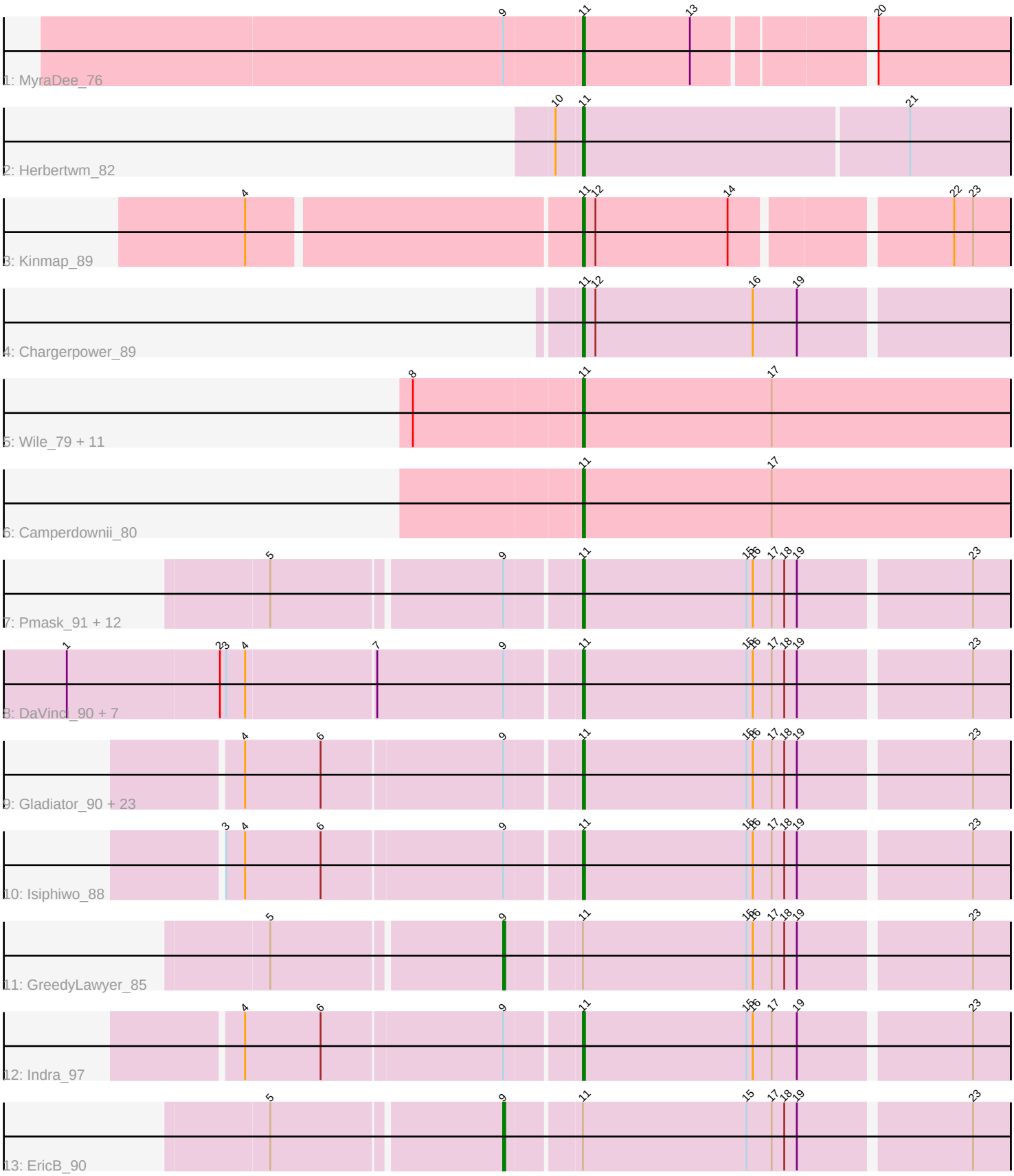
Pham 342036


1: MyraDee_76
2: Herbertwm_82
3: Kinmap_89
4: Chargerpower_89
5: Wile_79 + 11
6: Camperdownii_80
7: Pmask_91 + 12
8: DaVinci_90 + 7
9: Gladiator_90 + 23
10: Isiphiwo_88
11: GreedyLawyer_85
12: Indra_97
13: EricB_90

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 342036 Report

This analysis was run 11/14/26 on database version 672.

Pham number 342036 has 66 members, 2 are drafts.

Phages represented in each track:
• Track 1 : MyraDee_76
• Track 2 : Herbertwm_82
• Track 3 : Kinmap_89
• Track 4 : Chargerpower_89
• Track 5 : Wile_79, Katalie136_80, Perplexer_80, Badger_79, Bumblebee11_79, Wizard007_80, Cici_80, Morpher26_80, Druantia_82, Backyardigan_78, PetiteSangsue_80, AbbysRanger_80
• Track 6 : Camperdownii_80
• Track 7 : Pmask_91, Cookiedough_92, Imbriano_93, Hoot_87, Neeharika16_91, Newrala_91, JewelBug_84, Polyphemus_85, SuperAwesome_92, Dorothea_92, Kipper29_92, BABullseye_85, Jordennis_90
• Track 8 : DaVinci_90, McFly_92, Chartreuse_91, Kazan_93, SmellyB_92, BennyP_94, Candra_93, VohminGhazi_92
• Track 9 : Gladiator_90, Yokurt_93, DelvinSonDorr_87, Jeffabunny_82, Hexamo_93, Tucker_94, Artemis2UCLA_93, ToneTone_91, Zulu_95, Zaka_94, Blue7_95, CloudWang3_94, Garak_95, BlessJoy_94, Koko_95, Gruunaga_94, Temprado_95, SuperCallie99_88, Wiks_93, Rifter_94, Lilbunny_90, Helmet_96, Hammer_94, Roksolana_94
• Track 10 : Isiphiwo_88
• Track 11 : GreedyLawyer_85
• Track 12 : Indra_97
• Track 13 : EricB_90

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

The start number called the most often in the published annotations is 11, it was called in 62 of the 64 non-draft genes in the pham.

Genes that call this "Most Annotated" start:
• AbbysRanger_80, Artemis2UCLA_93, BABullseye_85, Backyardigan_78, Badger_79, BennyP_94, BlessJoy_94, Blue7_95, Bumblebee11_79, Camperdownii_80, Candra_93, Chargerpower_89, Chartreuse_91, Cici_80, CloudWang3_94, Cookiedough_92, DaVinci_90, DelvinSonDorr_87, Dorothea_92, Druantia_82, Garak_95, Gladiator_90, Gruunaga_94, Hammer_94, Helmet_96,

Herbertwm_82, Hexamo_93, Hoot_87, Imbriano_93, Indra_97, Isiphiwo_88, Jeffabunny_82, JewelBug_84, Jordennis_90, Katalie136_80, Kazan_93, Kinmap_89, Kipper29_92, Koko_95, Lilbunny_90, McFly_92, Morpher26_80, MyraDee_76, Neeharika16_91, Newrala_91, Perplexer_80, PetiteSangsue_80, Pmask_91, Polyphemus_85, Rifter_94, Roksolana_94, SmellyB_92, SuperAwesome_92, SuperCallie99_88, Temprado_95, ToneTone_91, Tucker_94, VohminGhazi_92, Wiks_93, Wile_79, Wizard007_80, Yokurt_93, Zaka_94, Zulu_95,

Genes that have the "Most Annotated" start but do not call it:
• EricB_90, GreedyLawyer_85,

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

Summary by start number:

Start 9:
• Found in 50 of 66 (75.8%) of genes in pham
• Manual Annotations of this start: 2 of 64
• Called 4.0% of time when present
• Phage (with cluster) where this start called: EricB_90 (A6), GreedyLawyer_85 (A6),

Start 11:
• Found in 66 of 66 (100.0%) of genes in pham
• Manual Annotations of this start: 62 of 64
• Called 97.0% of time when present
• Phage (with cluster) where this start called: AbbysRanger_80 (A4), Artemis2UCLA_93 (A6), BABullseye_85 (A6), Backyardigan_78 (A4), Badger_79 (A4), BennyP_94 (A6), BlessJoy_94 (A6), Blue7_95 (A6), Bumblebee11_79 (A4), Camperdownii_80 (A4), Candra_93 (A6), Chargerpower_89 (A22), Chartreuse_91 (A6), Cici_80 (A4), CloudWang3_94 (A6), Cookiedough_92 (A6), DaVinci_90 (A6), DelvinSonDorr_87 (A6), Dorothea_92 (A6), Druantia_82 (A4), Garak_95 (A6), Gladiator_90 (A6), Gruunaga_94 (A6), Hammer_94 (A6), Helmet_96 (A6), Herbertwm_82 (A2), Hexamo_93 (A6), Hoot_87 (A6), Imbriano_93 (A6), Indra_97 (A6), Isiphiwo_88 (A6), Jeffabunny_82 (A6), JewelBug_84 (A6), Jordennis_90 (A6), Katalie136_80 (A4), Kazan_93 (A6), Kinmap_89 (A21), Kipper29_92 (A6), Koko_95 (A6), Lilbunny_90 (A6), McFly_92 (A6), Morpher26_80 (A4), MyraDee_76 (A18), Neeharika16_91 (A6), Newrala_91 (A6), Perplexer_80 (A4), PetiteSangsue_80 (A4), Pmask_91 (A6), Polyphemus_85 (A6), Rifter_94 (A6), Roksolana_94 (A6), SmellyB_92 (A6), SuperAwesome_92 (A6), SuperCallie99_88 (A6), Temprado_95 (A6), ToneTone_91 (A6), Tucker_94 (A6), VohminGhazi_92 (A6), Wiks_93 (A6), Wile_79 (A4), Wizard007_80 (A4), Yokurt_93 (A6), Zaka_94 (A6), Zulu_95 (A6),

Summary by clusters:

There are 6 clusters represented in this pham: A21, A22, A18, A2, A4, A6,

Info for manual annotations of cluster A18:
•Start number 11 was manually annotated 1 time for cluster A18.

Info for manual annotations of cluster A2:
•Start number 11 was manually annotated 1 time for cluster A2.

Info for manual annotations of cluster A21:
•Start number 11 was manually annotated 1 time for cluster A21.

Info for manual annotations of cluster A22:
•Start number 11 was manually annotated 1 time for cluster A22.

Info for manual annotations of cluster A4:
•Start number 11 was manually annotated 13 times for cluster A4.

Info for manual annotations of cluster A6:
•Start number 9 was manually annotated 2 times for cluster A6.
•Start number 11 was manually annotated 45 times for cluster A6.

Gene Information:

Gene: AbbysRanger_80 Start: 48252, Stop: 48049, Start Num: 11
Candidate Starts for AbbysRanger_80:
(8, 48330), (Start: 11 @48252 has 62 MA's), (17, 48162),

Gene: Artemis2UCLA_93 Start: 48504, Stop: 48307, Start Num: 11
Candidate Starts for Artemis2UCLA_93:
(4, 48657), (6, 48621), (Start: 9 @48537 has 2 MA's), (Start: 11 @48504 has 62 MA's), (15, 48426), (16, 48423), (17, 48414), (18, 48408), (19, 48402), (23, 48324),

Gene: BABullseye_85 Start: 46839, Stop: 46642, Start Num: 11
Candidate Starts for BABullseye_85:
(5, 46977), (Start: 9 @46872 has 2 MA's), (Start: 11 @46839 has 62 MA's), (15, 46761), (16, 46758), (17, 46749), (18, 46743), (19, 46737), (23, 46659),

Gene: Backyardigan_78 Start: 48268, Stop: 48065, Start Num: 11
Candidate Starts for Backyardigan_78:
(8, 48346), (Start: 11 @48268 has 62 MA's), (17, 48178),

Gene: Badger_79 Start: 48234, Stop: 48031, Start Num: 11
Candidate Starts for Badger_79:
(8, 48312), (Start: 11 @48234 has 62 MA's), (17, 48144),

Gene: BennyP_94 Start: 48681, Stop: 48484, Start Num: 11
Candidate Starts for BennyP_94:
(1, 48918), (2, 48846), (3, 48843), (4, 48834), (7, 48774), (Start: 9 @48714 has 2 MA's), (Start: 11 @48681 has 62 MA's), (15, 48603), (16, 48600), (17, 48591), (18, 48585), (19, 48579), (23, 48501),

Gene: BlessJoy_94 Start: 49028, Stop: 48831, Start Num: 11
Candidate Starts for BlessJoy_94:
(4, 49181), (6, 49145), (Start: 9 @49061 has 2 MA's), (Start: 11 @49028 has 62 MA's), (15, 48950), (16, 48947), (17, 48938), (18, 48932), (19, 48926), (23, 48848),

Gene: Blue7_95 Start: 48738, Stop: 48541, Start Num: 11
Candidate Starts for Blue7_95:
(4, 48891), (6, 48855), (Start: 9 @48771 has 2 MA's), (Start: 11 @48738 has 62 MA's), (15, 48660), (16, 48657), (17, 48648), (18, 48642), (19, 48636), (23, 48558),

Gene: Bumblebee11_79 Start: 48234, Stop: 48031, Start Num: 11
Candidate Starts for Bumblebee11_79:
(8, 48312), (Start: 11 @48234 has 62 MA's), (17, 48144),

Gene: Camperdownii_80 Start: 47859, Stop: 47656, Start Num: 11
Candidate Starts for Camperdownii_80:
(Start: 11 @47859 has 62 MA's), (17, 47769),

Gene: Candra_93 Start: 48543, Stop: 48346, Start Num: 11
Candidate Starts for Candra_93:
(1, 48780), (2, 48708), (3, 48705), (4, 48696), (7, 48636), (Start: 9 @48576 has 2 MA's), (Start: 11 @48543 has 62 MA's), (15, 48465), (16, 48462), (17, 48453), (18, 48447), (19, 48441), (23, 48363),

Gene: Chargerpower_89 Start: 48218, Stop: 48021, Start Num: 11
Candidate Starts for Chargerpower_89:
(Start: 11 @48218 has 62 MA's), (12, 48212), (16, 48137), (19, 48116),

Gene: Chartreuse_91 Start: 47844, Stop: 47647, Start Num: 11
Candidate Starts for Chartreuse_91:
(1, 48081), (2, 48009), (3, 48006), (4, 47997), (7, 47937), (Start: 9 @47877 has 2 MA's), (Start: 11 @47844 has 62 MA's), (15, 47766), (16, 47763), (17, 47754), (18, 47748), (19, 47742), (23, 47664),

Gene: Cici_80 Start: 48247, Stop: 48044, Start Num: 11
Candidate Starts for Cici_80:
(8, 48325), (Start: 11 @48247 has 62 MA's), (17, 48157),

Gene: CloudWang3_94 Start: 49033, Stop: 48836, Start Num: 11
Candidate Starts for CloudWang3_94:
(4, 49186), (6, 49150), (Start: 9 @49066 has 2 MA's), (Start: 11 @49033 has 62 MA's), (15, 48955), (16, 48952), (17, 48943), (18, 48937), (19, 48931), (23, 48853),

Gene: Cookiedough_92 Start: 49158, Stop: 48961, Start Num: 11
Candidate Starts for Cookiedough_92:
(5, 49296), (Start: 9 @49191 has 2 MA's), (Start: 11 @49158 has 62 MA's), (15, 49080), (16, 49077), (17, 49068), (18, 49062), (19, 49056), (23, 48978),

Gene: DaVinci_90 Start: 47898, Stop: 47701, Start Num: 11
Candidate Starts for DaVinci_90:
(1, 48135), (2, 48063), (3, 48060), (4, 48051), (7, 47991), (Start: 9 @47931 has 2 MA's), (Start: 11 @47898 has 62 MA's), (15, 47820), (16, 47817), (17, 47808), (18, 47802), (19, 47796), (23, 47718),

Gene: DelvinSonDorr_87 Start: 48107, Stop: 47910, Start Num: 11
Candidate Starts for DelvinSonDorr_87:
(4, 48260), (6, 48224), (Start: 9 @48140 has 2 MA's), (Start: 11 @48107 has 62 MA's), (15, 48029), (16, 48026), (17, 48017), (18, 48011), (19, 48005), (23, 47927),

Gene: Dorothea_92 Start: 49150, Stop: 48953, Start Num: 11
Candidate Starts for Dorothea_92:
(5, 49288), (Start: 9 @49183 has 2 MA's), (Start: 11 @49150 has 62 MA's), (15, 49072), (16, 49069), (17, 49060), (18, 49054), (19, 49048), (23, 48970),

Gene: Druantia_82 Start: 48443, Stop: 48240, Start Num: 11

Candidate Starts for Druantia_82:
(8, 48521), (Start: 11 @48443 has 62 MA's), (17, 48353),

Gene: EricB_90 Start: 48080, Stop: 47850, Start Num: 9
Candidate Starts for EricB_90:
(5, 48185), (Start: 9 @48080 has 2 MA's), (Start: 11 @48047 has 62 MA's), (15, 47969), (17, 47957), (18, 47951), (19, 47945), (23, 47867),

Gene: Garak_95 Start: 48978, Stop: 48781, Start Num: 11
Candidate Starts for Garak_95:
(4, 49131), (6, 49095), (Start: 9 @49011 has 2 MA's), (Start: 11 @48978 has 62 MA's), (15, 48900), (16, 48897), (17, 48888), (18, 48882), (19, 48876), (23, 48798),

Gene: Gladiator_90 Start: 48698, Stop: 48501, Start Num: 11
Candidate Starts for Gladiator_90:
(4, 48851), (6, 48815), (Start: 9 @48731 has 2 MA's), (Start: 11 @48698 has 62 MA's), (15, 48620), (16, 48617), (17, 48608), (18, 48602), (19, 48596), (23, 48518),

Gene: GreedyLawyer_85 Start: 48513, Stop: 48283, Start Num: 9
Candidate Starts for GreedyLawyer_85:
(5, 48618), (Start: 9 @48513 has 2 MA's), (Start: 11 @48480 has 62 MA's), (15, 48402), (16, 48399), (17, 48390), (18, 48384), (19, 48378), (23, 48300),

Gene: Gruunaga_94 Start: 48654, Stop: 48457, Start Num: 11
Candidate Starts for Gruunaga_94:
(4, 48807), (6, 48771), (Start: 9 @48687 has 2 MA's), (Start: 11 @48654 has 62 MA's), (15, 48576), (16, 48573), (17, 48564), (18, 48558), (19, 48552), (23, 48474),

Gene: Hammer_94 Start: 48351, Stop: 48154, Start Num: 11
Candidate Starts for Hammer_94:
(4, 48504), (6, 48468), (Start: 9 @48384 has 2 MA's), (Start: 11 @48351 has 62 MA's), (15, 48273), (16, 48270), (17, 48261), (18, 48255), (19, 48249), (23, 48171),

Gene: Helmet_96 Start: 48978, Stop: 48781, Start Num: 11
Candidate Starts for Helmet_96:
(4, 49131), (6, 49095), (Start: 9 @49011 has 2 MA's), (Start: 11 @48978 has 62 MA's), (15, 48900), (16, 48897), (17, 48888), (18, 48882), (19, 48876), (23, 48798),

Gene: Herbertwm_82 Start: 48011, Stop: 47811, Start Num: 11
Candidate Starts for Herbertwm_82:
(10, 48023), (Start: 11 @48011 has 62 MA's), (21, 47858),

Gene: Hexamo_93 Start: 48519, Stop: 48322, Start Num: 11
Candidate Starts for Hexamo_93:
(4, 48672), (6, 48636), (Start: 9 @48552 has 2 MA's), (Start: 11 @48519 has 62 MA's), (15, 48441), (16, 48438), (17, 48429), (18, 48423), (19, 48417), (23, 48339),

Gene: Hoot_87 Start: 46364, Stop: 46167, Start Num: 11
Candidate Starts for Hoot_87:
(5, 46502), (Start: 9 @46397 has 2 MA's), (Start: 11 @46364 has 62 MA's), (15, 46286), (16, 46283), (17, 46274), (18, 46268), (19, 46262), (23, 46184),

Gene: Imbriano_93 Start: 49352, Stop: 49155, Start Num: 11

Candidate Starts for Imbriano_93:
(5, 49490), (Start: 9 @49385 has 2 MA's), (Start: 11 @49352 has 62 MA's), (15, 49274), (16, 49271), (17, 49262), (18, 49256), (19, 49250), (23, 49172),

Gene: Indra_97 Start: 48979, Stop: 48782, Start Num: 11
Candidate Starts for Indra_97:
(4, 49132), (6, 49096), (Start: 9 @49012 has 2 MA's), (Start: 11 @48979 has 62 MA's), (15, 48901), (16, 48898), (17, 48889), (19, 48877), (23, 48799),

Gene: Isiphiwo_88 Start: 48069, Stop: 47872, Start Num: 11
Candidate Starts for Isiphiwo_88:
(3, 48231), (4, 48222), (6, 48186), (Start: 9 @48102 has 2 MA's), (Start: 11 @48069 has 62 MA's), (15, 47991), (16, 47988), (17, 47979), (18, 47973), (19, 47967), (23, 47889),

Gene: Jeffabunny_82 Start: 45122, Stop: 44925, Start Num: 11
Candidate Starts for Jeffabunny_82:
(4, 45275), (6, 45239), (Start: 9 @45155 has 2 MA's), (Start: 11 @45122 has 62 MA's), (15, 45044), (16, 45041), (17, 45032), (18, 45026), (19, 45020), (23, 44942),

Gene: JewelBug_84 Start: 46843, Stop: 46646, Start Num: 11
Candidate Starts for JewelBug_84:
(5, 46981), (Start: 9 @46876 has 2 MA's), (Start: 11 @46843 has 62 MA's), (15, 46765), (16, 46762), (17, 46753), (18, 46747), (19, 46741), (23, 46663),

Gene: Jordennis_90 Start: 48747, Stop: 48550, Start Num: 11
Candidate Starts for Jordennis_90:
(5, 48885), (Start: 9 @48780 has 2 MA's), (Start: 11 @48747 has 62 MA's), (15, 48669), (16, 48666), (17, 48657), (18, 48651), (19, 48645), (23, 48567),

Gene: Katalie136_80 Start: 48234, Stop: 48031, Start Num: 11
Candidate Starts for Katalie136_80:
(8, 48312), (Start: 11 @48234 has 62 MA's), (17, 48144),

Gene: Kazan_93 Start: 48513, Stop: 48316, Start Num: 11
Candidate Starts for Kazan_93:
(1, 48750), (2, 48678), (3, 48675), (4, 48666), (7, 48606), (Start: 9 @48546 has 2 MA's), (Start: 11 @48513 has 62 MA's), (15, 48435), (16, 48432), (17, 48423), (18, 48417), (19, 48411), (23, 48333),

Gene: Kinmap_89 Start: 46971, Stop: 46780, Start Num: 11
Candidate Starts for Kinmap_89:
(4, 47124), (Start: 11 @46971 has 62 MA's), (12, 46965), (14, 46902), (22, 46806), (23, 46797),

Gene: Kipper29_92 Start: 48522, Stop: 48325, Start Num: 11
Candidate Starts for Kipper29_92:
(5, 48660), (Start: 9 @48555 has 2 MA's), (Start: 11 @48522 has 62 MA's), (15, 48444), (16, 48441), (17, 48432), (18, 48426), (19, 48420), (23, 48342),

Gene: Koko_95 Start: 49368, Stop: 49171, Start Num: 11
Candidate Starts for Koko_95:
(4, 49521), (6, 49485), (Start: 9 @49401 has 2 MA's), (Start: 11 @49368 has 62 MA's), (15, 49290), (16, 49287), (17, 49278), (18, 49272), (19, 49266), (23, 49188),

Gene: Lilbunny_90 Start: 47226, Stop: 47029, Start Num: 11

Candidate Starts for Lilbunny_90:
(4, 47379), (6, 47343), (Start: 9 @47259 has 2 MA's), (Start: 11 @47226 has 62 MA's), (15, 47148), (16, 47145), (17, 47136), (18, 47130), (19, 47124), (23, 47046),

Gene: McFly_92 Start: 48852, Stop: 48655, Start Num: 11
Candidate Starts for McFly_92:
(1, 49089), (2, 49017), (3, 49014), (4, 49005), (7, 48945), (Start: 9 @48885 has 2 MA's), (Start: 11 @48852 has 62 MA's), (15, 48774), (16, 48771), (17, 48762), (18, 48756), (19, 48750), (23, 48672),

Gene: Morpher26_80 Start: 48255, Stop: 48052, Start Num: 11
Candidate Starts for Morpher26_80:
(8, 48333), (Start: 11 @48255 has 62 MA's), (17, 48165),

Gene: MyraDee_76 Start: 43440, Stop: 43249, Start Num: 11
Candidate Starts for MyraDee_76:
(Start: 9 @43476 has 2 MA's), (Start: 11 @43440 has 62 MA's), (13, 43389), (20, 43311),

Gene: Neeharika16_91 Start: 48609, Stop: 48412, Start Num: 11
Candidate Starts for Neeharika16_91:
(5, 48747), (Start: 9 @48642 has 2 MA's), (Start: 11 @48609 has 62 MA's), (15, 48531), (16, 48528), (17, 48519), (18, 48513), (19, 48507), (23, 48429),

Gene: Newrala_91 Start: 48955, Stop: 48758, Start Num: 11
Candidate Starts for Newrala_91:
(5, 49093), (Start: 9 @48988 has 2 MA's), (Start: 11 @48955 has 62 MA's), (15, 48877), (16, 48874), (17, 48865), (18, 48859), (19, 48853), (23, 48775),

Gene: Perplexer_80 Start: 48235, Stop: 48032, Start Num: 11
Candidate Starts for Perplexer_80:
(8, 48313), (Start: 11 @48235 has 62 MA's), (17, 48145),

Gene: PetiteSangsue_80 Start: 48238, Stop: 48035, Start Num: 11
Candidate Starts for PetiteSangsue_80:
(8, 48316), (Start: 11 @48238 has 62 MA's), (17, 48148),

Gene: Pmask_91 Start: 49156, Stop: 48959, Start Num: 11
Candidate Starts for Pmask_91:
(5, 49294), (Start: 9 @49189 has 2 MA's), (Start: 11 @49156 has 62 MA's), (15, 49078), (16, 49075), (17, 49066), (18, 49060), (19, 49054), (23, 48976),

Gene: Polyphemus_85 Start: 46927, Stop: 46730, Start Num: 11
Candidate Starts for Polyphemus_85:
(5, 47065), (Start: 9 @46960 has 2 MA's), (Start: 11 @46927 has 62 MA's), (15, 46849), (16, 46846), (17, 46837), (18, 46831), (19, 46825), (23, 46747),

Gene: Rifter_94 Start: 48146, Stop: 47949, Start Num: 11
Candidate Starts for Rifter_94:
(4, 48299), (6, 48263), (Start: 9 @48179 has 2 MA's), (Start: 11 @48146 has 62 MA's), (15, 48068), (16, 48065), (17, 48056), (18, 48050), (19, 48044), (23, 47966),

Gene: Roksolana_94 Start: 48862, Stop: 48665, Start Num: 11
Candidate Starts for Roksolana_94:

(4, 49015), (6, 48979), (Start: 9 @48895 has 2 MA's), (Start: 11 @48862 has 62 MA's), (15, 48784), (16, 48781), (17, 48772), (18, 48766), (19, 48760), (23, 48682),

Gene: SmellyB_92 Start: 48507, Stop: 48310, Start Num: 11
Candidate Starts for SmellyB_92:
(1, 48744), (2, 48672), (3, 48669), (4, 48660), (7, 48600), (Start: 9 @48540 has 2 MA's), (Start: 11 @48507 has 62 MA's), (15, 48429), (16, 48426), (17, 48417), (18, 48411), (19, 48405), (23, 48327),

Gene: SuperAwesome_92 Start: 49195, Stop: 48998, Start Num: 11
Candidate Starts for SuperAwesome_92:
(5, 49333), (Start: 9 @49228 has 2 MA's), (Start: 11 @49195 has 62 MA's), (15, 49117), (16, 49114), (17, 49105), (18, 49099), (19, 49093), (23, 49015),

Gene: SuperCallie99_88 Start: 48570, Stop: 48373, Start Num: 11
Candidate Starts for SuperCallie99_88:
(4, 48723), (6, 48687), (Start: 9 @48603 has 2 MA's), (Start: 11 @48570 has 62 MA's), (15, 48492), (16, 48489), (17, 48480), (18, 48474), (19, 48468), (23, 48390),

Gene: Temprado_95 Start: 48978, Stop: 48781, Start Num: 11
Candidate Starts for Temprado_95:
(4, 49131), (6, 49095), (Start: 9 @49011 has 2 MA's), (Start: 11 @48978 has 62 MA's), (15, 48900), (16, 48897), (17, 48888), (18, 48882), (19, 48876), (23, 48798),

Gene: ToneTone_91 Start: 48529, Stop: 48332, Start Num: 11
Candidate Starts for ToneTone_91:
(4, 48682), (6, 48646), (Start: 9 @48562 has 2 MA's), (Start: 11 @48529 has 62 MA's), (15, 48451), (16, 48448), (17, 48439), (18, 48433), (19, 48427), (23, 48349),

Gene: Tucker_94 Start: 48732, Stop: 48535, Start Num: 11
Candidate Starts for Tucker_94:
(4, 48885), (6, 48849), (Start: 9 @48765 has 2 MA's), (Start: 11 @48732 has 62 MA's), (15, 48654), (16, 48651), (17, 48642), (18, 48636), (19, 48630), (23, 48552),

Gene: VohminGhazi_92 Start: 48508, Stop: 48311, Start Num: 11
Candidate Starts for VohminGhazi_92:
(1, 48745), (2, 48673), (3, 48670), (4, 48661), (7, 48601), (Start: 9 @48541 has 2 MA's), (Start: 11 @48508 has 62 MA's), (15, 48430), (16, 48427), (17, 48418), (18, 48412), (19, 48406), (23, 48328),

Gene: Wiks_93 Start: 48609, Stop: 48412, Start Num: 11
Candidate Starts for Wiks_93:
(4, 48762), (6, 48726), (Start: 9 @48642 has 2 MA's), (Start: 11 @48609 has 62 MA's), (15, 48531), (16, 48528), (17, 48519), (18, 48513), (19, 48507), (23, 48429),

Gene: Wile_79 Start: 48264, Stop: 48061, Start Num: 11
Candidate Starts for Wile_79:
(8, 48342), (Start: 11 @48264 has 62 MA's), (17, 48174),

Gene: Wizard007_80 Start: 47990, Stop: 47787, Start Num: 11
Candidate Starts for Wizard007_80:
(8, 48068), (Start: 11 @47990 has 62 MA's), (17, 47900),

Gene: Yokurt_93 Start: 48609, Stop: 48412, Start Num: 11
Candidate Starts for Yokurt_93:

(4, 48762), (6, 48726), (Start: 9 @48642 has 2 MA's), (Start: 11 @48609 has 62 MA's), (15, 48531), (16, 48528), (17, 48519), (18, 48513), (19, 48507), (23, 48429),

Gene: Zaka_94 Start: 48609, Stop: 48412, Start Num: 11
Candidate Starts for Zaka_94:
(4, 48762), (6, 48726), (Start: 9 @48642 has 2 MA's), (Start: 11 @48609 has 62 MA's), (15, 48531), (16, 48528), (17, 48519), (18, 48513), (19, 48507), (23, 48429),

Gene: Zulu_95 Start: 48986, Stop: 48789, Start Num: 11
Candidate Starts for Zulu_95:
(4, 49139), (6, 49103), (Start: 9 @49019 has 2 MA's), (Start: 11 @48986 has 62 MA's), (15, 48908), (16, 48905), (17, 48896), (18, 48890), (19, 48884), (23, 48806),