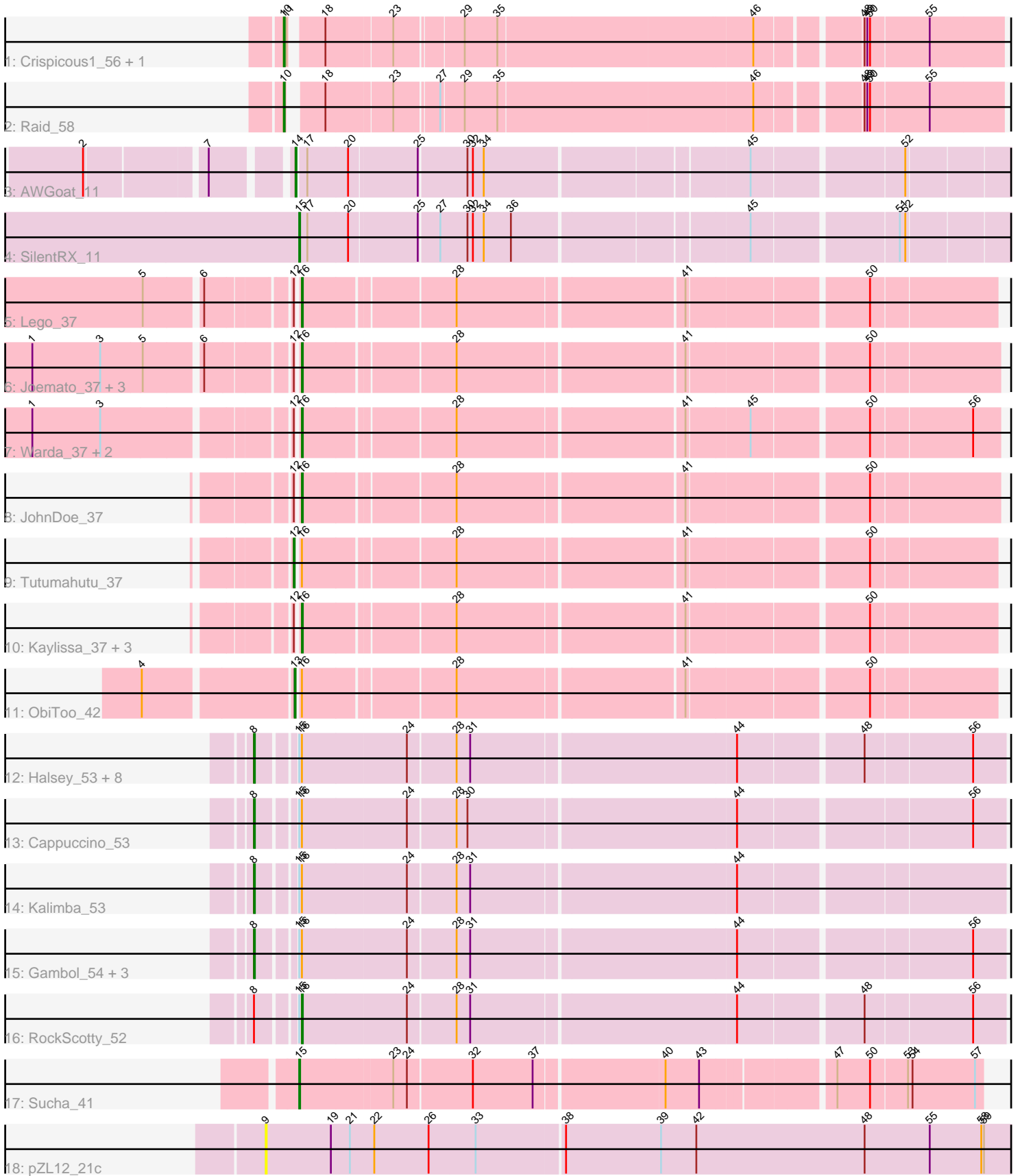


Pham 308904



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 308904 Report

This analysis was run 06/27/26 on database version 652.

WARNING: Pham size does not match number of genes in report. Either unphamerated genes have been added (by you) or starterator has removed genes due to invalid start codon.

Pham number 308904 has 38 members, 4 are drafts.

Phages represented in each track:

- Track 1 : Crispicious1\_56, CactusRose\_57
- Track 2 : Raid\_58
- Track 3 : AWGoat\_11
- Track 4 : SilentRX\_11
- Track 5 : Lego\_37
- Track 6 : Joemato\_37, Flutur\_36, Simpson\_39, Cyan\_37
- Track 7 : Warda\_37, Mudpuppy\_35, Tbone\_36
- Track 8 : JohnDoe\_37
- Track 9 : Tutumahutu\_37
- Track 10 : Kaylissa\_37, AGrandiflora\_37, YesChef\_37, Powerpuff\_39
- Track 11 : ObiToo\_42
- Track 12 : Halsey\_53, Giorgio\_52, Ashes\_53, Beaupre\_52, Moss\_53, Stuu\_53, Mysterium\_52, Gumpizza\_52, SpecialK\_53
- Track 13 : Cappuccino\_53
- Track 14 : Kalimba\_53
- Track 15 : Gambol\_54, Donkey\_53, Sabourin\_53, Sooty\_53
- Track 16 : RockScotty\_52
- Track 17 : Sucha\_41
- Track 18 : pZL12\_21c

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

The start number called the most often in the published annotations is 8, it was called in 15 of the 34 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Ashes\_53, Beaupre\_52, Cappuccino\_53, Donkey\_53, Gambol\_54, Giorgio\_52, Gumpizza\_52, Halsey\_53, Kalimba\_53, Moss\_53, Mysterium\_52, Sabourin\_53, Sooty\_53, SpecialK\_53, Stuu\_53,

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

- RockScotty\_52,

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

- AGrandiflora\_37, AWGoat\_11, CactusRose\_57, Crispicous1\_56, Cyan\_37, Flutur\_36, Joemato\_37, JohnDoe\_37, Kaylissa\_37, Lego\_37, Mudpuppy\_35, ObiToo\_42, Powerpuff\_39, Raid\_58, SilentRX\_11, Simpson\_39, Sucha\_41, Tbone\_36, Tutumahutu\_37, Warda\_37, YesChef\_37, pZL12\_21c,

### Summary by start number:

Start 8:

- Found in 16 of 38 ( 42.1% ) of genes in pham
- Manual Annotations of this start: 15 of 34
- Called 93.8% of time when present
- Phage (with cluster) where this start called: Ashes\_53 (AZ5), Beaupre\_52 (AZ5), Cappuccino\_53 (AZ5), Donkey\_53 (AZ5), Gambol\_54 (AZ5), Giorgio\_52 (AZ5), Gumpizza\_52 (AZ5), Halsey\_53 (AZ5), Kalimba\_53 (AZ5), Moss\_53 (AZ5), Mysterium\_52 (AZ5), Sabourin\_53 (AZ5), Sooty\_53 (AZ5), SpecialK\_53 (AZ5), Stuu\_53 (AZ5),

Start 9:

- Found in 1 of 38 ( 2.6% ) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: pZL12\_21c (singleton),

Start 10:

- Found in 3 of 38 ( 7.9% ) of genes in pham
- Manual Annotations of this start: 3 of 34
- Called 100.0% of time when present
- Phage (with cluster) where this start called: CactusRose\_57 (A1), Crispicous1\_56 (A1), Raid\_58 (A1),

Start 12:

- Found in 14 of 38 ( 36.8% ) of genes in pham
- Manual Annotations of this start: 1 of 34
- Called 7.1% of time when present
- Phage (with cluster) where this start called: Tutumahutu\_37 (AZ1),

Start 13:

- Found in 1 of 38 ( 2.6% ) of genes in pham
- Manual Annotations of this start: 1 of 34
- Called 100.0% of time when present
- Phage (with cluster) where this start called: ObiToo\_42 (AZ1),

Start 14:

- Found in 1 of 38 ( 2.6% ) of genes in pham
- Manual Annotations of this start: 1 of 34
- Called 100.0% of time when present
- Phage (with cluster) where this start called: AWGoat\_11 (AP4),

Start 15:

- Found in 18 of 38 ( 47.4% ) of genes in pham
- Manual Annotations of this start: 2 of 34
- Called 11.1% of time when present
- Phage (with cluster) where this start called: SilentRX\_11 (AP4), Sucha\_41 (EJ),

Start 16:

- Found in 31 of 38 ( 81.6% ) of genes in pham
- Manual Annotations of this start: 11 of 34
- Called 45.2% of time when present
- Phage (with cluster) where this start called: AGrandiflora\_37 (AZ1), Cyan\_37 (AZ1), Flutur\_36 (AZ), Joemato\_37 (AZ1), JohnDoe\_37 (AZ1), Kaylissa\_37 (AZ1), Lego\_37 (AZ1), Mudpuppy\_35 (AZ1), Powerpuff\_39 (AZ1), RockScotty\_52 (AZ5), Simpson\_39 (AZ1), Tbone\_36 (AZ1), Warda\_37 (AZ1), YesChef\_37 (AZ1),

### **Summary by clusters:**

There are 7 clusters represented in this pham: singleton, EJ, AP4, A1, AZ1, AZ, AZ5,

Info for manual annotations of cluster A1:

- Start number 10 was manually annotated 3 times for cluster A1.

Info for manual annotations of cluster AP4:

- Start number 14 was manually annotated 1 time for cluster AP4.
- Start number 15 was manually annotated 1 time for cluster AP4.

Info for manual annotations of cluster AZ1:

- Start number 12 was manually annotated 1 time for cluster AZ1.
- Start number 13 was manually annotated 1 time for cluster AZ1.
- Start number 16 was manually annotated 10 times for cluster AZ1.

Info for manual annotations of cluster AZ5:

- Start number 8 was manually annotated 15 times for cluster AZ5.
- Start number 16 was manually annotated 1 time for cluster AZ5.

Info for manual annotations of cluster EJ:

- Start number 15 was manually annotated 1 time for cluster EJ.

### **Gene Information:**

Gene: AGrandiflora\_37 Start: 25933, Stop: 26643, Start Num: 16

Candidate Starts for AGrandiflora\_37:

(Start: 12 @25930 has 1 MA's), (Start: 16 @25933 has 11 MA's), (28, 26086), (41, 26323), (50, 26509),

Gene: AWGoat\_11 Start: 4286, Stop: 5023, Start Num: 14

Candidate Starts for AWGoat\_11:

(2, 4094), (7, 4214), (Start: 14 @4286 has 1 MA's), (17, 4295), (20, 4337), (25, 4409), (30, 4460), (32, 4466), (34, 4478), (45, 4751), (52, 4907),

Gene: Ashes\_53 Start: 35916, Stop: 36692, Start Num: 8

Candidate Starts for Ashes\_53:

(Start: 8 @35916 has 15 MA's), (Start: 15 @35952 has 2 MA's), (Start: 16 @35955 has 11 MA's), (24, 36066), (28, 36117), (31, 36132), (44, 36414), (48, 36543), (56, 36657),

Gene: Beaupre\_52 Start: 35726, Stop: 36502, Start Num: 8

Candidate Starts for Beaupre\_52:

(Start: 8 @35726 has 15 MA's), (Start: 15 @35762 has 2 MA's), (Start: 16 @35765 has 11 MA's), (24, 35876), (28, 35927), (31, 35942), (44, 36224), (48, 36353), (56, 36467),

Gene: CactusRose\_57 Start: 40088, Stop: 39360, Start Num: 10

Candidate Starts for CactusRose\_57:

(Start: 10 @40088 has 3 MA's), (11, 40085), (18, 40058), (23, 39989), (29, 39920), (35, 39884), (46, 39611), (48, 39509), (49, 39506), (50, 39503), (55, 39440),

Gene: Cappuccino\_53 Start: 35772, Stop: 36548, Start Num: 8

Candidate Starts for Cappuccino\_53:

(Start: 8 @35772 has 15 MA's), (Start: 15 @35808 has 2 MA's), (Start: 16 @35811 has 11 MA's), (24, 35922), (28, 35973), (30, 35985), (44, 36270), (56, 36513),

Gene: Crispicous1\_56 Start: 39141, Stop: 38413, Start Num: 10

Candidate Starts for Crispicous1\_56:

(Start: 10 @39141 has 3 MA's), (11, 39138), (18, 39111), (23, 39042), (29, 38973), (35, 38937), (46, 38664), (48, 38562), (49, 38559), (50, 38556), (55, 38493),

Gene: Cyan\_37 Start: 25989, Stop: 26702, Start Num: 16

Candidate Starts for Cyan\_37:

(1, 25725), (3, 25800), (5, 25845), (6, 25902), (Start: 12 @25986 has 1 MA's), (Start: 16 @25989 has 11 MA's), (28, 26142), (41, 26379), (50, 26565),

Gene: Donkey\_53 Start: 35762, Stop: 36538, Start Num: 8

Candidate Starts for Donkey\_53:

(Start: 8 @35762 has 15 MA's), (Start: 15 @35798 has 2 MA's), (Start: 16 @35801 has 11 MA's), (24, 35912), (28, 35963), (31, 35978), (44, 36260), (56, 36503),

Gene: Flutur\_36 Start: 26247, Stop: 26960, Start Num: 16

Candidate Starts for Flutur\_36:

(1, 25983), (3, 26058), (5, 26103), (6, 26160), (Start: 12 @26244 has 1 MA's), (Start: 16 @26247 has 11 MA's), (28, 26400), (41, 26637), (50, 26823),

Gene: Gambol\_54 Start: 35781, Stop: 36557, Start Num: 8

Candidate Starts for Gambol\_54:

(Start: 8 @35781 has 15 MA's), (Start: 15 @35817 has 2 MA's), (Start: 16 @35820 has 11 MA's), (24, 35931), (28, 35982), (31, 35997), (44, 36279), (56, 36522),

Gene: Giorgio\_52 Start: 35709, Stop: 36485, Start Num: 8

Candidate Starts for Giorgio\_52:

(Start: 8 @35709 has 15 MA's), (Start: 15 @35745 has 2 MA's), (Start: 16 @35748 has 11 MA's), (24, 35859), (28, 35910), (31, 35925), (44, 36207), (48, 36336), (56, 36450),

Gene: Gumpizza\_52 Start: 35665, Stop: 36441, Start Num: 8

Candidate Starts for Gumpizza\_52:

(Start: 8 @35665 has 15 MA's), (Start: 15 @35701 has 2 MA's), (Start: 16 @35704 has 11 MA's), (24, 35815), (28, 35866), (31, 35881), (44, 36163), (48, 36292), (56, 36406),

Gene: Halsey\_53 Start: 35906, Stop: 36682, Start Num: 8

Candidate Starts for Halsey\_53:

(Start: 8 @35906 has 15 MA's), (Start: 15 @35942 has 2 MA's), (Start: 16 @35945 has 11 MA's), (24, 36056), (28, 36107), (31, 36122), (44, 36404), (48, 36533), (56, 36647),

Gene: Joemato\_37 Start: 26020, Stop: 26733, Start Num: 16

Candidate Starts for Joemato\_37:

(1, 25756), (3, 25831), (5, 25876), (6, 25933), (Start: 12 @26017 has 1 MA's), (Start: 16 @26020 has 11 MA's), (28, 26173), (41, 26410), (50, 26596),

Gene: JohnDoe\_37 Start: 26012, Stop: 26725, Start Num: 16

Candidate Starts for JohnDoe\_37:

(Start: 12 @26009 has 1 MA's), (Start: 16 @26012 has 11 MA's), (28, 26165), (41, 26402), (50, 26588),

Gene: Kalimba\_53 Start: 35759, Stop: 36535, Start Num: 8

Candidate Starts for Kalimba\_53:

(Start: 8 @35759 has 15 MA's), (Start: 15 @35795 has 2 MA's), (Start: 16 @35798 has 11 MA's), (24, 35909), (28, 35960), (31, 35975), (44, 36257),

Gene: Kaylissa\_37 Start: 25954, Stop: 26664, Start Num: 16

Candidate Starts for Kaylissa\_37:

(Start: 12 @25951 has 1 MA's), (Start: 16 @25954 has 11 MA's), (28, 26107), (41, 26344), (50, 26530),

Gene: Lego\_37 Start: 25900, Stop: 26610, Start Num: 16

Candidate Starts for Lego\_37:

(5, 25759), (6, 25816), (Start: 12 @25897 has 1 MA's), (Start: 16 @25900 has 11 MA's), (28, 26053), (41, 26290), (50, 26476),

Gene: Moss\_53 Start: 35847, Stop: 36623, Start Num: 8

Candidate Starts for Moss\_53:

(Start: 8 @35847 has 15 MA's), (Start: 15 @35883 has 2 MA's), (Start: 16 @35886 has 11 MA's), (24, 35997), (28, 36048), (31, 36063), (44, 36345), (48, 36474), (56, 36588),

Gene: Mudpuppy\_35 Start: 25767, Stop: 26480, Start Num: 16

Candidate Starts for Mudpuppy\_35:

(1, 25503), (3, 25578), (Start: 12 @25764 has 1 MA's), (Start: 16 @25767 has 11 MA's), (28, 25920), (41, 26157), (45, 26223), (50, 26343), (56, 26451),

Gene: Mysterium\_52 Start: 35694, Stop: 36470, Start Num: 8

Candidate Starts for Mysterium\_52:

(Start: 8 @35694 has 15 MA's), (Start: 15 @35730 has 2 MA's), (Start: 16 @35733 has 11 MA's), (24, 35844), (28, 35895), (31, 35910), (44, 36192), (48, 36321), (56, 36435),

Gene: ObiToo\_42 Start: 26828, Stop: 27541, Start Num: 13

Candidate Starts for ObiToo\_42:

(4, 26675), (Start: 13 @26828 has 1 MA's), (Start: 16 @26831 has 11 MA's), (28, 26984), (41, 27221), (50, 27407),

Gene: Powerpuff\_39 Start: 27103, Stop: 27813, Start Num: 16

Candidate Starts for Powerpuff\_39:

(Start: 12 @27100 has 1 MA's), (Start: 16 @27103 has 11 MA's), (28, 27256), (41, 27493), (50, 27679),

Gene: Raid\_58 Start: 40256, Stop: 39531, Start Num: 10

Candidate Starts for Raid\_58:

(Start: 10 @40256 has 3 MA's), (18, 40229), (23, 40160), (27, 40115), (29, 40091), (35, 40055), (46, 39782), (48, 39680), (49, 39677), (50, 39674), (55, 39611),

Gene: RockScotty\_52 Start: 35728, Stop: 36465, Start Num: 16

Candidate Starts for RockScotty\_52:

(Start: 8 @35689 has 15 MA's), (Start: 15 @35725 has 2 MA's), (Start: 16 @35728 has 11 MA's), (24, 35839), (28, 35890), (31, 35905), (44, 36187), (48, 36316), (56, 36430),

Gene: Sabourin\_53 Start: 35760, Stop: 36536, Start Num: 8

Candidate Starts for Sabourin\_53:

(Start: 8 @35760 has 15 MA's), (Start: 15 @35796 has 2 MA's), (Start: 16 @35799 has 11 MA's), (24, 35910), (28, 35961), (31, 35976), (44, 36258), (56, 36501),

Gene: SilentRX\_11 Start: 3891, Stop: 4628, Start Num: 15

Candidate Starts for SilentRX\_11:

(Start: 15 @3891 has 2 MA's), (17, 3900), (20, 3942), (25, 4014), (27, 4035), (30, 4065), (32, 4071), (34, 4083), (36, 4113), (45, 4356), (51, 4506), (52, 4512),

Gene: Simpson\_39 Start: 26020, Stop: 26733, Start Num: 16

Candidate Starts for Simpson\_39:

(1, 25756), (3, 25831), (5, 25876), (6, 25933), (Start: 12 @26017 has 1 MA's), (Start: 16 @26020 has 11 MA's), (28, 26173), (41, 26410), (50, 26596),

Gene: Sooty\_53 Start: 35774, Stop: 36550, Start Num: 8

Candidate Starts for Sooty\_53:

(Start: 8 @35774 has 15 MA's), (Start: 15 @35810 has 2 MA's), (Start: 16 @35813 has 11 MA's), (24, 35924), (28, 35975), (31, 35990), (44, 36272), (56, 36515),

Gene: SpecialK\_53 Start: 35756, Stop: 36532, Start Num: 8

Candidate Starts for SpecialK\_53:

(Start: 8 @35756 has 15 MA's), (Start: 15 @35792 has 2 MA's), (Start: 16 @35795 has 11 MA's), (24, 35906), (28, 35957), (31, 35972), (44, 36254), (48, 36383), (56, 36497),

Gene: Stuu\_53 Start: 35871, Stop: 36647, Start Num: 8

Candidate Starts for Stuu\_53:

(Start: 8 @35871 has 15 MA's), (Start: 15 @35907 has 2 MA's), (Start: 16 @35910 has 11 MA's), (24, 36021), (28, 36072), (31, 36087), (44, 36369), (48, 36498), (56, 36612),

Gene: Sucha\_41 Start: 26232, Stop: 26936, Start Num: 15

Candidate Starts for Sucha\_41:

(Start: 15 @26232 has 2 MA's), (23, 26328), (24, 26343), (32, 26412), (37, 26478), (40, 26613), (43, 26649), (47, 26781), (50, 26817), (53, 26856), (54, 26859), (57, 26928),

Gene: Tbone\_36 Start: 25815, Stop: 26528, Start Num: 16

Candidate Starts for Tbone\_36:

(1, 25551), (3, 25626), (Start: 12 @25812 has 1 MA's), (Start: 16 @25815 has 11 MA's), (28, 25968), (41, 26205), (45, 26271), (50, 26391), (56, 26499),

Gene: Tutumahutu\_37 Start: 25982, Stop: 26695, Start Num: 12

Candidate Starts for Tutumahutu\_37:

(Start: 12 @25982 has 1 MA's), (Start: 16 @25985 has 11 MA's), (28, 26138), (41, 26375), (50, 26561),

Gene: Warda\_37 Start: 25991, Stop: 26704, Start Num: 16

Candidate Starts for Warda\_37:

(1, 25727), (3, 25802), (Start: 12 @25988 has 1 MA's), (Start: 16 @25991 has 11 MA's), (28, 26144), (41, 26381), (45, 26447), (50, 26567), (56, 26675),

Gene: YesChef\_37 Start: 25962, Stop: 26672, Start Num: 16

Candidate Starts for YesChef\_37:

(Start: 12 @25959 has 1 MA's), (Start: 16 @25962 has 11 MA's), (28, 26115), (41, 26352), (50, 26538),

Gene: pZL12\_21c Start: 14130, Stop: 13288, Start Num: 9

Candidate Starts for pZL12\_21c:

(9, 14130), (19, 14058), (21, 14037), (22, 14010), (26, 13950), (33, 13899), (38, 13806), (39, 13701), (42, 13662), (48, 13476), (55, 13404), (58, 13347), (59, 13344),