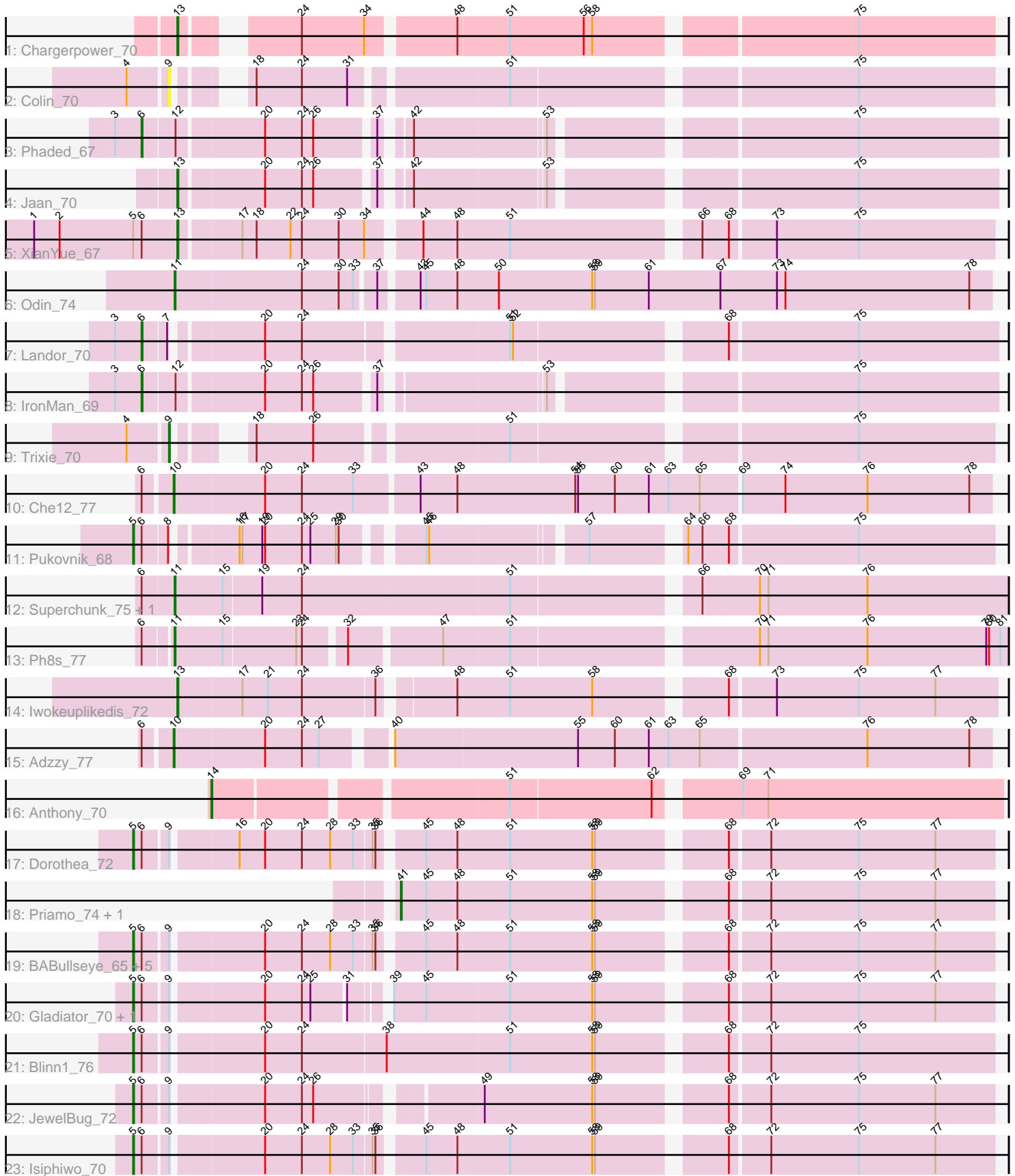


Pham 203182



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 203182 Report

This analysis was run 01/18/25 on database version 583.

Pham number 203182 has 31 members, 2 are drafts.

Phages represented in each track:

- Track 1 : Chargerpower\_70
- Track 2 : Colin\_70
- Track 3 : Phaded\_67
- Track 4 : Jaan\_70
- Track 5 : XianYue\_67
- Track 6 : Odin\_74
- Track 7 : Landor\_70
- Track 8 : IronMan\_69
- Track 9 : Trixie\_70
- Track 10 : Che12\_77
- Track 11 : Pukovnik\_68
- Track 12 : Superchunk\_75, Caraxes\_76
- Track 13 : Ph8s\_77
- Track 14 : Iwokeuplikedis\_72
- Track 15 : Adzzy\_77
- Track 16 : Anthony\_70
- Track 17 : Dorothea\_72
- Track 18 : Priamo\_74, Jordennis\_71
- Track 19 : BABullseye\_65, Pmask\_71, SuperAwesome\_72, Neeharika16\_71, SuperCallie99\_69, Cookiedough\_72
- Track 20 : Gladiator\_70, Newrala\_72
- Track 21 : Blinn1\_76
- Track 22 : JewelBug\_72
- Track 23 : Isiphiwo\_70

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

The start number called the most often in the published annotations is 5, it was called in 13 of the 29 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- BABullseye\_65, Blinn1\_76, Cookiedough\_72, Dorothea\_72, Gladiator\_70, Isiphiwo\_70, JewelBug\_72, Neeharika16\_71, Newrala\_72, Pmask\_71, Pukovnik\_68, SuperAwesome\_72, SuperCallie99\_69,

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

- XianYue\_67,

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

- Adzzy\_77, Anthony\_70, Caraxes\_76, Chargerpower\_70, Che12\_77, Colin\_70, IronMan\_69, Iwokeuplikedis\_72, Jaan\_70, Jordennis\_71, Landor\_70, Odin\_74, Ph8s\_77, Phaded\_67, Priamo\_74, Superchunk\_75, Trixie\_70,

### Summary by start number:

Start 5:

- Found in 14 of 31 ( 45.2% ) of genes in pham
- Manual Annotations of this start: 13 of 29
- Called 92.9% of time when present
- Phage (with cluster) where this start called: BABullseye\_65 (A6), Blinn1\_76 (A6), Cookiedough\_72 (A6), Dorothea\_72 (A6), Gladiator\_70 (A6), Isiphiwo\_70 (A6), JewelBug\_72 (A6), Neeharika16\_71 (A6), Newrala\_72 (A6), Pmask\_71 (A6), Pukovnik\_68 (A2), SuperAwesome\_72 (A6), SuperCallie99\_69 (A6),

Start 6:

- Found in 22 of 31 ( 71.0% ) of genes in pham
- Manual Annotations of this start: 3 of 29
- Called 13.6% of time when present
- Phage (with cluster) where this start called: IronMan\_69 (A2), Landor\_70 (A2), Phaded\_67 (A2),

Start 9:

- Found in 14 of 31 ( 45.2% ) of genes in pham
- Manual Annotations of this start: 1 of 29
- Called 14.3% of time when present
- Phage (with cluster) where this start called: Colin\_70 (A2), Trixie\_70 (A2),

Start 10:

- Found in 2 of 31 ( 6.5% ) of genes in pham
- Manual Annotations of this start: 2 of 29
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Adzzy\_77 (A2), Che12\_77 (A2),

Start 11:

- Found in 4 of 31 ( 12.9% ) of genes in pham
- Manual Annotations of this start: 3 of 29
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Caraxes\_76 (A2), Odin\_74 (A2), Ph8s\_77 (A2), Superchunk\_75 (A2),

Start 13:

- Found in 4 of 31 ( 12.9% ) of genes in pham
- Manual Annotations of this start: 4 of 29
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Chargerpower\_70 (A), Iwokeuplikedis\_72 (A2), Jaan\_70 (A2), XianYue\_67 (A2),

Start 14:

- Found in 1 of 31 ( 3.2% ) of genes in pham
- Manual Annotations of this start: 1 of 29
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Anthony\_70 (A20),

Start 41:

- Found in 2 of 31 ( 6.5% ) of genes in pham
- Manual Annotations of this start: 2 of 29
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Jordennis\_71 (A6), Priamo\_74 (A6),

**Summary by clusters:**

There are 4 clusters represented in this pham: A, A20, A2, A6,

Info for manual annotations of cluster A:

- Start number 13 was manually annotated 1 time for cluster A.

Info for manual annotations of cluster A2:

- Start number 5 was manually annotated 1 time for cluster A2.
- Start number 6 was manually annotated 3 times for cluster A2.
- Start number 9 was manually annotated 1 time for cluster A2.
- Start number 10 was manually annotated 2 times for cluster A2.
- Start number 11 was manually annotated 3 times for cluster A2.
- Start number 13 was manually annotated 3 times for cluster A2.

Info for manual annotations of cluster A20:

- Start number 14 was manually annotated 1 time for cluster A20.

Info for manual annotations of cluster A6:

- Start number 5 was manually annotated 12 times for cluster A6.
- Start number 41 was manually annotated 2 times for cluster A6.

**Gene Information:**

Gene: Adzzy\_77 Start: 43239, Stop: 42412, Start Num: 10

Candidate Starts for Adzzy\_77:

(Start: 6 @43266 has 3 MA's), (Start: 10 @43239 has 2 MA's), (20, 43146), (24, 43107), (27, 43089), (40, 43032), (55, 42843), (60, 42804), (61, 42768), (63, 42747), (65, 42714), (76, 42543), (78, 42435),

Gene: Anthony\_70 Start: 42960, Stop: 42178, Start Num: 14

Candidate Starts for Anthony\_70:

(Start: 14 @42960 has 1 MA's), (51, 42675), (62, 42528), (69, 42453), (71, 42426),

Gene: BABullseye\_65 Start: 39826, Stop: 38978, Start Num: 5

Candidate Starts for BABullseye\_65:

(Start: 5 @39826 has 13 MA's), (Start: 6 @39817 has 3 MA's), (Start: 9 @39793 has 1 MA's), (20, 39703), (24, 39664), (28, 39634), (33, 39610), (35, 39592), (36, 39589), (45, 39550), (48, 39517), (51, 39463), (58, 39376), (59, 39373), (68, 39253), (72, 39214), (75, 39121), (77, 39040),

Gene: Blinn1\_76 Start: 42445, Stop: 41582, Start Num: 5

Candidate Starts for Blinn1\_76:

(Start: 5 @42445 has 13 MA's), (Start: 6 @42436 has 3 MA's), (Start: 9 @42412 has 1 MA's), (20, 42322), (24, 42283), (38, 42196), (51, 42067), (58, 41980), (59, 41977), (68, 41857), (72, 41818), (75, 41725),

Gene: Caraxes\_76 Start: 43021, Stop: 42170, Start Num: 11

Candidate Starts for Caraxes\_76:

(Start: 6 @43054 has 3 MA's), (Start: 11 @43021 has 3 MA's), (15, 42970), (19, 42931), (24, 42889), (51, 42673), (66, 42493), (70, 42433), (71, 42424), (76, 42319),

Gene: Chargerpower\_70 Start: 41985, Stop: 41206, Start Num: 13

Candidate Starts for Chargerpower\_70:

(Start: 13 @41985 has 4 MA's), (24, 41895), (34, 41829), (48, 41745), (51, 41691), (56, 41613), (58, 41604), (75, 41349),

Gene: Che12\_77 Start: 43138, Stop: 42296, Start Num: 10

Candidate Starts for Che12\_77:

(Start: 6 @43165 has 3 MA's), (Start: 10 @43138 has 2 MA's), (20, 43045), (24, 43006), (33, 42952), (43, 42889), (48, 42850), (54, 42730), (55, 42727), (60, 42688), (61, 42652), (63, 42631), (65, 42598), (69, 42559), (74, 42514), (76, 42427), (78, 42319),

Gene: Colin\_70 Start: 43999, Stop: 43229, Start Num: 9

Candidate Starts for Colin\_70:

(4, 44038), (Start: 9 @43999 has 1 MA's), (18, 43957), (24, 43909), (31, 43861), (51, 43711), (75, 43372),

Gene: Cookiedough\_72 Start: 42134, Stop: 41286, Start Num: 5

Candidate Starts for Cookiedough\_72:

(Start: 5 @42134 has 13 MA's), (Start: 6 @42125 has 3 MA's), (Start: 9 @42101 has 1 MA's), (20, 42011), (24, 41972), (28, 41942), (33, 41918), (35, 41900), (36, 41897), (45, 41858), (48, 41825), (51, 41771), (58, 41684), (59, 41681), (68, 41561), (72, 41522), (75, 41429), (77, 41348),

Gene: Dorothea\_72 Start: 42132, Stop: 41284, Start Num: 5

Candidate Starts for Dorothea\_72:

(Start: 5 @42132 has 13 MA's), (Start: 6 @42123 has 3 MA's), (Start: 9 @42099 has 1 MA's), (16, 42036), (20, 42009), (24, 41970), (28, 41940), (33, 41916), (35, 41898), (36, 41895), (45, 41856), (48, 41823), (51, 41769), (58, 41682), (59, 41679), (68, 41559), (72, 41520), (75, 41427), (77, 41346),

Gene: Gladiator\_70 Start: 41751, Stop: 40912, Start Num: 5

Candidate Starts for Gladiator\_70:

(Start: 5 @41751 has 13 MA's), (Start: 6 @41742 has 3 MA's), (Start: 9 @41718 has 1 MA's), (20, 41628), (24, 41589), (25, 41580), (31, 41547), (39, 41517), (45, 41484), (51, 41397), (58, 41310), (59, 41307), (68, 41187), (72, 41148), (75, 41055), (77, 40974),

Gene: IronMan\_69 Start: 44419, Stop: 43604, Start Num: 6

Candidate Starts for IronMan\_69:

(3, 44446), (Start: 6 @44419 has 3 MA's), (12, 44386), (20, 44302), (24, 44263), (26, 44251), (37, 44194), (53, 44041), (75, 43750),

Gene: Isiphiwo\_70 Start: 41692, Stop: 40844, Start Num: 5

Candidate Starts for Isiphiwo\_70:

(Start: 5 @41692 has 13 MA's), (Start: 6 @41683 has 3 MA's), (Start: 9 @41659 has 1 MA's), (20, 41569), (24, 41530), (28, 41500), (33, 41476), (35, 41458), (36, 41455), (45, 41416), (48, 41383), (51, 41329), (58, 41242), (59, 41239), (68, 41119), (72, 41080), (75, 40987), (77, 40906),

Gene: Iwokeuplikedis\_72 Start: 43407, Stop: 42592, Start Num: 13

Candidate Starts for Iwokeuplikedis\_72:

(Start: 13 @43407 has 4 MA's), (17, 43341), (21, 43314), (24, 43278), (36, 43203), (48, 43134), (51, 43080), (58, 42993), (68, 42870), (73, 42825), (75, 42738), (77, 42657),

Gene: Jaan\_70 Start: 44554, Stop: 43772, Start Num: 13

Candidate Starts for Jaan\_70:

(Start: 13 @44554 has 4 MA's), (20, 44470), (24, 44431), (26, 44419), (37, 44362), (42, 44341), (53, 44209), (75, 43918),

Gene: JewelBug\_72 Start: 42414, Stop: 41578, Start Num: 5

Candidate Starts for JewelBug\_72:

(Start: 5 @42414 has 13 MA's), (Start: 6 @42405 has 3 MA's), (Start: 9 @42381 has 1 MA's), (20, 42291), (24, 42252), (26, 42240), (49, 42090), (58, 41976), (59, 41973), (68, 41853), (72, 41814), (75, 41721), (77, 41640),

Gene: Jordennis\_71 Start: 41658, Stop: 41059, Start Num: 41

Candidate Starts for Jordennis\_71:

(Start: 41 @41658 has 2 MA's), (45, 41631), (48, 41598), (51, 41544), (58, 41457), (59, 41454), (68, 41334), (72, 41295), (75, 41202), (77, 41121),

Gene: Landor\_70 Start: 44512, Stop: 43679, Start Num: 6

Candidate Starts for Landor\_70:

(3, 44539), (Start: 6 @44512 has 3 MA's), (7, 44488), (20, 44404), (24, 44365), (51, 44164), (52, 44161), (68, 43957), (75, 43825),

Gene: Neeharika16\_71 Start: 41586, Stop: 40738, Start Num: 5

Candidate Starts for Neeharika16\_71:

(Start: 5 @41586 has 13 MA's), (Start: 6 @41577 has 3 MA's), (Start: 9 @41553 has 1 MA's), (20, 41463), (24, 41424), (28, 41394), (33, 41370), (35, 41352), (36, 41349), (45, 41310), (48, 41277), (51, 41223), (58, 41136), (59, 41133), (68, 41013), (72, 40974), (75, 40881), (77, 40800),

Gene: Newrala\_72 Start: 42117, Stop: 41278, Start Num: 5

Candidate Starts for Newrala\_72:

(Start: 5 @42117 has 13 MA's), (Start: 6 @42108 has 3 MA's), (Start: 9 @42084 has 1 MA's), (20, 41994), (24, 41955), (25, 41946), (31, 41913), (39, 41883), (45, 41850), (51, 41763), (58, 41676), (59, 41673), (68, 41553), (72, 41514), (75, 41421), (77, 41340),

Gene: Odin\_74 Start: 43407, Stop: 42565, Start Num: 11

Candidate Starts for Odin\_74:

(Start: 11 @43407 has 3 MA's), (24, 43275), (30, 43236), (33, 43221), (37, 43203), (43, 43167), (45, 43161), (48, 43128), (50, 43086), (58, 42987), (59, 42984), (61, 42927), (67, 42852), (73, 42792), (74, 42783), (78, 42588),

Gene: Ph8s\_77 Start: 43456, Stop: 42623, Start Num: 11

Candidate Starts for Ph8s\_77:

(Start: 6 @43483 has 3 MA's), (Start: 11 @43456 has 3 MA's), (15, 43405), (23, 43330), (24, 43324), (32, 43285), (47, 43195), (51, 43126), (70, 42886), (71, 42877), (76, 42772), (79, 42646), (80, 42643), (81, 42631),

Gene: Phaded\_67 Start: 44471, Stop: 43656, Start Num: 6

Candidate Starts for Phaded\_67:

(3, 44498), (Start: 6 @44471 has 3 MA's), (12, 44438), (20, 44354), (24, 44315), (26, 44303), (37, 44246), (42, 44225), (53, 44093), (75, 43802),

Gene: Pmask\_71 Start: 42122, Stop: 41274, Start Num: 5

Candidate Starts for Pmask\_71:

(Start: 5 @42122 has 13 MA's), (Start: 6 @42113 has 3 MA's), (Start: 9 @42089 has 1 MA's), (20, 41999), (24, 41960), (28, 41930), (33, 41906), (35, 41888), (36, 41885), (45, 41846), (48, 41813), (51, 41759), (58, 41672), (59, 41669), (68, 41549), (72, 41510), (75, 41417), (77, 41336),

Gene: Priamo\_74 Start: 41728, Stop: 41129, Start Num: 41

Candidate Starts for Priamo\_74:

(Start: 41 @41728 has 2 MA's), (45, 41701), (48, 41668), (51, 41614), (58, 41527), (59, 41524), (68, 41404), (72, 41365), (75, 41272), (77, 41191),

Gene: Pukovnik\_68 Start: 44139, Stop: 43324, Start Num: 5

Candidate Starts for Pukovnik\_68:

(Start: 5 @44139 has 13 MA's), (Start: 6 @44130 has 3 MA's), (8, 44106), (16, 44049), (17, 44046), (19, 44025), (20, 44022), (24, 43983), (25, 43974), (29, 43947), (30, 43944), (45, 43878), (46, 43875), (57, 43725), (64, 43641), (66, 43626), (68, 43599), (75, 43467),

Gene: SuperAwesome\_72 Start: 42164, Stop: 41316, Start Num: 5

Candidate Starts for SuperAwesome\_72:

(Start: 5 @42164 has 13 MA's), (Start: 6 @42155 has 3 MA's), (Start: 9 @42131 has 1 MA's), (20, 42041), (24, 42002), (28, 41972), (33, 41948), (35, 41930), (36, 41927), (45, 41888), (48, 41855), (51, 41801), (58, 41714), (59, 41711), (68, 41591), (72, 41552), (75, 41459), (77, 41378),

Gene: SuperCallie99\_69 Start: 42006, Stop: 41158, Start Num: 5

Candidate Starts for SuperCallie99\_69:

(Start: 5 @42006 has 13 MA's), (Start: 6 @41997 has 3 MA's), (Start: 9 @41973 has 1 MA's), (20, 41883), (24, 41844), (28, 41814), (33, 41790), (35, 41772), (36, 41769), (45, 41730), (48, 41697), (51, 41643), (58, 41556), (59, 41553), (68, 41433), (72, 41394), (75, 41301), (77, 41220),

Gene: Superchunk\_75 Start: 43021, Stop: 42170, Start Num: 11

Candidate Starts for Superchunk\_75:

(Start: 6 @43054 has 3 MA's), (Start: 11 @43021 has 3 MA's), (15, 42970), (19, 42931), (24, 42889), (51, 42673), (66, 42493), (70, 42433), (71, 42424), (76, 42319),

Gene: Trixie\_70 Start: 43815, Stop: 43045, Start Num: 9

Candidate Starts for Trixie\_70:

(4, 43854), (Start: 9 @43815 has 1 MA's), (18, 43773), (26, 43713), (51, 43527), (75, 43188),

Gene: XianYue\_67 Start: 43032, Stop: 42220, Start Num: 13

Candidate Starts for XianYue\_67:

(1, 43182), (2, 43155), (Start: 5 @43077 has 13 MA's), (Start: 6 @43068 has 3 MA's), (Start: 13 @43032 has 4 MA's), (17, 42972), (18, 42957), (22, 42921), (24, 42909), (30, 42870), (34, 42843), (44, 42795), (48, 42759), (51, 42705), (66, 42522), (68, 42495), (73, 42450), (75, 42363),