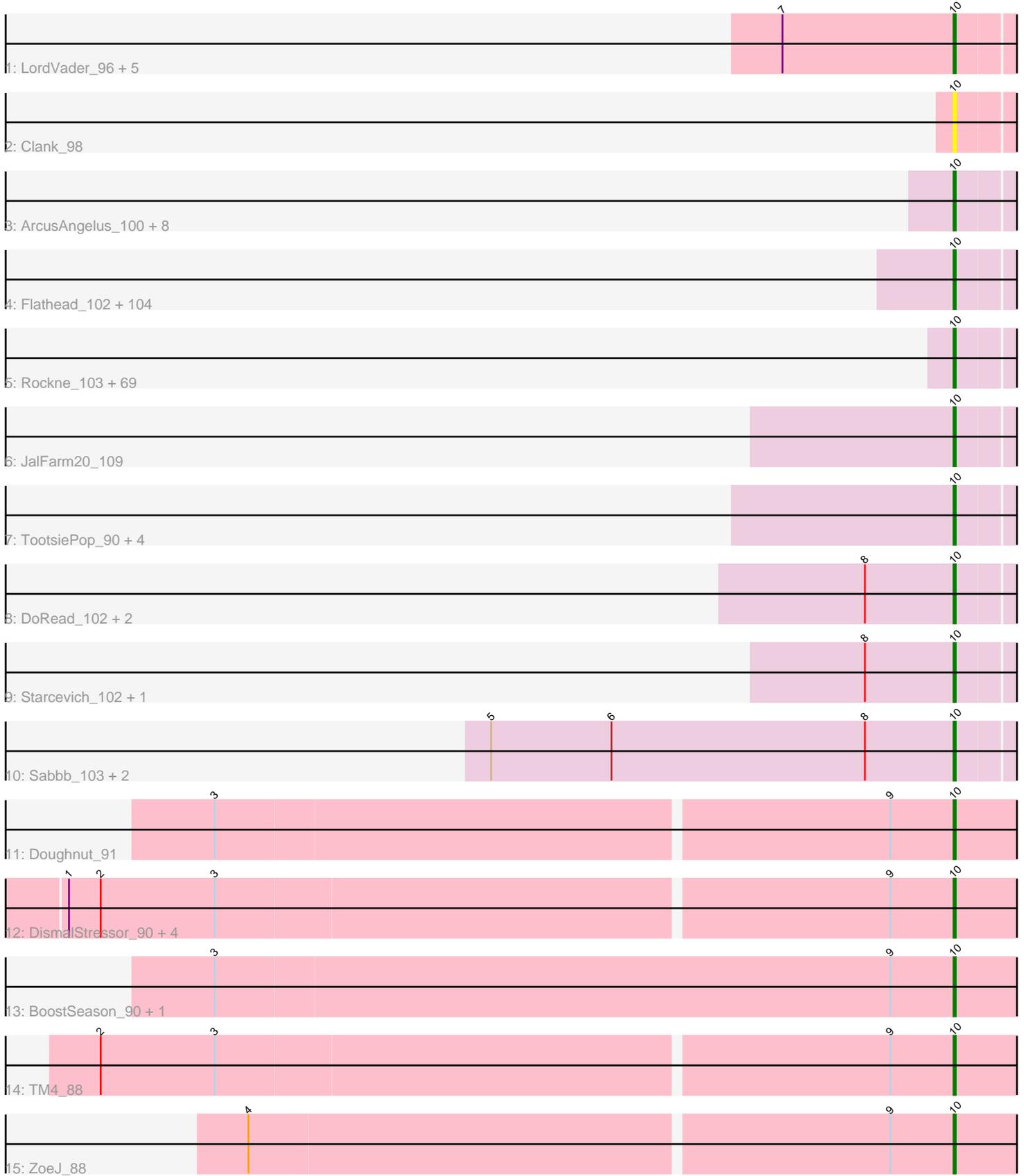


Pham 290844



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 290844 Report

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

Pham number 290844 has 215 members, 18 are drafts.

Phages represented in each track:

- Track 1 : LordVader\_96, Aloeri\_92, Squirty\_99, ChickenDinner\_91, DocMcStuffins\_88, MulchSalad\_102
- Track 2 : Clank\_98
- Track 3 : ArcusAngelus\_100, Galactic\_104, QuickMath\_101, Che8\_107, Chevrolet\_104, Hades\_97, MadMen\_105, EleanorGeorge\_104, MinionDave\_98
- Track 4 : Flathead\_102, Brocalys\_92, CaptainTrips\_102, Doomslug\_118, Guppsters\_95, Beanstalk\_96, AlpineSix\_98, Llama\_107, DotProduct\_94, KristaRAM\_108, Hlubikazi\_98, DosHalletts\_97, Brushbloom\_100, BobaPhett\_102, Medindi\_105, PatoPoderoso\_101, Eish\_105, Mandlovu\_98, Girr\_99, DLane\_100, Tootsieroll\_94, IMpilo\_98, MilleniumForce\_100, Ochi17\_106, Bubbles123\_94, Karhdo\_95, Seabastian\_107, MilanaBonita\_93, Phalconet\_101, DeadP\_100, Filuzino\_100, IbOuu\_91, ShowerHandel\_101, Sarma624\_102, Brookers\_99, Ramsey\_105, Ardmore\_84, Ms6\_102, Coco12\_101, Violac\_101, Mozy\_104, Rita\_100, Philus\_104, Seagreen\_101, Chuckly\_97, Aubs\_100, PhesterPhotato\_104, LastJedi\_91, Nichirin\_100, Jinglebell\_107, LittleShirley\_108, Pippy\_98, Corium\_99, Firehouse51\_94, Cerasum\_99, Bipolar\_102, Batiatus\_100, SG4\_101, Cabrinians\_97, Burwell21\_94, Lizziana\_101, OfUltron\_107, Mutaforma13\_101, Mova\_102, Kingsley\_109, Royals2015\_104, Vivum\_100, Hegedechwinu\_108, VRedHorse\_101, Oksu\_104, Slim\_103, XFactor\_91, Jennelsea\_97, Taj\_106, Strokeseat\_98, Clifton\_92, James\_104, Maravista\_97, Emmaloid\_103, SwagPigglett\_102, Priscilla\_101, NormanBulbieJr\_98, Velveteen\_97, BigPhil\_97, Blexus\_97, MisterCuddles\_100, Martik\_99, Jant\_107, KingJulian\_108, Wee\_103, Melissauren88\_90, Phanphagia\_105, Whatsapiecost\_94, Cornucopia\_100, Koella\_93, Kenuha5\_92, Fruitloop\_98, Tweety\_101, Emma\_105, Zerg\_98, Dante\_98, Zizzle\_103, Hamulus\_100, Akhila\_94, Shauna1\_102
- Track 5 : Rockne\_103, RitaG\_99, LilMoolah\_103, BuzzLyseyear\_107, Ogopogo\_104, BodEinwohner17\_110, Mattes\_101, Gorge\_99, CheesePuff\_105, Saal\_98, Madiba\_99, Moonbeam\_103, Donkeykong\_106, Empress\_100, Nivrat\_100, Nitzel\_94, Dorothy\_101, Juice456\_99, Latretium\_103, Sassafras\_102, Poenanya\_104, Inventum\_98, Peridot\_103, Plumbus\_99, RedBird\_101, ByChance\_91, Alexphander\_101, Fancypants\_107, Quico\_109, Daenerys\_98, DillTech15\_106, KingMidas\_100, ShiLan\_103, Nimbo\_92, Florinda\_112, Doomphist\_105, Llij\_95, JoeyJr\_103, Leperchaun\_102, PHappiness\_100, StAnnes\_104, BlueCrab\_103, Girafales\_109, Radiance\_98, OldBen\_97, Deb65\_93, Mwanjiwa\_103, DRBy19\_100, Spoonbill\_100, Jarcob\_103, Spartacus\_107, Krakatau\_93, Totinger\_103, Gandalph\_100, TDanisky\_108, Minnie\_95, ShroomBoi\_98, GUMBIE\_99, Pollywog\_102, Polka14\_104, Drago\_99, PMC\_99,

Geralt\_93, DaddyRickover\_102, Yorick\_96, Scottish\_100, Job42\_101, Estave1\_108, Sparkdehlily\_107, Rialto\_105

- Track 6 : JalFarm20\_109
- Track 7 : TootsiePop\_90, Misha28\_90, Awesomesauce\_91, Piper2020\_95, Beakin\_92
- Track 8 : DoRead\_102, WillSterrel\_98, IrishSherpFalk\_100
- Track 9 : Starcevich\_102, Stap\_95
- Track 10 : Sabbb\_103, Crumble\_95, OlympiaSaint\_104
- Track 11 : Doughnut\_91
- Track 12 : DismalStressor\_90, Milly\_90, Strobilo\_91, DismalFunk\_90, Findley\_90
- Track 13 : BoostSeason\_90, Mufasa\_90
- Track 14 : TM4\_88
- Track 15 : ZoeJ\_88

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

The start number called the most often in the published annotations is 10, it was called in 197 of the 197 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Akhila\_94, Alexphander\_101, Aloeri\_92, AlpineSix\_98, ArcusAngelus\_100, Ardmore\_84, Aubs\_100, Awesomesauce\_91, Batiatus\_100, Beakin\_92, Beanstalk\_96, BigPhil\_97, Bipolar\_102, Blexus\_97, BlueCrab\_103, BobaPhett\_102, BodEinwohner17\_110, BoostSeason\_90, Brocalys\_92, Brookers\_99, Brushbloom\_100, Bubbles123\_94, Burwell21\_94, BuzzLyseyear\_107, ByChance\_91, Cabrinians\_97, CaptainTrips\_102, Cerasum\_99, Che8\_107, Cheesepuff\_105, Chevrolet\_104, ChickenDinner\_91, Chuckly\_97, Clank\_98, Clifton\_92, Coco12\_101, Corium\_99, Cornucopia\_100, Crumble\_95, DLane\_100, DRBy19\_100, DaddyRickover\_102, Daenerys\_98, Dante\_98, DeadP\_100, Deb65\_93, DillTech15\_106, DismalFunk\_90, DismalStressor\_90, DoRead\_102, DocMcStuffins\_88, Donkeykong\_106, Doomphist\_105, Doomslug\_118, Dorothy\_101, DosHalletts\_97, DotProduct\_94, Doughnut\_91, Drago\_99, Eish\_105, EleanorGeorge\_104, Emma\_105, Emmaloid\_103, Empress\_100, Estave1\_108, Fancypants\_107, Filuzino\_100, Findley\_90, Firehouse51\_94, Flathead\_102, Florinda\_112, Fruitloop\_98, GUmbe\_99, Galactic\_104, Gandolph\_100, Geralt\_93, Girafales\_109, Girr\_99, Gorge\_99, Guppsters\_95, Hades\_97, Hamulus\_100, Hegedechwinu\_108, Hlubikazi\_98, IMpilo\_98, IbOuu\_91, Inventum\_98, IrishSherpFalk\_100, JalFarm20\_109, James\_104, Jant\_107, Jarcob\_103, Jennelsea\_97, Jinglebell\_107, Job42\_101, JoeyJr\_103, Juice456\_99, Karhdo\_95, Kenuha5\_92, KingJulian\_108, KingMidas\_100, Kingsley\_109, Koella\_93, Krakatau\_93, KristaRAM\_108, LastJedi\_91, Latretium\_103, Leperchaun\_102, LilMoolah\_103, LittleShirley\_108, Lizziana\_101, Llama\_107, Llij\_95, LordVader\_96, MadMen\_105, Madiba\_99, Mandlovu\_98, Maravista\_97, Martik\_99, Mattes\_101, Medindi\_105, Melissauren88\_90, MilanaBonita\_93, MilleniumForce\_100, Milly\_90, MinionDave\_98, Minnie\_95, Misha28\_90, MisterCuddles\_100, Moonbeam\_103, Mova\_102, Mozy\_104, Ms6\_102, Mufasa\_90, MulchSalad\_102, Mutaforma13\_101, Mwanjiwa\_103, Nichirin\_100, Nimbo\_92, Nitzel\_94, Nivrat\_100, NormanBulbieJr\_98, Ochi17\_106, OfUltron\_107, Ogopogo\_104, Oksu\_104, OldBen\_97, OlympiaSaint\_104, PHappiness\_100, PMC\_99, PatoPoderoso\_101, Peridot\_103, Phalconet\_101, Phanphagia\_105, PhesterPotato\_104, Philus\_104, Piper2020\_95,

Pippy\_98, Plumbus\_99, Poenanya\_104, Polka14\_104, Pollywog\_102, Priscilla\_101, QuickMath\_101, Quico\_109, Radiance\_98, Ramsey\_105, RedBird\_101, Rialto\_105, RitaG\_99, Rita\_100, Rockne\_103, Royals2015\_104, SG4\_101, Saal\_98, Sabbb\_103, Sarma624\_102, Sassafras\_102, Scottish\_100, Seabastian\_107, Seagreen\_101, Shauna1\_102, ShiLan\_103, ShowerHandel\_101, ShroomBoi\_98, Slim\_103, Sparkdehlily\_107, Spartacus\_107, Spoonbill\_100, Squirty\_99, StAnnes\_104, Stap\_95, Starcevich\_102, Strobilo\_91, Strokeseat\_98, SwagPiggett\_102, TDanisky\_108, TM4\_88, Taj\_106, TootsiePop\_90, Tootsieroll\_94, Totinger\_103, Tweety\_101, VRedHorse\_101, Velveteen\_97, Violac\_101, Vivum\_100, Wee\_103, Whatsapiecost\_94, WillSterrel\_98, XFactor\_91, Yorick\_96, Zerg\_98, Zizzle\_103, ZoeJ\_88,

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

- 

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

- 

### Summary by start number:

Start 10:

- Found in 215 of 215 ( 100.0% ) of genes in pham
- Manual Annotations of this start: 197 of 197
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Akhila\_94 (F1), Alexphander\_101 (F1), Aloeri\_92 (F1), AlpineSix\_98 (F1), ArcusAngelus\_100 (F1), Ardmore\_84 (F1), Aubs\_100 (F1), Awesomesauce\_91 (F1), Batiatus\_100 (F1), Beakin\_92 (F1), Beanstalk\_96 (F1), BigPhil\_97 (F1), Bipolar\_102 (F1), Blexus\_97 (F1), BlueCrab\_103 (F1), BobaPhett\_102 (F1), BodEinwohner17\_110 (F1), BoostSeason\_90 (K2), Brocalys\_92 (F1), Brookers\_99 (F1), Brushbloom\_100 (F1), Bubbles123\_94 (F1), Burwell21\_94 (F1), BuzzLyseyear\_107 (F1), ByChance\_91 (F1), Cabrinians\_97 (F1), CaptainTrips\_102 (F1), Cerasum\_99 (F1), Che8\_107 (F1), CheesePuff\_105 (F1), Chevrolet\_104 (F1), ChickenDinner\_91 (F1), Chuckly\_97 (F1), Clank\_98 (F), Clifton\_92 (F1), Coco12\_101 (F1), Corium\_99 (F1), Cornucopia\_100 (F1), Crumble\_95 (F1), DLane\_100 (F1), DRBy19\_100 (F1), DaddyRickover\_102 (F1), Daenerys\_98 (F1), Dante\_98 (F1), DeadP\_100 (F1), Deb65\_93 (F1), DillTech15\_106 (F1), DismalFunk\_90 (K2), DismalStressor\_90 (K2), DoRead\_102 (F1), DocMcStuffins\_88 (F1), Donkeykong\_106 (F1), Doomphist\_105 (F1), Doomslug\_118 (F), Dorothy\_101 (F1), DosHalletts\_97 (F1), DotProduct\_94 (F1), Doughnut\_91 (K2), Drago\_99 (F1), Eish\_105 (F1), EleanorGeorge\_104 (F1), Emma\_105 (F1), Emmaloid\_103 (F1), Empress\_100 (F1), Estave1\_108 (F1), Fancypants\_107 (F1), Filuzino\_100 (F1), Findley\_90 (K2), Firehouse51\_94 (F1), Flathead\_102 (F1), Florinda\_112 (F1), Fruitloop\_98 (F1), GUmbie\_99 (F1), Galactic\_104 (F1), Gandolph\_100 (F1), Geralt\_93 (F1), Girafales\_109 (F1), Girr\_99 (F1), Gorge\_99 (F1), Guppsters\_95 (F1), Hades\_97 (F1), Hamulus\_100 (F1), Hegedechwinu\_108 (F1), Hlubikazi\_98 (F1), IMPilo\_98 (F1), IbOuu\_91 (F1), Inventum\_98 (F1), IrishSherpFalk\_100 (F1), JalFarm20\_109 (F1), James\_104 (F1), Jant\_107 (F1), Jarcob\_103 (F1), Jennelsea\_97 (F1), Jinglebell\_107 (F1), Job42\_101 (F1), JoeyJr\_103 (F1), Juice456\_99 (F1), Karhdo\_95 (F1), Kenuha5\_92 (F1), KingJulian\_108 (F1), KingMidas\_100 (F1), Kingsley\_109 (F1), Koella\_93 (F1), Krakatau\_93 (F1), KristaRAM\_108 (F1), LastJedi\_91 (F1), Latretium\_103 (F1), Leperchaun\_102 (F1), LilMoolah\_103 (F1), LittleShirley\_108 (F1), Lizziana\_101 (F1), Llama\_107 (F1), Llij\_95 (F1), LordVader\_96 (F), MadMen\_105 (F1), Madiba\_99 (F1),

Mandlovu\_98 (F1), Maravista\_97 (F1), Martik\_99 (F1), Mattes\_101 (F1), Medindi\_105 (F1), Melissauren88\_90 (F1), MilanaBonita\_93 (F1), MilleniumForce\_100 (F1), Milly\_90 (K2), MinionDave\_98 (F1), Minnie\_95 (F1), Misha28\_90 (F1), MisterCuddles\_100 (F1), Moonbeam\_103 (F1), Mova\_102 (F1), Mozy\_104 (F1), Ms6\_102 (F1), Mufasa\_90 (K2), MulchSalad\_102 (F7), Mutaforma13\_101 (F1), Mwanjiwa\_103 (F1), Nichirin\_100 (F1), Nimbo\_92 (F1), Nitzel\_94 (F1), Nivrat\_100 (F1), NormanBulbieJr\_98 (F1), Ochi17\_106 (F1), OfUltron\_107 (F1), Ogopogo\_104 (F1), Oksu\_104 (F1), OldBen\_97 (F1), OlympiaSaint\_104 (F1), PHappiness\_100 (F1), PMC\_99 (F1), PatoPoderoso\_101 (F1), Peridot\_103 (F1), Phalconet\_101 (F1), Phanphagia\_105 (F1), PhesterPhotato\_104 (F1), Philus\_104 (F1), Piper2020\_95 (F1), Pippy\_98 (F1), Plumbus\_99 (F1), Poenanya\_104 (F1), Polka14\_104 (F1), Pollywog\_102 (F1), Priscilla\_101 (F1), QuickMath\_101 (F1), Quico\_109 (F1), Radiance\_98 (F1), Ramsey\_105 (F1), RedBird\_101 (F1), Rialto\_105 (F1), RitaG\_99 (F1), Rita\_100 (F1), Rockne\_103 (F1), Royals2015\_104 (F1), SG4\_101 (F1), Saal\_98 (F1), Sabb\_103 (F1), Sarma624\_102 (F1), Sassafras\_102 (F1), Scottish\_100 (F1), Seabastian\_107 (F1), Seagreen\_101 (F1), Shauna1\_102 (F1), ShiLan\_103 (F1), ShowerHandel\_101 (F1), ShroomBoi\_98 (F1), Slim\_103 (F1), Sparkdehlily\_107 (F1), Spartacus\_107 (F1), Spoonbill\_100 (F1), Squirty\_99 (F3), StAnnes\_104 (F1), Stap\_95 (F1), Starcevich\_102 (F1), Strobilo\_91 (K2), Strokeseat\_98 (F1), SwagPiggett\_102 (F1), TDanisky\_108 (F1), TM4\_88 (K2), Taj\_106 (F1), TootsiePop\_90 (F1), Tootsieroll\_94 (F1), Totinger\_103 (F1), Tweety\_101 (F1), VRedHorse\_101 (F1), Velveteen\_97 (F1), Violac\_101 (F1), Vivum\_100 (F1), Wee\_103 (F1), Whatsapiecost\_94 (F1), WillSterrel\_98 (F1), XFactor\_91 (F1), Yorick\_96 (F1), Zerg\_98 (F1), Zizzle\_103 (F1), ZoeJ\_88 (K2),

### **Summary by clusters:**

There are 5 clusters represented in this pham: F1, F3, K2, F7, F,

Info for manual annotations of cluster F1:

- Start number 10 was manually annotated 186 times for cluster F1.

Info for manual annotations of cluster F3:

- Start number 10 was manually annotated 1 time for cluster F3.

Info for manual annotations of cluster K2:

- Start number 10 was manually annotated 10 times for cluster K2.

### **Gene Information:**

Gene: Akhila\_94 Start: 52864, Stop: 53025, Start Num: 10

Candidate Starts for Akhila\_94:

(Start: 10 @52864 has 197 MA's),

Gene: Alexphander\_101 Start: 55198, Stop: 55359, Start Num: 10

Candidate Starts for Alexphander\_101:

(Start: 10 @55198 has 197 MA's),

Gene: Aloeri\_92 Start: 54002, Stop: 54163, Start Num: 10

Candidate Starts for Aloeri\_92:  
(7, 53921), (Start: 10 @54002 has 197 MA's),

Gene: AlpineSix\_98 Start: 53582, Stop: 53743, Start Num: 10  
Candidate Starts for AlpineSix\_98:  
(Start: 10 @53582 has 197 MA's),

Gene: ArcusAngelus\_100 Start: 55168, Stop: 55329, Start Num: 10  
Candidate Starts for ArcusAngelus\_100:  
(Start: 10 @55168 has 197 MA's),

Gene: Ardmore\_84 Start: 48753, Stop: 48914, Start Num: 10  
Candidate Starts for Ardmore\_84:  
(Start: 10 @48753 has 197 MA's),

Gene: Aubs\_100 Start: 55755, Stop: 55916, Start Num: 10  
Candidate Starts for Aubs\_100:  
(Start: 10 @55755 has 197 MA's),

Gene: Awesomesauce\_91 Start: 54238, Stop: 54399, Start Num: 10  
Candidate Starts for Awesomesauce\_91:  
(Start: 10 @54238 has 197 MA's),

Gene: Batiatus\_100 Start: 54303, Stop: 54464, Start Num: 10  
Candidate Starts for Batiatus\_100:  
(Start: 10 @54303 has 197 MA's),

Gene: Beakin\_92 Start: 51276, Stop: 51437, Start Num: 10  
Candidate Starts for Beakin\_92:  
(Start: 10 @51276 has 197 MA's),

Gene: Beanstalk\_96 Start: 53453, Stop: 53614, Start Num: 10  
Candidate Starts for Beanstalk\_96:  
(Start: 10 @53453 has 197 MA's),

Gene: BigPhil\_97 Start: 51095, Stop: 51256, Start Num: 10  
Candidate Starts for BigPhil\_97:  
(Start: 10 @51095 has 197 MA's),

Gene: Bipolar\_102 Start: 56072, Stop: 56233, Start Num: 10  
Candidate Starts for Bipolar\_102:  
(Start: 10 @56072 has 197 MA's),

Gene: Blexus\_97 Start: 54682, Stop: 54843, Start Num: 10  
Candidate Starts for Blexus\_97:  
(Start: 10 @54682 has 197 MA's),

Gene: BlueCrab\_103 Start: 55675, Stop: 55836, Start Num: 10  
Candidate Starts for BlueCrab\_103:  
(Start: 10 @55675 has 197 MA's),

Gene: BobaPhett\_102 Start: 56361, Stop: 56522, Start Num: 10  
Candidate Starts for BobaPhett\_102:

(Start: 10 @56361 has 197 MA's),

Gene: BodEinwohner17\_110 Start: 56731, Stop: 56892, Start Num: 10

Candidate Starts for BodEinwohner17\_110:

(Start: 10 @56731 has 197 MA's),

Gene: BoostSeason\_90 Start: 56740, Stop: 56907, Start Num: 10

Candidate Starts for BoostSeason\_90:

(3, 56392), (9, 56710), (Start: 10 @56740 has 197 MA's),

Gene: Brocalys\_92 Start: 51840, Stop: 52001, Start Num: 10

Candidate Starts for Brocalys\_92:

(Start: 10 @51840 has 197 MA's),

Gene: Brookers\_99 Start: 54046, Stop: 54207, Start Num: 10

Candidate Starts for Brookers\_99:

(Start: 10 @54046 has 197 MA's),

Gene: Brushbloom\_100 Start: 55347, Stop: 55508, Start Num: 10

Candidate Starts for Brushbloom\_100:

(Start: 10 @55347 has 197 MA's),

Gene: Bubbles123\_94 Start: 54115, Stop: 54276, Start Num: 10

Candidate Starts for Bubbles123\_94:

(Start: 10 @54115 has 197 MA's),

Gene: Burwell21\_94 Start: 54126, Stop: 54287, Start Num: 10

Candidate Starts for Burwell21\_94:

(Start: 10 @54126 has 197 MA's),

Gene: BuzzLyseyear\_107 Start: 56886, Stop: 57047, Start Num: 10

Candidate Starts for BuzzLyseyear\_107:

(Start: 10 @56886 has 197 MA's),

Gene: ByChance\_91 Start: 50198, Stop: 50359, Start Num: 10

Candidate Starts for ByChance\_91:

(Start: 10 @50198 has 197 MA's),

Gene: Cabrinians\_97 Start: 53761, Stop: 53922, Start Num: 10

Candidate Starts for Cabrinians\_97:

(Start: 10 @53761 has 197 MA's),

Gene: CaptainTrips\_102 Start: 53941, Stop: 54102, Start Num: 10

Candidate Starts for CaptainTrips\_102:

(Start: 10 @53941 has 197 MA's),

Gene: Cerasum\_99 Start: 51113, Stop: 51274, Start Num: 10

Candidate Starts for Cerasum\_99:

(Start: 10 @51113 has 197 MA's),

Gene: Che8\_107 Start: 55993, Stop: 56154, Start Num: 10

Candidate Starts for Che8\_107:

(Start: 10 @55993 has 197 MA's),

Gene: Cheesepuff\_105 Start: 54122, Stop: 54283, Start Num: 10  
Candidate Starts for Cheesepuff\_105:  
(Start: 10 @54122 has 197 MA's),

Gene: Chevrolet\_104 Start: 55169, Stop: 55330, Start Num: 10  
Candidate Starts for Chevrolet\_104:  
(Start: 10 @55169 has 197 MA's),

Gene: ChickenDinner\_91 Start: 54002, Stop: 54163, Start Num: 10  
Candidate Starts for ChickenDinner\_91:  
(7, 53921), (Start: 10 @54002 has 197 MA's),

Gene: Chuckly\_97 Start: 50983, Stop: 51144, Start Num: 10  
Candidate Starts for Chuckly\_97:  
(Start: 10 @50983 has 197 MA's),

Gene: Clank\_98 Start: 52021, Stop: 52182, Start Num: 10  
Candidate Starts for Clank\_98:  
(Start: 10 @52021 has 197 MA's),

Gene: Clifton\_92 Start: 52815, Stop: 52976, Start Num: 10  
Candidate Starts for Clifton\_92:  
(Start: 10 @52815 has 197 MA's),

Gene: Coco12\_101 Start: 55170, Stop: 55331, Start Num: 10  
Candidate Starts for Coco12\_101:  
(Start: 10 @55170 has 197 MA's),

Gene: Corium\_99 Start: 55970, Stop: 56131, Start Num: 10  
Candidate Starts for Corium\_99:  
(Start: 10 @55970 has 197 MA's),

Gene: Cornucopia\_100 Start: 52241, Stop: 52402, Start Num: 10  
Candidate Starts for Cornucopia\_100:  
(Start: 10 @52241 has 197 MA's),

Gene: Crumble\_95 Start: 50509, Stop: 50670, Start Num: 10  
Candidate Starts for Crumble\_95:  
(5, 50290), (6, 50347), (8, 50467), (Start: 10 @50509 has 197 MA's),

Gene: DLane\_100 Start: 55223, Stop: 55384, Start Num: 10  
Candidate Starts for DLane\_100:  
(Start: 10 @55223 has 197 MA's),

Gene: DRBy19\_100 Start: 55442, Stop: 55603, Start Num: 10  
Candidate Starts for DRBy19\_100:  
(Start: 10 @55442 has 197 MA's),

Gene: DaddyRickover\_102 Start: 54925, Stop: 55086, Start Num: 10  
Candidate Starts for DaddyRickover\_102:  
(Start: 10 @54925 has 197 MA's),

Gene: Daenerys\_98 Start: 55092, Stop: 55253, Start Num: 10  
Candidate Starts for Daenerys\_98:  
(Start: 10 @55092 has 197 MA's),

Gene: Dante\_98 Start: 55573, Stop: 55734, Start Num: 10  
Candidate Starts for Dante\_98:  
(Start: 10 @55573 has 197 MA's),

Gene: DeadP\_100 Start: 52801, Stop: 52962, Start Num: 10  
Candidate Starts for DeadP\_100:  
(Start: 10 @52801 has 197 MA's),

Gene: Deb65\_93 Start: 52816, Stop: 52977, Start Num: 10  
Candidate Starts for Deb65\_93:  
(Start: 10 @52816 has 197 MA's),

Gene: DillTech15\_106 Start: 54398, Stop: 54559, Start Num: 10  
Candidate Starts for DillTech15\_106:  
(Start: 10 @54398 has 197 MA's),

Gene: DismalFunk\_90 Start: 56788, Stop: 56955, Start Num: 10  
Candidate Starts for DismalFunk\_90:  
(1, 56377), (2, 56392), (3, 56446), (9, 56758), (Start: 10 @56788 has 197 MA's),

Gene: DismalStressor\_90 Start: 56788, Stop: 56955, Start Num: 10  
Candidate Starts for DismalStressor\_90:  
(1, 56377), (2, 56392), (3, 56446), (9, 56758), (Start: 10 @56788 has 197 MA's),

Gene: DoRead\_102 Start: 52714, Stop: 52875, Start Num: 10  
Candidate Starts for DoRead\_102:  
(8, 52672), (Start: 10 @52714 has 197 MA's),

Gene: DocMcStuffins\_88 Start: 55632, Stop: 55793, Start Num: 10  
Candidate Starts for DocMcStuffins\_88:  
(7, 55551), (Start: 10 @55632 has 197 MA's),

Gene: Donkeykong\_106 Start: 56558, Stop: 56719, Start Num: 10  
Candidate Starts for Donkeykong\_106:  
(Start: 10 @56558 has 197 MA's),

Gene: Doomphist\_105 Start: 55745, Stop: 55906, Start Num: 10  
Candidate Starts for Doomphist\_105:  
(Start: 10 @55745 has 197 MA's),

Gene: Doomslug\_118 Start: 57272, Stop: 57433, Start Num: 10  
Candidate Starts for Doomslug\_118:  
(Start: 10 @57272 has 197 MA's),

Gene: Dorothy\_101 Start: 55914, Stop: 56075, Start Num: 10  
Candidate Starts for Dorothy\_101:  
(Start: 10 @55914 has 197 MA's),

Gene: DosHalletts\_97 Start: 54563, Stop: 54724, Start Num: 10

Candidate Starts for DosHalletts\_97:  
(Start: 10 @54563 has 197 MA's),

Gene: DotProduct\_94 Start: 51930, Stop: 52091, Start Num: 10  
Candidate Starts for DotProduct\_94:  
(Start: 10 @51930 has 197 MA's),

Gene: Doughnut\_91 Start: 56921, Stop: 57088, Start Num: 10  
Candidate Starts for Doughnut\_91:  
(3, 56579), (9, 56891), (Start: 10 @56921 has 197 MA's),

Gene: Drago\_99 Start: 51641, Stop: 51802, Start Num: 10  
Candidate Starts for Drago\_99:  
(Start: 10 @51641 has 197 MA's),

Gene: Eish\_105 Start: 55239, Stop: 55400, Start Num: 10  
Candidate Starts for Eish\_105:  
(Start: 10 @55239 has 197 MA's),

Gene: EleanorGeorge\_104 Start: 56559, Stop: 56720, Start Num: 10  
Candidate Starts for EleanorGeorge\_104:  
(Start: 10 @56559 has 197 MA's),

Gene: Emma\_105 Start: 53507, Stop: 53668, Start Num: 10  
Candidate Starts for Emma\_105:  
(Start: 10 @53507 has 197 MA's),

Gene: Emmaloid\_103 Start: 54427, Stop: 54588, Start Num: 10  
Candidate Starts for Emmaloid\_103:  
(Start: 10 @54427 has 197 MA's),

Gene: Empress\_100 Start: 54008, Stop: 54169, Start Num: 10  
Candidate Starts for Empress\_100:  
(Start: 10 @54008 has 197 MA's),

Gene: Estave1\_108 Start: 57801, Stop: 57962, Start Num: 10  
Candidate Starts for Estave1\_108:  
(Start: 10 @57801 has 197 MA's),

Gene: Fancypants\_107 Start: 57307, Stop: 57468, Start Num: 10  
Candidate Starts for Fancypants\_107:  
(Start: 10 @57307 has 197 MA's),

Gene: Filuzino\_100 Start: 55918, Stop: 56079, Start Num: 10  
Candidate Starts for Filuzino\_100:  
(Start: 10 @55918 has 197 MA's),

Gene: Findley\_90 Start: 56807, Stop: 56974, Start Num: 10  
Candidate Starts for Findley\_90:  
(1, 56396), (2, 56411), (3, 56465), (9, 56777), (Start: 10 @56807 has 197 MA's),

Gene: Firehouse51\_94 Start: 54735, Stop: 54896, Start Num: 10  
Candidate Starts for Firehouse51\_94:

(Start: 10 @54735 has 197 MA's),

Gene: Flathead\_102 Start: 54239, Stop: 54400, Start Num: 10

Candidate Starts for Flathead\_102:

(Start: 10 @54239 has 197 MA's),

Gene: Florinda\_112 Start: 56324, Stop: 56485, Start Num: 10

Candidate Starts for Florinda\_112:

(Start: 10 @56324 has 197 MA's),

Gene: Fruitloop\_98 Start: 55083, Stop: 55244, Start Num: 10

Candidate Starts for Fruitloop\_98:

(Start: 10 @55083 has 197 MA's),

Gene: GUmbie\_99 Start: 53944, Stop: 54105, Start Num: 10

Candidate Starts for GUmbie\_99:

(Start: 10 @53944 has 197 MA's),

Gene: Galactic\_104 Start: 54420, Stop: 54581, Start Num: 10

Candidate Starts for Galactic\_104:

(Start: 10 @54420 has 197 MA's),

Gene: Gandalph\_100 Start: 52050, Stop: 52211, Start Num: 10

Candidate Starts for Gandalph\_100:

(Start: 10 @52050 has 197 MA's),

Gene: Geralt\_93 Start: 52814, Stop: 52975, Start Num: 10

Candidate Starts for Geralt\_93:

(Start: 10 @52814 has 197 MA's),

Gene: Girafales\_109 Start: 55929, Stop: 56090, Start Num: 10

Candidate Starts for Girafales\_109:

(Start: 10 @55929 has 197 MA's),

Gene: Girr\_99 Start: 54813, Stop: 54974, Start Num: 10

Candidate Starts for Girr\_99:

(Start: 10 @54813 has 197 MA's),

Gene: Gorge\_99 Start: 55034, Stop: 55195, Start Num: 10

Candidate Starts for Gorge\_99:

(Start: 10 @55034 has 197 MA's),

Gene: Guppsters\_95 Start: 51924, Stop: 52085, Start Num: 10

Candidate Starts for Guppsters\_95:

(Start: 10 @51924 has 197 MA's),

Gene: Hades\_97 Start: 51586, Stop: 51747, Start Num: 10

Candidate Starts for Hades\_97:

(Start: 10 @51586 has 197 MA's),

Gene: Hamulus\_100 Start: 53768, Stop: 53929, Start Num: 10

Candidate Starts for Hamulus\_100:

(Start: 10 @53768 has 197 MA's),

Gene: Hegedechwinu\_108 Start: 54304, Stop: 54465, Start Num: 10  
Candidate Starts for Hegedechwinu\_108:  
(Start: 10 @54304 has 197 MA's),

Gene: Hlubikazi\_98 Start: 52547, Stop: 52708, Start Num: 10  
Candidate Starts for Hlubikazi\_98:  
(Start: 10 @52547 has 197 MA's),

Gene: IMpilo\_98 Start: 52546, Stop: 52707, Start Num: 10  
Candidate Starts for IMpilo\_98:  
(Start: 10 @52546 has 197 MA's),

Gene: IbOuu\_91 Start: 51910, Stop: 52071, Start Num: 10  
Candidate Starts for IbOuu\_91:  
(Start: 10 @51910 has 197 MA's),

Gene: Inventum\_98 Start: 54102, Stop: 54263, Start Num: 10  
Candidate Starts for Inventum\_98:  
(Start: 10 @54102 has 197 MA's),

Gene: IrishSherpFalk\_100 Start: 54437, Stop: 54598, Start Num: 10  
Candidate Starts for IrishSherpFalk\_100:  
(8, 54395), (Start: 10 @54437 has 197 MA's),

Gene: JalFarm20\_109 Start: 56245, Stop: 56406, Start Num: 10  
Candidate Starts for JalFarm20\_109:  
(Start: 10 @56245 has 197 MA's),

Gene: James\_104 Start: 56416, Stop: 56577, Start Num: 10  
Candidate Starts for James\_104:  
(Start: 10 @56416 has 197 MA's),

Gene: Jant\_107 Start: 53731, Stop: 53892, Start Num: 10  
Candidate Starts for Jant\_107:  
(Start: 10 @53731 has 197 MA's),

Gene: Jarcob\_103 Start: 56015, Stop: 56176, Start Num: 10  
Candidate Starts for Jarcob\_103:  
(Start: 10 @56015 has 197 MA's),

Gene: Jennelsea\_97 Start: 53316, Stop: 53477, Start Num: 10  
Candidate Starts for Jennelsea\_97:  
(Start: 10 @53316 has 197 MA's),

Gene: Jinglebell\_107 Start: 55692, Stop: 55853, Start Num: 10  
Candidate Starts for Jinglebell\_107:  
(Start: 10 @55692 has 197 MA's),

Gene: Job42\_101 Start: 56590, Stop: 56751, Start Num: 10  
Candidate Starts for Job42\_101:  
(Start: 10 @56590 has 197 MA's),

Gene: JoeyJr\_103 Start: 56010, Stop: 56171, Start Num: 10  
Candidate Starts for JoeyJr\_103:  
(Start: 10 @56010 has 197 MA's),

Gene: Juice456\_99 Start: 53720, Stop: 53881, Start Num: 10  
Candidate Starts for Juice456\_99:  
(Start: 10 @53720 has 197 MA's),

Gene: Karhdo\_95 Start: 52179, Stop: 52340, Start Num: 10  
Candidate Starts for Karhdo\_95:  
(Start: 10 @52179 has 197 MA's),

Gene: Kenuha5\_92 Start: 53592, Stop: 53753, Start Num: 10  
Candidate Starts for Kenuha5\_92:  
(Start: 10 @53592 has 197 MA's),

Gene: KingJulian\_108 Start: 56834, Stop: 56995, Start Num: 10  
Candidate Starts for KingJulian\_108:  
(Start: 10 @56834 has 197 MA's),

Gene: KingMidas\_100 Start: 54239, Stop: 54400, Start Num: 10  
Candidate Starts for KingMidas\_100:  
(Start: 10 @54239 has 197 MA's),

Gene: Kingsley\_109 Start: 57777, Stop: 57938, Start Num: 10  
Candidate Starts for Kingsley\_109:  
(Start: 10 @57777 has 197 MA's),

Gene: Koella\_93 Start: 51178, Stop: 51339, Start Num: 10  
Candidate Starts for Koella\_93:  
(Start: 10 @51178 has 197 MA's),

Gene: Krakatau\_93 Start: 50137, Stop: 50298, Start Num: 10  
Candidate Starts for Krakatau\_93:  
(Start: 10 @50137 has 197 MA's),

Gene: KristaRAM\_108 Start: 55500, Stop: 55661, Start Num: 10  
Candidate Starts for KristaRAM\_108:  
(Start: 10 @55500 has 197 MA's),

Gene: LastJedi\_91 Start: 52235, Stop: 52396, Start Num: 10  
Candidate Starts for LastJedi\_91:  
(Start: 10 @52235 has 197 MA's),

Gene: Latretium\_103 Start: 55281, Stop: 55442, Start Num: 10  
Candidate Starts for Latretium\_103:  
(Start: 10 @55281 has 197 MA's),

Gene: Leperchaun\_102 Start: 55244, Stop: 55405, Start Num: 10  
Candidate Starts for Leperchaun\_102:  
(Start: 10 @55244 has 197 MA's),

Gene: LilMoolah\_103 Start: 55215, Stop: 55376, Start Num: 10

Candidate Starts for LilMoolah\_103:  
(Start: 10 @55215 has 197 MA's),

Gene: LittleShirley\_108 Start: 55612, Stop: 55773, Start Num: 10  
Candidate Starts for LittleShirley\_108:  
(Start: 10 @55612 has 197 MA's),

Gene: Lizziana\_101 Start: 55483, Stop: 55644, Start Num: 10  
Candidate Starts for Lizziana\_101:  
(Start: 10 @55483 has 197 MA's),

Gene: Llama\_107 Start: 55335, Stop: 55496, Start Num: 10  
Candidate Starts for Llama\_107:  
(Start: 10 @55335 has 197 MA's),

Gene: Llij\_95 Start: 53166, Stop: 53327, Start Num: 10  
Candidate Starts for Llij\_95:  
(Start: 10 @53166 has 197 MA's),

Gene: LordVader\_96 Start: 51082, Stop: 51243, Start Num: 10  
Candidate Starts for LordVader\_96:  
(7, 51001), (Start: 10 @51082 has 197 MA's),

Gene: MadMen\_105 Start: 54834, Stop: 54995, Start Num: 10  
Candidate Starts for MadMen\_105:  
(Start: 10 @54834 has 197 MA's),

Gene: Madiba\_99 Start: 53523, Stop: 53684, Start Num: 10  
Candidate Starts for Madiba\_99:  
(Start: 10 @53523 has 197 MA's),

Gene: Mandlovu\_98 Start: 52489, Stop: 52650, Start Num: 10  
Candidate Starts for Mandlovu\_98:  
(Start: 10 @52489 has 197 MA's),

Gene: Maravista\_97 Start: 56143, Stop: 56304, Start Num: 10  
Candidate Starts for Maravista\_97:  
(Start: 10 @56143 has 197 MA's),

Gene: Martik\_99 Start: 55946, Stop: 56107, Start Num: 10  
Candidate Starts for Martik\_99:  
(Start: 10 @55946 has 197 MA's),

Gene: Mattes\_101 Start: 55152, Stop: 55313, Start Num: 10  
Candidate Starts for Mattes\_101:  
(Start: 10 @55152 has 197 MA's),

Gene: Medindi\_105 Start: 55294, Stop: 55455, Start Num: 10  
Candidate Starts for Medindi\_105:  
(Start: 10 @55294 has 197 MA's),

Gene: Melissauren88\_90 Start: 50968, Stop: 51129, Start Num: 10  
Candidate Starts for Melissauren88\_90:

(Start: 10 @50968 has 197 MA's),

Gene: MilanaBonita\_93 Start: 52864, Stop: 53025, Start Num: 10

Candidate Starts for MilanaBonita\_93:

(Start: 10 @52864 has 197 MA's),

Gene: MilleniumForce\_100 Start: 54671, Stop: 54832, Start Num: 10

Candidate Starts for MilleniumForce\_100:

(Start: 10 @54671 has 197 MA's),

Gene: Milly\_90 Start: 56870, Stop: 57037, Start Num: 10

Candidate Starts for Milly\_90:

(1, 56459), (2, 56474), (3, 56528), (9, 56840), (Start: 10 @56870 has 197 MA's),

Gene: MinionDave\_98 Start: 54626, Stop: 54787, Start Num: 10

Candidate Starts for MinionDave\_98:

(Start: 10 @54626 has 197 MA's),

Gene: Minnie\_95 Start: 55564, Stop: 55725, Start Num: 10

Candidate Starts for Minnie\_95:

(Start: 10 @55564 has 197 MA's),

Gene: Misha28\_90 Start: 54937, Stop: 55098, Start Num: 10

Candidate Starts for Misha28\_90:

(Start: 10 @54937 has 197 MA's),

Gene: MisterCuddles\_100 Start: 54813, Stop: 54974, Start Num: 10

Candidate Starts for MisterCuddles\_100:

(Start: 10 @54813 has 197 MA's),

Gene: Moonbeam\_103 Start: 55059, Stop: 55220, Start Num: 10

Candidate Starts for Moonbeam\_103:

(Start: 10 @55059 has 197 MA's),

Gene: Mova\_102 Start: 54601, Stop: 54762, Start Num: 10

Candidate Starts for Mova\_102:

(Start: 10 @54601 has 197 MA's),

Gene: Mozy\_104 Start: 54236, Stop: 54397, Start Num: 10

Candidate Starts for Mozy\_104:

(Start: 10 @54236 has 197 MA's),

Gene: Ms6\_102 Start: 50859, Stop: 51020, Start Num: 10

Candidate Starts for Ms6\_102:

(Start: 10 @50859 has 197 MA's),

Gene: Mufasa\_90 Start: 56727, Stop: 56894, Start Num: 10

Candidate Starts for Mufasa\_90:

(3, 56379), (9, 56697), (Start: 10 @56727 has 197 MA's),

Gene: MulchSalad\_102 Start: 55492, Stop: 55653, Start Num: 10

Candidate Starts for MulchSalad\_102:

(7, 55411), (Start: 10 @55492 has 197 MA's),

Gene: Mutaforma13\_101 Start: 54270, Stop: 54431, Start Num: 10  
Candidate Starts for Mutaforma13\_101:  
(Start: 10 @54270 has 197 MA's),

Gene: Mwanjiwa\_103 Start: 55673, Stop: 55834, Start Num: 10  
Candidate Starts for Mwanjiwa\_103:  
(Start: 10 @55673 has 197 MA's),

Gene: Nichirin\_100 Start: 55178, Stop: 55339, Start Num: 10  
Candidate Starts for Nichirin\_100:  
(Start: 10 @55178 has 197 MA's),

Gene: Nimbo\_92 Start: 52816, Stop: 52977, Start Num: 10  
Candidate Starts for Nimbo\_92:  
(Start: 10 @52816 has 197 MA's),

Gene: Nitzel\_94 Start: 51429, Stop: 51590, Start Num: 10  
Candidate Starts for Nitzel\_94:  
(Start: 10 @51429 has 197 MA's),

Gene: Nivrat\_100 Start: 55088, Stop: 55249, Start Num: 10  
Candidate Starts for Nivrat\_100:  
(Start: 10 @55088 has 197 MA's),

Gene: NormanBulbieJr\_98 Start: 55192, Stop: 55353, Start Num: 10  
Candidate Starts for NormanBulbieJr\_98:  
(Start: 10 @55192 has 197 MA's),

Gene: Ochi17\_106 Start: 54930, Stop: 55091, Start Num: 10  
Candidate Starts for Ochi17\_106:  
(Start: 10 @54930 has 197 MA's),

Gene: OfUltron\_107 Start: 55479, Stop: 55640, Start Num: 10  
Candidate Starts for OfUltron\_107:  
(Start: 10 @55479 has 197 MA's),

Gene: Ogopogo\_104 Start: 53421, Stop: 53582, Start Num: 10  
Candidate Starts for Ogopogo\_104:  
(Start: 10 @53421 has 197 MA's),

Gene: Oksu\_104 Start: 56569, Stop: 56730, Start Num: 10  
Candidate Starts for Oksu\_104:  
(Start: 10 @56569 has 197 MA's),

Gene: OldBen\_97 Start: 54208, Stop: 54369, Start Num: 10  
Candidate Starts for OldBen\_97:  
(Start: 10 @54208 has 197 MA's),

Gene: OlympiaSaint\_104 Start: 55382, Stop: 55543, Start Num: 10  
Candidate Starts for OlympiaSaint\_104:  
(5, 55163), (6, 55220), (8, 55340), (Start: 10 @55382 has 197 MA's),

Gene: PHappiness\_100 Start: 55037, Stop: 55198, Start Num: 10  
Candidate Starts for PHappiness\_100:  
(Start: 10 @55037 has 197 MA's),

Gene: PMC\_99 Start: 53252, Stop: 53413, Start Num: 10  
Candidate Starts for PMC\_99:  
(Start: 10 @53252 has 197 MA's),

Gene: PatoPoderoso\_101 Start: 56834, Stop: 56995, Start Num: 10  
Candidate Starts for PatoPoderoso\_101:  
(Start: 10 @56834 has 197 MA's),

Gene: Peridot\_103 Start: 54621, Stop: 54782, Start Num: 10  
Candidate Starts for Peridot\_103:  
(Start: 10 @54621 has 197 MA's),

Gene: Phalconet\_101 Start: 54261, Stop: 54422, Start Num: 10  
Candidate Starts for Phalconet\_101:  
(Start: 10 @54261 has 197 MA's),

Gene: Phanphagia\_105 Start: 56016, Stop: 56177, Start Num: 10  
Candidate Starts for Phanphagia\_105:  
(Start: 10 @56016 has 197 MA's),

Gene: PhesterPhotato\_104 Start: 54235, Stop: 54396, Start Num: 10  
Candidate Starts for PhesterPhotato\_104:  
(Start: 10 @54235 has 197 MA's),

Gene: Philus\_104 Start: 56323, Stop: 56484, Start Num: 10  
Candidate Starts for Philus\_104:  
(Start: 10 @56323 has 197 MA's),

Gene: Piper2020\_95 Start: 55185, Stop: 55346, Start Num: 10  
Candidate Starts for Piper2020\_95:  
(Start: 10 @55185 has 197 MA's),

Gene: Pippy\_98 Start: 53463, Stop: 53624, Start Num: 10  
Candidate Starts for Pippy\_98:  
(Start: 10 @53463 has 197 MA's),

Gene: Plumbus\_99 Start: 51933, Stop: 52094, Start Num: 10  
Candidate Starts for Plumbus\_99:  
(Start: 10 @51933 has 197 MA's),

Gene: Poenanya\_104 Start: 55745, Stop: 55906, Start Num: 10  
Candidate Starts for Poenanya\_104:  
(Start: 10 @55745 has 197 MA's),

Gene: Polka14\_104 Start: 55806, Stop: 55967, Start Num: 10  
Candidate Starts for Polka14\_104:  
(Start: 10 @55806 has 197 MA's),

Gene: Pollywog\_102 Start: 55864, Stop: 56025, Start Num: 10

Candidate Starts for Pollywog\_102:  
(Start: 10 @55864 has 197 MA's),

Gene: Priscilla\_101 Start: 55290, Stop: 55451, Start Num: 10  
Candidate Starts for Priscilla\_101:  
(Start: 10 @55290 has 197 MA's),

Gene: QuickMath\_101 Start: 54125, Stop: 54286, Start Num: 10  
Candidate Starts for QuickMath\_101:  
(Start: 10 @54125 has 197 MA's),

Gene: Quico\_109 Start: 56144, Stop: 56305, Start Num: 10  
Candidate Starts for Quico\_109:  
(Start: 10 @56144 has 197 MA's),

Gene: Radiance\_98 Start: 54149, Stop: 54310, Start Num: 10  
Candidate Starts for Radiance\_98:  
(Start: 10 @54149 has 197 MA's),

Gene: Ramsey\_105 Start: 56045, Stop: 56206, Start Num: 10  
Candidate Starts for Ramsey\_105:  
(Start: 10 @56045 has 197 MA's),

Gene: RedBird\_101 Start: 55784, Stop: 55945, Start Num: 10  
Candidate Starts for RedBird\_101:  
(Start: 10 @55784 has 197 MA's),

Gene: Rialto\_105 Start: 55400, Stop: 55561, Start Num: 10  
Candidate Starts for Rialto\_105:  
(Start: 10 @55400 has 197 MA's),

Gene: Rita\_100 Start: 55860, Stop: 56021, Start Num: 10  
Candidate Starts for Rita\_100:  
(Start: 10 @55860 has 197 MA's),

Gene: RitaG\_99 Start: 54839, Stop: 55000, Start Num: 10  
Candidate Starts for RitaG\_99:  
(Start: 10 @54839 has 197 MA's),

Gene: Rockne\_103 Start: 53264, Stop: 53425, Start Num: 10  
Candidate Starts for Rockne\_103:  
(Start: 10 @53264 has 197 MA's),

Gene: Royals2015\_104 Start: 53395, Stop: 53556, Start Num: 10  
Candidate Starts for Royals2015\_104:  
(Start: 10 @53395 has 197 MA's),

Gene: SG4\_101 Start: 55629, Stop: 55790, Start Num: 10  
Candidate Starts for SG4\_101:  
(Start: 10 @55629 has 197 MA's),

Gene: Saal\_98 Start: 54854, Stop: 55015, Start Num: 10  
Candidate Starts for Saal\_98:

(Start: 10 @54854 has 197 MA's),

Gene: Sabbb\_103 Start: 52820, Stop: 52981, Start Num: 10  
Candidate Starts for Sabbb\_103:  
(5, 52601), (6, 52658), (8, 52778), (Start: 10 @52820 has 197 MA's),

Gene: Sarma624\_102 Start: 51789, Stop: 51950, Start Num: 10  
Candidate Starts for Sarma624\_102:  
(Start: 10 @51789 has 197 MA's),

Gene: Sassafras\_102 Start: 54101, Stop: 54262, Start Num: 10  
Candidate Starts for Sassafras\_102:  
(Start: 10 @54101 has 197 MA's),

Gene: Scottish\_100 Start: 53678, Stop: 53839, Start Num: 10  
Candidate Starts for Scottish\_100:  
(Start: 10 @53678 has 197 MA's),

Gene: Seabastian\_107 Start: 55480, Stop: 55641, Start Num: 10  
Candidate Starts for Seabastian\_107:  
(Start: 10 @55480 has 197 MA's),

Gene: Seagreen\_101 Start: 54767, Stop: 54928, Start Num: 10  
Candidate Starts for Seagreen\_101:  
(Start: 10 @54767 has 197 MA's),

Gene: Shauna1\_102 Start: 55632, Stop: 55793, Start Num: 10  
Candidate Starts for Shauna1\_102:  
(Start: 10 @55632 has 197 MA's),

Gene: ShiLan\_103 Start: 56871, Stop: 57032, Start Num: 10  
Candidate Starts for ShiLan\_103:  
(Start: 10 @56871 has 197 MA's),

Gene: ShowerHandel\_101 Start: 54136, Stop: 54297, Start Num: 10  
Candidate Starts for ShowerHandel\_101:  
(Start: 10 @54136 has 197 MA's),

Gene: ShroomBoi\_98 Start: 54184, Stop: 54345, Start Num: 10  
Candidate Starts for ShroomBoi\_98:  
(Start: 10 @54184 has 197 MA's),

Gene: Slim\_103 Start: 54418, Stop: 54579, Start Num: 10  
Candidate Starts for Slim\_103:  
(Start: 10 @54418 has 197 MA's),

Gene: Sparkdehlily\_107 Start: 53349, Stop: 53510, Start Num: 10  
Candidate Starts for Sparkdehlily\_107:  
(Start: 10 @53349 has 197 MA's),

Gene: Spartacus\_107 Start: 57463, Stop: 57624, Start Num: 10  
Candidate Starts for Spartacus\_107:  
(Start: 10 @57463 has 197 MA's),

Gene: Spoonbill\_100 Start: 52784, Stop: 52945, Start Num: 10  
Candidate Starts for Spoonbill\_100:  
(Start: 10 @52784 has 197 MA's),

Gene: Squirty\_99 Start: 57753, Stop: 57914, Start Num: 10  
Candidate Starts for Squirty\_99:  
(7, 57672), (Start: 10 @57753 has 197 MA's),

Gene: StAnnes\_104 Start: 55680, Stop: 55841, Start Num: 10  
Candidate Starts for StAnnes\_104:  
(Start: 10 @55680 has 197 MA's),

Gene: Stap\_95 Start: 51396, Stop: 51557, Start Num: 10  
Candidate Starts for Stap\_95:  
(8, 51354), (Start: 10 @51396 has 197 MA's),

Gene: Starcevich\_102 Start: 55513, Stop: 55674, Start Num: 10  
Candidate Starts for Starcevich\_102:  
(8, 55471), (Start: 10 @55513 has 197 MA's),

Gene: Strobilo\_91 Start: 56785, Stop: 56952, Start Num: 10  
Candidate Starts for Strobilo\_91:  
(1, 56374), (2, 56389), (3, 56443), (9, 56755), (Start: 10 @56785 has 197 MA's),

Gene: Strokeseat\_98 Start: 52546, Stop: 52707, Start Num: 10  
Candidate Starts for Strokeseat\_98:  
(Start: 10 @52546 has 197 MA's),

Gene: SwagPigglett\_102 Start: 55990, Stop: 56151, Start Num: 10  
Candidate Starts for SwagPigglett\_102:  
(Start: 10 @55990 has 197 MA's),

Gene: TDanisky\_108 Start: 53349, Stop: 53510, Start Num: 10  
Candidate Starts for TDanisky\_108:  
(Start: 10 @53349 has 197 MA's),

Gene: TM4\_88 Start: 51459, Stop: 51626, Start Num: 10  
Candidate Starts for TM4\_88:  
(2, 51063), (3, 51117), (9, 51429), (Start: 10 @51459 has 197 MA's),

Gene: Taj\_106 Start: 55638, Stop: 55799, Start Num: 10  
Candidate Starts for Taj\_106:  
(Start: 10 @55638 has 197 MA's),

Gene: TootsiePop\_90 Start: 54937, Stop: 55098, Start Num: 10  
Candidate Starts for TootsiePop\_90:  
(Start: 10 @54937 has 197 MA's),

Gene: Tootsieroll\_94 Start: 54782, Stop: 54943, Start Num: 10  
Candidate Starts for Tootsieroll\_94:  
(Start: 10 @54782 has 197 MA's),

Gene: Totinger\_103 Start: 54913, Stop: 55074, Start Num: 10  
Candidate Starts for Totinger\_103:  
(Start: 10 @54913 has 197 MA's),

Gene: Tweety\_101 Start: 55032, Stop: 55193, Start Num: 10  
Candidate Starts for Tweety\_101:  
(Start: 10 @55032 has 197 MA's),

Gene: VRedHorse\_101 Start: 51888, Stop: 52049, Start Num: 10  
Candidate Starts for VRedHorse\_101:  
(Start: 10 @51888 has 197 MA's),

Gene: Velveteen\_97 Start: 51789, Stop: 51950, Start Num: 10  
Candidate Starts for Velveteen\_97:  
(Start: 10 @51789 has 197 MA's),

Gene: Violac\_101 Start: 55284, Stop: 55445, Start Num: 10  
Candidate Starts for Violac\_101:  
(Start: 10 @55284 has 197 MA's),

Gene: Vivum\_100 Start: 56225, Stop: 56386, Start Num: 10  
Candidate Starts for Vivum\_100:  
(Start: 10 @56225 has 197 MA's),

Gene: Wee\_103 Start: 55714, Stop: 55875, Start Num: 10  
Candidate Starts for Wee\_103:  
(Start: 10 @55714 has 197 MA's),

Gene: Whatsapiecost\_94 Start: 49439, Stop: 49600, Start Num: 10  
Candidate Starts for Whatsapiecost\_94:  
(Start: 10 @49439 has 197 MA's),

Gene: WillSterrel\_98 Start: 54470, Stop: 54631, Start Num: 10  
Candidate Starts for WillSterrel\_98:  
(8, 54428), (Start: 10 @54470 has 197 MA's),

Gene: XFactor\_91 Start: 52230, Stop: 52391, Start Num: 10  
Candidate Starts for XFactor\_91:  
(Start: 10 @52230 has 197 MA's),

Gene: Yorick\_96 Start: 55531, Stop: 55692, Start Num: 10  
Candidate Starts for Yorick\_96:  
(Start: 10 @55531 has 197 MA's),

Gene: Zerg\_98 Start: 54105, Stop: 54266, Start Num: 10  
Candidate Starts for Zerg\_98:  
(Start: 10 @54105 has 197 MA's),

Gene: Zizzle\_103 Start: 56181, Stop: 56342, Start Num: 10  
Candidate Starts for Zizzle\_103:  
(Start: 10 @56181 has 197 MA's),

Gene: ZoeJ\_88 Start: 55979, Stop: 56146, Start Num: 10

Candidate Starts for ZoeJ\_88:  
(4, 55652), (9, 55949), (Start: 10 @55979 has 197 MA's),