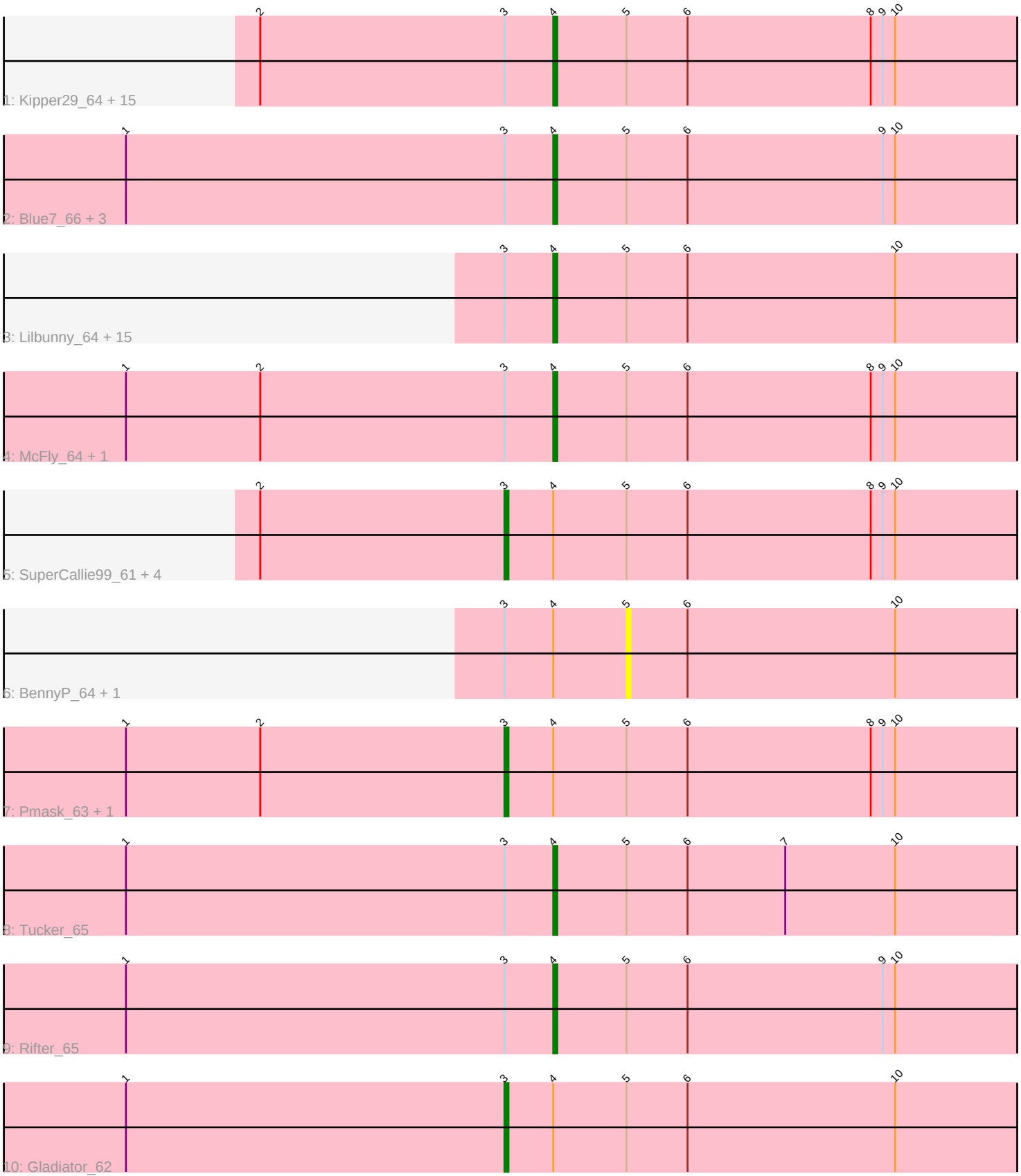
Pham 291256


1: Kipper29_64 + 15
2: Blue7_66 + 3
3: Lilbunny_64 + 15
4: McFly_64 + 1
5: SuperCallie99_61 + 4
6: BennyP_64 + 1
7: Pmask_63 + 1
8: Tucker_65
9: Rifter_65
10: Gladiator_62

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 291256 Report

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

Pham number 291256 has 50 members, 4 are drafts.

Phages represented in each track:
• Track 1 : Kipper29_64, Kazan_65, EricB_63, Hoot_59, VohminGhazi_64, SuperAwesome_64, Chartreuse_63, Candra_62, JewelBug_64, Isiphiwo_62, BABullseye_57, DelvinSonDorr_61, DaVinci_62, Polyphemus_66, Newrala_64, SmellyB_64
• Track 2 : Blue7_66, Roksolana_66, Hammer_65, Gruunaga_65
• Track 3 : Lilbunny_64, Temprado_66, Artemis2UCLA_65, Zaka_65, Koko_67, Hexamo_65, Indra_68, Yokurt_64, Wiks_64, Helmet_67, WunderPhul_65, Jeffabunny_65, BlessJoy_65, ToneTone_62, Zulu_66, CloudWang3_66
• Track 4 : McFly_64, Cookiedough_64
• Track 5 : SuperCallie99_61, Dorothea_64, Jordennis_63, Blinn1_67, Priamo_66
• Track 6 : BennyP_64, Garak_66
• Track 7 : Pmask_63, Neeharika16_63
• Track 8 : Tucker_65
• Track 9 : Rifter_65
• Track 10 : Gladiator_62

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

The start number called the most often in the published annotations is 4, it was called in 38 of the 46 non-draft genes in the pham.

Genes that call this "Most Annotated" start:
• Artemis2UCLA_65, BABullseye_57, BlessJoy_65, Blue7_66, Candra_62, Chartreuse_63, CloudWang3_66, Cookiedough_64, DaVinci_62, DelvinSonDorr_61, EricB_63, Gruunaga_65, Hammer_65, Helmet_67, Hexamo_65, Hoot_59, Indra_68, Isiphiwo_62, Jeffabunny_65, JewelBug_64, Kazan_65, Kipper29_64, Koko_67, Lilbunny_64, McFly_64, Newrala_64, Polyphemus_66, Rifter_65, Roksolana_66, SmellyB_64, SuperAwesome_64, Temprado_66, ToneTone_62, Tucker_65, VohminGhazi_64, Wiks_64, WunderPhul_65, Yokurt_64, Zaka_65, Zulu_66,

Genes that have the "Most Annotated" start but do not call it:
• BennyP_64, Blinn1_67, Dorothea_64, Garak_66, Gladiator_62, Jordennis_63, Neeharika16_63, Pmask_63, Priamo_66, SuperCallie99_61,

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

Summary by start number:

Start 3:
• Found in 50 of 50 (100.0%) of genes in pham
• Manual Annotations of this start: 8 of 46
• Called 16.0% of time when present
• Phage (with cluster) where this start called: Blinn1_67 (A6), Dorothea_64 (A6), Gladiator_62 (A6), Jordennis_63 (A6), Neeharika16_63 (A6), Pmask_63 (A6), Priamo_66 (A6), SuperCallie99_61 (A6),

Start 4:
• Found in 50 of 50 (100.0%) of genes in pham
• Manual Annotations of this start: 38 of 46
• Called 80.0% of time when present
• Phage (with cluster) where this start called: Artemis2UCLA_65 (A6), BABullseye_57 (A6), BlessJoy_65 (A6), Blue7_66 (A6), Candra_62 (A6), Chartreuse_63 (A6), CloudWang3_66 (A6), Cookiedough_64 (A6), DaVinci_62 (A6), DelvinSonDorr_61 (A6), EricB_63 (A6), Gruunaga_65 (A6), Hammer_65 (A6), Helmet_67 (A6), Hexamo_65 (A6), Hoot_59 (A6), Indra_68 (A6), Isiphiwo_62 (A6), Jeffabunny_65 (A6), JewelBug_64 (A6), Kazan_65 (A6), Kipper29_64 (A6), Koko_67 (A6), Lilbunny_64 (A6), McFly_64 (A6), Newrala_64 (A6), Polyphemus_66 (A6), Rifter_65 (A6), Roksolana_66 (A6), SmellyB_64 (A6), SuperAwesome_64 (A6), Temprado_66 (A6), ToneTone_62 (A6), Tucker_65 (A6), VohminGhazi_64 (A6), Wiks_64 (A6), WunderPhul_65 (A6), Yokurt_64 (A6), Zaka_65 (A6), Zulu_66 (A6),

Start 5:
• Found in 50 of 50 (100.0%) of genes in pham
• No Manual Annotations of this start.
• Called 4.0% of time when present
• Phage (with cluster) where this start called: BennyP_64 (A6), Garak_66 (A6),

Summary by clusters:

There is one cluster represented in this pham: A6

Info for manual annotations of cluster A6:
•Start number 3 was manually annotated 8 times for cluster A6.
•Start number 4 was manually annotated 38 times for cluster A6.

Gene Information:

Gene: Artemis2UCLA_65 Start: 38809, Stop: 38669, Start Num: 4
Candidate Starts for Artemis2UCLA_65:
(Start: 3 @38821 has 8 MA's), (Start: 4 @38809 has 38 MA's), (5, 38791), (6, 38776), (10, 38725),

Gene: BABullseye_57 Start: 36364, Stop: 36215, Start Num: 4
Candidate Starts for BABullseye_57:

(2, 36436), (Start: 3 @36376 has 8 MA's), (Start: 4 @36364 has 38 MA's), (5, 36346), (6, 36331), (8, 36286), (9, 36283), (10, 36280),

Gene: BennyP_64 Start: 38861, Stop: 38739, Start Num: 5
Candidate Starts for BennyP_64:
(Start: 3 @38891 has 8 MA's), (Start: 4 @38879 has 38 MA's), (5, 38861), (6, 38846), (10, 38795),

Gene: BlessJoy_65 Start: 39235, Stop: 39095, Start Num: 4
Candidate Starts for BlessJoy_65:
(Start: 3 @39247 has 8 MA's), (Start: 4 @39235 has 38 MA's), (5, 39217), (6, 39202), (10, 39151),

Gene: Blinn1_67 Start: 38905, Stop: 38744, Start Num: 3
Candidate Starts for Blinn1_67:
(2, 38965), (Start: 3 @38905 has 8 MA's), (Start: 4 @38893 has 38 MA's), (5, 38875), (6, 38860), (8, 38815), (9, 38812), (10, 38809),

Gene: Blue7_66 Start: 38903, Stop: 38763, Start Num: 4
Candidate Starts for Blue7_66:
(1, 39008), (Start: 3 @38915 has 8 MA's), (Start: 4 @38903 has 38 MA's), (5, 38885), (6, 38870), (9, 38822), (10, 38819),

Gene: Candra_62 Start: 38728, Stop: 38579, Start Num: 4
Candidate Starts for Candra_62:
(2, 38800), (Start: 3 @38740 has 8 MA's), (Start: 4 @38728 has 38 MA's), (5, 38710), (6, 38695), (8, 38650), (9, 38647), (10, 38644),

Gene: Chartreuse_63 Start: 38079, Stop: 37930, Start Num: 4
Candidate Starts for Chartreuse_63:
(2, 38151), (Start: 3 @38091 has 8 MA's), (Start: 4 @38079 has 38 MA's), (5, 38061), (6, 38046), (8, 38001), (9, 37998), (10, 37995),

Gene: CloudWang3_66 Start: 39321, Stop: 39181, Start Num: 4
Candidate Starts for CloudWang3_66:
(Start: 3 @39333 has 8 MA's), (Start: 4 @39321 has 38 MA's), (5, 39303), (6, 39288), (10, 39237),

Gene: Cookiedough_64 Start: 38707, Stop: 38558, Start Num: 4
Candidate Starts for Cookiedough_64:
(1, 38812), (2, 38779), (Start: 3 @38719 has 8 MA's), (Start: 4 @38707 has 38 MA's), (5, 38689), (6, 38674), (8, 38629), (9, 38626), (10, 38623),

Gene: DaVinci_62 Start: 38133, Stop: 37984, Start Num: 4
Candidate Starts for DaVinci_62:
(2, 38205), (Start: 3 @38145 has 8 MA's), (Start: 4 @38133 has 38 MA's), (5, 38115), (6, 38100), (8, 38055), (9, 38052), (10, 38049),

Gene: DelvinSonDorr_61 Start: 38938, Stop: 38789, Start Num: 4
Candidate Starts for DelvinSonDorr_61:
(2, 39010), (Start: 3 @38950 has 8 MA's), (Start: 4 @38938 has 38 MA's), (5, 38920), (6, 38905), (8, 38860), (9, 38857), (10, 38854),

Gene: Dorothea_64 Start: 38717, Stop: 38556, Start Num: 3
Candidate Starts for Dorothea_64:

(2, 38777), (Start: 3 @38717 has 8 MA's), (Start: 4 @38705 has 38 MA's), (5, 38687), (6, 38672), (8, 38627), (9, 38624), (10, 38621),

Gene: EricB_63 Start: 38685, Stop: 38536, Start Num: 4
Candidate Starts for EricB_63:
(2, 38757), (Start: 3 @38697 has 8 MA's), (Start: 4 @38685 has 38 MA's), (5, 38667), (6, 38652), (8, 38607), (9, 38604), (10, 38601),

Gene: Garak_66 Start: 39158, Stop: 39036, Start Num: 5
Candidate Starts for Garak_66:
(Start: 3 @39188 has 8 MA's), (Start: 4 @39176 has 38 MA's), (5, 39158), (6, 39143), (10, 39092),

Gene: Gladiator_62 Start: 38413, Stop: 38261, Start Num: 3
Candidate Starts for Gladiator_62:
(1, 38506), (Start: 3 @38413 has 8 MA's), (Start: 4 @38401 has 38 MA's), (5, 38383), (6, 38368), (10, 38317),

Gene: Gruunaga_65 Start: 39100, Stop: 38960, Start Num: 4
Candidate Starts for Gruunaga_65:
(1, 39205), (Start: 3 @39112 has 8 MA's), (Start: 4 @39100 has 38 MA's), (5, 39082), (6, 39067), (9, 39019), (10, 39016),

Gene: Hammer_65 Start: 38707, Stop: 38567, Start Num: 4
Candidate Starts for Hammer_65:
(1, 38812), (Start: 3 @38719 has 8 MA's), (Start: 4 @38707 has 38 MA's), (5, 38689), (6, 38674), (9, 38626), (10, 38623),

Gene: Helmet_67 Start: 39176, Stop: 39036, Start Num: 4
Candidate Starts for Helmet_67:
(Start: 3 @39188 has 8 MA's), (Start: 4 @39176 has 38 MA's), (5, 39158), (6, 39143), (10, 39092),

Gene: Hexamo_65 Start: 38806, Stop: 38666, Start Num: 4
Candidate Starts for Hexamo_65:
(Start: 3 @38818 has 8 MA's), (Start: 4 @38806 has 38 MA's), (5, 38788), (6, 38773), (10, 38722),

Gene: Hoot_59 Start: 36543, Stop: 36394, Start Num: 4
Candidate Starts for Hoot_59:
(2, 36615), (Start: 3 @36555 has 8 MA's), (Start: 4 @36543 has 38 MA's), (5, 36525), (6, 36510), (8, 36465), (9, 36462), (10, 36459),

Gene: Indra_68 Start: 39177, Stop: 39037, Start Num: 4
Candidate Starts for Indra_68:
(Start: 3 @39189 has 8 MA's), (Start: 4 @39177 has 38 MA's), (5, 39159), (6, 39144), (10, 39093),

Gene: Isiphiwo_62 Start: 38259, Stop: 38110, Start Num: 4
Candidate Starts for Isiphiwo_62:
(2, 38331), (Start: 3 @38271 has 8 MA's), (Start: 4 @38259 has 38 MA's), (5, 38241), (6, 38226), (8, 38181), (9, 38178), (10, 38175),

Gene: Jeffabunny_65 Start: 38803, Stop: 38663, Start Num: 4
Candidate Starts for Jeffabunny_65:
(Start: 3 @38815 has 8 MA's), (Start: 4 @38803 has 38 MA's), (5, 38785), (6, 38770), (10, 38719),

Gene: JewelBug_64 Start: 38964, Stop: 38815, Start Num: 4
Candidate Starts for JewelBug_64:
(2, 39036), (Start: 3 @38976 has 8 MA's), (Start: 4 @38964 has 38 MA's), (5, 38946), (6, 38931), (8, 38886), (9, 38883), (10, 38880),

Gene: Jordennis_63 Start: 38457, Stop: 38296, Start Num: 3
Candidate Starts for Jordennis_63:
(2, 38517), (Start: 3 @38457 has 8 MA's), (Start: 4 @38445 has 38 MA's), (5, 38427), (6, 38412), (8, 38367), (9, 38364), (10, 38361),

Gene: Kazan_65 Start: 38698, Stop: 38549, Start Num: 4
Candidate Starts for Kazan_65:
(2, 38770), (Start: 3 @38710 has 8 MA's), (Start: 4 @38698 has 38 MA's), (5, 38680), (6, 38665), (8, 38620), (9, 38617), (10, 38614),

Gene: Kipper29_64 Start: 38711, Stop: 38562, Start Num: 4
Candidate Starts for Kipper29_64:
(2, 38783), (Start: 3 @38723 has 8 MA's), (Start: 4 @38711 has 38 MA's), (5, 38693), (6, 38678), (8, 38633), (9, 38630), (10, 38627),

Gene: Koko_67 Start: 39661, Stop: 39521, Start Num: 4
Candidate Starts for Koko_67:
(Start: 3 @39673 has 8 MA's), (Start: 4 @39661 has 38 MA's), (5, 39643), (6, 39628), (10, 39577),

Gene: Lilbunny_64 Start: 38807, Stop: 38667, Start Num: 4
Candidate Starts for Lilbunny_64:
(Start: 3 @38819 has 8 MA's), (Start: 4 @38807 has 38 MA's), (5, 38789), (6, 38774), (10, 38723),

Gene: McFly_64 Start: 38692, Stop: 38543, Start Num: 4
Candidate Starts for McFly_64:
(1, 38797), (2, 38764), (Start: 3 @38704 has 8 MA's), (Start: 4 @38692 has 38 MA's), (5, 38674), (6, 38659), (8, 38614), (9, 38611), (10, 38608),

Gene: Neeharika16_63 Start: 38164, Stop: 38003, Start Num: 3
Candidate Starts for Neeharika16_63:
(1, 38257), (2, 38224), (Start: 3 @38164 has 8 MA's), (Start: 4 @38152 has 38 MA's), (5, 38134), (6, 38119), (8, 38074), (9, 38071), (10, 38068),

Gene: Newrala_64 Start: 38694, Stop: 38545, Start Num: 4
Candidate Starts for Newrala_64:
(2, 38766), (Start: 3 @38706 has 8 MA's), (Start: 4 @38694 has 38 MA's), (5, 38676), (6, 38661), (8, 38616), (9, 38613), (10, 38610),

Gene: Pmask_63 Start: 38707, Stop: 38546, Start Num: 3
Candidate Starts for Pmask_63:
(1, 38800), (2, 38767), (Start: 3 @38707 has 8 MA's), (Start: 4 @38695 has 38 MA's), (5, 38677), (6, 38662), (8, 38617), (9, 38614), (10, 38611),

Gene: Polyphemus_66 Start: 39080, Stop: 38931, Start Num: 4
Candidate Starts for Polyphemus_66:
(2, 39152), (Start: 3 @39092 has 8 MA's), (Start: 4 @39080 has 38 MA's), (5, 39062), (6, 39047), (8, 39002), (9, 38999), (10, 38996),

Gene: Priamo_66 Start: 38523, Stop: 38362, Start Num: 3
Candidate Starts for Priamo_66:
(2, 38583), (Start: 3 @38523 has 8 MA's), (Start: 4 @38511 has 38 MA's), (5, 38493), (6, 38478), (8, 38433), (9, 38430), (10, 38427),

Gene: Rifter_65 Start: 38303, Stop: 38163, Start Num: 4
Candidate Starts for Rifter_65:
(1, 38408), (Start: 3 @38315 has 8 MA's), (Start: 4 @38303 has 38 MA's), (5, 38285), (6, 38270), (9, 38222), (10, 38219),

Gene: Roksolana_66 Start: 39137, Stop: 38997, Start Num: 4
Candidate Starts for Roksolana_66:
(1, 39242), (Start: 3 @39149 has 8 MA's), (Start: 4 @39137 has 38 MA's), (5, 39119), (6, 39104), (9, 39056), (10, 39053),

Gene: SmellyB_64 Start: 38692, Stop: 38543, Start Num: 4
Candidate Starts for SmellyB_64:
(2, 38764), (Start: 3 @38704 has 8 MA's), (Start: 4 @38692 has 38 MA's), (5, 38674), (6, 38659), (8, 38614), (9, 38611), (10, 38608),

Gene: SuperAwesome_64 Start: 38697, Stop: 38548, Start Num: 4
Candidate Starts for SuperAwesome_64:
(2, 38769), (Start: 3 @38709 has 8 MA's), (Start: 4 @38697 has 38 MA's), (5, 38679), (6, 38664), (8, 38619), (9, 38616), (10, 38613),

Gene: SuperCallie99_61 Start: 38591, Stop: 38430, Start Num: 3
Candidate Starts for SuperCallie99_61:
(2, 38651), (Start: 3 @38591 has 8 MA's), (Start: 4 @38579 has 38 MA's), (5, 38561), (6, 38546), (8, 38501), (9, 38498), (10, 38495),

Gene: Temprado_66 Start: 39176, Stop: 39036, Start Num: 4
Candidate Starts for Temprado_66:
(Start: 3 @39188 has 8 MA's), (Start: 4 @39176 has 38 MA's), (5, 39158), (6, 39143), (10, 39092),

Gene: ToneTone_62 Start: 38736, Stop: 38596, Start Num: 4
Candidate Starts for ToneTone_62:
(Start: 3 @38748 has 8 MA's), (Start: 4 @38736 has 38 MA's), (5, 38718), (6, 38703), (10, 38652),

Gene: Tucker_65 Start: 38905, Stop: 38765, Start Num: 4
Candidate Starts for Tucker_65:
(1, 39010), (Start: 3 @38917 has 8 MA's), (Start: 4 @38905 has 38 MA's), (5, 38887), (6, 38872), (7, 38848), (10, 38821),

Gene: VohminGhazi_64 Start: 38693, Stop: 38544, Start Num: 4
Candidate Starts for VohminGhazi_64:
(2, 38765), (Start: 3 @38705 has 8 MA's), (Start: 4 @38693 has 38 MA's), (5, 38675), (6, 38660), (8, 38615), (9, 38612), (10, 38609),

Gene: Wiks_64 Start: 38807, Stop: 38667, Start Num: 4
Candidate Starts for Wiks_64:
(Start: 3 @38819 has 8 MA's), (Start: 4 @38807 has 38 MA's), (5, 38789), (6, 38774), (10, 38723),

Gene: WunderPhul_65 Start: 38805, Stop: 38665, Start Num: 4

Candidate Starts for WunderPhul_65:
(Start: 3 @38817 has 8 MA's), (Start: 4 @38805 has 38 MA's), (5, 38787), (6, 38772), (10, 38721),

Gene: Yokurt_64 Start: 38807, Stop: 38667, Start Num: 4
Candidate Starts for Yokurt_64:
(Start: 3 @38819 has 8 MA's), (Start: 4 @38807 has 38 MA's), (5, 38789), (6, 38774), (10, 38723),

Gene: Zaka_65 Start: 38807, Stop: 38667, Start Num: 4
Candidate Starts for Zaka_65:
(Start: 3 @38819 has 8 MA's), (Start: 4 @38807 has 38 MA's), (5, 38789), (6, 38774), (10, 38723),

Gene: Zulu_66 Start: 39185, Stop: 39045, Start Num: 4
Candidate Starts for Zulu_66:
(Start: 3 @39197 has 8 MA's), (Start: 4 @39185 has 38 MA's), (5, 39167), (6, 39152), (10, 39101),