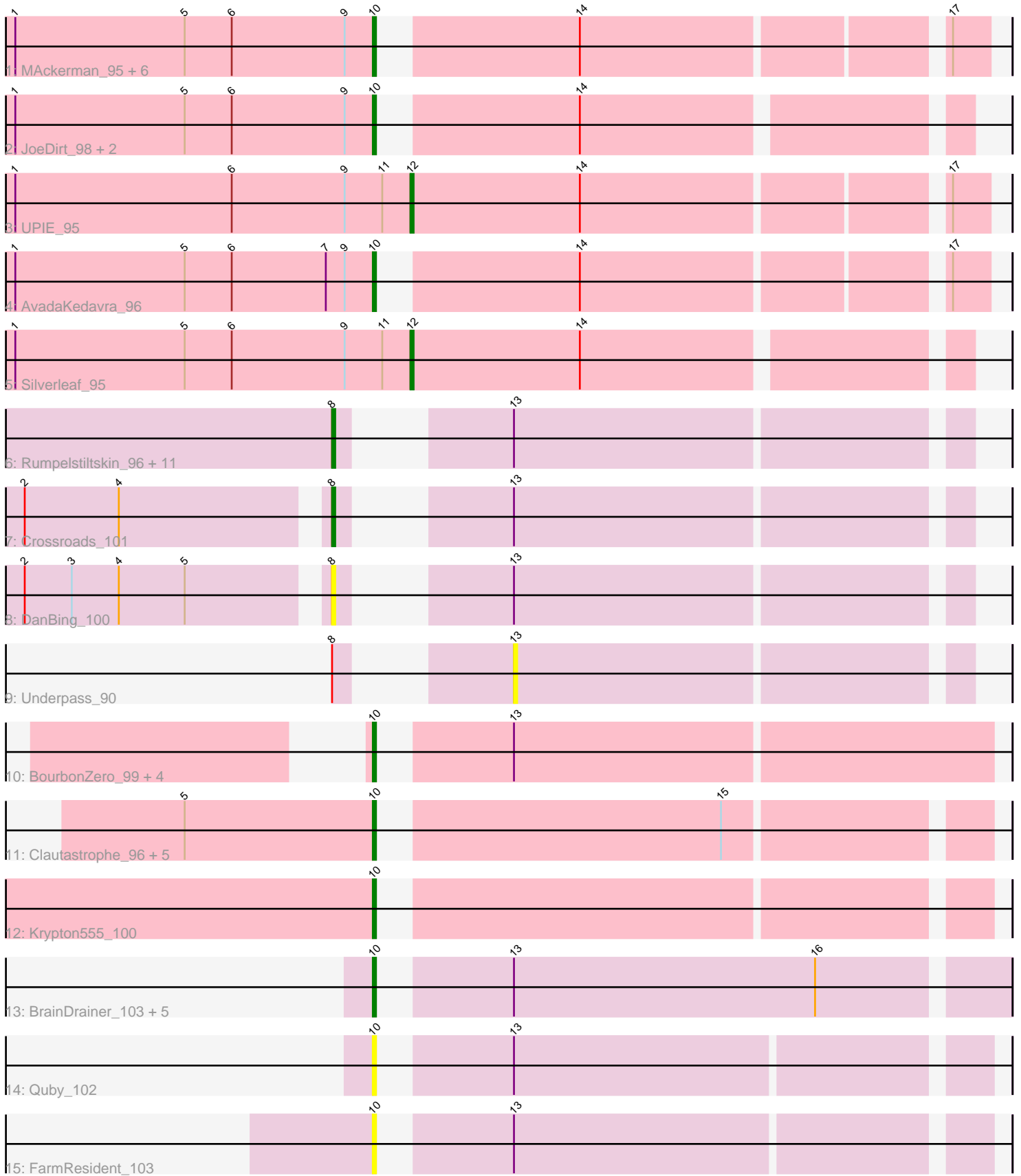


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Note: Tracks are now grouped by subcluster and scaled. Switching in subcluster is indicated by changes in track color. Track scale is now set by default to display the region 30 bp upstream of start 1 to 30 bp downstream of the last possible start. 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 216262 Report

This analysis was run 02/22/25 on database version 588.

Pham number 216262 has 48 members, 14 are drafts.

Phages represented in each track:

- Track 1 : MAckerman\_95, Tyson\_98, Zaria\_97, Acquire49\_96, Halena\_94, Wyatt2\_97, Calm\_98
- Track 2 : JoeDirt\_98, Rose5\_98, Enceladus\_93
- Track 3 : UPIE\_95
- Track 4 : AvadaKedavra\_96
- Track 5 : Silverleaf\_95
- Track 6 : Rumpelstiltskin\_96, Itos\_100, SoJulia\_102, Nicholasp3\_100, Finemlucis\_101, Kahlid\_99, Archie\_97, Zakai\_101, Gabriela\_100, LilDestine\_98, Bazzle\_97, BobsGarage\_99
- Track 7 : Crossroads\_101
- Track 8 : DanBing\_100
- Track 9 : Underpass\_90
- Track 10 : BourbonZero\_99, DuncansLeg\_99, KirDoubleO7\_96, Ellson\_97, LiyuLake\_97
- Track 11 : Clautastrophe\_96, Bellis\_96, Jubie\_97, Samty\_97, Finnry\_98, MsGreen\_98
- Track 12 : Krypton555\_100
- Track 13 : BrainDrainer\_103, Douzhi\_102, PYPDinur\_102, Sheng711\_103, Bromden\_102, Douge\_102
- Track 14 : Quby\_102
- Track 15 : FarmResident\_103

### ***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 20 of the 34 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Acquire49\_96, AvadaKedavra\_96, Bellis\_96, BourbonZero\_99, BrainDrainer\_103, Bromden\_102, Calm\_98, Clautastrophe\_96, Douge\_102, Douzhi\_102, DuncansLeg\_99, Ellson\_97, Enceladus\_93, FarmResident\_103, Finnry\_98, Halena\_94, JoeDirt\_98, Jubie\_97, KirDoubleO7\_96, Krypton555\_100, LiyuLake\_97, MAckerman\_95, MsGreen\_98, PYPDinur\_102, Quby\_102, Rose5\_98, Samty\_97, Sheng711\_103, Tyson\_98, Wyatt2\_97, Zaria\_97,

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

- 

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

- Archie\_97, Bazzle\_97, BobsGarage\_99, Crossroads\_101, DanBing\_100, Finemlucis\_101, Gabriela\_100, Itos\_100, Kahlid\_99, LilDestine\_98, Nicholasp3\_100, Rumpelstiltskin\_96, Silverleaf\_95, SoJulia\_102, UPIE\_95, Underpass\_90, Zakai\_101,

### Summary by start number:

Start 8:

- Found in 15 of 48 ( 31.2% ) of genes in pham
- Manual Annotations of this start: 12 of 34
- Called 93.3% of time when present
- Phage (with cluster) where this start called: Archie\_97 (L2), Bazzle\_97 (L2), BobsGarage\_99 (L2), Crossroads\_101 (L2), DanBing\_100 (L2), Finemlucis\_101 (L2), Gabriela\_100 (L2), Itos\_100 (L2), Kahlid\_99 (L2), LilDestine\_98 (L2), Nicholasp3\_100 (L2), Rumpelstiltskin\_96 (L2), SoJulia\_102 (L2), Zakai\_101 (L2),

Start 10:

- Found in 31 of 48 ( 64.6% ) of genes in pham
- Manual Annotations of this start: 20 of 34
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Acquire49\_96 (L1), AvadaKedavra\_96 (L1), Bellis\_96 (L3), BourbonZero\_99 (L3), BrainDrainer\_103 (L4), Bromden\_102 (L4), Calm\_98 (L1), Clautastrophe\_96 (L3), Douge\_102 (L4), Douzhi\_102 (L4), DuncansLeg\_99 (L3), Ellson\_97 (L3), Enceladus\_93 (L1), FarmResident\_103 (L4), Finny\_98 (L3), Halena\_94 (L1), JoeDirt\_98 (L1), Jubie\_97 (L3), KirDoubleO7\_96 (L3), Krypton555\_100 (L3), LiyuLake\_97 (L3), MAckerman\_95 (L1), MsGreen\_98 (L3), PYPDinur\_102 (L4), Quby\_102 (L4), Rose5\_98 (L1), Samty\_97 (L3), Sheng711\_103 (L4), Tyson\_98 (L1), Wyatt2\_97 (L1), Zaria\_97 (L1),

Start 12:

- Found in 2 of 48 ( 4.2% ) of genes in pham
- Manual Annotations of this start: 2 of 34
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Silverleaf\_95 (L1), UPIE\_95 (L1),

Start 13:

- Found in 28 of 48 ( 58.3% ) of genes in pham
- No Manual Annotations of this start.
- Called 3.6% of time when present
- Phage (with cluster) where this start called: Underpass\_90 (L2),

### Summary by clusters:

There are 4 clusters represented in this pham: L4, L2, L3, L1,

Info for manual annotations of cluster L1:

- Start number 10 was manually annotated 11 times for cluster L1.
- Start number 12 was manually annotated 2 times for cluster L1.

Info for manual annotations of cluster L2:

- Start number 8 was manually annotated 12 times for cluster L2.

Info for manual annotations of cluster L3:

- Start number 10 was manually annotated 7 times for cluster L3.

Info for manual annotations of cluster L4:

- Start number 10 was manually annotated 2 times for cluster L4.

### **Gene Information:**

Gene: Acquire49\_96 Start: 59453, Stop: 59626, Start Num: 10

Candidate Starts for Acquire49\_96:

(1, 59339), (5, 59393), (6, 59408), (9, 59444), (Start: 10 @59453 has 20 MA's), (14, 59507), (17, 59615),

Gene: Archie\_97 Start: 61162, Stop: 61338, Start Num: 8

Candidate Starts for Archie\_97:

(Start: 8 @61162 has 12 MA's), (13, 61195),

Gene: AvadaKedavra\_96 Start: 59565, Stop: 59738, Start Num: 10

Candidate Starts for AvadaKedavra\_96:

(1, 59451), (5, 59505), (6, 59520), (7, 59550), (9, 59556), (Start: 10 @59565 has 20 MA's), (14, 59619), (17, 59727),

Gene: Bazzle\_97 Start: 61718, Stop: 61894, Start Num: 8

Candidate Starts for Bazzle\_97:

(Start: 8 @61718 has 12 MA's), (13, 61751),

Gene: Bellis\_96 Start: 61495, Stop: 61671, Start Num: 10

Candidate Starts for Bellis\_96:

(5, 61435), (Start: 10 @61495 has 20 MA's), (15, 61594),

Gene: BobsGarage\_99 Start: 61936, Stop: 62106, Start Num: 8

Candidate Starts for BobsGarage\_99:

(Start: 8 @61936 has 12 MA's), (13, 61969),

Gene: BourbonZero\_99 Start: 61668, Stop: 61850, Start Num: 10

Candidate Starts for BourbonZero\_99:

(Start: 10 @61668 has 20 MA's), (13, 61701),

Gene: BrainDrainer\_103 Start: 61982, Stop: 62167, Start Num: 10

Candidate Starts for BrainDrainer\_103:

(Start: 10 @61982 has 20 MA's), (13, 62015), (16, 62111),

Gene: Bromden\_102 Start: 62718, Stop: 62903, Start Num: 10

Candidate Starts for Bromden\_102:

(Start: 10 @62718 has 20 MA's), (13, 62751), (16, 62847),

Gene: Calm\_98 Start: 59832, Stop: 60005, Start Num: 10

Candidate Starts for Calm\_98:

(1, 59718), (5, 59772), (6, 59787), (9, 59823), (Start: 10 @59832 has 20 MA's), (14, 59886), (17, 59994),

Gene: Clautastrophe\_96 Start: 61490, Stop: 61666, Start Num: 10  
Candidate Starts for Clautastrophe\_96:  
(5, 61430), (Start: 10 @61490 has 20 MA's), (15, 61589),

Gene: Crossroads\_101 Start: 61823, Stop: 61993, Start Num: 8  
Candidate Starts for Crossroads\_101:  
(2, 61733), (4, 61763), (Start: 8 @61823 has 12 MA's), (13, 61856),

Gene: DanBing\_100 Start: 61639, Stop: 61809, Start Num: 8  
Candidate Starts for DanBing\_100:  
(2, 61549), (3, 61564), (4, 61579), (5, 61600), (Start: 8 @61639 has 12 MA's), (13, 61672),

Gene: Douge\_102 Start: 61402, Stop: 61587, Start Num: 10  
Candidate Starts for Douge\_102:  
(Start: 10 @61402 has 20 MA's), (13, 61435), (16, 61531),

Gene: Douzhi\_102 Start: 61671, Stop: 61856, Start Num: 10  
Candidate Starts for Douzhi\_102:  
(Start: 10 @61671 has 20 MA's), (13, 61704), (16, 61800),

Gene: DuncansLeg\_99 Start: 61656, Stop: 61838, Start Num: 10  
Candidate Starts for DuncansLeg\_99:  
(Start: 10 @61656 has 20 MA's), (13, 61689),

Gene: Ellson\_97 Start: 61971, Stop: 62153, Start Num: 10  
Candidate Starts for Ellson\_97:  
(Start: 10 @61971 has 20 MA's), (13, 62004),

Gene: Enceladus\_93 Start: 59494, Stop: 59661, Start Num: 10  
Candidate Starts for Enceladus\_93:  
(1, 59380), (5, 59434), (6, 59449), (9, 59485), (Start: 10 @59494 has 20 MA's), (14, 59548),

Gene: FarmResident\_103 Start: 61588, Stop: 61764, Start Num: 10  
Candidate Starts for FarmResident\_103:  
(Start: 10 @61588 has 20 MA's), (13, 61621),

Gene: Finemlucis\_101 Start: 62639, Stop: 62809, Start Num: 8  
Candidate Starts for Finemlucis\_101:  
(Start: 8 @62639 has 12 MA's), (13, 62672),

Gene: Finnry\_98 Start: 61843, Stop: 62019, Start Num: 10  
Candidate Starts for Finnry\_98:  
(5, 61783), (Start: 10 @61843 has 20 MA's), (15, 61942),

Gene: Gabriela\_100 Start: 60925, Stop: 61095, Start Num: 8  
Candidate Starts for Gabriela\_100:  
(Start: 8 @60925 has 12 MA's), (13, 60958),

Gene: Halena\_94 Start: 58748, Stop: 58921, Start Num: 10  
Candidate Starts for Halena\_94:

(1, 58634), (5, 58688), (6, 58703), (9, 58739), (Start: 10 @58748 has 20 MA's), (14, 58802), (17, 58910),

Gene: Itos\_100 Start: 60485, Stop: 60655, Start Num: 8  
Candidate Starts for Itos\_100:  
(Start: 8 @60485 has 12 MA's), (13, 60518),

Gene: JoeDirt\_98 Start: 60423, Stop: 60590, Start Num: 10  
Candidate Starts for JoeDirt\_98:  
(1, 60309), (5, 60363), (6, 60378), (9, 60414), (Start: 10 @60423 has 20 MA's), (14, 60477),

Gene: Jubie\_97 Start: 61625, Stop: 61801, Start Num: 10  
Candidate Starts for Jubie\_97:  
(5, 61565), (Start: 10 @61625 has 20 MA's), (15, 61724),

Gene: Kahlid\_99 Start: 61290, Stop: 61460, Start Num: 8  
Candidate Starts for Kahlid\_99:  
(Start: 8 @61290 has 12 MA's), (13, 61323),

Gene: KirDoubleO7\_96 Start: 61658, Stop: 61840, Start Num: 10  
Candidate Starts for KirDoubleO7\_96:  
(Start: 10 @61658 has 20 MA's), (13, 61691),

Gene: Krypton555\_100 Start: 61911, Stop: 62087, Start Num: 10  
Candidate Starts for Krypton555\_100:  
(Start: 10 @61911 has 20 MA's),

Gene: LilDestine\_98 Start: 61249, Stop: 61419, Start Num: 8  
Candidate Starts for LilDestine\_98:  
(Start: 8 @61249 has 12 MA's), (13, 61282),

Gene: LiyuLake\_97 Start: 61731, Stop: 61913, Start Num: 10  
Candidate Starts for LiyuLake\_97:  
(Start: 10 @61731 has 20 MA's), (13, 61764),

Gene: MAckerman\_95 Start: 58741, Stop: 58914, Start Num: 10  
Candidate Starts for MAckerman\_95:  
(1, 58627), (5, 58681), (6, 58696), (9, 58732), (Start: 10 @58741 has 20 MA's), (14, 58795), (17, 58903),

Gene: MsGreen\_98 Start: 61489, Stop: 61665, Start Num: 10  
Candidate Starts for MsGreen\_98:  
(5, 61429), (Start: 10 @61489 has 20 MA's), (15, 61588),

Gene: Nicholasp3\_100 Start: 61372, Stop: 61542, Start Num: 8  
Candidate Starts for Nicholasp3\_100:  
(Start: 8 @61372 has 12 MA's), (13, 61405),

Gene: PYPDinur\_102 Start: 62234, Stop: 62419, Start Num: 10  
Candidate Starts for PYPDinur\_102:  
(Start: 10 @62234 has 20 MA's), (13, 62267), (16, 62363),

Gene: Quby\_102 Start: 61563, Stop: 61739, Start Num: 10

Candidate Starts for Quby\_102:  
(Start: 10 @61563 has 20 MA's), (13, 61596),

Gene: Rose5\_98 Start: 60265, Stop: 60432, Start Num: 10  
Candidate Starts for Rose5\_98:  
(1, 60151), (5, 60205), (6, 60220), (9, 60256), (Start: 10 @60265 has 20 MA's), (14, 60319),

Gene: Rumpelstiltskin\_96 Start: 61165, Stop: 61335, Start Num: 8  
Candidate Starts for Rumpelstiltskin\_96:  
(Start: 8 @61165 has 12 MA's), (13, 61198),

Gene: Samty\_97 Start: 61587, Stop: 61763, Start Num: 10  
Candidate Starts for Samty\_97:  
(5, 61527), (Start: 10 @61587 has 20 MA's), (15, 61686),

Gene: Sheng711\_103 Start: 61758, Stop: 61943, Start Num: 10  
Candidate Starts for Sheng711\_103:  
(Start: 10 @61758 has 20 MA's), (13, 61791), (16, 61887),

Gene: Silverleaf\_95 Start: 59405, Stop: 59572, Start Num: 12  
Candidate Starts for Silverleaf\_95:  
(1, 59279), (5, 59333), (6, 59348), (9, 59384), (11, 59396), (Start: 12 @59405 has 2 MA's), (14, 59459),

Gene: SoJulia\_102 Start: 63096, Stop: 63266, Start Num: 8  
Candidate Starts for SoJulia\_102:  
(Start: 8 @63096 has 12 MA's), (13, 63129),

Gene: Tyson\_98 Start: 60158, Stop: 60331, Start Num: 10  
Candidate Starts for Tyson\_98:  
(1, 60044), (5, 60098), (6, 60113), (9, 60149), (Start: 10 @60158 has 20 MA's), (14, 60212), (17, 60320),

Gene: UPIE\_95 Start: 59398, Stop: 59571, Start Num: 12  
Candidate Starts for UPIE\_95:  
(1, 59272), (6, 59341), (9, 59377), (11, 59389), (Start: 12 @59398 has 2 MA's), (14, 59452), (17, 59560),

Gene: Underpass\_90 Start: 56441, Stop: 56578, Start Num: 13  
Candidate Starts for Underpass\_90:  
(Start: 8 @56408 has 12 MA's), (13, 56441),

Gene: Wyatt2\_97 Start: 59821, Stop: 59994, Start Num: 10  
Candidate Starts for Wyatt2\_97:  
(1, 59707), (5, 59761), (6, 59776), (9, 59812), (Start: 10 @59821 has 20 MA's), (14, 59875), (17, 59983),

Gene: Zakai\_101 Start: 61981, Stop: 62151, Start Num: 8  
Candidate Starts for Zakai\_101:  
(Start: 8 @61981 has 12 MA's), (13, 62014),

Gene: Zaria\_97 Start: 59297, Stop: 59470, Start Num: 10  
Candidate Starts for Zaria\_97:

(1, 59183), (5, 59237), (6, 59252), (9, 59288), (Start: 10 @59297 has 20 MA's), (14, 59351), (17, 59459),