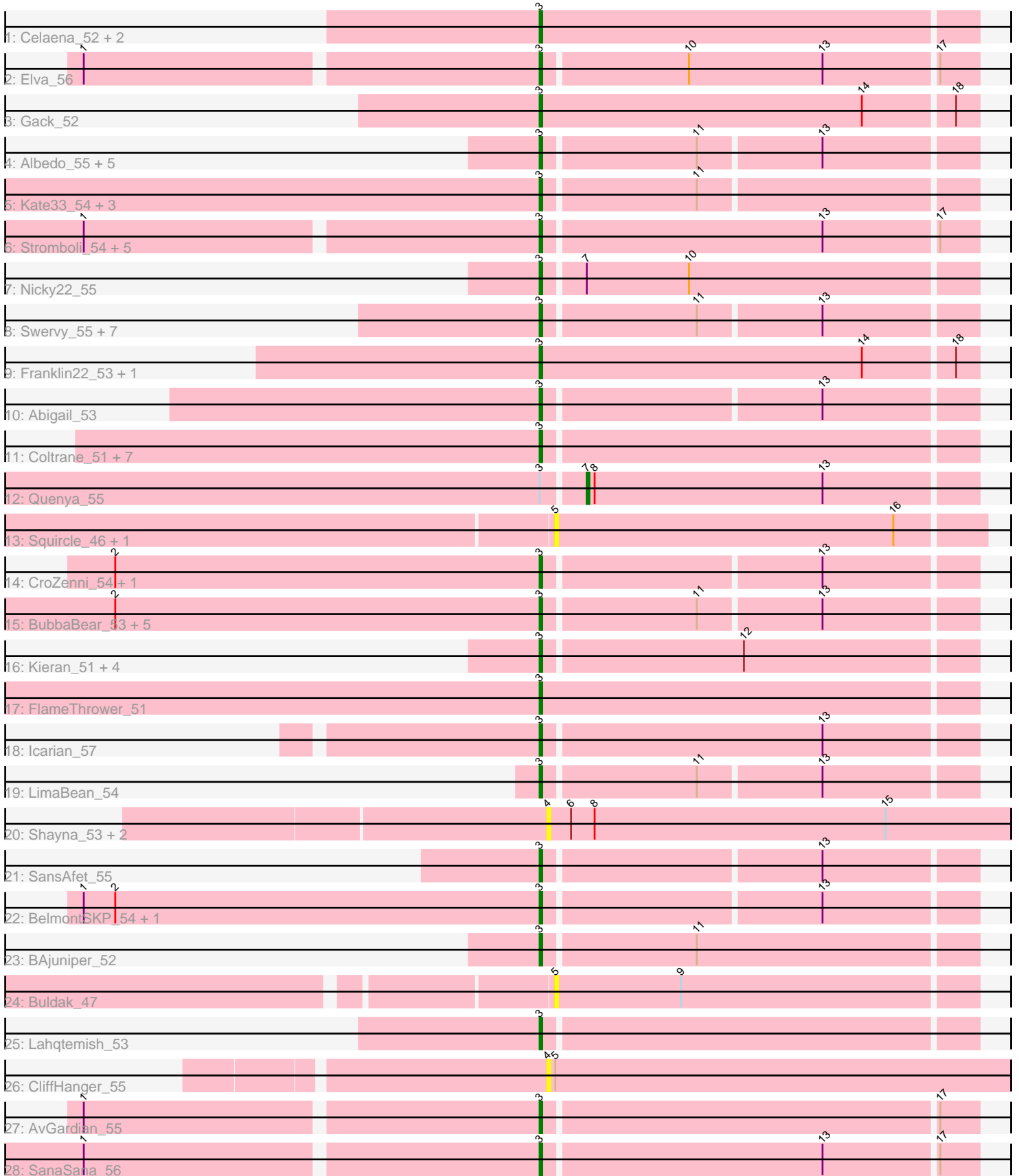


Pham 185550



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 185550 Report

This analysis was run 11/02/24 on database version 579.

Pham number 185550 has 72 members, 11 are drafts.

Phages represented in each track:

- Track 1 : Celaena\_52, Bachaco\_52, Katzastrophic\_53
- Track 2 : Elva\_56
- Track 3 : Gack\_52
- Track 4 : Albedo\_55, Kenzers\_54, Slay\_54, Cashington\_52, Lynlen\_55, Johnathan\_53
- Track 5 : Kate33\_54, Didgeridoo\_57, BabyDaisy\_54, IndyLu\_54
- Track 6 : Stromboli\_54, BabyYoda\_54, WalkingDead\_56, DirtyBubble\_53, Loviatar\_96, Stoor\_54
- Track 7 : Nicky22\_55
- Track 8 : Swervy\_55, Jovita\_53, Eula\_54, QMacho\_56, TukTuk\_55, Phisb\_54, Finalfrontier\_55, SarBear\_54
- Track 9 : Franklin22\_53, Eden\_53
- Track 10 : Abigail\_53
- Track 11 : Coltrane\_51, Brahms\_51, Armstrong\_51, Vitas\_51, Clayda5\_53, Bernstein\_51, Skylord\_51, Rollins\_51
- Track 12 : Quenya\_55
- Track 13 : Squircle\_46, Olliecat\_46
- Track 14 : CroZenni\_54, Arroyo\_54
- Track 15 : BubbaBear\_53, DickRichards\_52, Doobus\_52, Avocadoman\_52, Albright\_51, Burritobowl\_54
- Track 16 : Kieran\_51, ChiliPepper\_51, Sharkboy\_52, Dismas\_52, Rona\_51
- Track 17 : FlameThrower\_51
- Track 18 : Icarian\_57
- Track 19 : LimaBean\_54
- Track 20 : Shayna\_53, SunnyD\_56, Teagster\_55
- Track 21 : SansAfet\_55
- Track 22 : BelmontSKP\_54, AnnaLie\_54
- Track 23 : BAjuniper\_52
- Track 24 : Buldak\_47
- Track 25 : Lahqtemish\_53
- Track 26 : CliffHanger\_55
- Track 27 : AvGardian\_55
- Track 28 : SanaSana\_56

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

The start number called the most often in the published annotations is 3, it was called in 60 of the 61 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Abigail\_53, Albedo\_55, Albright\_51, AnnaLie\_54, Armstrong\_51, Arroyo\_54, AvGardian\_55, Avocadoman\_52, BAjuniper\_52, BabyDaisy\_54, BabyYoda\_54, Bachaco\_52, BelmontSKP\_54, Bernstein\_51, Brahms\_51, BubbaBear\_53, Burritobowl\_54, Cashington\_52, Celaena\_52, ChiliPepper\_51, Clayda5\_53, Coltrane\_51, CroZenni\_54, DickRichards\_52, Didgeridoo\_57, DirtyBubble\_53, Dismas\_52, Doobus\_52, Eden\_53, Elva\_56, Eula\_54, Finalfrontier\_55, FlameThrower\_51, Franklin22\_53, Gack\_52, Icarian\_57, IndyLu\_54, Johnathan\_53, Jovita\_53, Kate33\_54, Katzastrophic\_53, Kenzers\_54, Kieran\_51, Lahqtemish\_53, LimaBean\_54, Loviatar\_96, Lynlen\_55, Nicky22\_55, Phisb\_54, QMacho\_56, Rollins\_51, Rona\_51, SanaSana\_56, SansAfet\_55, SarBear\_54, Sharkboy\_52, Skylord\_51, Slay\_54, Stoor\_54, Stromboli\_54, Swervy\_55, TukTuk\_55, Vitas\_51, WalkingDead\_56,

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

- Quenya\_55,

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

- Buldak\_47, CliffHanger\_55, Olliecat\_46, Shayna\_53, Squirrel\_46, SunnyD\_56, Teagster\_55,

### Summary by start number:

Start 3:

- Found in 65 of 72 ( 90.3% ) of genes in pham
- Manual Annotations of this start: 60 of 61
- Called 98.5% of time when present
- Phage (with cluster) where this start called: Abigail\_53 (EB), Albedo\_55 (EB), Albright\_51 (EB), AnnaLie\_54 (EB), Armstrong\_51 (EB), Arroyo\_54 (EB), AvGardian\_55 (EB), Avocadoman\_52 (EB), BAjuniper\_52 (EB), BabyDaisy\_54 (EB), BabyYoda\_54 (EB), Bachaco\_52 (EB), BelmontSKP\_54 (EB), Bernstein\_51 (EB), Brahms\_51 (EB), BubbaBear\_53 (EB), Burritobowl\_54 (EB), Cashington\_52 (EB), Celaena\_52 (EB), ChiliPepper\_51 (EB), Clayda5\_53 (EB), Coltrane\_51 (EB), CroZenni\_54 (EB), DickRichards\_52 (EB), Didgeridoo\_57 (EB), DirtyBubble\_53 (EB), Dismas\_52 (EB), Doobus\_52 (EB), Eden\_53 (EB), Elva\_56 (EB), Eula\_54 (EB), Finalfrontier\_55 (EB), FlameThrower\_51 (EB), Franklin22\_53 (EB), Gack\_52 (EB), Icarian\_57 (EB), IndyLu\_54 (EB), Johnathan\_53 (EB), Jovita\_53 (EB), Kate33\_54 (EB), Katzastrophic\_53 (EB), Kenzers\_54 (EB), Kieran\_51 (EB), Lahqtemish\_53 (EB), LimaBean\_54 (EB), Loviatar\_96 (EB), Lynlen\_55 (EB), Nicky22\_55 (EB), Phisb\_54 (EB), QMacho\_56 (EB), Rollins\_51 (EB), Rona\_51 (EB), SanaSana\_56 (EB), SansAfet\_55 (EB), SarBear\_54 (EB), Sharkboy\_52 (EB), Skylord\_51 (EB), Slay\_54 (EB), Stoor\_54 (EB), Stromboli\_54 (EB), Swervy\_55 (EB), TukTuk\_55 (EB), Vitas\_51 (EB), WalkingDead\_56 (EB),

Start 4:

- Found in 4 of 72 ( 5.6% ) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present

- Phage (with cluster) where this start called: CliffHanger\_55 (EB), Shayna\_53 (EB), SunnyD\_56 (EB), Teagster\_55 (EB),

Start 5:

- Found in 4 of 72 ( 5.6% ) of genes in pham
- No Manual Annotations of this start.
- Called 75.0% of time when present
- Phage (with cluster) where this start called: Buldak\_47 (EB), Olliecat\_46 (EB), Squiracle\_46 (EB),

Start 7:

- Found in 2 of 72 ( 2.8% ) of genes in pham
- Manual Annotations of this start: 1 of 61
- Called 50.0% of time when present
- Phage (with cluster) where this start called: Quenya\_55 (EB),

### **Summary by clusters:**

There is one cluster represented in this pham: EB

Info for manual annotations of cluster EB:

- Start number 3 was manually annotated 60 times for cluster EB.
- Start number 7 was manually annotated 1 time for cluster EB.

### ***Gene Information:***

Gene: Abigail\_53 Start: 35128, Stop: 35286, Start Num: 3

Candidate Starts for Abigail\_53:

(Start: 3 @35128 has 60 MA's), (13, 35230),

Gene: Albedo\_55 Start: 35853, Stop: 36011, Start Num: 3

Candidate Starts for Albedo\_55:

(Start: 3 @35853 has 60 MA's), (11, 35910), (13, 35955),

Gene: Albright\_51 Start: 34559, Stop: 34717, Start Num: 3

Candidate Starts for Albright\_51:

(2, 34397), (Start: 3 @34559 has 60 MA's), (11, 34616), (13, 34661),

Gene: AnnaLie\_54 Start: 35788, Stop: 35946, Start Num: 3

Candidate Starts for AnnaLie\_54:

(1, 35614), (2, 35626), (Start: 3 @35788 has 60 MA's), (13, 35890),

Gene: Armstrong\_51 Start: 33629, Stop: 33790, Start Num: 3

Candidate Starts for Armstrong\_51:

(Start: 3 @33629 has 60 MA's),

Gene: Arroyo\_54 Start: 35896, Stop: 36054, Start Num: 3

Candidate Starts for Arroyo\_54:

(2, 35734), (Start: 3 @35896 has 60 MA's), (13, 35998),

Gene: AvGardian\_55 Start: 36075, Stop: 36236, Start Num: 3

Candidate Starts for AvGardian\_55:  
(1, 35907), (Start: 3 @36075 has 60 MA's), (17, 36222),

Gene: Avocadoman\_52 Start: 34760, Stop: 34918, Start Num: 3  
Candidate Starts for Avocadoman\_52:  
(2, 34598), (Start: 3 @34760 has 60 MA's), (11, 34817), (13, 34862),

Gene: BAjuniper\_52 Start: 36408, Stop: 36569, Start Num: 3  
Candidate Starts for BAjuniper\_52:  
(Start: 3 @36408 has 60 MA's), (11, 36465),

Gene: BabyDaisy\_54 Start: 35917, Stop: 36075, Start Num: 3  
Candidate Starts for BabyDaisy\_54:  
(Start: 3 @35917 has 60 MA's), (11, 35974),

Gene: BabyYoda\_54 Start: 36496, Stop: 36657, Start Num: 3  
Candidate Starts for BabyYoda\_54:  
(1, 36328), (Start: 3 @36496 has 60 MA's), (13, 36601), (17, 36643),

Gene: Bachaco\_52 Start: 37225, Stop: 37389, Start Num: 3  
Candidate Starts for Bachaco\_52:  
(Start: 3 @37225 has 60 MA's),

Gene: BelmontSKP\_54 Start: 35788, Stop: 35946, Start Num: 3  
Candidate Starts for BelmontSKP\_54:  
(1, 35614), (2, 35626), (Start: 3 @35788 has 60 MA's), (13, 35890),

Gene: Bernstein\_51 Start: 33627, Stop: 33788, Start Num: 3  
Candidate Starts for Bernstein\_51:  
(Start: 3 @33627 has 60 MA's),

Gene: Brahms\_51 Start: 33547, Stop: 33708, Start Num: 3  
Candidate Starts for Brahms\_51:  
(Start: 3 @33547 has 60 MA's),

Gene: BubbaBear\_53 Start: 35537, Stop: 35695, Start Num: 3  
Candidate Starts for BubbaBear\_53:  
(2, 35375), (Start: 3 @35537 has 60 MA's), (11, 35594), (13, 35639),

Gene: Buldak\_47 Start: 32389, Stop: 32547, Start Num: 5  
Candidate Starts for Buldak\_47:  
(5, 32389), (9, 32437),

Gene: Burritobowl\_54 Start: 35467, Stop: 35625, Start Num: 3  
Candidate Starts for Burritobowl\_54:  
(2, 35305), (Start: 3 @35467 has 60 MA's), (11, 35524), (13, 35569),

Gene: Cashington\_52 Start: 34880, Stop: 35038, Start Num: 3  
Candidate Starts for Cashington\_52:  
(Start: 3 @34880 has 60 MA's), (11, 34937), (13, 34982),

Gene: Celaena\_52 Start: 36987, Stop: 37151, Start Num: 3  
Candidate Starts for Celaena\_52:

(Start: 3 @36987 has 60 MA's),

Gene: ChiliPepper\_51 Start: 36277, Stop: 36438, Start Num: 3

Candidate Starts for ChiliPepper\_51:

(Start: 3 @36277 has 60 MA's), (12, 36352),

Gene: Clayda5\_53 Start: 33612, Stop: 33773, Start Num: 3

Candidate Starts for Clayda5\_53:

(Start: 3 @33612 has 60 MA's),

Gene: CliffHanger\_55 Start: 33631, Stop: 33807, Start Num: 4

Candidate Starts for CliffHanger\_55:

(4, 33631), (5, 33634),

Gene: Coltrane\_51 Start: 33547, Stop: 33708, Start Num: 3

Candidate Starts for Coltrane\_51:

(Start: 3 @33547 has 60 MA's),

Gene: CroZenni\_54 Start: 35404, Stop: 35562, Start Num: 3

Candidate Starts for CroZenni\_54:

(2, 35242), (Start: 3 @35404 has 60 MA's), (13, 35506),

Gene: DickRichards\_52 Start: 35579, Stop: 35737, Start Num: 3

Candidate Starts for DickRichards\_52:

(2, 35417), (Start: 3 @35579 has 60 MA's), (11, 35636), (13, 35681),

Gene: Didgeridoo\_57 Start: 36261, Stop: 36419, Start Num: 3

Candidate Starts for Didgeridoo\_57:

(Start: 3 @36261 has 60 MA's), (11, 36318),

Gene: DirtyBubble\_53 Start: 36164, Stop: 36325, Start Num: 3

Candidate Starts for DirtyBubble\_53:

(1, 35996), (Start: 3 @36164 has 60 MA's), (13, 36269), (17, 36311),

Gene: Dismas\_52 Start: 36198, Stop: 36359, Start Num: 3

Candidate Starts for Dismas\_52:

(Start: 3 @36198 has 60 MA's), (12, 36273),

Gene: Doobus\_52 Start: 35068, Stop: 35226, Start Num: 3

Candidate Starts for Doobus\_52:

(2, 34906), (Start: 3 @35068 has 60 MA's), (11, 35125), (13, 35170),

Gene: Eden\_53 Start: 34909, Stop: 35073, Start Num: 3

Candidate Starts for Eden\_53:

(Start: 3 @34909 has 60 MA's), (14, 35032), (18, 35065),

Gene: Elva\_56 Start: 36561, Stop: 36722, Start Num: 3

Candidate Starts for Elva\_56:

(1, 36393), (Start: 3 @36561 has 60 MA's), (10, 36615), (13, 36666), (17, 36708),

Gene: Eula\_54 Start: 35251, Stop: 35409, Start Num: 3

Candidate Starts for Eula\_54:

(Start: 3 @35251 has 60 MA's), (11, 35308), (13, 35353),

Gene: Finalfrontier\_55 Start: 36361, Stop: 36519, Start Num: 3  
Candidate Starts for Finalfrontier\_55:  
(Start: 3 @36361 has 60 MA's), (11, 36418), (13, 36463),

Gene: FlameThrower\_51 Start: 36024, Stop: 36188, Start Num: 3  
Candidate Starts for FlameThrower\_51:  
(Start: 3 @36024 has 60 MA's),

Gene: Franklin22\_53 Start: 34194, Stop: 34358, Start Num: 3  
Candidate Starts for Franklin22\_53:  
(Start: 3 @34194 has 60 MA's), (14, 34317), (18, 34350),

Gene: Gack\_52 Start: 34522, Stop: 34686, Start Num: 3  
Candidate Starts for Gack\_52:  
(Start: 3 @34522 has 60 MA's), (14, 34645), (18, 34678),

Gene: Icarian\_57 Start: 37160, Stop: 37321, Start Num: 3  
Candidate Starts for Icarian\_57:  
(Start: 3 @37160 has 60 MA's), (13, 37265),

Gene: IndyLu\_54 Start: 35837, Stop: 35995, Start Num: 3  
Candidate Starts for IndyLu\_54:  
(Start: 3 @35837 has 60 MA's), (11, 35894),

Gene: Johnathan\_53 Start: 34906, Stop: 35064, Start Num: 3  
Candidate Starts for Johnathan\_53:  
(Start: 3 @34906 has 60 MA's), (11, 34963), (13, 35008),

Gene: Jovita\_53 Start: 35125, Stop: 35283, Start Num: 3  
Candidate Starts for Jovita\_53:  
(Start: 3 @35125 has 60 MA's), (11, 35182), (13, 35227),

Gene: Kate33\_54 Start: 35554, Stop: 35712, Start Num: 3  
Candidate Starts for Kate33\_54:  
(Start: 3 @35554 has 60 MA's), (11, 35611),

Gene: Katzastrophic\_53 Start: 36534, Stop: 36698, Start Num: 3  
Candidate Starts for Katzastrophic\_53:  
(Start: 3 @36534 has 60 MA's),

Gene: Kenzers\_54 Start: 35385, Stop: 35543, Start Num: 3  
Candidate Starts for Kenzers\_54:  
(Start: 3 @35385 has 60 MA's), (11, 35442), (13, 35487),

Gene: Kieran\_51 Start: 36239, Stop: 36400, Start Num: 3  
Candidate Starts for Kieran\_51:  
(Start: 3 @36239 has 60 MA's), (12, 36314),

Gene: Lahqtemish\_53 Start: 35828, Stop: 35989, Start Num: 3  
Candidate Starts for Lahqtemish\_53:  
(Start: 3 @35828 has 60 MA's),

Gene: LimaBean\_54 Start: 35006, Stop: 35164, Start Num: 3

Candidate Starts for LimaBean\_54:

(Start: 3 @35006 has 60 MA's), (11, 35063), (13, 35108),

Gene: Loviatar\_96 Start: 37572, Stop: 37733, Start Num: 3

Candidate Starts for Loviatar\_96:

(1, 37404), (Start: 3 @37572 has 60 MA's), (13, 37677), (17, 37719),

Gene: Lynlen\_55 Start: 35565, Stop: 35723, Start Num: 3

Candidate Starts for Lynlen\_55:

(Start: 3 @35565 has 60 MA's), (11, 35622), (13, 35667),

Gene: Nicky22\_55 Start: 36014, Stop: 36175, Start Num: 3

Candidate Starts for Nicky22\_55:

(Start: 3 @36014 has 60 MA's), (Start: 7 @36029 has 1 MA's), (10, 36068),

Gene: Olliecat\_46 Start: 32464, Stop: 32625, Start Num: 5

Candidate Starts for Olliecat\_46:

(5, 32464), (16, 32593),

Gene: Phisb\_54 Start: 35489, Stop: 35647, Start Num: 3

Candidate Starts for Phisb\_54:

(Start: 3 @35489 has 60 MA's), (11, 35546), (13, 35591),

Gene: QMacho\_56 Start: 35905, Stop: 36063, Start Num: 3

Candidate Starts for QMacho\_56:

(Start: 3 @35905 has 60 MA's), (11, 35962), (13, 36007),

Gene: Quenya\_55 Start: 36683, Stop: 36829, Start Num: 7

Candidate Starts for Quenya\_55:

(Start: 3 @36668 has 60 MA's), (Start: 7 @36683 has 1 MA's), (8, 36686), (13, 36773),

Gene: Rollins\_51 Start: 33627, Stop: 33788, Start Num: 3

Candidate Starts for Rollins\_51:

(Start: 3 @33627 has 60 MA's),

Gene: Rona\_51 Start: 36189, Stop: 36350, Start Num: 3

Candidate Starts for Rona\_51:

(Start: 3 @36189 has 60 MA's), (12, 36264),

Gene: SanaSana\_56 Start: 36876, Stop: 37037, Start Num: 3

Candidate Starts for SanaSana\_56:

(1, 36708), (Start: 3 @36876 has 60 MA's), (13, 36981), (17, 37023),

Gene: SansAfet\_55 Start: 35314, Stop: 35472, Start Num: 3

Candidate Starts for SansAfet\_55:

(Start: 3 @35314 has 60 MA's), (13, 35416),

Gene: SarBear\_54 Start: 35209, Stop: 35367, Start Num: 3

Candidate Starts for SarBear\_54:

(Start: 3 @35209 has 60 MA's), (11, 35266), (13, 35311),

Gene: Sharkboy\_52 Start: 36288, Stop: 36449, Start Num: 3



Candidate Starts for Sharkboy\_52:  
(Start: 3 @36288 has 60 MA's), (12, 36363),

Gene: Shayna\_53 Start: 34066, Stop: 34242, Start Num: 4  
Candidate Starts for Shayna\_53:  
(4, 34066), (6, 34075), (8, 34084), (15, 34195),

Gene: Skylord\_51 Start: 33586, Stop: 33747, Start Num: 3  
Candidate Starts for Skylord\_51:  
(Start: 3 @33586 has 60 MA's),

Gene: Slay\_54 Start: 35801, Stop: 35959, Start Num: 3  
Candidate Starts for Slay\_54:  
(Start: 3 @35801 has 60 MA's), (11, 35858), (13, 35903),

Gene: Squircle\_46 Start: 32463, Stop: 32624, Start Num: 5  
Candidate Starts for Squircle\_46:  
(5, 32463), (16, 32592),

Gene: Stoor\_54 Start: 36663, Stop: 36824, Start Num: 3  
Candidate Starts for Stoor\_54:  
(1, 36495), (Start: 3 @36663 has 60 MA's), (13, 36768), (17, 36810),

Gene: Stromboli\_54 Start: 36534, Stop: 36695, Start Num: 3  
Candidate Starts for Stromboli\_54:  
(1, 36366), (Start: 3 @36534 has 60 MA's), (13, 36639), (17, 36681),

Gene: SunnyD\_56 Start: 34073, Stop: 34249, Start Num: 4  
Candidate Starts for SunnyD\_56:  
(4, 34073), (6, 34082), (8, 34091), (15, 34202),

Gene: Swervy\_55 Start: 35481, Stop: 35639, Start Num: 3  
Candidate Starts for Swervy\_55:  
(Start: 3 @35481 has 60 MA's), (11, 35538), (13, 35583),

Gene: Teagster\_55 Start: 34702, Stop: 34878, Start Num: 4  
Candidate Starts for Teagster\_55:  
(4, 34702), (6, 34711), (8, 34720), (15, 34831),

Gene: TukTuk\_55 Start: 35546, Stop: 35704, Start Num: 3  
Candidate Starts for TukTuk\_55:  
(Start: 3 @35546 has 60 MA's), (11, 35603), (13, 35648),

Gene: Vitas\_51 Start: 33618, Stop: 33779, Start Num: 3  
Candidate Starts for Vitas\_51:  
(Start: 3 @33618 has 60 MA's),

Gene: WalkingDead\_56 Start: 37283, Stop: 37444, Start Num: 3  
Candidate Starts for WalkingDead\_56:  
(1, 37115), (Start: 3 @37283 has 60 MA's), (13, 37388), (17, 37430),