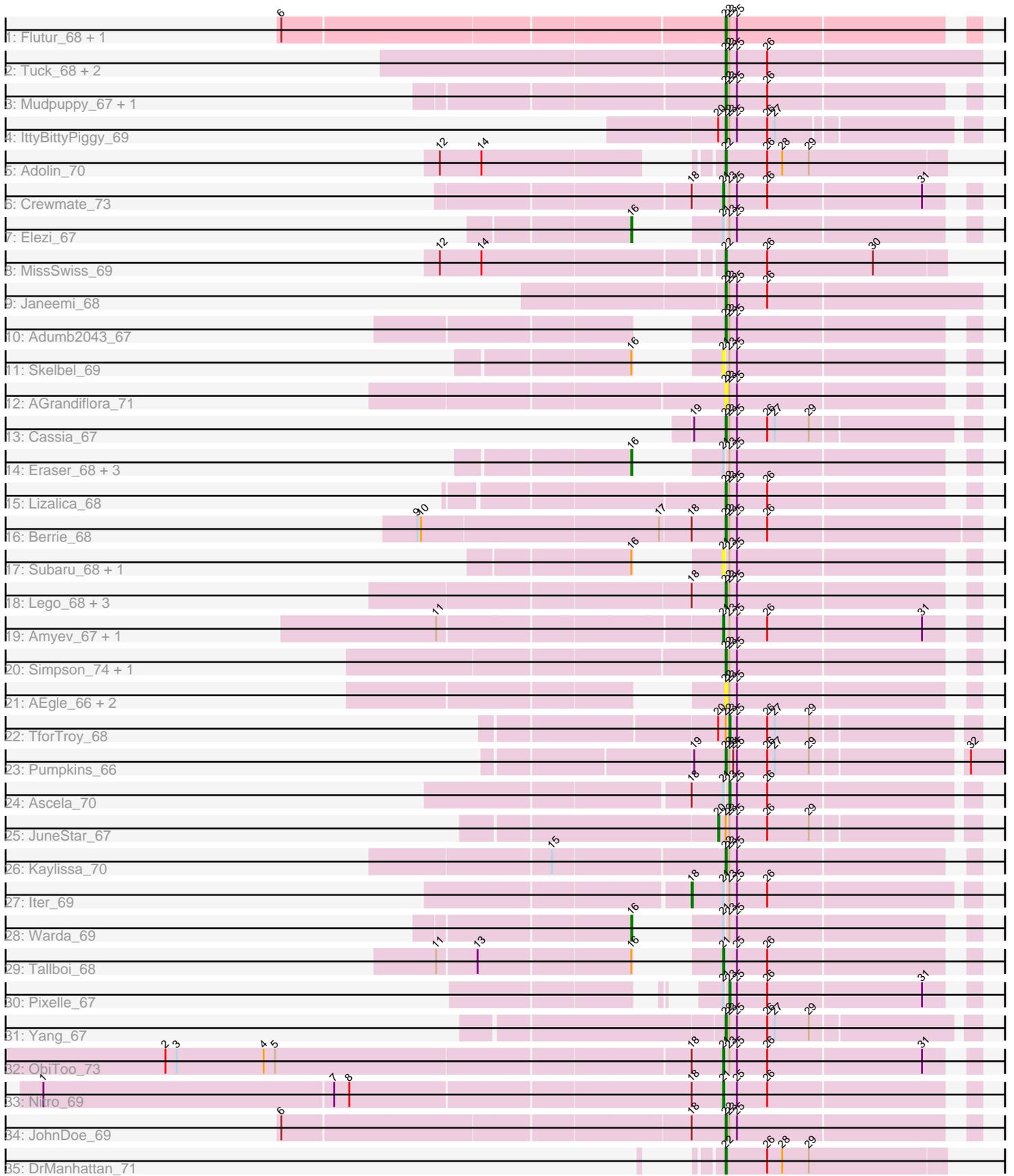# Pham 289494

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 289494 Report

This analysis was run 03/28/26 on database version 641.

Pham number 289494 has 50 members, 11 are drafts.

Phages represented in each track:
• Track 1 : Flutur_68, Cyan_69
• Track 2 : Tuck_68, Phives_69, Community_69
• Track 3 : Mudpuppy_67, Tbone_68
• Track 4 : IttyBittyPiggy_69
• Track 5 : Adolin_70
• Track 6 : Crewmate_73
• Track 7 : Elezi_67
• Track 8 : MissSwiss_69
• Track 9 : Janeemi_68
• Track 10 : Adumb2043_67
• Track 11 : Skelbel_69
• Track 12 : AGrandiflora_71
• Track 13 : Cassia_67
• Track 14 : Eraser_68, Asa16_68, London_68, Niobe_68
• Track 15 : Lizalica_68
• Track 16 : Berrie_68
• Track 17 : Subaru_68, Jstan_69
• Track 18 : Lego_68, Tutumahutu_70, YesChef_68, Powerpuff_70
• Track 19 : Amyev_67, Tian_66
• Track 20 : Simpson_74, Joemato_70
• Track 21 : AEgle_66, Turab_67, Amploria_68
• Track 22 : TforTroy_68
• Track 23 : Pumpkins_66
• Track 24 : Ascela_70
• Track 25 : JuneStar_67
• Track 26 : Kaylissa_70
• Track 27 : Iter_69
• Track 28 : Warda_69
• Track 29 : Tallboi_68
• Track 30 : Pixelle_67
• Track 31 : Yang_67
• Track 32 : ObiToo_73
• Track 33 : Nitro_69
• Track 34 : JohnDoe_69
• Track 35 : DrManhattan_71

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 23 of the 39 non-draft genes in the pham.

Genes that call this "Most Annotated" start:
• AEgle_66, AGrandiflora_71, Adolin_70, Adumb2043_67, Amploria_68, Berrie_68, Cassia_67, Community_69, Cyan_69, DrManhattan_71, Flutur_68, IttyBittyPiggy_69, Janeemi_68, Joemato_70, JohnDoe_69, Kaylissa_70, Lego_68, Lizalica_68, MissSwiss_69, Mudpuppy_67, Phives_69, Powerpuff_70, Pumpkins_66, Simpson_74, Tbone_68, Tuck_68, Turab_67, Tutumahutu_70, Yang_67, YesChef_68,

Genes that have the "Most Annotated" start but do not call it:
• JuneStar_67, TforTroy_68,

Genes that do not have the "Most Annotated" start:
• Amyev_67, Asa16_68, Ascela_70, Crewmate_73, Elezi_67, Eraser_68, Iter_69, Jstan_69, London_68, Niobe_68, Nitro_69, ObiToo_73, Pixelle_67, Skelbel_69, Subaru_68, Tallboi_68, Tian_66, Warda_69,

Summary by start number:

Start 16:
• Found in 10 of 50 (20.0%) of genes in pham
• Manual Annotations of this start: 6 of 39
• Called 60.0% of time when present
• Phage (with cluster) where this start called: Asa16_68 (AZ1), Elezi_67 (AZ1), Eraser_68 (AZ1), London_68 (AZ1), Niobe_68 (AZ1), Warda_69 (AZ1),

Start 18:
• Found in 11 of 50 (22.0%) of genes in pham
• Manual Annotations of this start: 1 of 39
• Called 9.1% of time when present
• Phage (with cluster) where this start called: Iter_69 (AZ1),

Start 20:
• Found in 3 of 50 (6.0%) of genes in pham
• Manual Annotations of this start: 1 of 39
• Called 33.3% of time when present
• Phage (with cluster) where this start called: JuneStar_67 (AZ1),

Start 21:
• Found in 18 of 50 (36.0%) of genes in pham
• Manual Annotations of this start: 5 of 39
• Called 50.0% of time when present
• Phage (with cluster) where this start called: Amyev_67 (AZ1), Crewmate_73 (AZ1), Jstan_69 (AZ1), Nitro_69 (AZ1), ObiToo_73 (AZ1), Skelbel_69 (AZ1), Subaru_68 (AZ1), Tallboi_68 (AZ1), Tian_66 (AZ1),

Start 22:
• Found in 32 of 50 (64.0%) of genes in pham

• Manual Annotations of this start: 23 of 39
• Called 93.8% of time when present
• Phage (with cluster) where this start called: AEgle_66 (AZ1), AGrandiflora_71 (AZ1), Adolin_70 (AZ1), Adumb2043_67 (AZ1), Amploria_68 (AZ1), Berrie_68 (AZ1), Cassia_67 (AZ1), Community_69 (AZ1), Cyan_69 (AZ1), DrManhattan_71 (AZ1), Flutur_68 (AZ), IttyBittyPiggy_69 (AZ1), Janeemi_68 (AZ1), Joemato_70 (AZ1), JohnDoe_69 (AZ1), Kaylissa_70 (AZ1), Lego_68 (AZ1), Lizalica_68 (AZ1), MissSwiss_69 (AZ1), Mudpuppy_67 (AZ1), Phives_69 (AZ1), Powerpuff_70 (AZ1), Pumpkins_66 (AZ1), Simpson_74 (AZ1), Tbone_68 (AZ1), Tuck_68 (AZ1), Turab_67 (AZ1), Tutumahutu_70 (AZ1), Yang_67 (AZ1), YesChef_68 (AZ1),

Start 23:
• Found in 45 of 50 (90.0%) of genes in pham
• Manual Annotations of this start: 3 of 39
• Called 6.7% of time when present
• Phage (with cluster) where this start called: Ascela_70 (AZ1), Pixelle_67 (AZ1), TforTroy_68 (AZ1),

Summary by clusters:

There are 2 clusters represented in this pham: AZ1, AZ,

Info for manual annotations of cluster AZ1:
•Start number 16 was manually annotated 6 times for cluster AZ1.
•Start number 18 was manually annotated 1 time for cluster AZ1.
•Start number 20 was manually annotated 1 time for cluster AZ1.
•Start number 21 was manually annotated 5 times for cluster AZ1.
•Start number 22 was manually annotated 23 times for cluster AZ1.
•Start number 23 was manually annotated 3 times for cluster AZ1.

Gene Information:
Gene: AEgle_66 Start: 42524, Stop: 42706, Start Num: 22
Candidate Starts for AEgle_66:
(Start: 22 @42524 has 23 MA's), (Start: 23 @42527 has 3 MA's), (25, 42533),

Gene: AGrandiflora_71 Start: 43376, Stop: 43558, Start Num: 22
Candidate Starts for AGrandiflora_71:
(Start: 22 @43376 has 23 MA's), (Start: 23 @43379 has 3 MA's), (25, 43385),

Gene: Adolin_70 Start: 42481, Stop: 42654, Start Num: 22
Candidate Starts for Adolin_70:
(12, 42310), (14, 42343), (Start: 22 @42481 has 23 MA's), (26, 42514), (28, 42526), (29, 42547),

Gene: Adumb2043_67 Start: 42549, Stop: 42731, Start Num: 22
Candidate Starts for Adumb2043_67:
(Start: 22 @42549 has 23 MA's), (Start: 23 @42552 has 3 MA's), (25, 42558),

Gene: Amploria_68 Start: 42728, Stop: 42910, Start Num: 22
Candidate Starts for Amploria_68:

(Start: 22 @42728 has 23 MA's), (Start: 23 @42731 has 3 MA's), (25, 42737),

Gene: Amyev_67 Start: 43734, Stop: 43916, Start Num: 21
Candidate Starts for Amyev_67:
(11, 43524), (Start: 21 @43734 has 5 MA's), (Start: 23 @43737 has 3 MA's), (25, 43743), (26, 43767),
(31, 43887),

Gene: Asa16_68 Start: 43027, Stop: 43233, Start Num: 16
Candidate Starts for Asa16_68:
(Start: 16 @43027 has 6 MA's), (Start: 21 @43051 has 5 MA's), (Start: 23 @43054 has 3 MA's), (25,
43060),

Gene: Ascela_70 Start: 43634, Stop: 43822, Start Num: 23
Candidate Starts for Ascela_70:
(Start: 18 @43607 has 1 MA's), (Start: 21 @43631 has 5 MA's), (Start: 23 @43634 has 3 MA's), (25,
43640), (26, 43664),

Gene: Berrie_68 Start: 43237, Stop: 43434, Start Num: 22
Candidate Starts for Berrie_68:
(9, 43006), (10, 43009), (17, 43189), (Start: 18 @43213 has 1 MA's), (Start: 22 @43237 has 23 MA's),
(Start: 23 @43240 has 3 MA's), (25, 43246), (26, 43270),

Gene: Cassia_67 Start: 42929, Stop: 43117, Start Num: 22
Candidate Starts for Cassia_67:
(19, 42905), (Start: 22 @42929 has 23 MA's), (Start: 23 @42932 has 3 MA's), (25, 42938), (26, 42962),
(27, 42968), (29, 42995),

Gene: Community_69 Start: 43520, Stop: 43720, Start Num: 22
Candidate Starts for Community_69:
(Start: 22 @43520 has 23 MA's), (Start: 23 @43523 has 3 MA's), (25, 43529), (26, 43553),

Gene: Crewmate_73 Start: 43796, Stop: 43978, Start Num: 21
Candidate Starts for Crewmate_73:
(Start: 18 @43772 has 1 MA's), (Start: 21 @43796 has 5 MA's), (Start: 23 @43799 has 3 MA's), (25,
43805), (26, 43829), (31, 43949),

Gene: Cyan_69 Start: 43119, Stop: 43301, Start Num: 22
Candidate Starts for Cyan_69:
(6, 42786), (Start: 22 @43119 has 23 MA's), (Start: 23 @43122 has 3 MA's), (25, 43128),

Gene: DrManhattan_71 Start: 42035, Stop: 42208, Start Num: 22
Candidate Starts for DrManhattan_71:
(Start: 22 @42035 has 23 MA's), (26, 42068), (28, 42080), (29, 42101),

Gene: Elezi_67 Start: 42897, Stop: 43103, Start Num: 16
Candidate Starts for Elezi_67:
(Start: 16 @42897 has 6 MA's), (Start: 21 @42921 has 5 MA's), (Start: 23 @42924 has 3 MA's), (25,
42930),

Gene: Eraser_68 Start: 43034, Stop: 43240, Start Num: 16
Candidate Starts for Eraser_68:
(Start: 16 @43034 has 6 MA's), (Start: 21 @43058 has 5 MA's), (Start: 23 @43061 has 3 MA's), (25,
43067),

Gene: Flutur_68 Start: 43400, Stop: 43582, Start Num: 22
Candidate Starts for Flutur_68:
(6, 43067), (Start: 22 @43400 has 23 MA's), (Start: 23 @43403 has 3 MA's), (25, 43409),

Gene: Iter_69 Start: 43378, Stop: 43593, Start Num: 18
Candidate Starts for Iter_69:
(Start: 18 @43378 has 1 MA's), (Start: 21 @43402 has 5 MA's), (Start: 23 @43405 has 3 MA's), (25, 43411), (26, 43435),

Gene: IttyBittyPiggy_69 Start: 41649, Stop: 41834, Start Num: 22
Candidate Starts for IttyBittyPiggy_69:
(Start: 20 @41643 has 1 MA's), (Start: 22 @41649 has 23 MA's), (Start: 23 @41652 has 3 MA's), (25, 41658), (26, 41682), (27, 41688),

Gene: Janeemi_68 Start: 43309, Stop: 43509, Start Num: 22
Candidate Starts for Janeemi_68:
(Start: 22 @43309 has 23 MA's), (Start: 23 @43312 has 3 MA's), (25, 43318), (26, 43342),

Gene: Joemato_70 Start: 43297, Stop: 43479, Start Num: 22
Candidate Starts for Joemato_70:
(Start: 22 @43297 has 23 MA's), (Start: 23 @43300 has 3 MA's), (25, 43306),

Gene: JohnDoe_69 Start: 43213, Stop: 43395, Start Num: 22
Candidate Starts for JohnDoe_69:
(6, 42880), (Start: 18 @43189 has 1 MA's), (Start: 22 @43213 has 23 MA's), (Start: 23 @43216 has 3 MA's), (25, 43222),

Gene: Jstan_69 Start: 42925, Stop: 43107, Start Num: 21
Candidate Starts for Jstan_69:
(Start: 16 @42901 has 6 MA's), (Start: 21 @42925 has 5 MA's), (Start: 23 @42928 has 3 MA's), (25, 42934),

Gene: JuneStar_67 Start: 43955, Stop: 44149, Start Num: 20
Candidate Starts for JuneStar_67:
(Start: 20 @43955 has 1 MA's), (Start: 22 @43961 has 23 MA's), (Start: 23 @43964 has 3 MA's), (25, 43970), (26, 43994), (29, 44027),

Gene: Kaylissa_70 Start: 43573, Stop: 43755, Start Num: 22
Candidate Starts for Kaylissa_70:
(15, 43444), (Start: 22 @43573 has 23 MA's), (Start: 23 @43576 has 3 MA's), (25, 43582),

Gene: Lego_68 Start: 42895, Stop: 43077, Start Num: 22
Candidate Starts for Lego_68:
(Start: 18 @42871 has 1 MA's), (Start: 22 @42895 has 23 MA's), (Start: 23 @42898 has 3 MA's), (25, 42904),

Gene: Lizalica_68 Start: 42505, Stop: 42687, Start Num: 22
Candidate Starts for Lizalica_68:
(Start: 22 @42505 has 23 MA's), (Start: 23 @42508 has 3 MA's), (25, 42514), (26, 42538),

Gene: London_68 Start: 43025, Stop: 43231, Start Num: 16
Candidate Starts for London_68:

(Start: 16 @43025 has 6 MA's), (Start: 21 @43049 has 5 MA's), (Start: 23 @43052 has 3 MA's), (25, 43058),

Gene: MissSwiss_69 Start: 42073, Stop: 42246, Start Num: 22
Candidate Starts for MissSwiss_69:
(12, 41860), (14, 41893), (Start: 22 @42073 has 23 MA's), (26, 42106), (30, 42190),

Gene: Mudpuppy_67 Start: 43273, Stop: 43455, Start Num: 22
Candidate Starts for Mudpuppy_67:
(Start: 22 @43273 has 23 MA's), (Start: 23 @43276 has 3 MA's), (25, 43282), (26, 43306),

Gene: Niobe_68 Start: 43028, Stop: 43234, Start Num: 16
Candidate Starts for Niobe_68:
(Start: 16 @43028 has 6 MA's), (Start: 21 @43052 has 5 MA's), (Start: 23 @43055 has 3 MA's), (25, 43061),

Gene: Nitro_69 Start: 43827, Stop: 44009, Start Num: 21
Candidate Starts for Nitro_69:
(1, 43305), (7, 43533), (8, 43545), (Start: 18 @43803 has 1 MA's), (Start: 21 @43827 has 5 MA's), (25, 43836), (26, 43860),

Gene: ObiToo_73 Start: 43411, Stop: 43593, Start Num: 21
Candidate Starts for ObiToo_73:
(2, 42982), (3, 42991), (4, 43060), (5, 43069), (Start: 18 @43387 has 1 MA's), (Start: 21 @43411 has 5 MA's), (Start: 23 @43414 has 3 MA's), (25, 43420), (26, 43444), (31, 43564),

Gene: Phives_69 Start: 43635, Stop: 43835, Start Num: 22
Candidate Starts for Phives_69:
(Start: 22 @43635 has 23 MA's), (Start: 23 @43638 has 3 MA's), (25, 43644), (26, 43668),

Gene: Pixelle_67 Start: 43801, Stop: 43980, Start Num: 23
Candidate Starts for Pixelle_67:
(Start: 21 @43798 has 5 MA's), (Start: 23 @43801 has 3 MA's), (25, 43807), (26, 43831), (31, 43951),

Gene: Powerpuff_70 Start: 44099, Stop: 44281, Start Num: 22
Candidate Starts for Powerpuff_70:
(Start: 18 @44075 has 1 MA's), (Start: 22 @44099 has 23 MA's), (Start: 23 @44102 has 3 MA's), (25, 44108),

Gene: Pumpkins_66 Start: 43401, Stop: 43607, Start Num: 22
Candidate Starts for Pumpkins_66:
(19, 43377), (Start: 22 @43401 has 23 MA's), (Start: 23 @43404 has 3 MA's), (24, 43407), (25, 43410), (26, 43434), (27, 43440), (29, 43467), (32, 43581),

Gene: Simpson_74 Start: 43301, Stop: 43483, Start Num: 22
Candidate Starts for Simpson_74:
(Start: 22 @43301 has 23 MA's), (Start: 23 @43304 has 3 MA's), (25, 43310),

Gene: Skelbel_69 Start: 43052, Stop: 43234, Start Num: 21
Candidate Starts for Skelbel_69:
(Start: 16 @43028 has 6 MA's), (Start: 21 @43052 has 5 MA's), (Start: 23 @43055 has 3 MA's), (25, 43061),

Gene: Subaru_68 Start: 42921, Stop: 43103, Start Num: 21
Candidate Starts for Subaru_68:
(Start: 16 @42897 has 6 MA's), (Start: 21 @42921 has 5 MA's), (Start: 23 @42924 has 3 MA's), (25, 42930),

Gene: Tallboi_68 Start: 43038, Stop: 43220, Start Num: 21
Candidate Starts for Tallboi_68:
(11, 42870), (13, 42900), (Start: 16 @43014 has 6 MA's), (Start: 21 @43038 has 5 MA's), (25, 43047), (26, 43071),

Gene: Tbone_68 Start: 43560, Stop: 43742, Start Num: 22
Candidate Starts for Tbone_68:
(Start: 22 @43560 has 23 MA's), (Start: 23 @43563 has 3 MA's), (25, 43569), (26, 43593),

Gene: TforTroy_68 Start: 43098, Stop: 43283, Start Num: 23
Candidate Starts for TforTroy_68:
(Start: 20 @43089 has 1 MA's), (Start: 22 @43095 has 23 MA's), (Start: 23 @43098 has 3 MA's), (25, 43104), (26, 43128), (27, 43134), (29, 43161),

Gene: Tian_66 Start: 43733, Stop: 43915, Start Num: 21
Candidate Starts for Tian_66:
(11, 43523), (Start: 21 @43733 has 5 MA's), (Start: 23 @43736 has 3 MA's), (25, 43742), (26, 43766), (31, 43886),

Gene: Tuck_68 Start: 43423, Stop: 43623, Start Num: 22
Candidate Starts for Tuck_68:
(Start: 22 @43423 has 23 MA's), (Start: 23 @43426 has 3 MA's), (25, 43432), (26, 43456),

Gene: Turab_67 Start: 42568, Stop: 42750, Start Num: 22
Candidate Starts for Turab_67:
(Start: 22 @42568 has 23 MA's), (Start: 23 @42571 has 3 MA's), (25, 42577),

Gene: Tutumahutu_70 Start: 43142, Stop: 43324, Start Num: 22
Candidate Starts for Tutumahutu_70:
(Start: 18 @43118 has 1 MA's), (Start: 22 @43142 has 23 MA's), (Start: 23 @43145 has 3 MA's), (25, 43151),

Gene: Warda_69 Start: 43217, Stop: 43423, Start Num: 16
Candidate Starts for Warda_69:
(Start: 16 @43217 has 6 MA's), (Start: 21 @43241 has 5 MA's), (Start: 23 @43244 has 3 MA's), (25, 43250),

Gene: Yang_67 Start: 42648, Stop: 42836, Start Num: 22
Candidate Starts for Yang_67:
(Start: 22 @42648 has 23 MA's), (Start: 23 @42651 has 3 MA's), (25, 42657), (26, 42681), (27, 42687), (29, 42714),

Gene: YesChef_68 Start: 42958, Stop: 43140, Start Num: 22
Candidate Starts for YesChef_68:
(Start: 18 @42934 has 1 MA's), (Start: 22 @42958 has 23 MA's), (Start: 23 @42961 has 3 MA's), (25, 42967),