Essence\_228, Ewok\_229, Fixie\_230, Flabslab\_226, Fludd\_230, Fongie\_231, FoxtrotP1\_228, FrayBell\_233, Gabriel\_233, Gangam\_231, GlutenPhree\_231, Guwapp\_226, Halldule\_223, HyRo\_217, I3\_240, IkeLoa\_223, InterFolia\_233, Iota\_225, Issimir\_223, Izajani\_228, JPickles\_227, Janiyra\_233, Jaygup\_227, Jemmno\_230, Jessibeth14\_230, JigglyPuff\_237, JulietS\_221, JustHall\_224, Kamryn\_229, Kboogie\_234, Khaleesi\_229, Labradorite\_228, Latch\_230, Lee7\_230, Loanshark\_227, LolaVinca\_228, LookingGlass\_229, LordLeafolot\_231, Lukilu\_221, Maby2021\_230, Mangeria\_231, Matsumoto\_228, Maturis\_227, McGee\_230, McWolfish\_227, Melpomini\_225, Mikro\_226, Moby\_226, Moiqah\_226, Momo\_231, Morizzled23\_227, Naija\_231, Napoleon13\_227, NedWong\_229, Ngannou\_227, Nidhogg\_231, NoodleTree\_236, Norm\_230, NuevoMundo\_233, OrediggerDelux\_226, Patter\_232, PharkleMinkus\_232, Pinkcreek\_214, Pivoine\_231, Primadonna\_225, Pupusa\_234, PurduePete\_230, QBert\_222, Quasimodo\_233, Rahel\_232, RoMag\_225, Rocha\_227, SVoro\_226, Salacia\_231, Shaqnato\_221, Shelob\_231, ShiaLabeouf\_228, Shifa\_208, Shnickers\_229, SilverDipper\_234, SmallFry\_231, SoilZilla\_225, Spec\_225, Specks\_234, SrishMeg2525\_227, StephanieG\_226, Stubby\_214, Substance289\_227, Tainan\_231, Teardrop\_228, TinyTim\_228, Tortoise16\_228, Trinitium\_226, Turret\_223, ValleyTerrace\_231, Yassified\_227, YemiJoy2021\_231, YoungMoneyMata\_230,

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

- ArcherS7\_231, Atlantean\_230, Audrick\_232, Ava3\_229, Babyland\_233, Bangla1971\_231, BeanWater\_223, Blubba\_220, Bread\_225, Breeniome\_229, Burrough\_232, Caravan\_221, CharlieB\_224, ChaylaJr\_229, DTDevon\_233, Daffodil\_235, Drazdys\_229, Erdmann\_231, ErnieJ\_223, FudgeTart\_225, Gizmo\_236, InigoMontoya\_233, JayJay\_233, Jediah\_231, Koguma\_229, LinStu\_229, Megamind\_227, Naval22\_237, Phlegm\_234, Phox\_231, Pier\_231, Pio\_238, Pleione\_234, Rabinovish\_223, Rizal\_222, Roots515\_232, Sauce\_227, Sebata\_233, Shrimp\_232, Sprinklers\_228, StubbySaigey\_235, Tonenili\_252, Vortrix\_249, Willis\_231, Yucca\_230, Zalkecks\_229, Zeenon\_232, ZygoTaiga\_227,

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

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### Summary by start number:

Start 1:

- Found in 188 of 188 ( 100.0% ) of genes in pham
- Manual Annotations of this start: 6 of 157
- Called 3.7% of time when present
- Phage (with cluster) where this start called: Ava3\_229 (C1), Blubba\_220 (C1), ChaylaJr\_229 (C1), Pleione\_234 (C1), Rizal\_222 (C1), Tonenili\_252 (C1), Vortrix\_249 (C1),

Start 2:

- Found in 188 of 188 ( 100.0% ) of genes in pham
- Manual Annotations of this start: 110 of 157
- Called 74.5% of time when present
- Phage (with cluster) where this start called: Ablatia\_229 (C1), Ading\_232 (C1), Adlitam\_230 (C1), Amataga\_231 (C1), Asterius\_232 (C1), Astraea\_224 (C1), BadAgartude\_224 (C1), BananaFence\_227 (C1), Basquiat\_227 (C1), Belieber\_223 (C1), Bezza\_219 (C1), Bigswole\_235 (C1), Bipolarisk\_228 (C1), Blackbrain\_228 (C1), Blackdragon\_225 (C1), BobaPhatt\_222 (C1), Bonray\_232 (C1), Bowman\_228 (C1), Cactojaque\_226 (C1), Cane17\_222 (C1), Capablanca\_235 (C1), Chargie21\_227 (C1), ChickenPhender\_226 (C1), Chomp\_231 (C1), CindyLou\_231 (C1), Cleatunium\_223 (C1), Colt\_222 (C1), Concombre\_235 (C1), Darko\_229 (C1), DeejaClivia\_219 (C1), Delilah\_228 (C1), Delylah\_232 (C1), Demodog\_236 (C1), Derek\_228 (C1), Dietrick\_219 (C1), DirtMonster\_223 (C1), Domi\_224 (C1), DrPhinkDaddy\_227 (C1), Duckfeet\_224 (C1), EasyJones\_233 (C1), EmToTheThree\_230 (C1), EmmaElysia\_235 (C1), Essence\_228 (C1), Ewok\_229 (C1), Fixie\_230 (C1), Flabslab\_226 (C1), Fludd\_230 (C1), Fongie\_231 (C1), FoxtrotP1\_228 (C1), FrayBell\_233 (C1), Gabriel\_233 (C1), Gamgam\_231 (C1), GlutenPhree\_231 (C1), Guwapp\_226 (C1), Halldule\_223 (C1), HyRo\_217 (C1), I3\_240 (C1), IkeLoa\_223 (C1), InterFolia\_233 (C1), Iota\_225 (C1), Issimir\_223 (C1), Izajani\_228 (C1), JPickles\_227 (C1), Janiyr\_233 (C1), Jaygup\_227 (C1), Jemmno\_230 (C1), Jessibeth14\_230 (C1), JigglyPuff\_237 (C1), JulietS\_221 (C1), JustHall\_224 (C1), Kamryn\_229 (C1), Kboogie\_234 (C1), Khaleesi\_229 (C1), Labradorite\_228 (C1), Latch\_230 (C1), Lee7\_230 (C1), Loanshark\_227 (C1), LolaVinca\_228 (C1), LookingGlass\_229 (C1), LordLeafot\_231 (C1), Lukilu\_221 (C1), Maby2021\_230 (C1), Mangeria\_231 (C1), Matsumoto\_228 (C1), Maturis\_227 (C1), McGee\_230 (C1), McWolfish\_227 (C1), Melpomini\_225 (C1), Mikro\_226 (C1), Moby\_226 (C1), Moiqah\_226 (C1), Momo\_231 (C1), Morizzled23\_227 (C1), Naija\_231 (C1), Napoleon13\_227 (C1), NedWong\_229 (C1), Ngannou\_227 (C1), Nidhogg\_231 (C1), NoodleTree\_236 (C1), Norm\_230 (C1), NuevoMundo\_233 (C1), OrediggerDelux\_226 (C1), Patter\_232 (C1), PharkleMinkus\_232 (C1), Pinkcreek\_214 (C1), Pivoine\_231 (C1), Primadonna\_225 (C1), Pupusa\_234 (C1), PurduePete\_230 (C1), QBert\_222 (C1), Quasimodo\_233 (C1), Rahel\_232 (C1), RoMag\_225 (C1), Rocha\_227 (C1), SVoro\_226 (C1), Salacia\_231 (C1), Shaqnato\_221 (C1), Shelob\_231 (C1), ShiaLabeouf\_228 (C1), Shifa\_208 (C1), Shnickers\_229 (C1), SilverDipper\_234 (C1), SmallFry\_231 (C1), SoilZilla\_225 (C1), Spec\_225 (C1), Specks\_234 (C1), SrishMeg2525\_227 (C1), StephanieG\_226 (C1), Stubby\_214 (C1), Substance289\_227 (C1), Tainan\_231 (C1), Teardrop\_228 (C1), TinyTim\_228 (C1), Tortoise16\_228 (C1), Trinitium\_226 (C1), Turret\_223 (C1), ValleyTerrace\_231 (C1), Yassified\_227 (C1), YemiJoy2021\_231 (C1), YoungMoneyMata\_230 (C1),

### Start 3:

- Found in 186 of 188 ( 98.9% ) of genes in pham
- Manual Annotations of this start: 41 of 157
- Called 22.0% of time when present
- Phage (with cluster) where this start called: ArcherS7\_231 (C1), Atlantean\_230 (C1), Audrick\_232 (C1), Babyland\_233 (C1), Bangla1971\_231 (C1), BeanWater\_223 (C1), Bread\_225 (C1), Breeniome\_229 (C1), Burrough\_232 (C1), Caravan\_221 (C1), CharlieB\_224 (C1), DTDevon\_233 (C1), Daffodil\_235 (C1), Drazdys\_229 (C1), Erdmann\_231 (C1), ErnieJ\_223 (C1), FudgeTart\_225 (C1), Gizmo\_236 (C1), InigoMontoya\_233 (C1), JayJay\_233 (C1), Jedediah\_231 (C1), Koguma\_229 (C1), LinStu\_229 (C1), Megamind\_227 (C1), Naval22\_237 (C1), Phlegm\_234 (C1), Phox\_231 (C1), Pier\_231 (C1), Pio\_238 (C1), Rabinovich\_223 (C1), Roots515\_232 (C1), Sauce\_227 (C1), Sebata\_233 (C1), Shrimp\_232 (C1), Sprinklers\_228 (C1), StubbySaigey\_235 (C1), Willis\_231 (C1), Yucca\_230 (C1), Zalkecks\_229 (C1), Zeenon\_232 (C1), ZygoTaiga\_227 (C1),

### Summary by clusters:

There is one cluster represented in this pham: C1

Info for manual annotations of cluster C1:

- Start number 1 was manually annotated 6 times for cluster C1.
- Start number 2 was manually annotated 110 times for cluster C1.
- Start number 3 was manually annotated 41 times for cluster C1.

### **Gene Information:**

Gene: Ablatia\_229 Start: 127325, Stop: 127645, Start Num: 2

Candidate Starts for Ablatia\_229:

(Start: 1 @127313 has 6 MA's), (Start: 2 @127325 has 110 MA's), (Start: 3 @127346 has 41 MA's), (5, 127424), (9, 127619),

Gene: Ading\_232 Start: 129758, Stop: 130078, Start Num: 2

Candidate Starts for Ading\_232:

(Start: 1 @129746 has 6 MA's), (Start: 2 @129758 has 110 MA's), (Start: 3 @129779 has 41 MA's), (5, 129857), (9, 130052),

Gene: Adlitam\_230 Start: 128362, Stop: 128682, Start Num: 2

Candidate Starts for Adlitam\_230:

(Start: 1 @128350 has 6 MA's), (Start: 2 @128362 has 110 MA's), (Start: 3 @128383 has 41 MA's), (5, 128461), (9, 128656),

Gene: Amataga\_231 Start: 127361, Stop: 127681, Start Num: 2

Candidate Starts for Amataga\_231:

(Start: 1 @127349 has 6 MA's), (Start: 2 @127361 has 110 MA's), (Start: 3 @127382 has 41 MA's), (5, 127460), (9, 127655),

Gene: ArcherS7\_231 Start: 129127, Stop: 129426, Start Num: 3

Candidate Starts for ArcherS7\_231:

(Start: 1 @129094 has 6 MA's), (Start: 2 @129106 has 110 MA's), (Start: 3 @129127 has 41 MA's), (5, 129205), (9, 129400),

Gene: Asterius\_232 Start: 127770, Stop: 128090, Start Num: 2

Candidate Starts for Asterius\_232:

(Start: 1 @127758 has 6 MA's), (Start: 2 @127770 has 110 MA's), (Start: 3 @127791 has 41 MA's), (5, 127869), (9, 128064),

Gene: Astraea\_224 Start: 126965, Stop: 127285, Start Num: 2

Candidate Starts for Astraea\_224:

(Start: 1 @126953 has 6 MA's), (Start: 2 @126965 has 110 MA's), (Start: 3 @126986 has 41 MA's), (5, 127064), (9, 127259),

Gene: Atlantean\_230 Start: 127382, Stop: 127681, Start Num: 3

Candidate Starts for Atlantean\_230:

(Start: 1 @127349 has 6 MA's), (Start: 2 @127361 has 110 MA's), (Start: 3 @127382 has 41 MA's), (5, 127460), (9, 127655),

Gene: Audrick\_232 Start: 127272, Stop: 127571, Start Num: 3

Candidate Starts for Audrick\_232:

(Start: 1 @127239 has 6 MA's), (Start: 2 @127251 has 110 MA's), (Start: 3 @127272 has 41 MA's), (5, 127350), (9, 127545),

Gene: Ava3\_229 Start: 127808, Stop: 128140, Start Num: 1

Candidate Starts for Ava3\_229:

(Start: 1 @127808 has 6 MA's), (Start: 2 @127820 has 110 MA's), (Start: 3 @127841 has 41 MA's), (5, 127919), (9, 128114),

Gene: Babyland\_233 Start: 128159, Stop: 128458, Start Num: 3

Candidate Starts for Babyland\_233:

(Start: 1 @128126 has 6 MA's), (Start: 2 @128138 has 110 MA's), (Start: 3 @128159 has 41 MA's), (5, 128237), (9, 128432),

Gene: BadAgartude\_224 Start: 127451, Stop: 127771, Start Num: 2

Candidate Starts for BadAgartude\_224:

(Start: 1 @127439 has 6 MA's), (Start: 2 @127451 has 110 MA's), (Start: 3 @127472 has 41 MA's), (5, 127550), (9, 127745),

Gene: BananaFence\_227 Start: 127594, Stop: 127914, Start Num: 2

Candidate Starts for BananaFence\_227:

(Start: 1 @127582 has 6 MA's), (Start: 2 @127594 has 110 MA's), (Start: 3 @127615 has 41 MA's), (5, 127693), (9, 127888),

Gene: Bangla1971\_231 Start: 128091, Stop: 128390, Start Num: 3

Candidate Starts for Bangla1971\_231:

(Start: 1 @128058 has 6 MA's), (Start: 2 @128070 has 110 MA's), (Start: 3 @128091 has 41 MA's), (5, 128169), (9, 128364),

Gene: Basquiat\_227 Start: 125880, Stop: 126200, Start Num: 2

Candidate Starts for Basquiat\_227:

(Start: 1 @125868 has 6 MA's), (Start: 2 @125880 has 110 MA's), (Start: 3 @125901 has 41 MA's), (5, 125979), (9, 126174),

Gene: BeanWater\_223 Start: 127228, Stop: 127527, Start Num: 3  
Candidate Starts for BeanWater\_223:  
(Start: 1 @127195 has 6 MA's), (Start: 2 @127207 has 110 MA's), (Start: 3 @127228 has 41 MA's), (5, 127306), (9, 127501),

Gene: Belieber\_223 Start: 126007, Stop: 126327, Start Num: 2  
Candidate Starts for Belieber\_223:  
(Start: 1 @125995 has 6 MA's), (Start: 2 @126007 has 110 MA's), (Start: 3 @126028 has 41 MA's), (5, 126106), (9, 126301),

Gene: Bezza\_219 Start: 126906, Stop: 127226, Start Num: 2  
Candidate Starts for Bezza\_219:  
(Start: 1 @126894 has 6 MA's), (Start: 2 @126906 has 110 MA's), (Start: 3 @126927 has 41 MA's), (5, 127005), (9, 127200),

Gene: Bigswole\_235 Start: 129929, Stop: 130249, Start Num: 2  
Candidate Starts for Bigswole\_235:  
(Start: 1 @129917 has 6 MA's), (Start: 2 @129929 has 110 MA's), (Start: 3 @129950 has 41 MA's), (5, 130028), (9, 130223),

Gene: Bipolarisk\_228 Start: 128089, Stop: 128409, Start Num: 2  
Candidate Starts for Bipolarisk\_228:  
(Start: 1 @128077 has 6 MA's), (Start: 2 @128089 has 110 MA's), (Start: 3 @128110 has 41 MA's), (5, 128188), (9, 128383),

Gene: Blackbrain\_228 Start: 127657, Stop: 127977, Start Num: 2  
Candidate Starts for Blackbrain\_228:  
(Start: 1 @127645 has 6 MA's), (Start: 2 @127657 has 110 MA's), (Start: 3 @127678 has 41 MA's), (5, 127756), (9, 127951),

Gene: Blackdragon\_225 Start: 127682, Stop: 128002, Start Num: 2  
Candidate Starts for Blackdragon\_225:  
(Start: 1 @127670 has 6 MA's), (Start: 2 @127682 has 110 MA's), (Start: 3 @127703 has 41 MA's), (5, 127781), (9, 127976),

Gene: Blubba\_220 Start: 131221, Stop: 131553, Start Num: 1  
Candidate Starts for Blubba\_220:  
(Start: 1 @131221 has 6 MA's), (Start: 2 @131233 has 110 MA's), (Start: 3 @131254 has 41 MA's), (5, 131332), (9, 131527),

Gene: BobaPhatt\_222 Start: 126775, Stop: 127095, Start Num: 2  
Candidate Starts for BobaPhatt\_222:  
(Start: 1 @126763 has 6 MA's), (Start: 2 @126775 has 110 MA's), (Start: 3 @126796 has 41 MA's), (5, 126874), (9, 127069),

Gene: Bonray\_232 Start: 129457, Stop: 129777, Start Num: 2  
Candidate Starts for Bonray\_232:  
(Start: 1 @129445 has 6 MA's), (Start: 2 @129457 has 110 MA's), (Start: 3 @129478 has 41 MA's), (5, 129556), (8, 129736), (9, 129751),

Gene: Bowman\_228 Start: 128572, Stop: 128892, Start Num: 2  
Candidate Starts for Bowman\_228:

(Start: 1 @128560 has 6 MA's), (Start: 2 @128572 has 110 MA's), (Start: 3 @128593 has 41 MA's), (5, 128671), (9, 128866),

Gene: Bread\_225 Start: 127485, Stop: 127784, Start Num: 3

Candidate Starts for Bread\_225:

(Start: 1 @127452 has 6 MA's), (Start: 2 @127464 has 110 MA's), (Start: 3 @127485 has 41 MA's), (5, 127563), (9, 127758),

Gene: Breeniome\_229 Start: 126939, Stop: 127238, Start Num: 3

Candidate Starts for Breeniome\_229:

(Start: 1 @126906 has 6 MA's), (Start: 2 @126918 has 110 MA's), (Start: 3 @126939 has 41 MA's), (5, 127017), (9, 127212),

Gene: Burrough\_232 Start: 129255, Stop: 129554, Start Num: 3

Candidate Starts for Burrough\_232:

(Start: 1 @129222 has 6 MA's), (Start: 2 @129234 has 110 MA's), (Start: 3 @129255 has 41 MA's), (5, 129333), (9, 129528),

Gene: Cactojaque\_226 Start: 126603, Stop: 126923, Start Num: 2

Candidate Starts for Cactojaque\_226:

(Start: 1 @126591 has 6 MA's), (Start: 2 @126603 has 110 MA's), (Start: 3 @126624 has 41 MA's), (5, 126702), (9, 126897),

Gene: Cane17\_222 Start: 131642, Stop: 131962, Start Num: 2

Candidate Starts for Cane17\_222:

(Start: 1 @131630 has 6 MA's), (Start: 2 @131642 has 110 MA's), (Start: 3 @131663 has 41 MA's), (5, 131741), (9, 131936),

Gene: Capablanca\_235 Start: 130086, Stop: 130406, Start Num: 2

Candidate Starts for Capablanca\_235:

(Start: 1 @130074 has 6 MA's), (Start: 2 @130086 has 110 MA's), (Start: 3 @130107 has 41 MA's), (5, 130185), (9, 130380),

Gene: Caravan\_221 Start: 128193, Stop: 128492, Start Num: 3

Candidate Starts for Caravan\_221:

(Start: 1 @128160 has 6 MA's), (Start: 2 @128172 has 110 MA's), (Start: 3 @128193 has 41 MA's), (5, 128271), (9, 128466),

Gene: Chargie21\_227 Start: 125880, Stop: 126200, Start Num: 2

Candidate Starts for Chargie21\_227:

(Start: 1 @125868 has 6 MA's), (Start: 2 @125880 has 110 MA's), (Start: 3 @125901 has 41 MA's), (5, 125979), (9, 126174),

Gene: CharlieB\_224 Start: 127607, Stop: 127906, Start Num: 3

Candidate Starts for CharlieB\_224:

(Start: 1 @127574 has 6 MA's), (Start: 2 @127586 has 110 MA's), (Start: 3 @127607 has 41 MA's), (5, 127685), (9, 127880),

Gene: ChaylaJr\_229 Start: 127259, Stop: 127591, Start Num: 1

Candidate Starts for ChaylaJr\_229:

(Start: 1 @127259 has 6 MA's), (Start: 2 @127271 has 110 MA's), (Start: 3 @127292 has 41 MA's), (5, 127370), (9, 127565),

Gene: ChickenPhender\_226 Start: 126027, Stop: 126347, Start Num: 2

Candidate Starts for ChickenPhender\_226:

(Start: 1 @126015 has 6 MA's), (Start: 2 @126027 has 110 MA's), (Start: 3 @126048 has 41 MA's), (5, 126126), (9, 126321),

Gene: Chomp\_231 Start: 129463, Stop: 129783, Start Num: 2

Candidate Starts for Chomp\_231:

(Start: 1 @129451 has 6 MA's), (Start: 2 @129463 has 110 MA's), (Start: 3 @129484 has 41 MA's), (5, 129562), (9, 129757),

Gene: CindyLou\_231 Start: 129723, Stop: 130043, Start Num: 2

Candidate Starts for CindyLou\_231:

(Start: 1 @129711 has 6 MA's), (Start: 2 @129723 has 110 MA's), (Start: 3 @129744 has 41 MA's), (5, 129822), (9, 130017),

Gene: Cleatunium\_223 Start: 127284, Stop: 127604, Start Num: 2

Candidate Starts for Cleatunium\_223:

(Start: 1 @127272 has 6 MA's), (Start: 2 @127284 has 110 MA's), (Start: 3 @127305 has 41 MA's), (5, 127383), (8, 127563), (9, 127578),

Gene: Colt\_222 Start: 130873, Stop: 131193, Start Num: 2

Candidate Starts for Colt\_222:

(Start: 1 @130861 has 6 MA's), (Start: 2 @130873 has 110 MA's), (Start: 3 @130894 has 41 MA's), (5, 130972), (9, 131167),

Gene: Concombres\_235 Start: 129617, Stop: 129937, Start Num: 2

Candidate Starts for Concombres\_235:

(Start: 1 @129605 has 6 MA's), (Start: 2 @129617 has 110 MA's), (Start: 3 @129638 has 41 MA's), (5, 129716), (9, 129911),

Gene: DTDevon\_233 Start: 130123, Stop: 130422, Start Num: 3

Candidate Starts for DTDevon\_233:

(Start: 1 @130090 has 6 MA's), (Start: 2 @130102 has 110 MA's), (Start: 3 @130123 has 41 MA's), (5, 130201), (9, 130396),

Gene: Daffodil\_235 Start: 128410, Stop: 128709, Start Num: 3

Candidate Starts for Daffodil\_235:

(Start: 1 @128377 has 6 MA's), (Start: 2 @128389 has 110 MA's), (Start: 3 @128410 has 41 MA's), (5, 128488), (9, 128683),

Gene: Darko\_229 Start: 127598, Stop: 127918, Start Num: 2

Candidate Starts for Darko\_229:

(Start: 1 @127586 has 6 MA's), (Start: 2 @127598 has 110 MA's), (Start: 3 @127619 has 41 MA's), (5, 127697), (9, 127892),

Gene: DeejaClivia\_219 Start: 126435, Stop: 126755, Start Num: 2

Candidate Starts for DeejaClivia\_219:

(Start: 1 @126423 has 6 MA's), (Start: 2 @126435 has 110 MA's), (Start: 3 @126456 has 41 MA's), (5, 126534), (9, 126729),

Gene: Delilah\_228 Start: 128482, Stop: 128802, Start Num: 2

Candidate Starts for Delilah\_228:

(Start: 1 @128470 has 6 MA's), (Start: 2 @128482 has 110 MA's), (Start: 3 @128503 has 41 MA's), (5, 128581), (9, 128776),

Gene: Delylah\_232 Start: 128796, Stop: 129116, Start Num: 2

Candidate Starts for Delylah\_232:

(Start: 1 @128784 has 6 MA's), (Start: 2 @128796 has 110 MA's), (Start: 3 @128817 has 41 MA's), (5, 128895), (9, 129090),

Gene: Demodog\_236 Start: 129627, Stop: 129947, Start Num: 2

Candidate Starts for Demodog\_236:

(Start: 1 @129615 has 6 MA's), (Start: 2 @129627 has 110 MA's), (Start: 3 @129648 has 41 MA's), (5, 129726), (9, 129921),

Gene: Derek\_228 Start: 128740, Stop: 129060, Start Num: 2

Candidate Starts for Derek\_228:

(Start: 1 @128728 has 6 MA's), (Start: 2 @128740 has 110 MA's), (Start: 3 @128761 has 41 MA's), (5, 128839), (9, 129034),

Gene: Dietrick\_219 Start: 126603, Stop: 126923, Start Num: 2

Candidate Starts for Dietrick\_219:

(Start: 1 @126591 has 6 MA's), (Start: 2 @126603 has 110 MA's), (Start: 3 @126624 has 41 MA's), (5, 126702), (9, 126897),

Gene: DirtMonster\_223 Start: 127941, Stop: 128261, Start Num: 2

Candidate Starts for DirtMonster\_223:

(Start: 1 @127929 has 6 MA's), (Start: 2 @127941 has 110 MA's), (Start: 3 @127962 has 41 MA's), (5, 128040), (9, 128235),

Gene: Domi\_224 Start: 127942, Stop: 128262, Start Num: 2

Candidate Starts for Domi\_224:

(Start: 1 @127930 has 6 MA's), (Start: 2 @127942 has 110 MA's), (Start: 3 @127963 has 41 MA's), (5, 128041), (9, 128236),

Gene: DrPhinkDaddy\_227 Start: 129167, Stop: 129487, Start Num: 2

Candidate Starts for DrPhinkDaddy\_227:

(Start: 1 @129155 has 6 MA's), (Start: 2 @129167 has 110 MA's), (Start: 3 @129188 has 41 MA's), (5, 129266), (9, 129461),

Gene: Drazdys\_229 Start: 128768, Stop: 129067, Start Num: 3

Candidate Starts for Drazdys\_229:

(Start: 1 @128735 has 6 MA's), (Start: 2 @128747 has 110 MA's), (Start: 3 @128768 has 41 MA's), (5, 128846), (9, 129041),

Gene: Duckfeet\_224 Start: 127555, Stop: 127875, Start Num: 2

Candidate Starts for Duckfeet\_224:

(Start: 1 @127543 has 6 MA's), (Start: 2 @127555 has 110 MA's), (Start: 3 @127576 has 41 MA's), (5, 127654), (9, 127849),

Gene: EasyJones\_233 Start: 127123, Stop: 127443, Start Num: 2

Candidate Starts for EasyJones\_233:

(Start: 1 @127111 has 6 MA's), (Start: 2 @127123 has 110 MA's), (Start: 3 @127144 has 41 MA's), (5, 127222), (9, 127417),

Gene: EmToTheThree\_230 Start: 128506, Stop: 128826, Start Num: 2

Candidate Starts for EmToTheThree\_230:

(Start: 1 @128494 has 6 MA's), (Start: 2 @128506 has 110 MA's), (Start: 3 @128527 has 41 MA's), (5, 128605), (8, 128785), (9, 128800),

Gene: EmmaElysia\_235 Start: 129618, Stop: 129938, Start Num: 2

Candidate Starts for EmmaElysia\_235:

(Start: 1 @129606 has 6 MA's), (Start: 2 @129618 has 110 MA's), (Start: 3 @129639 has 41 MA's), (5, 129717), (9, 129912),

Gene: Erdmann\_231 Start: 128495, Stop: 128794, Start Num: 3

Candidate Starts for Erdmann\_231:

(Start: 1 @128462 has 6 MA's), (Start: 2 @128474 has 110 MA's), (Start: 3 @128495 has 41 MA's), (5, 128573), (9, 128768),

Gene: ErnieJ\_223 Start: 125323, Stop: 125622, Start Num: 3

Candidate Starts for ErnieJ\_223:

(Start: 1 @125290 has 6 MA's), (Start: 2 @125302 has 110 MA's), (Start: 3 @125323 has 41 MA's), (5, 125401), (9, 125596),

Gene: Essence\_228 Start: 127959, Stop: 128279, Start Num: 2

Candidate Starts for Essence\_228:

(Start: 1 @127947 has 6 MA's), (Start: 2 @127959 has 110 MA's), (Start: 3 @127980 has 41 MA's), (5, 128058), (9, 128253),

Gene: Ewok\_229 Start: 128417, Stop: 128737, Start Num: 2

Candidate Starts for Ewok\_229:

(Start: 1 @128405 has 6 MA's), (Start: 2 @128417 has 110 MA's), (Start: 3 @128438 has 41 MA's), (5, 128516), (9, 128711),

Gene: Fixie\_230 Start: 128739, Stop: 129059, Start Num: 2

Candidate Starts for Fixie\_230:

(Start: 1 @128727 has 6 MA's), (Start: 2 @128739 has 110 MA's), (Start: 3 @128760 has 41 MA's), (5, 128838), (9, 129033),

Gene: Flabslab\_226 Start: 125633, Stop: 125953, Start Num: 2

Candidate Starts for Flabslab\_226:

(Start: 1 @125621 has 6 MA's), (Start: 2 @125633 has 110 MA's), (Start: 3 @125654 has 41 MA's), (5, 125732), (8, 125912), (9, 125927),

Gene: Fludd\_230 Start: 126835, Stop: 127155, Start Num: 2

Candidate Starts for Fludd\_230:

(Start: 1 @126823 has 6 MA's), (Start: 2 @126835 has 110 MA's), (Start: 3 @126856 has 41 MA's), (5, 126934), (9, 127129),

Gene: Fongie\_231 Start: 128415, Stop: 128735, Start Num: 2

Candidate Starts for Fongie\_231:

(Start: 1 @128403 has 6 MA's), (Start: 2 @128415 has 110 MA's), (Start: 3 @128436 has 41 MA's), (5, 128514), (9, 128709),

Gene: FoxtrotP1\_228 Start: 129060, Stop: 129380, Start Num: 2

Candidate Starts for FoxtrotP1\_228:

(Start: 1 @129048 has 6 MA's), (Start: 2 @129060 has 110 MA's), (Start: 3 @129081 has 41 MA's), (5, 129159), (9, 129354),

Gene: FrayBell\_233 Start: 127023, Stop: 127343, Start Num: 2

Candidate Starts for FrayBell\_233:

(Start: 1 @127011 has 6 MA's), (Start: 2 @127023 has 110 MA's), (Start: 3 @127044 has 41 MA's), (5, 127122), (9, 127317),

Gene: FudgeTart\_225 Start: 127585, Stop: 127884, Start Num: 3

Candidate Starts for FudgeTart\_225:

(Start: 1 @127552 has 6 MA's), (Start: 2 @127564 has 110 MA's), (Start: 3 @127585 has 41 MA's), (5, 127663), (9, 127858),

Gene: Gabriel\_233 Start: 126994, Stop: 127314, Start Num: 2

Candidate Starts for Gabriel\_233:

(Start: 1 @126982 has 6 MA's), (Start: 2 @126994 has 110 MA's), (Start: 3 @127015 has 41 MA's), (5, 127093), (9, 127288),

Gene: Gamgam\_231 Start: 127351, Stop: 127671, Start Num: 2

Candidate Starts for Gamgam\_231:

(Start: 1 @127339 has 6 MA's), (Start: 2 @127351 has 110 MA's), (Start: 3 @127372 has 41 MA's), (5, 127450), (9, 127645),

Gene: Gizmo\_236 Start: 130411, Stop: 130710, Start Num: 3

Candidate Starts for Gizmo\_236:

(Start: 1 @130378 has 6 MA's), (Start: 2 @130390 has 110 MA's), (Start: 3 @130411 has 41 MA's), (5, 130489), (9, 130684),

Gene: GlutenPhree\_231 Start: 127362, Stop: 127682, Start Num: 2

Candidate Starts for GlutenPhree\_231:

(Start: 1 @127350 has 6 MA's), (Start: 2 @127362 has 110 MA's), (Start: 3 @127383 has 41 MA's), (5, 127461), (9, 127656),

Gene: Guwapp\_226 Start: 126809, Stop: 127129, Start Num: 2

Candidate Starts for Guwapp\_226:

(Start: 1 @126797 has 6 MA's), (Start: 2 @126809 has 110 MA's), (Start: 3 @126830 has 41 MA's), (5, 126908), (9, 127103),

Gene: Halldule\_223 Start: 126479, Stop: 126799, Start Num: 2

Candidate Starts for Halldule\_223:

(Start: 1 @126467 has 6 MA's), (Start: 2 @126479 has 110 MA's), (Start: 3 @126500 has 41 MA's), (5, 126578), (9, 126773),

Gene: HyRo\_217 Start: 127317, Stop: 127637, Start Num: 2

Candidate Starts for HyRo\_217:

(Start: 1 @127305 has 6 MA's), (Start: 2 @127317 has 110 MA's), (Start: 3 @127338 has 41 MA's), (5, 127416), (8, 127596), (9, 127611),

Gene: I3\_240 Start: 129165, Stop: 129485, Start Num: 2

Candidate Starts for I3\_240:

(Start: 1 @129153 has 6 MA's), (Start: 2 @129165 has 110 MA's), (Start: 3 @129186 has 41 MA's), (5, 129264), (9, 129459),

Gene: IkeLoa\_223 Start: 127707, Stop: 128027, Start Num: 2

Candidate Starts for IkeLoa\_223:

(Start: 1 @127695 has 6 MA's), (Start: 2 @127707 has 110 MA's), (Start: 3 @127728 has 41 MA's), (5, 127806), (9, 128001),

Gene: InigoMontoya\_233 Start: 128046, Stop: 128345, Start Num: 3

Candidate Starts for InigoMontoya\_233:

(Start: 1 @128013 has 6 MA's), (Start: 2 @128025 has 110 MA's), (Start: 3 @128046 has 41 MA's), (5, 128124), (9, 128319),

Gene: InterFolia\_233 Start: 128828, Stop: 129148, Start Num: 2

Candidate Starts for InterFolia\_233:

(Start: 1 @128816 has 6 MA's), (Start: 2 @128828 has 110 MA's), (Start: 3 @128849 has 41 MA's), (5, 128927), (9, 129122),

Gene: Iota\_225 Start: 127735, Stop: 128055, Start Num: 2

Candidate Starts for Iota\_225:

(Start: 1 @127723 has 6 MA's), (Start: 2 @127735 has 110 MA's), (Start: 3 @127756 has 41 MA's), (5, 127834), (9, 128029),

Gene: Issimir\_223 Start: 127663, Stop: 127983, Start Num: 2

Candidate Starts for Issimir\_223:

(Start: 1 @127651 has 6 MA's), (Start: 2 @127663 has 110 MA's), (Start: 3 @127684 has 41 MA's), (5, 127762), (9, 127957),

Gene: Izajani\_228 Start: 128557, Stop: 128877, Start Num: 2

Candidate Starts for Izajani\_228:

(Start: 1 @128545 has 6 MA's), (Start: 2 @128557 has 110 MA's), (Start: 3 @128578 has 41 MA's), (5, 128656), (9, 128851),

Gene: JPickles\_227 Start: 126713, Stop: 127033, Start Num: 2

Candidate Starts for JPickles\_227:

(Start: 1 @126701 has 6 MA's), (Start: 2 @126713 has 110 MA's), (Start: 3 @126734 has 41 MA's), (5, 126812), (9, 127007),

Gene: Janiyra\_233 Start: 128250, Stop: 128570, Start Num: 2

Candidate Starts for Janiyra\_233:

(Start: 1 @128238 has 6 MA's), (Start: 2 @128250 has 110 MA's), (Start: 3 @128271 has 41 MA's), (5, 128349), (9, 128544),

Gene: JayJay\_233 Start: 128161, Stop: 128460, Start Num: 3

Candidate Starts for JayJay\_233:

(Start: 1 @128128 has 6 MA's), (Start: 2 @128140 has 110 MA's), (Start: 3 @128161 has 41 MA's), (5, 128239), (9, 128434),

Gene: Jaygup\_227 Start: 127884, Stop: 128204, Start Num: 2

Candidate Starts for Jaygup\_227:

(Start: 1 @127872 has 6 MA's), (Start: 2 @127884 has 110 MA's), (Start: 3 @127905 has 41 MA's), (5, 127983), (9, 128178),

Gene: Jedediah\_231 Start: 128958, Stop: 129257, Start Num: 3

Candidate Starts for Jedediah\_231:

(Start: 1 @128925 has 6 MA's), (Start: 2 @128937 has 110 MA's), (Start: 3 @128958 has 41 MA's), (5, 129036), (9, 129231),

Gene: Jemmno\_230 Start: 127656, Stop: 127976, Start Num: 2

Candidate Starts for Jemmno\_230:

(Start: 1 @127644 has 6 MA's), (Start: 2 @127656 has 110 MA's), (Start: 3 @127677 has 41 MA's), (5, 127755), (9, 127950),

Gene: Jessibeth14\_230 Start: 129132, Stop: 129452, Start Num: 2

Candidate Starts for Jessibeth14\_230:

(Start: 1 @129120 has 6 MA's), (Start: 2 @129132 has 110 MA's), (Start: 3 @129153 has 41 MA's), (5, 129231), (8, 129411), (9, 129426),

Gene: JigglyPuff\_237 Start: 129627, Stop: 129947, Start Num: 2

Candidate Starts for JigglyPuff\_237:

(Start: 1 @129615 has 6 MA's), (Start: 2 @129627 has 110 MA's), (Start: 3 @129648 has 41 MA's), (5, 129726), (9, 129921),

Gene: JulietS\_221 Start: 125236, Stop: 125556, Start Num: 2

Candidate Starts for JulietS\_221:

(Start: 1 @125224 has 6 MA's), (Start: 2 @125236 has 110 MA's), (Start: 3 @125257 has 41 MA's), (5, 125335), (9, 125530),

Gene: JustHall\_224 Start: 127186, Stop: 127506, Start Num: 2

Candidate Starts for JustHall\_224:

(Start: 1 @127174 has 6 MA's), (Start: 2 @127186 has 110 MA's), (Start: 3 @127207 has 41 MA's), (5, 127285), (9, 127480),

Gene: Kamryn\_229 Start: 128776, Stop: 129096, Start Num: 2

Candidate Starts for Kamryn\_229:

(Start: 1 @128764 has 6 MA's), (Start: 2 @128776 has 110 MA's), (Start: 3 @128797 has 41 MA's), (5, 128875), (9, 129070),

Gene: Kboogie\_234 Start: 127815, Stop: 128135, Start Num: 2

Candidate Starts for Kboogie\_234:

(Start: 1 @127803 has 6 MA's), (Start: 2 @127815 has 110 MA's), (Start: 3 @127836 has 41 MA's), (5, 127914), (9, 128109),

Gene: Khaleesi\_229 Start: 128599, Stop: 128919, Start Num: 2

Candidate Starts for Khaleesi\_229:

(Start: 1 @128587 has 6 MA's), (Start: 2 @128599 has 110 MA's), (Start: 3 @128620 has 41 MA's), (5, 128698), (8, 128878), (9, 128893),

Gene: Koguma\_229 Start: 127477, Stop: 127776, Start Num: 3

Candidate Starts for Koguma\_229:

(Start: 1 @127444 has 6 MA's), (Start: 2 @127456 has 110 MA's), (Start: 3 @127477 has 41 MA's), (5, 127555), (9, 127750),

Gene: Labradorite\_228 Start: 127375, Stop: 127695, Start Num: 2

Candidate Starts for Labradorite\_228:

(Start: 1 @127363 has 6 MA's), (Start: 2 @127375 has 110 MA's), (Start: 3 @127396 has 41 MA's), (5, 127474), (9, 127669),

Gene: Latch\_230 Start: 127361, Stop: 127681, Start Num: 2

Candidate Starts for Latch\_230:

(Start: 1 @127349 has 6 MA's), (Start: 2 @127361 has 110 MA's), (Start: 3 @127382 has 41 MA's), (5, 127460), (9, 127655),

Gene: Lee7\_230 Start: 130013, Stop: 130333, Start Num: 2

Candidate Starts for Lee7\_230:

(Start: 1 @130001 has 6 MA's), (Start: 2 @130013 has 110 MA's), (Start: 3 @130034 has 41 MA's), (5, 130112), (9, 130307),

Gene: LinStu\_229 Start: 127113, Stop: 127412, Start Num: 3

Candidate Starts for LinStu\_229:

(Start: 1 @127080 has 6 MA's), (Start: 2 @127092 has 110 MA's), (Start: 3 @127113 has 41 MA's), (5, 127191), (9, 127386),

Gene: Loanshark\_227 Start: 127948, Stop: 128268, Start Num: 2

Candidate Starts for Loanshark\_227:

(Start: 1 @127936 has 6 MA's), (Start: 2 @127948 has 110 MA's), (Start: 3 @127969 has 41 MA's), (5, 128047), (9, 128242),

Gene: LolaVinca\_228 Start: 128258, Stop: 128578, Start Num: 2

Candidate Starts for LolaVinca\_228:

(Start: 1 @128246 has 6 MA's), (Start: 2 @128258 has 110 MA's), (Start: 3 @128279 has 41 MA's), (5, 128357), (9, 128552),

Gene: LookingGlass\_229 Start: 128106, Stop: 128426, Start Num: 2

Candidate Starts for LookingGlass\_229:

(Start: 1 @128094 has 6 MA's), (Start: 2 @128106 has 110 MA's), (Start: 3 @128127 has 41 MA's), (5, 128205), (9, 128400),

Gene: LordLeafolot\_231 Start: 127871, Stop: 128191, Start Num: 2

Candidate Starts for LordLeafolot\_231:

(Start: 1 @127859 has 6 MA's), (Start: 2 @127871 has 110 MA's), (Start: 3 @127892 has 41 MA's), (5, 127970), (9, 128165),

Gene: Lukilu\_221 Start: 128811, Stop: 129131, Start Num: 2

Candidate Starts for Lukilu\_221:

(Start: 1 @128799 has 6 MA's), (Start: 2 @128811 has 110 MA's), (Start: 3 @128832 has 41 MA's), (5, 128910), (9, 129105),

Gene: Maby2021\_230 Start: 129052, Stop: 129372, Start Num: 2

Candidate Starts for Maby2021\_230:

(Start: 1 @129040 has 6 MA's), (Start: 2 @129052 has 110 MA's), (Start: 3 @129073 has 41 MA's), (5, 129151), (9, 129346),

Gene: Mangeria\_231 Start: 129154, Stop: 129474, Start Num: 2

Candidate Starts for Mangeria\_231:

(Start: 1 @129142 has 6 MA's), (Start: 2 @129154 has 110 MA's), (Start: 3 @129175 has 41 MA's), (5, 129253), (9, 129448),

Gene: Matsumoto\_228 Start: 127803, Stop: 128123, Start Num: 2

Candidate Starts for Matsumoto\_228:

(Start: 1 @127791 has 6 MA's), (Start: 2 @127803 has 110 MA's), (Start: 3 @127824 has 41 MA's), (5, 127902), (9, 128097),

Gene: Maturis\_227 Start: 128126, Stop: 128446, Start Num: 2

Candidate Starts for Maturis\_227:

(Start: 1 @128114 has 6 MA's), (Start: 2 @128126 has 110 MA's), (Start: 3 @128147 has 41 MA's), (5, 128225), (9, 128420),

Gene: McGee\_230 Start: 127700, Stop: 128020, Start Num: 2

Candidate Starts for McGee\_230:

(Start: 1 @127688 has 6 MA's), (Start: 2 @127700 has 110 MA's), (Start: 3 @127721 has 41 MA's), (5, 127799), (9, 127994),

Gene: McWolfish\_227 Start: 127810, Stop: 128130, Start Num: 2

Candidate Starts for McWolfish\_227:

(Start: 1 @127798 has 6 MA's), (Start: 2 @127810 has 110 MA's), (Start: 3 @127831 has 41 MA's), (5, 127909), (8, 128089), (9, 128104),

Gene: Megamind\_227 Start: 128156, Stop: 128455, Start Num: 3

Candidate Starts for Megamind\_227:

(Start: 1 @128123 has 6 MA's), (Start: 2 @128135 has 110 MA's), (Start: 3 @128156 has 41 MA's), (5, 128234), (9, 128429),

Gene: Melpomini\_225 Start: 126895, Stop: 127215, Start Num: 2

Candidate Starts for Melpomini\_225:

(Start: 1 @126883 has 6 MA's), (Start: 2 @126895 has 110 MA's), (Start: 3 @126916 has 41 MA's), (5, 126994), (9, 127189),

Gene: Mikro\_226 Start: 129783, Stop: 130103, Start Num: 2

Candidate Starts for Mikro\_226:

(Start: 1 @129771 has 6 MA's), (Start: 2 @129783 has 110 MA's), (Start: 3 @129804 has 41 MA's), (5, 129882), (9, 130077),

Gene: Moby\_226 Start: 126962, Stop: 127282, Start Num: 2

Candidate Starts for Moby\_226:

(Start: 1 @126950 has 6 MA's), (Start: 2 @126962 has 110 MA's), (Start: 3 @126983 has 41 MA's), (5, 127061), (8, 127241), (9, 127256),

Gene: Moiqah\_226 Start: 126939, Stop: 127259, Start Num: 2

Candidate Starts for Moiqah\_226:

(Start: 1 @126927 has 6 MA's), (Start: 2 @126939 has 110 MA's), (Start: 3 @126960 has 41 MA's), (5, 127038), (8, 127218), (9, 127233),

Gene: Momo\_231 Start: 127361, Stop: 127681, Start Num: 2

Candidate Starts for Momo\_231:

(Start: 1 @127349 has 6 MA's), (Start: 2 @127361 has 110 MA's), (Start: 3 @127382 has 41 MA's), (5, 127460), (9, 127655),

Gene: Morizzled23\_227 Start: 126728, Stop: 127048, Start Num: 2

Candidate Starts for Morizzled23\_227:

(Start: 1 @126716 has 6 MA's), (Start: 2 @126728 has 110 MA's), (Start: 3 @126749 has 41 MA's), (5, 126827), (9, 127022),

Gene: Naija\_231 Start: 128064, Stop: 128384, Start Num: 2

Candidate Starts for Naija\_231:

(Start: 1 @128052 has 6 MA's), (Start: 2 @128064 has 110 MA's), (Start: 3 @128085 has 41 MA's), (5, 128163), (9, 128358),

Gene: Napoleon13\_227 Start: 127092, Stop: 127412, Start Num: 2

Candidate Starts for Napoleon13\_227:

(Start: 1 @127080 has 6 MA's), (Start: 2 @127092 has 110 MA's), (Start: 3 @127113 has 41 MA's), (5, 127191), (9, 127386),

Gene: Naval22\_237 Start: 129862, Stop: 130161, Start Num: 3

Candidate Starts for Naval22\_237:

(Start: 1 @129829 has 6 MA's), (Start: 2 @129841 has 110 MA's), (Start: 3 @129862 has 41 MA's), (5, 129940), (9, 130135),

Gene: NedWong\_229 Start: 128522, Stop: 128842, Start Num: 2

Candidate Starts for NedWong\_229:

(Start: 1 @128510 has 6 MA's), (Start: 2 @128522 has 110 MA's), (Start: 3 @128543 has 41 MA's), (5, 128621), (9, 128816),

Gene: Ngannou\_227 Start: 127046, Stop: 127366, Start Num: 2

Candidate Starts for Ngannou\_227:

(Start: 1 @127034 has 6 MA's), (Start: 2 @127046 has 110 MA's), (Start: 3 @127067 has 41 MA's), (5, 127145), (9, 127340),

Gene: Nidhogg\_231 Start: 128890, Stop: 129210, Start Num: 2

Candidate Starts for Nidhogg\_231:

(Start: 1 @128878 has 6 MA's), (Start: 2 @128890 has 110 MA's), (Start: 3 @128911 has 41 MA's), (5, 128989), (9, 129184),

Gene: NoodleTree\_236 Start: 128785, Stop: 129105, Start Num: 2

Candidate Starts for NoodleTree\_236:

(Start: 1 @128773 has 6 MA's), (Start: 2 @128785 has 110 MA's), (Start: 3 @128806 has 41 MA's), (5, 128884), (9, 129079),

Gene: Norm\_230 Start: 128791, Stop: 129111, Start Num: 2

Candidate Starts for Norm\_230:

(Start: 1 @128779 has 6 MA's), (Start: 2 @128791 has 110 MA's), (Start: 3 @128812 has 41 MA's), (5, 128890), (9, 129085),

Gene: NuevoMundo\_233 Start: 129346, Stop: 129666, Start Num: 2

Candidate Starts for NuevoMundo\_233:

(Start: 1 @129334 has 6 MA's), (Start: 2 @129346 has 110 MA's), (Start: 3 @129367 has 41 MA's), (5, 129445), (9, 129640),

Gene: OrediggerDelux\_226 Start: 129017, Stop: 129337, Start Num: 2

Candidate Starts for OrediggerDelux\_226:

(Start: 1 @129005 has 6 MA's), (Start: 2 @129017 has 110 MA's), (Start: 3 @129038 has 41 MA's), (5, 129116), (9, 129311),

Gene: Patter\_232 Start: 128078, Stop: 128398, Start Num: 2

Candidate Starts for Patter\_232:

(Start: 1 @128066 has 6 MA's), (Start: 2 @128078 has 110 MA's), (Start: 3 @128099 has 41 MA's), (5, 128177), (9, 128372),

Gene: PharkleMinkus\_232 Start: 127022, Stop: 127342, Start Num: 2

Candidate Starts for PharkleMinkus\_232:

(Start: 1 @127010 has 6 MA's), (Start: 2 @127022 has 110 MA's), (Start: 3 @127043 has 41 MA's), (5, 127121), (9, 127316),

Gene: Phlegm\_234 Start: 128788, Stop: 129087, Start Num: 3

Candidate Starts for Phlegm\_234:

(Start: 1 @128755 has 6 MA's), (Start: 2 @128767 has 110 MA's), (Start: 3 @128788 has 41 MA's), (5, 128866), (9, 129061),

Gene: Phox\_231 Start: 128035, Stop: 128334, Start Num: 3

Candidate Starts for Phox\_231:

(Start: 1 @128002 has 6 MA's), (Start: 2 @128014 has 110 MA's), (Start: 3 @128035 has 41 MA's), (5, 128113), (9, 128308),

Gene: Pier\_231 Start: 128913, Stop: 129212, Start Num: 3

Candidate Starts for Pier\_231:

(Start: 1 @128880 has 6 MA's), (Start: 2 @128892 has 110 MA's), (Start: 3 @128913 has 41 MA's), (5, 128991), (9, 129186),

Gene: Pinkcreek\_214 Start: 126305, Stop: 126625, Start Num: 2

Candidate Starts for Pinkcreek\_214:

(Start: 1 @126293 has 6 MA's), (Start: 2 @126305 has 110 MA's), (Start: 3 @126326 has 41 MA's), (5, 126404), (8, 126584), (9, 126599),

Gene: Pio\_238 Start: 130116, Stop: 130415, Start Num: 3

Candidate Starts for Pio\_238:

(Start: 1 @130083 has 6 MA's), (Start: 2 @130095 has 110 MA's), (Start: 3 @130116 has 41 MA's), (5, 130194), (9, 130389),

Gene: Pivoine\_231 Start: 128064, Stop: 128384, Start Num: 2

Candidate Starts for Pivoine\_231:

(Start: 1 @128052 has 6 MA's), (Start: 2 @128064 has 110 MA's), (Start: 3 @128085 has 41 MA's), (5, 128163), (9, 128358),

Gene: Pleione\_234 Start: 128815, Stop: 129147, Start Num: 1

Candidate Starts for Pleione\_234:

(Start: 1 @128815 has 6 MA's), (Start: 2 @128827 has 110 MA's), (Start: 3 @128848 has 41 MA's), (5, 128926), (9, 129121),

Gene: Primadonna\_225 Start: 127725, Stop: 128045, Start Num: 2

Candidate Starts for Primadonna\_225:

(Start: 1 @127713 has 6 MA's), (Start: 2 @127725 has 110 MA's), (Start: 3 @127746 has 41 MA's), (5, 127824), (9, 128019),

Gene: Pupusa\_234 Start: 129391, Stop: 129711, Start Num: 2

Candidate Starts for Pupusa\_234:

(Start: 1 @129379 has 6 MA's), (Start: 2 @129391 has 110 MA's), (Start: 3 @129412 has 41 MA's), (5, 129490), (9, 129685),

Gene: PurduePete\_230 Start: 129092, Stop: 129412, Start Num: 2

Candidate Starts for PurduePete\_230:

(Start: 1 @129080 has 6 MA's), (Start: 2 @129092 has 110 MA's), (Start: 3 @129113 has 41 MA's), (5, 129191), (9, 129386),

Gene: QBert\_222 Start: 126415, Stop: 126735, Start Num: 2

Candidate Starts for QBert\_222:

(Start: 1 @126403 has 6 MA's), (Start: 2 @126415 has 110 MA's), (Start: 3 @126436 has 41 MA's), (5, 126514), (9, 126709),

Gene: Quasimodo\_233 Start: 128400, Stop: 128720, Start Num: 2

Candidate Starts for Quasimodo\_233:

(Start: 1 @128388 has 6 MA's), (Start: 2 @128400 has 110 MA's), (Start: 3 @128421 has 41 MA's), (5, 128499), (9, 128694),

Gene: Rabinovish\_223 Start: 128022, Stop: 128321, Start Num: 3

Candidate Starts for Rabinovish\_223:

(Start: 1 @127989 has 6 MA's), (Start: 2 @128001 has 110 MA's), (Start: 3 @128022 has 41 MA's), (5, 128100), (9, 128295),

Gene: Rahel\_232 Start: 128502, Stop: 128822, Start Num: 2

Candidate Starts for Rahel\_232:

(Start: 1 @128490 has 6 MA's), (Start: 2 @128502 has 110 MA's), (Start: 3 @128523 has 41 MA's), (5, 128601), (9, 128796),

Gene: Rizal\_222 Start: 126305, Stop: 126637, Start Num: 1

Candidate Starts for Rizal\_222:

(Start: 1 @126305 has 6 MA's), (Start: 2 @126317 has 110 MA's), (Start: 3 @126338 has 41 MA's), (5, 126416), (9, 126611),

Gene: RoMag\_225 Start: 128098, Stop: 128418, Start Num: 2

Candidate Starts for RoMag\_225:

(Start: 1 @128086 has 6 MA's), (Start: 2 @128098 has 110 MA's), (Start: 3 @128119 has 41 MA's), (5, 128197), (9, 128392),

Gene: Rocha\_227 Start: 127651, Stop: 127971, Start Num: 2

Candidate Starts for Rocha\_227:

(Start: 1 @127639 has 6 MA's), (Start: 2 @127651 has 110 MA's), (Start: 3 @127672 has 41 MA's), (5, 127750), (9, 127945),

Gene: Roots515\_232 Start: 129664, Stop: 129963, Start Num: 3

Candidate Starts for Roots515\_232:

(Start: 1 @129631 has 6 MA's), (Start: 2 @129643 has 110 MA's), (Start: 3 @129664 has 41 MA's), (5, 129742), (9, 129937),

Gene: SVoro\_226 Start: 128400, Stop: 128720, Start Num: 2

Candidate Starts for SVoro\_226:

(Start: 1 @128388 has 6 MA's), (Start: 2 @128400 has 110 MA's), (Start: 3 @128421 has 41 MA's), (5, 128499), (9, 128694),

Gene: Salacia\_231 Start: 129518, Stop: 129838, Start Num: 2

Candidate Starts for Salacia\_231:

(Start: 1 @129506 has 6 MA's), (Start: 2 @129518 has 110 MA's), (Start: 3 @129539 has 41 MA's), (5, 129617), (9, 129812),

Gene: Sauce\_227 Start: 127847, Stop: 128146, Start Num: 3

Candidate Starts for Sauce\_227:

(Start: 1 @127814 has 6 MA's), (Start: 2 @127826 has 110 MA's), (Start: 3 @127847 has 41 MA's), (5, 127925), (9, 128120),

Gene: Sebata\_233 Start: 129352, Stop: 129651, Start Num: 3

Candidate Starts for Sebata\_233:

(Start: 1 @129319 has 6 MA's), (Start: 2 @129331 has 110 MA's), (Start: 3 @129352 has 41 MA's), (5, 129430), (9, 129625),

Gene: Shaqnato\_221 Start: 127224, Stop: 127544, Start Num: 2

Candidate Starts for Shaqnato\_221:

(Start: 1 @127212 has 6 MA's), (Start: 2 @127224 has 110 MA's), (Start: 3 @127245 has 41 MA's), (5, 127323), (9, 127518),

Gene: Shelob\_231 Start: 129961, Stop: 130281, Start Num: 2

Candidate Starts for Shelob\_231:

(Start: 1 @129949 has 6 MA's), (Start: 2 @129961 has 110 MA's), (Start: 3 @129982 has 41 MA's), (5, 130060), (9, 130255),

Gene: ShiaLabeouf\_228 Start: 127820, Stop: 128140, Start Num: 2

Candidate Starts for ShiaLabeouf\_228:

(Start: 1 @127808 has 6 MA's), (Start: 2 @127820 has 110 MA's), (Start: 3 @127841 has 41 MA's), (5, 127919), (9, 128114),

Gene: Shifa\_208 Start: 127286, Stop: 127624, Start Num: 2

Candidate Starts for Shifa\_208:

(Start: 1 @127274 has 6 MA's), (Start: 2 @127286 has 110 MA's), (Start: 3 @127307 has 41 MA's), (5, 127385), (8, 127565),

Gene: Shnickers\_229 Start: 127884, Stop: 128204, Start Num: 2

Candidate Starts for Shnickers\_229:

(Start: 1 @127872 has 6 MA's), (Start: 2 @127884 has 110 MA's), (Start: 3 @127905 has 41 MA's), (5, 127983), (9, 128178),

Gene: Shrimp\_232 Start: 129149, Stop: 129448, Start Num: 3

Candidate Starts for Shrimp\_232:

(Start: 1 @129116 has 6 MA's), (Start: 2 @129128 has 110 MA's), (Start: 3 @129149 has 41 MA's), (5, 129227), (9, 129422),

Gene: SilverDipper\_234 Start: 128620, Stop: 128940, Start Num: 2

Candidate Starts for SilverDipper\_234:

(Start: 1 @128608 has 6 MA's), (Start: 2 @128620 has 110 MA's), (Start: 3 @128641 has 41 MA's), (5, 128719), (9, 128914),

Gene: SmallFry\_231 Start: 127978, Stop: 128298, Start Num: 2

Candidate Starts for SmallFry\_231:

(Start: 1 @127966 has 6 MA's), (Start: 2 @127978 has 110 MA's), (Start: 3 @127999 has 41 MA's), (5, 128077), (9, 128272),

Gene: SoilZilla\_225 Start: 127708, Stop: 128028, Start Num: 2

Candidate Starts for SoilZilla\_225:

(Start: 1 @127696 has 6 MA's), (Start: 2 @127708 has 110 MA's), (Start: 3 @127729 has 41 MA's), (5, 127807), (9, 128002),

Gene: Spec\_225 Start: 128047, Stop: 128367, Start Num: 2

Candidate Starts for Spec\_225:

(Start: 1 @128035 has 6 MA's), (Start: 2 @128047 has 110 MA's), (Start: 3 @128068 has 41 MA's), (5, 128146), (9, 128341),

Gene: Specks\_234 Start: 128469, Stop: 128789, Start Num: 2

Candidate Starts for Specks\_234:

(Start: 1 @128457 has 6 MA's), (Start: 2 @128469 has 110 MA's), (Start: 3 @128490 has 41 MA's), (5, 128568), (9, 128763),

Gene: Sprinklers\_228 Start: 127735, Stop: 128034, Start Num: 3

Candidate Starts for Sprinklers\_228:

(Start: 1 @127702 has 6 MA's), (Start: 2 @127714 has 110 MA's), (Start: 3 @127735 has 41 MA's), (5, 127813), (9, 128008),

Gene: SrishMeg2525\_227 Start: 128624, Stop: 128944, Start Num: 2

Candidate Starts for SrishMeg2525\_227:

(Start: 1 @128612 has 6 MA's), (Start: 2 @128624 has 110 MA's), (Start: 3 @128645 has 41 MA's), (5, 128723), (9, 128918),

Gene: StephanieG\_226 Start: 128621, Stop: 128941, Start Num: 2

Candidate Starts for StephanieG\_226:

(Start: 1 @128609 has 6 MA's), (Start: 2 @128621 has 110 MA's), (Start: 3 @128642 has 41 MA's), (5, 128720), (9, 128915),

Gene: Stubby\_214 Start: 126512, Stop: 126832, Start Num: 2

Candidate Starts for Stubby\_214:

(Start: 1 @126500 has 6 MA's), (Start: 2 @126512 has 110 MA's), (Start: 3 @126533 has 41 MA's), (5, 126611), (8, 126791), (9, 126806),

Gene: StubbySaigey\_235 Start: 128175, Stop: 128474, Start Num: 3

Candidate Starts for StubbySaigey\_235:

(Start: 1 @128142 has 6 MA's), (Start: 2 @128154 has 110 MA's), (Start: 3 @128175 has 41 MA's), (5, 128253), (9, 128448),

Gene: Substance289\_227 Start: 128026, Stop: 128346, Start Num: 2

Candidate Starts for Substance289\_227:

(Start: 1 @128014 has 6 MA's), (Start: 2 @128026 has 110 MA's), (Start: 3 @128047 has 41 MA's), (5, 128125), (9, 128320),

Gene: Tainan\_231 Start: 127598, Stop: 127918, Start Num: 2

Candidate Starts for Tainan\_231:

(Start: 1 @127586 has 6 MA's), (Start: 2 @127598 has 110 MA's), (Start: 3 @127619 has 41 MA's), (5, 127697), (9, 127892),

Gene: Teardrop\_228 Start: 127481, Stop: 127801, Start Num: 2

Candidate Starts for Teardrop\_228:

(Start: 1 @127469 has 6 MA's), (Start: 2 @127481 has 110 MA's), (Start: 3 @127502 has 41 MA's), (5, 127580), (9, 127775),

Gene: TinyTim\_228 Start: 127448, Stop: 127768, Start Num: 2

Candidate Starts for TinyTim\_228:

(Start: 1 @127436 has 6 MA's), (Start: 2 @127448 has 110 MA's), (Start: 3 @127469 has 41 MA's), (5, 127547), (9, 127742),

Gene: Tonenili\_252 Start: 133262, Stop: 133603, Start Num: 1

Candidate Starts for Tonenili\_252:

(Start: 1 @133262 has 6 MA's), (Start: 2 @133280 has 110 MA's), (4, 133313), (7, 133526), (8, 133562), (9, 133577),

Gene: Tortoise16\_228 Start: 127910, Stop: 128230, Start Num: 2

Candidate Starts for Tortoise16\_228:

(Start: 1 @127898 has 6 MA's), (Start: 2 @127910 has 110 MA's), (Start: 3 @127931 has 41 MA's), (5, 128009), (9, 128204),

Gene: Trinitium\_226 Start: 126202, Stop: 126522, Start Num: 2

Candidate Starts for Trinitium\_226:

(Start: 1 @126190 has 6 MA's), (Start: 2 @126202 has 110 MA's), (Start: 3 @126223 has 41 MA's), (5, 126301), (9, 126496),

Gene: Turret\_223 Start: 125784, Stop: 126104, Start Num: 2

Candidate Starts for Turret\_223:

(Start: 1 @125772 has 6 MA's), (Start: 2 @125784 has 110 MA's), (Start: 3 @125805 has 41 MA's), (5, 125883), (9, 126078),

Gene: ValleyTerrace\_231 Start: 127361, Stop: 127681, Start Num: 2

Candidate Starts for ValleyTerrace\_231:

(Start: 1 @127349 has 6 MA's), (Start: 2 @127361 has 110 MA's), (Start: 3 @127382 has 41 MA's), (5, 127460), (9, 127655),

Gene: Vortrix\_249 Start: 132049, Stop: 132390, Start Num: 1

Candidate Starts for Vortrix\_249:

(Start: 1 @132049 has 6 MA's), (Start: 2 @132067 has 110 MA's), (6, 132232), (7, 132313), (8, 132349), (9, 132364),

Gene: Willis\_231 Start: 128305, Stop: 128604, Start Num: 3

Candidate Starts for Willis\_231:

(Start: 1 @128272 has 6 MA's), (Start: 2 @128284 has 110 MA's), (Start: 3 @128305 has 41 MA's), (5, 128383), (9, 128578),

Gene: Yassified\_227 Start: 127697, Stop: 128017, Start Num: 2

Candidate Starts for Yassified\_227:

(Start: 1 @127685 has 6 MA's), (Start: 2 @127697 has 110 MA's), (Start: 3 @127718 has 41 MA's), (5, 127796), (9, 127991),

Gene: YemiJoy2021\_231 Start: 129015, Stop: 129335, Start Num: 2

Candidate Starts for YemiJoy2021\_231:

(Start: 1 @129003 has 6 MA's), (Start: 2 @129015 has 110 MA's), (Start: 3 @129036 has 41 MA's), (5, 129114), (9, 129309),

Gene: YoungMoneyMata\_230 Start: 128532, Stop: 128852, Start Num: 2

Candidate Starts for YoungMoneyMata\_230:

(Start: 1 @128520 has 6 MA's), (Start: 2 @128532 has 110 MA's), (Start: 3 @128553 has 41 MA's), (5, 128631), (9, 128826),

Gene: Yucca\_230 Start: 129028, Stop: 129327, Start Num: 3

Candidate Starts for Yucca\_230:

(Start: 1 @128995 has 6 MA's), (Start: 2 @129007 has 110 MA's), (Start: 3 @129028 has 41 MA's), (5, 129106), (9, 129301),

Gene: Zalkecks\_229 Start: 128134, Stop: 128433, Start Num: 3

Candidate Starts for Zalkecks\_229:

(Start: 1 @128101 has 6 MA's), (Start: 2 @128113 has 110 MA's), (Start: 3 @128134 has 41 MA's), (5, 128212), (9, 128407),

Gene: Zeenon\_232 Start: 128668, Stop: 128967, Start Num: 3

Candidate Starts for Zeenon\_232:

(Start: 1 @128635 has 6 MA's), (Start: 2 @128647 has 110 MA's), (Start: 3 @128668 has 41 MA's), (5, 128746), (9, 128941),

Gene: ZygoTaiga\_227 Start: 129325, Stop: 129624, Start Num: 3

Candidate Starts for ZygoTaiga\_227:

(Start: 1 @129292 has 6 MA's), (Start: 2 @129304 has 110 MA's), (Start: 3 @129325 has 41 MA's), (5, 129403), (9, 129598),