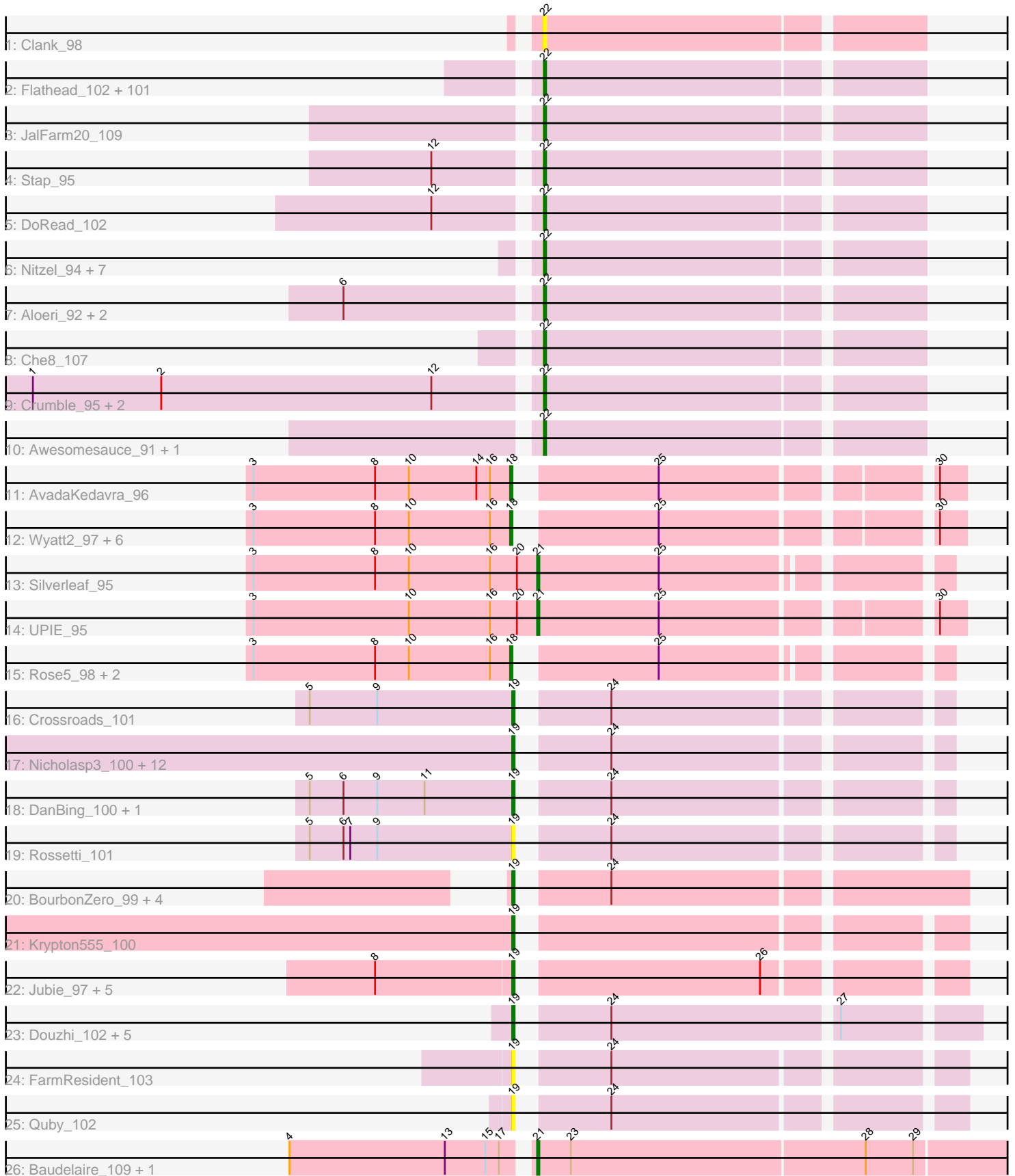


Pham 292547



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 292547 Report

This analysis was run 04/18/26 on database version 643.

Pham number 292547 has 175 members, 28 are drafts.

Phages represented in each track:

- Track 1 : Clank\_98
- Track 2 : Flathead\_102, Brocalys\_92, CaptainTrips\_102, Doomslug\_118, Guppsters\_95, Beanstalk\_96, AlpineSix\_98, Llama\_107, DotProduct\_94, KristaRAM\_108, DosHalletts\_97, Brushbloom\_100, Clifton\_92, Medindi\_105, Hamulus\_100, Eish\_105, MisterCuddles\_100, DLane\_100, Zerg\_98, IMpilo\_98, MilleniumForce\_100, Ochi17\_106, Bubbles123\_94, PhesterPhotato\_104, Seabastian\_107, MilanaBonita\_93, Phalconet\_101, DeadP\_100, IbOuu\_91, Jennelsea\_97, ShowerHandel\_101, Sarma624\_102, BobaPhett\_102, Ardmore\_84, Ms6\_102, Coco12\_101, Violac\_101, Mozy\_104, Rita\_100, Philus\_104, Seagreen\_101, Chuckly\_97, Aubs\_100, LastJedi\_91, Jinglebell\_107, LittleShirley\_108, Pippy\_98, Corium\_99, Cerasum\_99, Okabe\_92, VRedHorse\_101, Nichirin\_100, Girr\_99, Batiatus\_100, SG4\_101, Cabrinians\_97, Burwell21\_94, Lizziana\_101, OfUltron\_107, Mutaforma13\_101, Mova\_102, Kingsley\_109, Royals2015\_104, Hegedechwinu\_108, Oksu\_104, Slim\_103, Filuzino\_100, Karhdo\_95, XFactor\_91, Taj\_106, Tweety\_101, Firehouse51\_94, James\_104, Maravista\_97, Emmaloid\_103, SwagPiggett\_102, Priscilla\_101, NormanBulbieJr\_98, Velveteen\_97, BigPhil\_97, Blexus\_97, Martik\_99, Jant\_107, Wee\_103, Melissauren88\_90, Vivum\_100, Bipolar\_102, PatoPoderoso\_101, Phanphagia\_105, Tootsieroll\_94, Whatsapiecost\_94, Cornucopia\_100, Koella\_93, Kenuha5\_92, Fruitloop\_98, Emma\_105, Dante\_98, Brookers\_99, KingJulian\_108, Zizzle\_103, Akhila\_94, Shauna1\_102
- Track 3 : JalFarm20\_109
- Track 4 : Stap\_95
- Track 5 : DoRead\_102
- Track 6 : Nitzel\_94, Florinda\_112, StAnnes\_104, Girafales\_109, Mwanjiwa\_103, ShroomBoi\_98, Quico\_109, Job42\_101
- Track 7 : Aloeri\_92, ChickenDinner\_91, DocMcStuffins\_88
- Track 8 : Che8\_107
- Track 9 : Crumble\_95, OlympiaSaint\_104, Sabbb\_103
- Track 10 : Awesomesauce\_91, Beakin\_92
- Track 11 : AvadaKedavra\_96
- Track 12 : Wyatt2\_97, Tyson\_98, Halena\_94, MAckerman\_95, Acquire49\_96, Zaria\_97, Calm\_98
- Track 13 : Silverleaf\_95
- Track 14 : UPIE\_95
- Track 15 : Rose5\_98, JoeDirt\_98, Enceladus\_93
- Track 16 : Crossroads\_101

- Track 17 : Nicholasp3\_100, Underpass\_92, Bazzle\_97, Archie\_97, Finemlucis\_101, LilDestine\_98, Itos\_100, Kahlid\_99, Gabriela\_100, Zakai\_101, SoJulia\_102, Rumpelstiltskin\_96, BobsGarage\_99
- Track 18 : DanBing\_100, Baoshan\_101
- Track 19 : Rossetti\_101
- Track 20 : BourbonZero\_99, KirDoubleO7\_96, Ellson\_97, DuncansLeg\_99, LiyuLake\_97
- Track 21 : Krypton555\_100
- Track 22 : Jubie\_97, Finnry\_98, MsGreen\_98, Clautastrophe\_96, Bellis\_98, Samty\_97
- Track 23 : Douzhi\_102, Bromden\_102, BrainDrainer\_103, Sheng711\_103, PYPDinur\_102, Douge\_102
- Track 24 : FarmResident\_103
- Track 25 : Quby\_102
- Track 26 : Baudelaire\_109, Aegeus\_109

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

The start number called the most often in the published annotations is 22, it was called in 108 of the 147 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Akhila\_94, Aloeri\_92, AlpineSix\_98, Ardmore\_84, Aubs\_100, Awesomesauce\_91, Batiatus\_100, Beakin\_92, Beanstalk\_96, BigPhil\_97, Bipolar\_102, Blexus\_97, BobaPhett\_102, Brocalys\_92, Brookers\_99, Brushbloom\_100, Bubbles123\_94, Burwell21\_94, Cabrinians\_97, CaptainTrips\_102, Cerasum\_99, Che8\_107, ChickenDinner\_91, Chuckly\_97, Clank\_98, Clifton\_92, Coco12\_101, Corium\_99, Cornucopia\_100, Crumble\_95, DLane\_100, Dante\_98, DeadP\_100, DoRead\_102, DocMcStuffins\_88, Doomslug\_118, DosHalletts\_97, DotProduct\_94, Eish\_105, Emma\_105, Emmaloid\_103, Filuzino\_100, Firehouse51\_94, Flathead\_102, Florinda\_112, Fruitloop\_98, Girafales\_109, Girr\_99, Guppsters\_95, Hamulus\_100, Hegedechwinu\_108, IMPilo\_98, IbOuu\_91, JalFarm20\_109, James\_104, Jant\_107, Jennelsea\_97, Jinglebell\_107, Job42\_101, Karhdo\_95, Kenuha5\_92, KingJulian\_108, Kingsley\_109, Koella\_93, KristaRAM\_108, LastJedi\_91, LittleShirley\_108, Lizziana\_101, Llama\_107, Maravista\_97, Martik\_99, Medindi\_105, Melissauren88\_90, MilanaBonita\_93, MilleniumForce\_100, MisterCuddles\_100, Mova\_102, Mozy\_104, Ms6\_102, Mutaforma13\_101, Mwanjiwa\_103, Nichirin\_100, Nitzel\_94, NormanBulbieJr\_98, Ochi17\_106, OfUltron\_107, Okabe\_92, Oksu\_104, OlympiaSaint\_104, PatoPoderoso\_101, Phalconet\_101, Phanphagia\_105, PhesterPhotato\_104, Philus\_104, Pippy\_98, Priscilla\_101, Quico\_109, Rita\_100, Royals2015\_104, SG4\_101, Sabbb\_103, Sarma624\_102, Seabastian\_107, Seagreen\_101, Shauna1\_102, ShowerHandel\_101, ShroomBoi\_98, Slim\_103, StAnnes\_104, Stap\_95, SwagPiggett\_102, Taj\_106, Tootsieroll\_94, Tweety\_101, VRedHorse\_101, Velveteen\_97, Violac\_101, Vivum\_100, Wee\_103, Whatsapiecost\_94, XFactor\_91, Zerg\_98, Zizzle\_103,

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

- 

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

- Acquire49\_96, Aegeus\_109, Archie\_97, AvadaKedavra\_96, Baoshan\_101, Baudelaire\_109, Bazzle\_97, Bellis\_98, BobsGarage\_99, BourbonZero\_99, BrainDrainer\_103, Bromden\_102, Calm\_98, Clautastrophe\_96, Crossroads\_101, DanBing\_100, Douge\_102, Douzhi\_102, DuncansLeg\_99, Ellson\_97, Enceladus\_93, FarmResident\_103, Finemlucis\_101, Finnry\_98, Gabriela\_100, Halena\_94, Itos\_100, JoeDirt\_98, Jubie\_97, Kahlid\_99, KirDoubleO7\_96, Krypton555\_100, LilDestine\_98, LiyuLake\_97, MAckerman\_95, MsGreen\_98, Nicholasp3\_100, PYPDinur\_102, Quby\_102, Rose5\_98, Rossetti\_101, Rumpelstiltskin\_96, Samty\_97, Sheng711\_103, Silverleaf\_95, SoJulia\_102, Tyson\_98, UPIE\_95, Underpass\_92, Wyatt2\_97, Zakai\_101, Zaria\_97,

### Summary by start number:

#### Start 18:

- Found in 11 of 175 ( 6.3% ) of genes in pham
- Manual Annotations of this start: 11 of 147
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Acquire49\_96 (L1), AvadaKedavra\_96 (L1), Calm\_98 (L1), Enceladus\_93 (L1), Halena\_94 (L1), JoeDirt\_98 (L1), MAckerman\_95 (L1), Rose5\_98 (L1), Tyson\_98 (L1), Wyatt2\_97 (L1), Zaria\_97 (L1),

#### Start 19:

- Found in 37 of 175 ( 21.1% ) of genes in pham
- Manual Annotations of this start: 24 of 147
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Archie\_97 (L2), Baoshan\_101 (L2), Bazzle\_97 (L2), Bellis\_98 (L3), BobsGarage\_99 (L2), BourbonZero\_99 (L3), BrainDrainer\_103 (L4), Bromden\_102 (L4), Clautastrophe\_96 (L3), Crossroads\_101 (L2), DanBing\_100 (L2), Douge\_102 (L4), Douzhi\_102 (L4), DuncansLeg\_99 (L3), Ellson\_97 (L3), FarmResident\_103 (L4), Finemlucis\_101 (L2), Finnry\_98 (L3), Gabriela\_100 (L2), Itos\_100 (L2), Jubie\_97 (L3), Kahlid\_99 (L2), KirDoubleO7\_96 (L3), Krypton555\_100 (L3), LilDestine\_98 (L2), LiyuLake\_97 (L3), MsGreen\_98 (L3), Nicholasp3\_100 (L2), PYPDinur\_102 (L4), Quby\_102 (L4), Rossetti\_101 (L2), Rumpelstiltskin\_96 (L2), Samty\_97 (L3), Sheng711\_103 (L4), SoJulia\_102 (L2), Underpass\_92 (L2), Zakai\_101 (L2),

#### Start 21:

- Found in 4 of 175 ( 2.3% ) of genes in pham
- Manual Annotations of this start: 4 of 147
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Aegeus\_109 (L5), Baudelaire\_109 (L5), Silverleaf\_95 (L1), UPIE\_95 (L1),

#### Start 22:

- Found in 123 of 175 ( 70.3% ) of genes in pham
- Manual Annotations of this start: 108 of 147
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Akhila\_94 (F1), Aloeri\_92 (F1), AlpineSix\_98 (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), BobaPhett\_102 (F1), Brocalys\_92 (F1), Brookers\_99 (F1), Brushbloom\_100 (F1), Bubbles123\_94 (F1), Burwell21\_94 (F1), Cabrinians\_97 (F1), CaptainTrips\_102 (F1), Cerasum\_99 (F1), Che8\_107 (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), Dante\_98 (F1), DeadP\_100 (F1), DoRead\_102 (F1), DocMcStuffins\_88 (F1), Doomslug\_118 (F), DosHalletts\_97 (F1), DotProduct\_94 (F1), Eish\_105 (F1), Emma\_105 (F1), Emmaloid\_103 (F1), Filuzino\_100 (F1), Firehouse51\_94 (F1), Flathead\_102 (F1), Florinda\_112 (F1), Fruitloop\_98 (F1), Girafales\_109 (F1), Girr\_99 (F1), Guppsters\_95 (F1), Hamulus\_100 (F1), Hegedechwinu\_108 (F1), IMpilo\_98 (F1), IbOuu\_91 (F1), JalFarm20\_109 (F1), James\_104 (F1), Jant\_107 (F1), Jennelsea\_97 (F1), Jinglebell\_107 (F1), Job42\_101 (F1), Karhdo\_95 (F1), Kenuha5\_92 (F1), KingJulian\_108 (F1), Kingsley\_109 (F1), Koella\_93 (F1), KristaRAM\_108 (F1), LastJedi\_91 (F1), LittleShirley\_108 (F1), Lizziana\_101 (F1), Llama\_107 (F1), Maravista\_97 (F1), Martik\_99 (F1), Medindi\_105 (F1), Melissauren88\_90 (F1), MilanaBonita\_93 (F1), MilleniumForce\_100 (F1), MisterCuddles\_100 (F1), Mova\_102 (F1), Mozy\_104 (F1), Ms6\_102 (F1), Mutaforma13\_101 (F1), Mwanjiwa\_103 (F1), Nichirin\_100 (F1), Nitzel\_94 (F1), NormanBulbieJr\_98 (F1), Ochi17\_106 (F1), OfUltron\_107 (F1), Okabe\_92 (F8), Oksu\_104 (F1), OlympiaSaint\_104 (F1), PatoPoderoso\_101 (F1), Phalconet\_101 (F1), Phanphagia\_105 (F1), PhesterPhotato\_104 (F1), Philus\_104 (F1), Pippy\_98 (F1), Priscilla\_101 (F1), Quico\_109 (F1), Rita\_100 (F1), Royals2015\_104 (F1), SG4\_101 (F1), Sabbb\_103 (F1), Sarma624\_102 (F1), Seabastian\_107 (F1), Seagreen\_101 (F1), Shauna1\_102 (F1), ShowerHandel\_101 (F1), ShroomBoi\_98 (F1), Slim\_103 (F1), StAnnes\_104 (F1), Stap\_95 (F1), SwagPigglett\_102 (F1), Taj\_106 (F1), Tootsieroll\_94 (F1), Tweety\_101 (F1), VRedHorse\_101 (F1), Velveteen\_97 (F1), Violac\_101 (F1), Vivum\_100 (F1), Wee\_103 (F1), Whatsapiecost\_94 (F1), XFactor\_91 (F1), Zerg\_98 (F1), Zizzle\_103 (F1),

### **Summary by clusters:**

There are 8 clusters represented in this pham: F1, F, F8, L4, L5, L2, L3, L1,

Info for manual annotations of cluster F1:

- Start number 22 was manually annotated 108 times for cluster F1.

Info for manual annotations of cluster L1:

- Start number 18 was manually annotated 11 times for cluster L1.
- Start number 21 was manually annotated 2 times for cluster L1.

Info for manual annotations of cluster L2:

- Start number 19 was manually annotated 14 times for cluster L2.

Info for manual annotations of cluster L3:

- Start number 19 was manually annotated 8 times for cluster L3.

Info for manual annotations of cluster L4:

- Start number 19 was manually annotated 2 times for cluster L4.

Info for manual annotations of cluster L5:

- Start number 21 was manually annotated 2 times for cluster L5.

**Gene Information:**

Gene: Acquire49\_96 Start: 59453, Stop: 59626, Start Num: 18

Candidate Starts for Acquire49\_96:

(3, 59339), (8, 59393), (10, 59408), (16, 59444), (Start: 18 @59453 has 11 MA's), (25, 59507), (30, 59615),

Gene: Aegeus\_109 Start: 63189, Stop: 63410, Start Num: 21

Candidate Starts for Aegeus\_109:

(4, 63087), (13, 63156), (15, 63174), (17, 63180), (Start: 21 @63189 has 4 MA's), (23, 63204), (28, 63333), (29, 63354),

Gene: Akhila\_94 Start: 52864, Stop: 53025, Start Num: 22

Candidate Starts for Akhila\_94:

(Start: 22 @52864 has 108 MA's),

Gene: Aloeri\_92 Start: 54002, Stop: 54163, Start Num: 22

Candidate Starts for Aloeri\_92:

(6, 53921), (Start: 22 @54002 has 108 MA's),

Gene: AlpineSix\_98 Start: 53582, Stop: 53743, Start Num: 22

Candidate Starts for AlpineSix\_98:

(Start: 22 @53582 has 108 MA's),

Gene: Archie\_97 Start: 61162, Stop: 61338, Start Num: 19

Candidate Starts for Archie\_97:

(Start: 19 @61162 has 24 MA's), (24, 61195),

Gene: Ardmore\_84 Start: 48753, Stop: 48914, Start Num: 22

Candidate Starts for Ardmore\_84:

(Start: 22 @48753 has 108 MA's),

Gene: Aubs\_100 Start: 55755, Stop: 55916, Start Num: 22

Candidate Starts for Aubs\_100:

(Start: 22 @55755 has 108 MA's),

Gene: AvadaKedavra\_96 Start: 59565, Stop: 59738, Start Num: 18

Candidate Starts for AvadaKedavra\_96:

(3, 59451), (8, 59505), (10, 59520), (14, 59550), (16, 59556), (Start: 18 @59565 has 11 MA's), (25, 59619), (30, 59727),

Gene: Awesomesauce\_91 Start: 54238, Stop: 54399, Start Num: 22

Candidate Starts for Awesomesauce\_91:

(Start: 22 @54238 has 108 MA's),

Gene: Baoshan\_101 Start: 61947, Stop: 62117, Start Num: 19

Candidate Starts for Baoshan\_101:

(5, 61857), (6, 61872), (9, 61887), (11, 61908), (Start: 19 @61947 has 24 MA's), (24, 61980),

Gene: Batiatus\_100 Start: 54303, Stop: 54464, Start Num: 22

Candidate Starts for Batiatus\_100:

(Start: 22 @54303 has 108 MA's),

Gene: Baudelaire\_109 Start: 63189, Stop: 63410, Start Num: 21  
Candidate Starts for Baudelaire\_109:  
(4, 63087), (13, 63156), (15, 63174), (17, 63180), (Start: 21 @63189 has 4 MA's), (23, 63204), (28, 63333), (29, 63354),

Gene: Bazzle\_97 Start: 61718, Stop: 61894, Start Num: 19  
Candidate Starts for Bazzle\_97:  
(Start: 19 @61718 has 24 MA's), (24, 61751),

Gene: Beakin\_92 Start: 51276, Stop: 51437, Start Num: 22  
Candidate Starts for Beakin\_92:  
(Start: 22 @51276 has 108 MA's),

Gene: Beanstalk\_96 Start: 53453, Stop: 53614, Start Num: 22  
Candidate Starts for Beanstalk\_96:  
(Start: 22 @53453 has 108 MA's),

Gene: Bellis\_98 Start: 61495, Stop: 61671, Start Num: 19  
Candidate Starts for Bellis\_98:  
(8, 61435), (Start: 19 @61495 has 24 MA's), (26, 61594),

Gene: BigPhil\_97 Start: 51095, Stop: 51256, Start Num: 22  
Candidate Starts for BigPhil\_97:  
(Start: 22 @51095 has 108 MA's),

Gene: Bipolar\_102 Start: 56072, Stop: 56233, Start Num: 22  
Candidate Starts for Bipolar\_102:  
(Start: 22 @56072 has 108 MA's),

Gene: Blexus\_97 Start: 54682, Stop: 54843, Start Num: 22  
Candidate Starts for Blexus\_97:  
(Start: 22 @54682 has 108 MA's),

Gene: BobaPhett\_102 Start: 56361, Stop: 56522, Start Num: 22  
Candidate Starts for BobaPhett\_102:  
(Start: 22 @56361 has 108 MA's),

Gene: BobsGarage\_99 Start: 61936, Stop: 62106, Start Num: 19  
Candidate Starts for BobsGarage\_99:  
(Start: 19 @61936 has 24 MA's), (24, 61969),

Gene: BourbonZero\_99 Start: 61668, Stop: 61850, Start Num: 19  
Candidate Starts for BourbonZero\_99:  
(Start: 19 @61668 has 24 MA's), (24, 61701),

Gene: BrainDrainer\_103 Start: 61982, Stop: 62167, Start Num: 19  
Candidate Starts for BrainDrainer\_103:  
(Start: 19 @61982 has 24 MA's), (24, 62015), (27, 62111),

Gene: Brocalys\_92 Start: 51840, Stop: 52001, Start Num: 22  
Candidate Starts for Brocalys\_92:  
(Start: 22 @51840 has 108 MA's),

Gene: Bromden\_102 Start: 62718, Stop: 62903, Start Num: 19  
Candidate Starts for Bromden\_102:  
(Start: 19 @62718 has 24 MA's), (24, 62751), (27, 62847),

Gene: Brookers\_99 Start: 54046, Stop: 54207, Start Num: 22  
Candidate Starts for Brookers\_99:  
(Start: 22 @54046 has 108 MA's),

Gene: Brushbloom\_100 Start: 55347, Stop: 55508, Start Num: 22  
Candidate Starts for Brushbloom\_100:  
(Start: 22 @55347 has 108 MA's),

Gene: Bubbles123\_94 Start: 54115, Stop: 54276, Start Num: 22  
Candidate Starts for Bubbles123\_94:  
(Start: 22 @54115 has 108 MA's),

Gene: Burwell21\_94 Start: 54126, Stop: 54287, Start Num: 22  
Candidate Starts for Burwell21\_94:  
(Start: 22 @54126 has 108 MA's),

Gene: Cabrinians\_97 Start: 53761, Stop: 53922, Start Num: 22  
Candidate Starts for Cabrinians\_97:  
(Start: 22 @53761 has 108 MA's),

Gene: Calm\_98 Start: 59832, Stop: 60005, Start Num: 18  
Candidate Starts for Calm\_98:  
(3, 59718), (8, 59772), (10, 59787), (16, 59823), (Start: 18 @59832 has 11 MA's), (25, 59886), (30, 59994),

Gene: CaptainTrips\_102 Start: 53941, Stop: 54102, Start Num: 22  
Candidate Starts for CaptainTrips\_102:  
(Start: 22 @53941 has 108 MA's),

Gene: Cerasum\_99 Start: 51113, Stop: 51274, Start Num: 22  
Candidate Starts for Cerasum\_99:  
(Start: 22 @51113 has 108 MA's),

Gene: Che8\_107 Start: 55993, Stop: 56154, Start Num: 22  
Candidate Starts for Che8\_107:  
(Start: 22 @55993 has 108 MA's),

Gene: ChickenDinner\_91 Start: 54002, Stop: 54163, Start Num: 22  
Candidate Starts for ChickenDinner\_91:  
(6, 53921), (Start: 22 @54002 has 108 MA's),

Gene: Chuckly\_97 Start: 50983, Stop: 51144, Start Num: 22  
Candidate Starts for Chuckly\_97:  
(Start: 22 @50983 has 108 MA's),

Gene: Clank\_98 Start: 52021, Stop: 52182, Start Num: 22  
Candidate Starts for Clank\_98:  
(Start: 22 @52021 has 108 MA's),

Gene: Clautastrophe\_96 Start: 61490, Stop: 61666, Start Num: 19  
Candidate Starts for Clautastrophe\_96:  
(8, 61430), (Start: 19 @61490 has 24 MA's), (26, 61589),

Gene: Clifton\_92 Start: 52815, Stop: 52976, Start Num: 22  
Candidate Starts for Clifton\_92:  
(Start: 22 @52815 has 108 MA's),

Gene: Coco12\_101 Start: 55170, Stop: 55331, Start Num: 22  
Candidate Starts for Coco12\_101:  
(Start: 22 @55170 has 108 MA's),

Gene: Corium\_99 Start: 55970, Stop: 56131, Start Num: 22  
Candidate Starts for Corium\_99:  
(Start: 22 @55970 has 108 MA's),

Gene: Cornucopia\_100 Start: 52241, Stop: 52402, Start Num: 22  
Candidate Starts for Cornucopia\_100:  
(Start: 22 @52241 has 108 MA's),

Gene: Crossroads\_101 Start: 61823, Stop: 61993, Start Num: 19  
Candidate Starts for Crossroads\_101:  
(5, 61733), (9, 61763), (Start: 19 @61823 has 24 MA's), (24, 61856),

Gene: Crumble\_95 Start: 50509, Stop: 50670, Start Num: 22  
Candidate Starts for Crumble\_95:  
(1, 50290), (2, 50347), (12, 50467), (Start: 22 @50509 has 108 MA's),

Gene: DLane\_100 Start: 55223, Stop: 55384, Start Num: 22  
Candidate Starts for DLane\_100:  
(Start: 22 @55223 has 108 MA's),

Gene: DanBing\_100 Start: 61639, Stop: 61809, Start Num: 19  
Candidate Starts for DanBing\_100:  
(5, 61549), (6, 61564), (9, 61579), (11, 61600), (Start: 19 @61639 has 24 MA's), (24, 61672),

Gene: Dante\_98 Start: 55573, Stop: 55734, Start Num: 22  
Candidate Starts for Dante\_98:  
(Start: 22 @55573 has 108 MA's),

Gene: DeadP\_100 Start: 52801, Stop: 52962, Start Num: 22  
Candidate Starts for DeadP\_100:  
(Start: 22 @52801 has 108 MA's),

Gene: DoRead\_102 Start: 52714, Stop: 52875, Start Num: 22  
Candidate Starts for DoRead\_102:  
(12, 52672), (Start: 22 @52714 has 108 MA's),

Gene: DocMcStuffins\_88 Start: 55632, Stop: 55793, Start Num: 22  
Candidate Starts for DocMcStuffins\_88:  
(6, 55551), (Start: 22 @55632 has 108 MA's),

Gene: Doomslug\_118 Start: 57272, Stop: 57433, Start Num: 22

Candidate Starts for Doomslug\_118:  
(Start: 22 @57272 has 108 MA's),

Gene: DosHalletts\_97 Start: 54563, Stop: 54724, Start Num: 22  
Candidate Starts for DosHalletts\_97:  
(Start: 22 @54563 has 108 MA's),

Gene: DotProduct\_94 Start: 51930, Stop: 52091, Start Num: 22  
Candidate Starts for DotProduct\_94:  
(Start: 22 @51930 has 108 MA's),

Gene: Douge\_102 Start: 61402, Stop: 61587, Start Num: 19  
Candidate Starts for Douge\_102:  
(Start: 19 @61402 has 24 MA's), (24, 61435), (27, 61531),

Gene: Douzhi\_102 Start: 61671, Stop: 61856, Start Num: 19  
Candidate Starts for Douzhi\_102:  
(Start: 19 @61671 has 24 MA's), (24, 61704), (27, 61800),

Gene: DuncansLeg\_99 Start: 61656, Stop: 61838, Start Num: 19  
Candidate Starts for DuncansLeg\_99:  
(Start: 19 @61656 has 24 MA's), (24, 61689),

Gene: Eish\_105 Start: 55239, Stop: 55400, Start Num: 22  
Candidate Starts for Eish\_105:  
(Start: 22 @55239 has 108 MA's),

Gene: Ellson\_97 Start: 61971, Stop: 62153, Start Num: 19  
Candidate Starts for Ellson\_97:  
(Start: 19 @61971 has 24 MA's), (24, 62004),

Gene: Emma\_105 Start: 53507, Stop: 53668, Start Num: 22  
Candidate Starts for Emma\_105:  
(Start: 22 @53507 has 108 MA's),

Gene: Emmaloid\_103 Start: 54427, Stop: 54588, Start Num: 22  
Candidate Starts for Emmaloid\_103:  
(Start: 22 @54427 has 108 MA's),

Gene: Enceladus\_93 Start: 59494, Stop: 59661, Start Num: 18  
Candidate Starts for Enceladus\_93:  
(3, 59380), (8, 59434), (10, 59449), (16, 59485), (Start: 18 @59494 has 11 MA's), (25, 59548),

Gene: FarmResident\_103 Start: 61588, Stop: 61764, Start Num: 19  
Candidate Starts for FarmResident\_103:  
(Start: 19 @61588 has 24 MA's), (24, 61621),

Gene: Filuzino\_100 Start: 55918, Stop: 56079, Start Num: 22  
Candidate Starts for Filuzino\_100:  
(Start: 22 @55918 has 108 MA's),

Gene: Finemlucis\_101 Start: 62639, Stop: 62809, Start Num: 19  
Candidate Starts for Finemlucis\_101:

(Start: 19 @62639 has 24 MA's), (24, 62672),

Gene: Finnry\_98 Start: 61843, Stop: 62019, Start Num: 19

Candidate Starts for Finnry\_98:

(8, 61783), (Start: 19 @61843 has 24 MA's), (26, 61942),

Gene: Firehouse51\_94 Start: 54735, Stop: 54896, Start Num: 22

Candidate Starts for Firehouse51\_94:

(Start: 22 @54735 has 108 MA's),

Gene: Flathead\_102 Start: 54239, Stop: 54400, Start Num: 22

Candidate Starts for Flathead\_102:

(Start: 22 @54239 has 108 MA's),

Gene: Florinda\_112 Start: 56324, Stop: 56485, Start Num: 22

Candidate Starts for Florinda\_112:

(Start: 22 @56324 has 108 MA's),

Gene: Fruitloop\_98 Start: 55083, Stop: 55244, Start Num: 22

Candidate Starts for Fruitloop\_98:

(Start: 22 @55083 has 108 MA's),

Gene: Gabriela\_100 Start: 60925, Stop: 61095, Start Num: 19

Candidate Starts for Gabriela\_100:

(Start: 19 @60925 has 24 MA's), (24, 60958),

Gene: Girafales\_109 Start: 55929, Stop: 56090, Start Num: 22

Candidate Starts for Girafales\_109:

(Start: 22 @55929 has 108 MA's),

Gene: Girr\_99 Start: 54813, Stop: 54974, Start Num: 22

Candidate Starts for Girr\_99:

(Start: 22 @54813 has 108 MA's),

Gene: Guppsters\_95 Start: 51924, Stop: 52085, Start Num: 22

Candidate Starts for Guppsters\_95:

(Start: 22 @51924 has 108 MA's),

Gene: Halena\_94 Start: 58748, Stop: 58921, Start Num: 18

Candidate Starts for Halena\_94:

(3, 58634), (8, 58688), (10, 58703), (16, 58739), (Start: 18 @58748 has 11 MA's), (25, 58802), (30, 58910),

Gene: Hamulus\_100 Start: 53768, Stop: 53929, Start Num: 22

Candidate Starts for Hamulus\_100:

(Start: 22 @53768 has 108 MA's),

Gene: Hegedechwinu\_108 Start: 54304, Stop: 54465, Start Num: 22

Candidate Starts for Hegedechwinu\_108:

(Start: 22 @54304 has 108 MA's),

Gene: IMpilo\_98 Start: 52546, Stop: 52707, Start Num: 22

Candidate Starts for IMpilo\_98:

(Start: 22 @52546 has 108 MA's),

Gene: lbOuu\_91 Start: 51910, Stop: 52071, Start Num: 22

Candidate Starts for lbOuu\_91:

(Start: 22 @51910 has 108 MA's),

Gene: Itos\_100 Start: 60485, Stop: 60655, Start Num: 19

Candidate Starts for Itos\_100:

(Start: 19 @60485 has 24 MA's), (24, 60518),

Gene: JalFarm20\_109 Start: 56245, Stop: 56406, Start Num: 22

Candidate Starts for JalFarm20\_109:

(Start: 22 @56245 has 108 MA's),

Gene: James\_104 Start: 56416, Stop: 56577, Start Num: 22

Candidate Starts for James\_104:

(Start: 22 @56416 has 108 MA's),

Gene: Jant\_107 Start: 53731, Stop: 53892, Start Num: 22

Candidate Starts for Jant\_107:

(Start: 22 @53731 has 108 MA's),

Gene: Jennelsea\_97 Start: 53316, Stop: 53477, Start Num: 22

Candidate Starts for Jennelsea\_97:

(Start: 22 @53316 has 108 MA's),

Gene: Jinglebell\_107 Start: 55692, Stop: 55853, Start Num: 22

Candidate Starts for Jinglebell\_107:

(Start: 22 @55692 has 108 MA's),

Gene: Job42\_101 Start: 56590, Stop: 56751, Start Num: 22

Candidate Starts for Job42\_101:

(Start: 22 @56590 has 108 MA's),

Gene: JoeDirt\_98 Start: 60423, Stop: 60590, Start Num: 18

Candidate Starts for JoeDirt\_98:

(3, 60309), (8, 60363), (10, 60378), (16, 60414), (Start: 18 @60423 has 11 MA's), (25, 60477),

Gene: Jubie\_97 Start: 61625, Stop: 61801, Start Num: 19

Candidate Starts for Jubie\_97:

(8, 61565), (Start: 19 @61625 has 24 MA's), (26, 61724),

Gene: Kahlid\_99 Start: 61290, Stop: 61460, Start Num: 19

Candidate Starts for Kahlid\_99:

(Start: 19 @61290 has 24 MA's), (24, 61323),

Gene: Karhdo\_95 Start: 52179, Stop: 52340, Start Num: 22

Candidate Starts for Karhdo\_95:

(Start: 22 @52179 has 108 MA's),

Gene: Kenuha5\_92 Start: 53592, Stop: 53753, Start Num: 22

Candidate Starts for Kenuha5\_92:

(Start: 22 @53592 has 108 MA's),

Gene: KingJulian\_108 Start: 56834, Stop: 56995, Start Num: 22  
Candidate Starts for KingJulian\_108:  
(Start: 22 @56834 has 108 MA's),

Gene: Kingsley\_109 Start: 57777, Stop: 57938, Start Num: 22  
Candidate Starts for Kingsley\_109:  
(Start: 22 @57777 has 108 MA's),

Gene: KirDoubleO7\_96 Start: 61658, Stop: 61840, Start Num: 19  
Candidate Starts for KirDoubleO7\_96:  
(Start: 19 @61658 has 24 MA's), (24, 61691),

Gene: Koella\_93 Start: 51178, Stop: 51339, Start Num: 22  
Candidate Starts for Koella\_93:  
(Start: 22 @51178 has 108 MA's),

Gene: KristaRAM\_108 Start: 55500, Stop: 55661, Start Num: 22  
Candidate Starts for KristaRAM\_108:  
(Start: 22 @55500 has 108 MA's),

Gene: Krypton555\_100 Start: 61911, Stop: 62087, Start Num: 19  
Candidate Starts for Krypton555\_100:  
(Start: 19 @61911 has 24 MA's),

Gene: LastJedi\_91 Start: 52235, Stop: 52396, Start Num: 22  
Candidate Starts for LastJedi\_91:  
(Start: 22 @52235 has 108 MA's),

Gene: LilDestine\_98 Start: 61249, Stop: 61419, Start Num: 19  
Candidate Starts for LilDestine\_98:  
(Start: 19 @61249 has 24 MA's), (24, 61282),

Gene: LittleShirley\_108 Start: 55612, Stop: 55773, Start Num: 22  
Candidate Starts for LittleShirley\_108:  
(Start: 22 @55612 has 108 MA's),

Gene: LiyuLake\_97 Start: 61731, Stop: 61913, Start Num: 19  
Candidate Starts for LiyuLake\_97:  
(Start: 19 @61731 has 24 MA's), (24, 61764),

Gene: Lizziana\_101 Start: 55483, Stop: 55644, Start Num: 22  
Candidate Starts for Lizziana\_101:  
(Start: 22 @55483 has 108 MA's),

Gene: Llama\_107 Start: 55335, Stop: 55496, Start Num: 22  
Candidate Starts for Llama\_107:  
(Start: 22 @55335 has 108 MA's),

Gene: MAckerman\_95 Start: 58741, Stop: 58914, Start Num: 18  
Candidate Starts for MAckerman\_95:  
(3, 58627), (8, 58681), (10, 58696), (16, 58732), (Start: 18 @58741 has 11 MA's), (25, 58795), (30, 58903),

Gene: Maravista\_97 Start: 56143, Stop: 56304, Start Num: 22  
Candidate Starts for Maravista\_97:  
(Start: 22 @56143 has 108 MA's),

Gene: Martik\_99 Start: 55946, Stop: 56107, Start Num: 22  
Candidate Starts for Martik\_99:  
(Start: 22 @55946 has 108 MA's),

Gene: Medindi\_105 Start: 55294, Stop: 55455, Start Num: 22  
Candidate Starts for Medindi\_105:  
(Start: 22 @55294 has 108 MA's),

Gene: Melissauren88\_90 Start: 50968, Stop: 51129, Start Num: 22  
Candidate Starts for Melissauren88\_90:  
(Start: 22 @50968 has 108 MA's),

Gene: MilanaBonita\_93 Start: 52864, Stop: 53025, Start Num: 22  
Candidate Starts for MilanaBonita\_93:  
(Start: 22 @52864 has 108 MA's),

Gene: MilleniumForce\_100 Start: 54671, Stop: 54832, Start Num: 22  
Candidate Starts for MilleniumForce\_100:  
(Start: 22 @54671 has 108 MA's),

Gene: MisterCuddles\_100 Start: 54813, Stop: 54974, Start Num: 22  
Candidate Starts for MisterCuddles\_100:  
(Start: 22 @54813 has 108 MA's),

Gene: Mova\_102 Start: 54601, Stop: 54762, Start Num: 22  
Candidate Starts for Mova\_102:  
(Start: 22 @54601 has 108 MA's),

Gene: Mozy\_104 Start: 54236, Stop: 54397, Start Num: 22  
Candidate Starts for Mozy\_104:  
(Start: 22 @54236 has 108 MA's),

Gene: Ms6\_102 Start: 50859, Stop: 51020, Start Num: 22  
Candidate Starts for Ms6\_102:  
(Start: 22 @50859 has 108 MA's),

Gene: MsGreen\_98 Start: 61489, Stop: 61665, Start Num: 19  
Candidate Starts for MsGreen\_98:  
(8, 61429), (Start: 19 @61489 has 24 MA's), (26, 61588),

Gene: Mutaforma13\_101 Start: 54270, Stop: 54431, Start Num: 22  
Candidate Starts for Mutaforma13\_101:  
(Start: 22 @54270 has 108 MA's),

Gene: Mwanjiwa\_103 Start: 55673, Stop: 55834, Start Num: 22  
Candidate Starts for Mwanjiwa\_103:  
(Start: 22 @55673 has 108 MA's),

Gene: Nichirin\_100 Start: 55178, Stop: 55339, Start Num: 22  
Candidate Starts for Nichirin\_100:  
(Start: 22 @55178 has 108 MA's),

Gene: Nicholasp3\_100 Start: 61372, Stop: 61542, Start Num: 19  
Candidate Starts for Nicholasp3\_100:  
(Start: 19 @61372 has 24 MA's), (24, 61405),

Gene: Nitzel\_94 Start: 51429, Stop: 51590, Start Num: 22  
Candidate Starts for Nitzel\_94:  
(Start: 22 @51429 has 108 MA's),

Gene: NormanBulbieJr\_98 Start: 55192, Stop: 55353, Start Num: 22  
Candidate Starts for NormanBulbieJr\_98:  
(Start: 22 @55192 has 108 MA's),

Gene: Ochi17\_106 Start: 54930, Stop: 55091, Start Num: 22  
Candidate Starts for Ochi17\_106:  
(Start: 22 @54930 has 108 MA's),

Gene: OfUltron\_107 Start: 55479, Stop: 55640, Start Num: 22  
Candidate Starts for OfUltron\_107:  
(Start: 22 @55479 has 108 MA's),

Gene: Okabe\_92 Start: 50646, Stop: 50807, Start Num: 22  
Candidate Starts for Okabe\_92:  
(Start: 22 @50646 has 108 MA's),

Gene: Oksu\_104 Start: 56569, Stop: 56730, Start Num: 22  
Candidate Starts for Oksu\_104:  
(Start: 22 @56569 has 108 MA's),

Gene: OlympiaSaint\_104 Start: 55382, Stop: 55543, Start Num: 22  
Candidate Starts for OlympiaSaint\_104:  
(1, 55163), (2, 55220), (12, 55340), (Start: 22 @55382 has 108 MA's),

Gene: PYPDinur\_102 Start: 62234, Stop: 62419, Start Num: 19  
Candidate Starts for PYPDinur\_102:  
(Start: 19 @62234 has 24 MA's), (24, 62267), (27, 62363),

Gene: PatoPoderoso\_101 Start: 56834, Stop: 56995, Start Num: 22  
Candidate Starts for PatoPoderoso\_101:  
(Start: 22 @56834 has 108 MA's),

Gene: Phalconet\_101 Start: 54261, Stop: 54422, Start Num: 22  
Candidate Starts for Phalconet\_101:  
(Start: 22 @54261 has 108 MA's),

Gene: Phanphagia\_105 Start: 56016, Stop: 56177, Start Num: 22  
Candidate Starts for Phanphagia\_105:  
(Start: 22 @56016 has 108 MA's),

Gene: PhesterPhotato\_104 Start: 54235, Stop: 54396, Start Num: 22

Candidate Starts for PhesterPhotato\_104:  
(Start: 22 @54235 has 108 MA's),

Gene: Philus\_104 Start: 56323, Stop: 56484, Start Num: 22  
Candidate Starts for Philus\_104:  
(Start: 22 @56323 has 108 MA's),

Gene: Pippy\_98 Start: 53463, Stop: 53624, Start Num: 22  
Candidate Starts for Pippy\_98:  
(Start: 22 @53463 has 108 MA's),

Gene: Priscilla\_101 Start: 55290, Stop: 55451, Start Num: 22  
Candidate Starts for Priscilla\_101:  
(Start: 22 @55290 has 108 MA's),

Gene: Quby\_102 Start: 61563, Stop: 61739, Start Num: 19  
Candidate Starts for Quby\_102:  
(Start: 19 @61563 has 24 MA's), (24, 61596),

Gene: Quico\_109 Start: 56144, Stop: 56305, Start Num: 22  
Candidate Starts for Quico\_109:  
(Start: 22 @56144 has 108 MA's),

Gene: Rita\_100 Start: 55860, Stop: 56021, Start Num: 22  
Candidate Starts for Rita\_100:  
(Start: 22 @55860 has 108 MA's),

Gene: Rose5\_98 Start: 60265, Stop: 60432, Start Num: 18  
Candidate Starts for Rose5\_98:  
(3, 60151), (8, 60205), (10, 60220), (16, 60256), (Start: 18 @60265 has 11 MA's), (25, 60319),

Gene: Rossetti\_101 Start: 61909, Stop: 62079, Start Num: 19  
Candidate Starts for Rossetti\_101:  
(5, 61819), (6, 61834), (7, 61837), (9, 61849), (Start: 19 @61909 has 24 MA's), (24, 61942),

Gene: Royals2015\_104 Start: 53395, Stop: 53556, Start Num: 22  
Candidate Starts for Royals2015\_104:  
(Start: 22 @53395 has 108 MA's),

Gene: Rumpelstiltskin\_96 Start: 61165, Stop: 61335, Start Num: 19  
Candidate Starts for Rumpelstiltskin\_96:  
(Start: 19 @61165 has 24 MA's), (24, 61198),

Gene: SG4\_101 Start: 55629, Stop: 55790, Start Num: 22  
Candidate Starts for SG4\_101:  
(Start: 22 @55629 has 108 MA's),

Gene: Sabbb\_103 Start: 52820, Stop: 52981, Start Num: 22  
Candidate Starts for Sabbb\_103:  
(1, 52601), (2, 52658), (12, 52778), (Start: 22 @52820 has 108 MA's),

Gene: Samty\_97 Start: 61587, Stop: 61763, Start Num: 19  
Candidate Starts for Samty\_97:

(8, 61527), (Start: 19 @61587 has 24 MA's), (26, 61686),

Gene: Sarma624\_102 Start: 51789, Stop: 51950, Start Num: 22  
Candidate Starts for Sarma624\_102:  
(Start: 22 @51789 has 108 MA's),

Gene: Seabastian\_107 Start: 55480, Stop: 55641, Start Num: 22  
Candidate Starts for Seabastian\_107:  
(Start: 22 @55480 has 108 MA's),

Gene: Seagreen\_101 Start: 54767, Stop: 54928, Start Num: 22  
Candidate Starts for Seagreen\_101:  
(Start: 22 @54767 has 108 MA's),

Gene: Shauna1\_102 Start: 55632, Stop: 55793, Start Num: 22  
Candidate Starts for Shauna1\_102:  
(Start: 22 @55632 has 108 MA's),

Gene: Sheng711\_103 Start: 61758, Stop: 61943, Start Num: 19  
Candidate Starts for Sheng711\_103:  
(Start: 19 @61758 has 24 MA's), (24, 61791), (27, 61887),

Gene: ShowerHandel\_101 Start: 54136, Stop: 54297, Start Num: 22  
Candidate Starts for ShowerHandel\_101:  
(Start: 22 @54136 has 108 MA's),

Gene: ShroomBoi\_98 Start: 54184, Stop: 54345, Start Num: 22  
Candidate Starts for ShroomBoi\_98:  
(Start: 22 @54184 has 108 MA's),

Gene: Silverleaf\_95 Start: 59405, Stop: 59572, Start Num: 21  
Candidate Starts for Silverleaf\_95:  
(3, 59279), (8, 59333), (10, 59348), (16, 59384), (20, 59396), (Start: 21 @59405 has 4 MA's), (25, 59459),

Gene: Slim\_103 Start: 54418, Stop: 54579, Start Num: 22  
Candidate Starts for Slim\_103:  
(Start: 22 @54418 has 108 MA's),

Gene: SoJulia\_102 Start: 63096, Stop: 63266, Start Num: 19  
Candidate Starts for SoJulia\_102:  
(Start: 19 @63096 has 24 MA's), (24, 63129),

Gene: StAnnes\_104 Start: 55680, Stop: 55841, Start Num: 22  
Candidate Starts for StAnnes\_104:  
(Start: 22 @55680 has 108 MA's),

Gene: Stap\_95 Start: 51396, Stop: 51557, Start Num: 22  
Candidate Starts for Stap\_95:  
(12, 51354), (Start: 22 @51396 has 108 MA's),

Gene: SwagPiggett\_102 Start: 55990, Stop: 56151, Start Num: 22  
Candidate Starts for SwagPiggett\_102:

(Start: 22 @55990 has 108 MA's),

Gene: Taj\_106 Start: 55638, Stop: 55799, Start Num: 22

Candidate Starts for Taj\_106:

(Start: 22 @55638 has 108 MA's),

Gene: Tootsieroll\_94 Start: 54782, Stop: 54943, Start Num: 22

Candidate Starts for Tootsieroll\_94:

(Start: 22 @54782 has 108 MA's),

Gene: Tweety\_101 Start: 55032, Stop: 55193, Start Num: 22

Candidate Starts for Tweety\_101:

(Start: 22 @55032 has 108 MA's),

Gene: Tyson\_98 Start: 60158, Stop: 60331, Start Num: 18

Candidate Starts for Tyson\_98:

(3, 60044), (8, 60098), (10, 60113), (16, 60149), (Start: 18 @60158 has 11 MA's), (25, 60212), (30, 60320),

Gene: UPIE\_95 Start: 59398, Stop: 59571, Start Num: 21

Candidate Starts for UPIE\_95:

(3, 59272), (10, 59341), (16, 59377), (20, 59389), (Start: 21 @59398 has 4 MA's), (25, 59452), (30, 59560),

Gene: Underpass\_92 Start: 56408, Stop: 56578, Start Num: 19

Candidate Starts for Underpass\_92:

(Start: 19 @56408 has 24 MA's), (24, 56441),

Gene: VRedHorse\_101 Start: 51888, Stop: 52049, Start Num: 22

Candidate Starts for VRedHorse\_101:

(Start: 22 @51888 has 108 MA's),

Gene: Velveteen\_97 Start: 51789, Stop: 51950, Start Num: 22

Candidate Starts for Velveteen\_97:

(Start: 22 @51789 has 108 MA's),

Gene: Violac\_101 Start: 55284, Stop: 55445, Start Num: 22

Candidate Starts for Violac\_101:

(Start: 22 @55284 has 108 MA's),

Gene: Vivum\_100 Start: 56225, Stop: 56386, Start Num: 22

Candidate Starts for Vivum\_100:

(Start: 22 @56225 has 108 MA's),

Gene: Wee\_103 Start: 55714, Stop: 55875, Start Num: 22

Candidate Starts for Wee\_103:

(Start: 22 @55714 has 108 MA's),

Gene: Whatsapiecost\_94 Start: 49439, Stop: 49600, Start Num: 22

Candidate Starts for Whatsapiecost\_94:

(Start: 22 @49439 has 108 MA's),

Gene: Wyatt2\_97 Start: 59821, Stop: 59994, Start Num: 18

Candidate Starts for Wyatt2\_97:

(3, 59707), (8, 59761), (10, 59776), (16, 59812), (Start: 18 @59821 has 11 MA's), (25, 59875), (30, 59983),

Gene: XFactor\_91 Start: 52230, Stop: 52391, Start Num: 22

Candidate Starts for XFactor\_91:

(Start: 22 @52230 has 108 MA's),

Gene: Zakai\_101 Start: 61981, Stop: 62151, Start Num: 19

Candidate Starts for Zakai\_101:

(Start: 19 @61981 has 24 MA's), (24, 62014),

Gene: Zaria\_97 Start: 59297, Stop: 59470, Start Num: 18

Candidate Starts for Zaria\_97:

(3, 59183), (8, 59237), (10, 59252), (16, 59288), (Start: 18 @59297 has 11 MA's), (25, 59351), (30, 59459),

Gene: Zerg\_98 Start: 54105, Stop: 54266, Start Num: 22

Candidate Starts for Zerg\_98:

(Start: 22 @54105 has 108 MA's),

Gene: Zizzle\_103 Start: 56181, Stop: 56342, Start Num: 22

Candidate Starts for Zizzle\_103:

(Start: 22 @56181 has 108 MA's),