



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 303169 Report

This analysis was run 06/08/26 on database version 649.

Pham number 303169 has 145 members, 13 are drafts.

Phages represented in each track:

- Track 1 : Marshmallow\_72, Barbarian\_73, MollyToe\_69, Traaww1\_70, Mindy\_73, PaddyBaddy\_74, Myrale\_74, Dumbo\_74, Flypotenuse\_70, Hoonter\_77, TBrady12\_77, Manda\_75, Daikon\_76, Lilac\_76, Filch\_75, Easy2Say\_75, FoghornLeghorn\_68, Bogg\_74, Pumpkin\_77, Rimmer\_75, OrionPax\_73, Teaspoon\_75, ShamWow\_74, Miniwave\_69, Holt\_79, Phaux\_76, Buck\_75, YassJohnny\_71, Tomaszewski\_69, Porky\_73, ShereKhan\_73, Kostya\_74, Amao\_74, Highbury\_73, SophKB\_71, Ukulele\_69, Cactus\_77, NelitzaMV\_72, NoSleep\_75, Glexan\_73, Czyszczone1\_75, Nala\_76, Greep\_78, xkcd\_77, Elph10\_74, Adnama\_78, Sassay\_69, SirDuracell\_73, Harella\_74, TeardropMSU\_70, RiverMonster\_74, Pat3\_72, BigBubba\_74, GoldenSpark\_78, Lilizi\_75, Mosby\_70, Thresher\_76, IHOP\_72, Hopey\_74, Cookies\_71, GooberAzure\_77, Youngblood\_77, Goldilocks\_77, MPhalcon\_75, AmericanBeauty\_78, Icee\_75, Murica\_77, ChotaBhai\_74, Eureka\_72, Murphy\_74, Inca\_71, Terminus\_77, Bench\_77, Balomoji\_74, Gator\_72, Brewer\_70, Kanye\_71, Command613\_76, Saints25\_73, Gemini\_79, Stark\_75, 244\_75, CrystalP\_73, PhatBacter\_78, Phrux\_71, StormChicken\_76, FairyPath\_75, Elite2014\_73, BugsBunny\_74, Maxxinista\_76, Cjw1\_74, JeTaime\_74, BaboJay\_71, ChosenOne\_74, HufflyPuff\_77, Pharsalus\_71, Emmina\_74, Moldemort\_77, Gage\_76, TeamEdward\_76, Goku\_72, Simpliphy\_73, Kimchi\_78, Liveloughbron\_76, BadStone\_71, Misfit\_75, Asriel\_73, Henry\_72, Nimrod\_75, ABCat\_71, DoctorDiddles\_73, Argent26\_78, Phaja\_72, Bask21\_74, Petra64142\_78, Palpatine\_76, Tarkin\_73, Bruin\_71, Wiggin\_76, FireRed\_78, MISSy\_75, Xandras\_73, Ptowny\_71, Policronamos\_77, HankKaySha\_74, Becksu\_73, Sotrice96\_75, Tuco\_75, StolenFromERC\_77, Rakim\_75, DrDrey\_74, Paperbeatsrock\_73, Qualification\_75, Toto\_72, NonchalantPear\_74, Contagion\_70, Lilpickle\_73, Thimble\_75, MadamMonkfish\_74, StellaBean\_72, Willez\_69, BilboSwaggins\_72, Stank\_77
- Track 2 : Budgie\_80
- Track 3 : Dusk\_71

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

The start number called the most often in the published annotations is 1, it was called in 132 of the 132 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- 244\_75, ABCat\_71, Adnama\_78, Amao\_74, AmericanBeauty\_78, Argent26\_78, Asriel\_73, BaboJay\_71, BadStone\_71, Balomoji\_74, Barbarian\_73, Bask21\_74, Becksu\_73, Bench\_77, BigBubba\_74, BilboSwaggins\_72, Bogg\_74, Brewer\_70, Bruin\_71, Buck\_75, Budgie\_80, BugsBunny\_74, Cactus\_77, ChosenOne\_74, ChotaBhai\_74, Cjw1\_74, Command613\_76, Contagion\_70, Cookies\_71, CrystalP\_73, Czyszczone1\_75, Daikon\_76, DoctorDiddles\_73, DrDrey\_74, Dumbo\_74, Dusk\_71, Easy2Say\_75, Elite2014\_73, Elph10\_74, Emmina\_74, Eureka\_72, FairyPath\_75, Filch\_75, FireRed\_78, Flypotenuse\_70, FoghornLeghorn\_68, Gage\_76, Gator\_72, Gemini\_79, Glexan\_73, Goku\_72, GoldenSpark\_78, Goldilocks\_77, GooberAzure\_77, Greep\_78, HanKaySha\_74, Harella\_74, Henry\_72, Highbury\_73, Holt\_79, Hoonter\_77, Hopey\_74, HufflyPuff\_77, IHOP\_72, Icee\_75, Inca\_71, JeTaime\_74, Kanye\_71, Kimchi\_78, Kostya\_74, Lilac\_76, Lilizi\_75, Lilpickle\_73, Liveloughbron\_76, MISSy\_75, MPhalcon\_75, MadamMonkfish\_74, Manda\_75, Marshmallow\_72, Maxxinsta\_76, Mindy\_73, Miniwave\_69, Misfit\_75, Moldemort\_77, MollyToe\_69, Mosby\_70, Murica\_77, Murphy\_74, Myrale\_74, Nala\_76, NelitzaMV\_72, Nimrod\_75, NoSleep\_75, NonchalantPear\_74, OrionPax\_73, PaddyBaddy\_74, Palpatine\_76, Paperbeatsrock\_73, Pat3\_72, Petra64142\_78, Phaja\_72, Pharsalus\_71, PhatBacter\_78, Phaux\_76, Phrux\_71, Policronamos\_77, Porky\_73, Ptowny\_71, Pumpkin\_77, Qualification\_75, Rakim\_75, Rimmer\_75, RiverMonster\_74, Saints25\_73, Sassay\_69, ShamWow\_74, ShereKhan\_73, Simpliphy\_73, SirDuracell\_73, SophKB\_71, Sotrice96\_75, Stank\_77, Stark\_75, StellaBean\_72, StolenFromERC\_77, StormChicken\_76, TBrady12\_77, Tarkin\_73, TeamEdward\_76, TeardropMSU\_70, Teaspoon\_75, Terminus\_77, Thimble\_75, Thresher\_76, Tomaszewski\_69, Toto\_72, Traaww1\_70, Tuco\_75, Ukulele\_69, Wiggin\_76, Willez\_69, Xandras\_73, YassJohnny\_71, Youngblood\_77, xkcd\_77,

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 1:

- Found in 145 of 145 ( 100.0% ) of genes in pham
- Manual Annotations of this start: 132 of 132
- Called 100.0% of time when present
- Phage (with cluster) where this start called: 244\_75 (E), ABCat\_71 (E), Adnama\_78 (E), Amao\_74 (E), AmericanBeauty\_78 (E), Argent26\_78 (E), Asriel\_73 (E), BaboJay\_71 (E), BadStone\_71 (E), Balomoji\_74 (E), Barbarian\_73 (E), Bask21\_74 (E), Becksu\_73 (E), Bench\_77 (E), BigBubba\_74 (E), BilboSwaggins\_72 (E), Bogg\_74 (E), Brewer\_70 (E), Bruin\_71 (E), Buck\_75 (E), Budgie\_80 (E), BugsBunny\_74 (E), Cactus\_77 (E), ChosenOne\_74 (E), ChotaBhai\_74 (E), Cjw1\_74 (E), Command613\_76 (E), Contagion\_70 (E), Cookies\_71 (E), CrystalP\_73 (E), Czyszczone1\_75 (E), Daikon\_76 (E), DoctorDiddles\_73 (E), DrDrey\_74 (E), Dumbo\_74 (E), Dusk\_71 (E), Easy2Say\_75 (E), Elite2014\_73 (E), Elph10\_74 (E), Emmina\_74 (E), Eureka\_72 (E), FairyPath\_75 (E), Filch\_75 (E), FireRed\_78 (E), Flypotenuse\_70 (E), FoghornLeghorn\_68 (E), Gage\_76 (E), Gator\_72 (E), Gemini\_79 (E), Glexan\_73 (E), Goku\_72 (E), GoldenSpark\_78 (E), Goldilocks\_77 (E), GooberAzure\_77 (E), Greep\_78 (E), HanKaySha\_74 (E), Harella\_74 (E), Henry\_72 (E), Highbury\_73 (E), Holt\_79 (E), Hoonter\_77 (E), Hopey\_74 (E), HufflyPuff\_77 (E),

IHOP\_72 (E), Icee\_75 (E), Inca\_71 (E), JeTaime\_74 (E), Kanye\_71 (E), Kimchi\_78 (E), Kostya\_74 (E), Lilac\_76 (E), Lilizi\_75 (E), Lilpickle\_73 (E), Liveloughbron\_76 (E), MISSy\_75 (E), MPhalcon\_75 (E), MadamMonkfish\_74 (E), Manda\_75 (E), Marshmallow\_72 (E), Maxxinista\_76 (E), Mindy\_73 (E), Miniwave\_69 (E), Misfit\_75 (E), Moldemort\_77 (E), MollyToe\_69 (E), Mosby\_70 (E), Murica\_77 (E), Murphy\_74 (E), Myrale\_74 (E), Nala\_76 (E), NelitzaMV\_72 (E), Nimrod\_75 (E), NoSleep\_75 (E), NonchalantPear\_74 (E), OrionPax\_73 (E), PaddyBaddy\_74 (E), Palpatine\_76 (E), Paperbeatsrock\_73 (E), Pat3\_72 (E), Petra64142\_78 (E), Phaja\_72 (E), Pharsalus\_71 (E), PhatBacter\_78 (E), Phaux\_76 (E), Phrux\_71 (E), Policronamos\_77 (E), Porky\_73 (E), Ptowny\_71 (E), Pumpkin\_77 (E), Quallification\_75 (E), Rakim\_75 (E), Rimmer\_75 (E), RiverMonster\_74 (E), Saints25\_73 (E), Sassay\_69 (E), ShamWow\_74 (E), ShereKhan\_73 (E), Simpliphy\_73 (E), SirDuracell\_73 (E), SophKB\_71 (E), Sotrice96\_75 (E), Stank\_77 (E), Stark\_75 (E), StellaBean\_72 (E), StolenFromERC\_77 (E), StormChicken\_76 (E), TBrady12\_77 (E), Tarkin\_73 (E), TeamEdward\_76 (E), TeardropMSU\_70 (E), Teaspoon\_75 (E), Terminus\_77 (E), Thimble\_75 (E), Thresher\_76 (E), Tomaszewski\_69 (E), Toto\_72 (E), Traaww1\_70 (E), Tuco\_75 (E), Ukulele\_69 (E), Wiggins\_76 (E), Willez\_69 (E), Xandras\_73 (E), YassJohnny\_71 (E), Youngblood\_77 (E), xkcd\_77 (E),

### **Summary by clusters:**

There is one cluster represented in this pham: E

Info for manual annotations of cluster E:

•Start number 1 was manually annotated 132 times for cluster E.

### **Gene Information:**

Gene: 244\_75 Start: 47793, Stop: 47966, Start Num: 1

Candidate Starts for 244\_75:

(Start: 1 @47793 has 132 MA's), (2, 47844),

Gene: ABCat\_71 Start: 48146, Stop: 48319, Start Num: 1

Candidate Starts for ABCat\_71:

(Start: 1 @48146 has 132 MA's), (2, 48197),

Gene: Adnama\_78 Start: 48172, Stop: 48345, Start Num: 1

Candidate Starts for Adnama\_78:

(Start: 1 @48172 has 132 MA's), (2, 48223),

Gene: Amao\_74 Start: 47566, Stop: 47739, Start Num: 1

Candidate Starts for Amao\_74:

(Start: 1 @47566 has 132 MA's), (2, 47617),

Gene: AmericanBeauty\_78 Start: 48315, Stop: 48488, Start Num: 1

Candidate Starts for AmericanBeauty\_78:

(Start: 1 @48315 has 132 MA's), (2, 48366),

Gene: Argent26\_78 Start: 47953, Stop: 48126, Start Num: 1

Candidate Starts for Argent26\_78:

(Start: 1 @47953 has 132 MA's), (2, 48004),

Gene: Asriel\_73 Start: 46509, Stop: 46682, Start Num: 1  
Candidate Starts for Asriel\_73:  
(Start: 1 @46509 has 132 MA's), (2, 46560),

Gene: BaboJay\_71 Start: 47346, Stop: 47519, Start Num: 1  
Candidate Starts for BaboJay\_71:  
(Start: 1 @47346 has 132 MA's), (2, 47397),

Gene: BadStone\_71 Start: 47715, Stop: 47888, Start Num: 1  
Candidate Starts for BadStone\_71:  
(Start: 1 @47715 has 132 MA's), (2, 47766),

Gene: Balomoji\_74 Start: 48276, Stop: 48449, Start Num: 1  
Candidate Starts for Balomoji\_74:  
(Start: 1 @48276 has 132 MA's), (2, 48327),

Gene: Barbarian\_73 Start: 46509, Stop: 46682, Start Num: 1  
Candidate Starts for Barbarian\_73:  
(Start: 1 @46509 has 132 MA's), (2, 46560),

Gene: Bask21\_74 Start: 47129, Stop: 47302, Start Num: 1  
Candidate Starts for Bask21\_74:  
(Start: 1 @47129 has 132 MA's), (2, 47180),

Gene: Becksu\_73 Start: 48345, Stop: 48524, Start Num: 1  
Candidate Starts for Becksu\_73:  
(Start: 1 @48345 has 132 MA's), (2, 48396),

Gene: Bench\_77 Start: 47813, Stop: 47992, Start Num: 1  
Candidate Starts for Bench\_77:  
(Start: 1 @47813 has 132 MA's), (2, 47864),

Gene: BigBubba\_74 Start: 47525, Stop: 47704, Start Num: 1  
Candidate Starts for BigBubba\_74:  
(Start: 1 @47525 has 132 MA's), (2, 47576),

Gene: BilboSwaggins\_72 Start: 48154, Stop: 48327, Start Num: 1  
Candidate Starts for BilboSwaggins\_72:  
(Start: 1 @48154 has 132 MA's), (2, 48205),

Gene: Bogg\_74 Start: 47092, Stop: 47265, Start Num: 1  
Candidate Starts for Bogg\_74:  
(Start: 1 @47092 has 132 MA's), (2, 47143),

Gene: Brewer\_70 Start: 46615, Stop: 46788, Start Num: 1  
Candidate Starts for Brewer\_70:  
(Start: 1 @46615 has 132 MA's), (2, 46666),

Gene: Bruin\_71 Start: 46689, Stop: 46868, Start Num: 1  
Candidate Starts for Bruin\_71:  
(Start: 1 @46689 has 132 MA's), (2, 46740),

Gene: Buck\_75 Start: 48394, Stop: 48567, Start Num: 1  
Candidate Starts for Buck\_75:  
(Start: 1 @48394 has 132 MA's), (2, 48445),

Gene: Budgie\_80 Start: 48184, Stop: 48363, Start Num: 1  
Candidate Starts for Budgie\_80:  
(Start: 1 @48184 has 132 MA's), (2, 48235), (3, 48355),

Gene: BugsBunny\_74 Start: 48221, Stop: 48400, Start Num: 1  
Candidate Starts for BugsBunny\_74:  
(Start: 1 @48221 has 132 MA's), (2, 48272),

Gene: Cactus\_77 Start: 47170, Stop: 47343, Start Num: 1  
Candidate Starts for Cactus\_77:  
(Start: 1 @47170 has 132 MA's), (2, 47221),

Gene: ChosenOne\_74 Start: 47170, Stop: 47343, Start Num: 1  
Candidate Starts for ChosenOne\_74:  
(Start: 1 @47170 has 132 MA's), (2, 47221),

Gene: ChotaBhai\_74 Start: 47494, Stop: 47667, Start Num: 1  
Candidate Starts for ChotaBhai\_74:  
(Start: 1 @47494 has 132 MA's), (2, 47545),

Gene: Cjw1\_74 Start: 48867, Stop: 49040, Start Num: 1  
Candidate Starts for Cjw1\_74:  
(Start: 1 @48867 has 132 MA's), (2, 48918),

Gene: Command613\_76 Start: 48209, Stop: 48382, Start Num: 1  
Candidate Starts for Command613\_76:  
(Start: 1 @48209 has 132 MA's), (2, 48260),

Gene: Contagion\_70 Start: 46970, Stop: 47149, Start Num: 1  
Candidate Starts for Contagion\_70:  
(Start: 1 @46970 has 132 MA's), (2, 47021),

Gene: Cookies\_71 Start: 47351, Stop: 47524, Start Num: 1  
Candidate Starts for Cookies\_71:  
(Start: 1 @47351 has 132 MA's), (2, 47402),

Gene: CrystalP\_73 Start: 48154, Stop: 48327, Start Num: 1  
Candidate Starts for CrystalP\_73:  
(Start: 1 @48154 has 132 MA's), (2, 48205),

Gene: Czyszczonek1\_75 Start: 47676, Stop: 47855, Start Num: 1  
Candidate Starts for Czyszczonek1\_75:  
(Start: 1 @47676 has 132 MA's), (2, 47727),

Gene: Daikon\_76 Start: 48297, Stop: 48470, Start Num: 1  
Candidate Starts for Daikon\_76:  
(Start: 1 @48297 has 132 MA's), (2, 48348),

Gene: DoctorDiddles\_73 Start: 47538, Stop: 47711, Start Num: 1

Candidate Starts for DoctorDiddles\_73:  
(Start: 1 @47538 has 132 MA's), (2, 47589),

Gene: DrDrey\_74 Start: 48595, Stop: 48774, Start Num: 1  
Candidate Starts for DrDrey\_74:  
(Start: 1 @48595 has 132 MA's), (2, 48646),

Gene: Dumbo\_74 Start: 47075, Stop: 47248, Start Num: 1  
Candidate Starts for Dumbo\_74:  
(Start: 1 @47075 has 132 MA's), (2, 47126),

Gene: Dusk\_71 Start: 47375, Stop: 47548, Start Num: 1  
Candidate Starts for Dusk\_71:  
(Start: 1 @47375 has 132 MA's),

Gene: Easy2Say\_75 Start: 48619, Stop: 48792, Start Num: 1  
Candidate Starts for Easy2Say\_75:  
(Start: 1 @48619 has 132 MA's), (2, 48670),

Gene: Elite2014\_73 Start: 47169, Stop: 47342, Start Num: 1  
Candidate Starts for Elite2014\_73:  
(Start: 1 @47169 has 132 MA's), (2, 47220),

Gene: Elph10\_74 Start: 47174, Stop: 47353, Start Num: 1  
Candidate Starts for Elph10\_74:  
(Start: 1 @47174 has 132 MA's), (2, 47225),

Gene: Emmina\_74 Start: 47076, Stop: 47249, Start Num: 1  
Candidate Starts for Emmina\_74:  
(Start: 1 @47076 has 132 MA's), (2, 47127),

Gene: Eureka\_72 Start: 47640, Stop: 47813, Start Num: 1  
Candidate Starts for Eureka\_72:  
(Start: 1 @47640 has 132 MA's), (2, 47691),

Gene: FairyPath\_75 Start: 48288, Stop: 48461, Start Num: 1  
Candidate Starts for FairyPath\_75:  
(Start: 1 @48288 has 132 MA's), (2, 48339),

Gene: Filch\_75 Start: 47101, Stop: 47280, Start Num: 1  
Candidate Starts for Filch\_75:  
(Start: 1 @47101 has 132 MA's), (2, 47152),

Gene: FireRed\_78 Start: 48663, Stop: 48836, Start Num: 1  
Candidate Starts for FireRed\_78:  
(Start: 1 @48663 has 132 MA's), (2, 48714),

Gene: Flypotenuse\_70 Start: 47160, Stop: 47333, Start Num: 1  
Candidate Starts for Flypotenuse\_70:  
(Start: 1 @47160 has 132 MA's), (2, 47211),

Gene: FoghornLeghorn\_68 Start: 46173, Stop: 46346, Start Num: 1  
Candidate Starts for FoghornLeghorn\_68:

(Start: 1 @46173 has 132 MA's), (2, 46224),

Gene: Gage\_76 Start: 47953, Stop: 48126, Start Num: 1

Candidate Starts for Gage\_76:

(Start: 1 @47953 has 132 MA's), (2, 48004),

Gene: Gator\_72 Start: 48006, Stop: 48185, Start Num: 1

Candidate Starts for Gator\_72:

(Start: 1 @48006 has 132 MA's), (2, 48057),

Gene: Gemini\_79 Start: 48470, Stop: 48643, Start Num: 1

Candidate Starts for Gemini\_79:

(Start: 1 @48470 has 132 MA's), (2, 48521),

Gene: Glexan\_73 Start: 48290, Stop: 48463, Start Num: 1

Candidate Starts for Glexan\_73:

(Start: 1 @48290 has 132 MA's), (2, 48341),

Gene: Goku\_72 Start: 47369, Stop: 47542, Start Num: 1

Candidate Starts for Goku\_72:

(Start: 1 @47369 has 132 MA's), (2, 47420),

Gene: GoldenSpark\_78 Start: 47953, Stop: 48126, Start Num: 1

Candidate Starts for GoldenSpark\_78:

(Start: 1 @47953 has 132 MA's), (2, 48004),

Gene: Goldilocks\_77 Start: 47451, Stop: 47624, Start Num: 1

Candidate Starts for Goldilocks\_77:

(Start: 1 @47451 has 132 MA's), (2, 47502),

Gene: GooberAzure\_77 Start: 47953, Stop: 48126, Start Num: 1

Candidate Starts for GooberAzure\_77:

(Start: 1 @47953 has 132 MA's), (2, 48004),

Gene: Greep\_78 Start: 48952, Stop: 49131, Start Num: 1

Candidate Starts for Greep\_78:

(Start: 1 @48952 has 132 MA's), (2, 49003),

Gene: HanKaySha\_74 Start: 47254, Stop: 47433, Start Num: 1

Candidate Starts for HanKaySha\_74:

(Start: 1 @47254 has 132 MA's), (2, 47305),

Gene: Harella\_74 Start: 48806, Stop: 48979, Start Num: 1

Candidate Starts for Harella\_74:

(Start: 1 @48806 has 132 MA's), (2, 48857),

Gene: Henry\_72 Start: 47594, Stop: 47767, Start Num: 1

Candidate Starts for Henry\_72:

(Start: 1 @47594 has 132 MA's), (2, 47645),

Gene: Highbury\_73 Start: 47242, Stop: 47415, Start Num: 1

Candidate Starts for Highbury\_73:

(Start: 1 @47242 has 132 MA's), (2, 47293),

Gene: Holt\_79 Start: 48367, Stop: 48540, Start Num: 1  
Candidate Starts for Holt\_79:  
(Start: 1 @48367 has 132 MA's), (2, 48418),

Gene: Hoonter\_77 Start: 47953, Stop: 48126, Start Num: 1  
Candidate Starts for Hoonter\_77:  
(Start: 1 @47953 has 132 MA's), (2, 48004),

Gene: Hopecy\_74 Start: 47786, Stop: 47965, Start Num: 1  
Candidate Starts for Hopecy\_74:  
(Start: 1 @47786 has 132 MA's), (2, 47837),

Gene: HufflyPuff\_77 Start: 48619, Stop: 48792, Start Num: 1  
Candidate Starts for HufflyPuff\_77:  
(Start: 1 @48619 has 132 MA's), (2, 48670),

Gene: IHOP\_72 Start: 47718, Stop: 47891, Start Num: 1  
Candidate Starts for IHOP\_72:  
(Start: 1 @47718 has 132 MA's), (2, 47769),

Gene: Icee\_75 Start: 47617, Stop: 47790, Start Num: 1  
Candidate Starts for Icee\_75:  
(Start: 1 @47617 has 132 MA's), (2, 47668),

Gene: Inca\_71 Start: 46243, Stop: 46416, Start Num: 1  
Candidate Starts for Inca\_71:  
(Start: 1 @46243 has 132 MA's), (2, 46294),

Gene: JeTaime\_74 Start: 48435, Stop: 48608, Start Num: 1  
Candidate Starts for JeTaime\_74:  
(Start: 1 @48435 has 132 MA's), (2, 48486),

Gene: Kanye\_71 Start: 47299, Stop: 47472, Start Num: 1  
Candidate Starts for Kanye\_71:  
(Start: 1 @47299 has 132 MA's), (2, 47350),

Gene: Kimchi\_78 Start: 47956, Stop: 48129, Start Num: 1  
Candidate Starts for Kimchi\_78:  
(Start: 1 @47956 has 132 MA's), (2, 48007),

Gene: Kostya\_74 Start: 47817, Stop: 47990, Start Num: 1  
Candidate Starts for Kostya\_74:  
(Start: 1 @47817 has 132 MA's), (2, 47868),

Gene: Lilac\_76 Start: 47571, Stop: 47750, Start Num: 1  
Candidate Starts for Lilac\_76:  
(Start: 1 @47571 has 132 MA's), (2, 47622),

Gene: Lilizi\_75 Start: 47284, Stop: 47463, Start Num: 1  
Candidate Starts for Lilizi\_75:  
(Start: 1 @47284 has 132 MA's), (2, 47335),

Gene: Lilpickle\_73 Start: 47169, Stop: 47342, Start Num: 1  
Candidate Starts for Lilpickle\_73:  
(Start: 1 @47169 has 132 MA's), (2, 47220),

Gene: Livelyaughbron\_76 Start: 48747, Stop: 48926, Start Num: 1  
Candidate Starts for Livelyaughbron\_76:  
(Start: 1 @48747 has 132 MA's), (2, 48798),

Gene: MISSy\_75 Start: 47675, Stop: 47854, Start Num: 1  
Candidate Starts for MISSy\_75:  
(Start: 1 @47675 has 132 MA's), (2, 47726),

Gene: MPhalcon\_75 Start: 47668, Stop: 47847, Start Num: 1  
Candidate Starts for MPhalcon\_75:  
(Start: 1 @47668 has 132 MA's), (2, 47719),

Gene: MadamMonkfish\_74 Start: 46893, Stop: 47066, Start Num: 1  
Candidate Starts for MadamMonkfish\_74:  
(Start: 1 @46893 has 132 MA's), (2, 46944),

Gene: Manda\_75 Start: 48755, Stop: 48928, Start Num: 1  
Candidate Starts for Manda\_75:  
(Start: 1 @48755 has 132 MA's), (2, 48806),

Gene: Marshmallow\_72 Start: 48448, Stop: 48621, Start Num: 1  
Candidate Starts for Marshmallow\_72:  
(Start: 1 @48448 has 132 MA's), (2, 48499),

Gene: Maxxinista\_76 Start: 47544, Stop: 47723, Start Num: 1  
Candidate Starts for Maxxinista\_76:  
(Start: 1 @47544 has 132 MA's), (2, 47595),

Gene: Mindy\_73 Start: 46760, Stop: 46933, Start Num: 1  
Candidate Starts for Mindy\_73:  
(Start: 1 @46760 has 132 MA's), (2, 46811),

Gene: Miniwave\_69 Start: 47213, Stop: 47386, Start Num: 1  
Candidate Starts for Miniwave\_69:  
(Start: 1 @47213 has 132 MA's), (2, 47264),

Gene: Misfit\_75 Start: 48687, Stop: 48866, Start Num: 1  
Candidate Starts for Misfit\_75:  
(Start: 1 @48687 has 132 MA's), (2, 48738),

Gene: Moldemort\_77 Start: 47772, Stop: 47945, Start Num: 1  
Candidate Starts for Moldemort\_77:  
(Start: 1 @47772 has 132 MA's), (2, 47823),

Gene: MollyToe\_69 Start: 46514, Stop: 46687, Start Num: 1  
Candidate Starts for MollyToe\_69:  
(Start: 1 @46514 has 132 MA's), (2, 46565),

Gene: Mosby\_70 Start: 46970, Stop: 47149, Start Num: 1

Candidate Starts for Mosby\_70:  
(Start: 1 @46970 has 132 MA's), (2, 47021),

Gene: Murica\_77 Start: 48619, Stop: 48792, Start Num: 1  
Candidate Starts for Murica\_77:  
(Start: 1 @48619 has 132 MA's), (2, 48670),

Gene: Murphy\_74 Start: 48056, Stop: 48235, Start Num: 1  
Candidate Starts for Murphy\_74:  
(Start: 1 @48056 has 132 MA's), (2, 48107),

Gene: Myrale\_74 Start: 48313, Stop: 48486, Start Num: 1  
Candidate Starts for Myrale\_74:  
(Start: 1 @48313 has 132 MA's), (2, 48364),

Gene: Nala\_76 Start: 48177, Stop: 48350, Start Num: 1  
Candidate Starts for Nala\_76:  
(Start: 1 @48177 has 132 MA's), (2, 48228),

Gene: NelitzaMV\_72 Start: 47259, Stop: 47432, Start Num: 1  
Candidate Starts for NelitzaMV\_72:  
(Start: 1 @47259 has 132 MA's), (2, 47310),

Gene: Nimrod\_75 Start: 48880, Stop: 49053, Start Num: 1  
Candidate Starts for Nimrod\_75:  
(Start: 1 @48880 has 132 MA's), (2, 48931),

Gene: NoSleep\_75 Start: 47514, Stop: 47687, Start Num: 1  
Candidate Starts for NoSleep\_75:  
(Start: 1 @47514 has 132 MA's), (2, 47565),

Gene: NonchalantPear\_74 Start: 47367, Stop: 47540, Start Num: 1  
Candidate Starts for NonchalantPear\_74:  
(Start: 1 @47367 has 132 MA's), (2, 47418),

Gene: OrionPax\_73 Start: 47265, Stop: 47438, Start Num: 1  
Candidate Starts for OrionPax\_73:  
(Start: 1 @47265 has 132 MA's), (2, 47316),

Gene: PaddyBaddy\_74 Start: 47268, Stop: 47447, Start Num: 1  
Candidate Starts for PaddyBaddy\_74:  
(Start: 1 @47268 has 132 MA's), (2, 47319),

Gene: Palpatine\_76 Start: 48646, Stop: 48825, Start Num: 1  
Candidate Starts for Palpatine\_76:  
(Start: 1 @48646 has 132 MA's), (2, 48697),

Gene: Paperbeatsrock\_73 Start: 47891, Stop: 48064, Start Num: 1  
Candidate Starts for Paperbeatsrock\_73:  
(Start: 1 @47891 has 132 MA's), (2, 47942),

Gene: Pat3\_72 Start: 46423, Stop: 46596, Start Num: 1  
Candidate Starts for Pat3\_72:

(Start: 1 @46423 has 132 MA's), (2, 46474),

Gene: Petra64142\_78 Start: 49110, Stop: 49283, Start Num: 1

Candidate Starts for Petra64142\_78:

(Start: 1 @49110 has 132 MA's), (2, 49161),

Gene: Phaja\_72 Start: 47717, Stop: 47890, Start Num: 1

Candidate Starts for Phaja\_72:

(Start: 1 @47717 has 132 MA's), (2, 47768),

Gene: Pharsalus\_71 Start: 47691, Stop: 47864, Start Num: 1

Candidate Starts for Pharsalus\_71:

(Start: 1 @47691 has 132 MA's), (2, 47742),

Gene: PhatBacter\_78 Start: 48663, Stop: 48842, Start Num: 1

Candidate Starts for PhatBacter\_78:

(Start: 1 @48663 has 132 MA's), (2, 48714),

Gene: Phaux\_76 Start: 48658, Stop: 48837, Start Num: 1

Candidate Starts for Phaux\_76:

(Start: 1 @48658 has 132 MA's), (2, 48709),

Gene: Phrux\_71 Start: 47254, Stop: 47433, Start Num: 1

Candidate Starts for Phrux\_71:

(Start: 1 @47254 has 132 MA's), (2, 47305),

Gene: Policronamos\_77 Start: 48658, Stop: 48837, Start Num: 1

Candidate Starts for Policronamos\_77:

(Start: 1 @48658 has 132 MA's), (2, 48709),

Gene: Porky\_73 Start: 47084, Stop: 47257, Start Num: 1

Candidate Starts for Porky\_73:

(Start: 1 @47084 has 132 MA's), (2, 47135),

Gene: Ptowny\_71 Start: 46553, Stop: 46726, Start Num: 1

Candidate Starts for Ptowny\_71:

(Start: 1 @46553 has 132 MA's), (2, 46604),

Gene: Pumpkin\_77 Start: 48312, Stop: 48491, Start Num: 1

Candidate Starts for Pumpkin\_77:

(Start: 1 @48312 has 132 MA's), (2, 48363),

Gene: Quallification\_75 Start: 48299, Stop: 48472, Start Num: 1

Candidate Starts for Quallification\_75:

(Start: 1 @48299 has 132 MA's), (2, 48350),

Gene: Rakim\_75 Start: 47768, Stop: 47947, Start Num: 1

Candidate Starts for Rakim\_75:

(Start: 1 @47768 has 132 MA's), (2, 47819),

Gene: Rimmer\_75 Start: 48004, Stop: 48177, Start Num: 1

Candidate Starts for Rimmer\_75:

(Start: 1 @48004 has 132 MA's), (2, 48055),

Gene: RiverMonster\_74 Start: 47832, Stop: 48011, Start Num: 1  
Candidate Starts for RiverMonster\_74:  
(Start: 1 @47832 has 132 MA's), (2, 47883),

Gene: Saints25\_73 Start: 47242, Stop: 47415, Start Num: 1  
Candidate Starts for Saints25\_73:  
(Start: 1 @47242 has 132 MA's), (2, 47293),

Gene: Sassay\_69 Start: 45932, Stop: 46111, Start Num: 1  
Candidate Starts for Sassay\_69:  
(Start: 1 @45932 has 132 MA's), (2, 45983),

Gene: ShamWow\_74 Start: 48154, Stop: 48327, Start Num: 1  
Candidate Starts for ShamWow\_74:  
(Start: 1 @48154 has 132 MA's), (2, 48205),

Gene: ShereKhan\_73 Start: 48223, Stop: 48396, Start Num: 1  
Candidate Starts for ShereKhan\_73:  
(Start: 1 @48223 has 132 MA's), (2, 48274),

Gene: Simpliphy\_73 Start: 47232, Stop: 47405, Start Num: 1  
Candidate Starts for Simpliphy\_73:  
(Start: 1 @47232 has 132 MA's), (2, 47283),

Gene: SirDuracell\_73 Start: 46518, Stop: 46691, Start Num: 1  
Candidate Starts for SirDuracell\_73:  
(Start: 1 @46518 has 132 MA's), (2, 46569),

Gene: SophKB\_71 Start: 46910, Stop: 47083, Start Num: 1  
Candidate Starts for SophKB\_71:  
(Start: 1 @46910 has 132 MA's), (2, 46961),

Gene: Sotrice96\_75 Start: 47913, Stop: 48086, Start Num: 1  
Candidate Starts for Sotrice96\_75:  
(Start: 1 @47913 has 132 MA's), (2, 47964),

Gene: Stank\_77 Start: 48171, Stop: 48344, Start Num: 1  
Candidate Starts for Stank\_77:  
(Start: 1 @48171 has 132 MA's), (2, 48222),

Gene: Stark\_75 Start: 47715, Stop: 47894, Start Num: 1  
Candidate Starts for Stark\_75:  
(Start: 1 @47715 has 132 MA's), (2, 47766),

Gene: StellaBean\_72 Start: 47478, Stop: 47651, Start Num: 1  
Candidate Starts for StellaBean\_72:  
(Start: 1 @47478 has 132 MA's), (2, 47529),

Gene: StolenFromERC\_77 Start: 47953, Stop: 48126, Start Num: 1  
Candidate Starts for StolenFromERC\_77:  
(Start: 1 @47953 has 132 MA's), (2, 48004),

Gene: StormChicken\_76 Start: 48611, Stop: 48784, Start Num: 1  
Candidate Starts for StormChicken\_76:  
(Start: 1 @48611 has 132 MA's), (2, 48662),

Gene: TBrady12\_77 Start: 47652, Stop: 47825, Start Num: 1  
Candidate Starts for TBrady12\_77:  
(Start: 1 @47652 has 132 MA's), (2, 47703),

Gene: Tarkin\_73 Start: 47900, Stop: 48073, Start Num: 1  
Candidate Starts for Tarkin\_73:  
(Start: 1 @47900 has 132 MA's), (2, 47951),

Gene: TeamEdward\_76 Start: 48605, Stop: 48778, Start Num: 1  
Candidate Starts for TeamEdward\_76:  
(Start: 1 @48605 has 132 MA's), (2, 48656),

Gene: TeardropMSU\_70 Start: 46900, Stop: 47073, Start Num: 1  
Candidate Starts for TeardropMSU\_70:  
(Start: 1 @46900 has 132 MA's), (2, 46951),

Gene: Teaspoon\_75 Start: 47794, Stop: 47967, Start Num: 1  
Candidate Starts for Teaspoon\_75:  
(Start: 1 @47794 has 132 MA's), (2, 47845),

Gene: Terminus\_77 Start: 48687, Stop: 48866, Start Num: 1  
Candidate Starts for Terminus\_77:  
(Start: 1 @48687 has 132 MA's), (2, 48738),

Gene: Thimble\_75 Start: 47135, Stop: 47314, Start Num: 1  
Candidate Starts for Thimble\_75:  
(Start: 1 @47135 has 132 MA's), (2, 47186),

Gene: Thresher\_76 Start: 48774, Stop: 48953, Start Num: 1  
Candidate Starts for Thresher\_76:  
(Start: 1 @48774 has 132 MA's), (2, 48825),

Gene: Tomaszewski\_69 Start: 47063, Stop: 47236, Start Num: 1  
Candidate Starts for Tomaszewski\_69:  
(Start: 1 @47063 has 132 MA's), (2, 47114),

Gene: Toto\_72 Start: 48154, Stop: 48327, Start Num: 1  
Candidate Starts for Toto\_72:  
(Start: 1 @48154 has 132 MA's), (2, 48205),

Gene: Traaww1\_70 Start: 47338, Stop: 47511, Start Num: 1  
Candidate Starts for Traaww1\_70:  
(Start: 1 @47338 has 132 MA's), (2, 47389),

Gene: Tuco\_75 Start: 48662, Stop: 48835, Start Num: 1  
Candidate Starts for Tuco\_75:  
(Start: 1 @48662 has 132 MA's), (2, 48713),

Gene: Ukulele\_69 Start: 47045, Stop: 47218, Start Num: 1

Candidate Starts for Ukulele\_69:  
(Start: 1 @47045 has 132 MA's), (2, 47096),

Gene: Wiggin\_76 Start: 47739, Stop: 47912, Start Num: 1  
Candidate Starts for Wiggin\_76:  
(Start: 1 @47739 has 132 MA's), (2, 47790),

Gene: Willez\_69 Start: 45932, Stop: 46111, Start Num: 1  
Candidate Starts for Willez\_69:  
(Start: 1 @45932 has 132 MA's), (2, 45983),

Gene: Xandras\_73 Start: 47147, Stop: 47326, Start Num: 1  
Candidate Starts for Xandras\_73:  
(Start: 1 @47147 has 132 MA's), (2, 47198),

Gene: YassJohnny\_71 Start: 47102, Stop: 47275, Start Num: 1  
Candidate Starts for YassJohnny\_71:  
(Start: 1 @47102 has 132 MA's), (2, 47153),

Gene: Youngblood\_77 Start: 48614, Stop: 48793, Start Num: 1  
Candidate Starts for Youngblood\_77:  
(Start: 1 @48614 has 132 MA's), (2, 48665),

Gene: xkcd\_77 Start: 48804, Stop: 48977, Start Num: 1  
Candidate Starts for xkcd\_77:  
(Start: 1 @48804 has 132 MA's), (2, 48855),