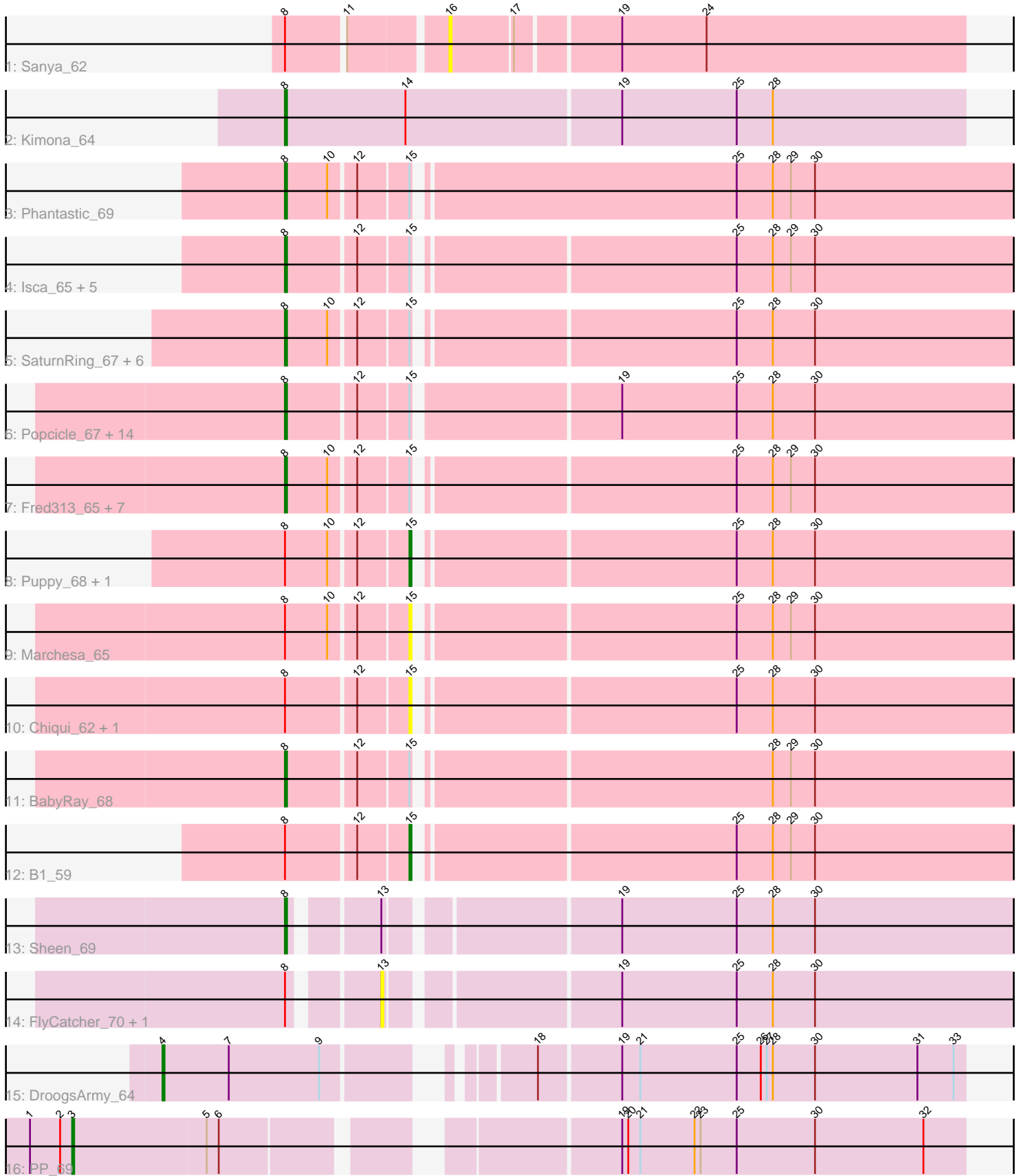


Pham 296654



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 296654 Report

This analysis was run 04/25/26 on database version 644.

Pham number 296654 has 51 members, 14 are drafts.

Phages represented in each track:

- Track 1 : Sanya_62
- Track 2 : Kimona_64
- Track 3 : Phantastic_69
- Track 4 : Isca_65, MA5_67, JF4_65, MK4_67, Rockstar_66, JF2_65
- Track 5 : SaturnRing_67, Bugatti_67, Idleandcovert_68, BlueBird_70, Clammy_67, Pistachio_67, Giroux_70
- Track 6 : Popcicle_67, Texage_65, Margo_67, Hookmount_67, Pocahontas_66, Caviar_67, Veracruz_64, Lambert1_67, Panamaxus_65, Todacoro_67, Norbert_63, Noella_67, EtoileNova_65, ResDef_65, QuinnKiro_66
- Track 7 : Fred313_65, DropBear_65, Scout_66, HelDan_67, Roimos_65, Kachowdy_65, Zarafa_65, Heathen_67
- Track 8 : Puppy_68, TNguyen7_68
- Track 9 : Marchesa_65
- Track 10 : Chiqui_62, BabyJohn_62
- Track 11 : BabyRay_68
- Track 12 : B1_59
- Track 13 : Sheen_69
- Track 14 : FlyCatcher_70, Toro_68
- Track 15 : DroogsArmy_64
- Track 16 : PP_69

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 32 of the 37 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- BabyRay_68, BlueBird_70, Bugatti_67, Caviar_67, Clammy_67, DropBear_65, EtoileNova_65, Fred313_65, Giroux_70, Heathen_67, HelDan_67, Hookmount_67, Idleandcovert_68, Isca_65, JF2_65, JF4_65, Kachowdy_65, Kimona_64, Lambert1_67, MA5_67, MK4_67, Margo_67, Noella_67, Norbert_63, Panamaxus_65, Phantastic_69, Pistachio_67, Pocahontas_66, Popcicle_67, QuinnKiro_66, ResDef_65, Rockstar_66, Roimos_65, SaturnRing_67, Scout_66, Sheen_69, Texage_65, Todacoro_67, Veracruz_64, Zarafa_65,

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

- B1_59, BabyJohn_62, Chiqui_62, FlyCatcher_70, Marchesa_65, Puppy_68, Sanya_62, TNguyen7_68, Toro_68,

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

- DroogsArmy_64, PP_69,

Summary by start number:

Start 3:

- Found in 1 of 51 (2.0%) of genes in pham
- Manual Annotations of this start: 1 of 37
- Called 100.0% of time when present
- Phage (with cluster) where this start called: PP_69 (A7),

Start 4:

- Found in 1 of 51 (2.0%) of genes in pham
- Manual Annotations of this start: 1 of 37
- Called 100.0% of time when present
- Phage (with cluster) where this start called: DroogsArmy_64 (A7),

Start 8:

- Found in 49 of 51 (96.1%) of genes in pham
- Manual Annotations of this start: 32 of 37
- Called 81.6% of time when present
- Phage (with cluster) where this start called: BabyRay_68 (A3), BlueBird_70 (A3), Bugatti_67 (A3), Caviar_67 (A3), Clammy_67 (A3), DropBear_65 (A3), EtoileNova_65 (A3), Fred313_65 (A3), Giroux_70 (A3), Heathen_67 (A3), HelDan_67 (A3), Hookmount_67 (A3), Idleandcovert_68 (A3), Isca_65 (A3), JF2_65 (A3), JF4_65 (A3), Kachowdy_65 (A3), Kimona_64 (A19), Lambert1_67 (A3), MA5_67 (A3), MK4_67 (A3), Margo_67 (A3), Noella_67 (A3), Norbert_63 (A3), Panamaxus_65 (A3), Phantastic_69 (A3), Pistachio_67 (A3), Pocahontas_66 (A3), Popcicle_67 (A3), QuinnKiro_66 (A3), ResDef_65 (A3), Rockstar_66 (A3), Roimos_65 (A3), SaturnRing_67 (A3), Scout_66 (A3), Sheen_69 (A7), Texage_65 (A3), Todacoro_67 (A3), Veracruz_64 (A3), Zarafa_65 (A3),

Start 13:

- Found in 3 of 51 (5.9%) of genes in pham
- No Manual Annotations of this start.
- Called 66.7% of time when present
- Phage (with cluster) where this start called: FlyCatcher_70 (A7), Toro_68 (A7),

Start 15:

- Found in 44 of 51 (86.3%) of genes in pham
- Manual Annotations of this start: 3 of 37
- Called 13.6% of time when present
- Phage (with cluster) where this start called: B1_59 (A3), BabyJohn_62 (A3), Chiqui_62 (A3), Marchesa_65 (A3), Puppy_68 (A3), TNguyen7_68 (A3),

Start 16:

- Found in 1 of 51 (2.0%) of genes in pham
- No Manual Annotations of this start.

- Called 100.0% of time when present
- Phage (with cluster) where this start called: Sanya_62 (A1),

Summary by clusters:

There are 4 clusters represented in this pham: A1, A3, A19, A7,

Info for manual annotations of cluster A19:

- Start number 8 was manually annotated 1 time for cluster A19.

Info for manual annotations of cluster A3:

- Start number 8 was manually annotated 30 times for cluster A3.
- Start number 15 was manually annotated 3 times for cluster A3.

Info for manual annotations of cluster A7:

- Start number 3 was manually annotated 1 time for cluster A7.
- Start number 4 was manually annotated 1 time for cluster A7.
- Start number 8 was manually annotated 1 time for cluster A7.

Gene Information:

Gene: B1_59 Start: 40295, Stop: 39984, Start Num: 15

Candidate Starts for B1_59:

(Start: 8 @40352 has 32 MA's), (12, 40319), (Start: 15 @40295 has 3 MA's), (25, 40145), (28, 40127), (29, 40118), (30, 40106),

Gene: BabyJohn_62 Start: 42122, Stop: 41811, Start Num: 15

Candidate Starts for BabyJohn_62:

(Start: 8 @42179 has 32 MA's), (12, 42146), (Start: 15 @42122 has 3 MA's), (25, 41972), (28, 41954), (30, 41933),

Gene: BabyRay_68 Start: 42157, Stop: 41789, Start Num: 8

Candidate Starts for BabyRay_68:

(Start: 8 @42157 has 32 MA's), (12, 42124), (Start: 15 @42100 has 3 MA's), (28, 41932), (29, 41923), (30, 41911),

Gene: BlueBird_70 Start: 42204, Stop: 41836, Start Num: 8

Candidate Starts for BlueBird_70:

(Start: 8 @42204 has 32 MA's), (10, 42183), (12, 42171), (Start: 15 @42147 has 3 MA's), (25, 41997), (28, 41979), (30, 41958),

Gene: Bugatti_67 Start: 42204, Stop: 41836, Start Num: 8

Candidate Starts for Bugatti_67:

(Start: 8 @42204 has 32 MA's), (10, 42183), (12, 42171), (Start: 15 @42147 has 3 MA's), (25, 41997), (28, 41979), (30, 41958),

Gene: Caviar_67 Start: 42160, Stop: 41789, Start Num: 8

Candidate Starts for Caviar_67:

(Start: 8 @42160 has 32 MA's), (12, 42127), (Start: 15 @42103 has 3 MA's), (19, 42007), (25, 41950), (28, 41932), (30, 41911),

Gene: Chiqui_62 Start: 42131, Stop: 41820, Start Num: 15

Candidate Starts for Chiqui_62:

(Start: 8 @42188 has 32 MA's), (12, 42155), (Start: 15 @42131 has 3 MA's), (25, 41981), (28, 41963), (30, 41942),

Gene: Clammy_67 Start: 42204, Stop: 41836, Start Num: 8

Candidate Starts for Clammy_67:

(Start: 8 @42204 has 32 MA's), (10, 42183), (12, 42171), (Start: 15 @42147 has 3 MA's), (25, 41997), (28, 41979), (30, 41958),

Gene: DroogsArmy_64 Start: 45309, Stop: 44944, Start Num: 4

Candidate Starts for DroogsArmy_64:

(Start: 4 @45309 has 1 MA's), (7, 45276), (9, 45231), (18, 45153), (19, 45114), (21, 45105), (25, 45057), (26, 45045), (27, 45042), (28, 45039), (30, 45018), (31, 44967), (33, 44949),

Gene: DropBear_65 Start: 42103, Stop: 41738, Start Num: 8

Candidate Starts for DropBear_65:

(Start: 8 @42103 has 32 MA's), (10, 42082), (12, 42070), (Start: 15 @42046 has 3 MA's), (25, 41896), (28, 41878), (29, 41869), (30, 41857),

Gene: EtoileNova_65 Start: 42164, Stop: 41793, Start Num: 8

Candidate Starts for EtoileNova_65:

(Start: 8 @42164 has 32 MA's), (12, 42131), (Start: 15 @42107 has 3 MA's), (19, 42011), (25, 41954), (28, 41936), (30, 41915),

Gene: FlyCatcher_70 Start: 45930, Stop: 45607, Start Num: 13

Candidate Starts for FlyCatcher_70:

(Start: 8 @45966 has 32 MA's), (13, 45930), (19, 45825), (25, 45768), (28, 45750), (30, 45729),

Gene: Fred313_65 Start: 41797, Stop: 41432, Start Num: 8

Candidate Starts for Fred313_65:

(Start: 8 @41797 has 32 MA's), (10, 41776), (12, 41764), (Start: 15 @41740 has 3 MA's), (25, 41590), (28, 41572), (29, 41563), (30, 41551),

Gene: Giroux_70 Start: 42203, Stop: 41835, Start Num: 8

Candidate Starts for Giroux_70:

(Start: 8 @42203 has 32 MA's), (10, 42182), (12, 42170), (Start: 15 @42146 has 3 MA's), (25, 41996), (28, 41978), (30, 41957),

Gene: Heathen_67 Start: 41892, Stop: 41527, Start Num: 8

Candidate Starts for Heathen_67:

(Start: 8 @41892 has 32 MA's), (10, 41871), (12, 41859), (Start: 15 @41835 has 3 MA's), (25, 41685), (28, 41667), (29, 41658), (30, 41646),

Gene: HelDan_67 Start: 42108, Stop: 41743, Start Num: 8

Candidate Starts for HelDan_67:

(Start: 8 @42108 has 32 MA's), (10, 42087), (12, 42075), (Start: 15 @42051 has 3 MA's), (25, 41901), (28, 41883), (29, 41874), (30, 41862),

Gene: Hookmount_67 Start: 42161, Stop: 41790, Start Num: 8

Candidate Starts for Hookmount_67:

(Start: 8 @42161 has 32 MA's), (12, 42128), (Start: 15 @42104 has 3 MA's), (19, 42008), (25, 41951), (28, 41933), (30, 41912),

Gene: Idleandcovert_68 Start: 42204, Stop: 41836, Start Num: 8

Candidate Starts for Idleandcovert_68:

(Start: 8 @42204 has 32 MA's), (10, 42183), (12, 42171), (Start: 15 @42147 has 3 MA's), (25, 41997), (28, 41979), (30, 41958),

Gene: Isca_65 Start: 41657, Stop: 41289, Start Num: 8

Candidate Starts for Isca_65:

(Start: 8 @41657 has 32 MA's), (12, 41624), (Start: 15 @41600 has 3 MA's), (25, 41450), (28, 41432), (29, 41423), (30, 41411),

Gene: JF2_65 Start: 40352, Stop: 39984, Start Num: 8

Candidate Starts for JF2_65:

(Start: 8 @40352 has 32 MA's), (12, 40319), (Start: 15 @40295 has 3 MA's), (25, 40145), (28, 40127), (29, 40118), (30, 40106),

Gene: JF4_65 Start: 40352, Stop: 39984, Start Num: 8

Candidate Starts for JF4_65:

(Start: 8 @40352 has 32 MA's), (12, 40319), (Start: 15 @40295 has 3 MA's), (25, 40145), (28, 40127), (29, 40118), (30, 40106),

Gene: Kachowdy_65 Start: 42144, Stop: 41779, Start Num: 8

Candidate Starts for Kachowdy_65:

(Start: 8 @42144 has 32 MA's), (10, 42123), (12, 42111), (Start: 15 @42087 has 3 MA's), (25, 41937), (28, 41919), (29, 41910), (30, 41898),

Gene: Kimona_64 Start: 41048, Stop: 40713, Start Num: 8

Candidate Starts for Kimona_64:

(Start: 8 @41048 has 32 MA's), (14, 40988), (19, 40883), (25, 40826), (28, 40808),

Gene: Lambert1_67 Start: 42160, Stop: 41789, Start Num: 8

Candidate Starts for Lambert1_67:

(Start: 8 @42160 has 32 MA's), (12, 42127), (Start: 15 @42103 has 3 MA's), (19, 42007), (25, 41950), (28, 41932), (30, 41911),

Gene: MA5_67 Start: 41561, Stop: 41193, Start Num: 8

Candidate Starts for MA5_67:

(Start: 8 @41561 has 32 MA's), (12, 41528), (Start: 15 @41504 has 3 MA's), (25, 41354), (28, 41336), (29, 41327), (30, 41315),

Gene: MK4_67 Start: 41636, Stop: 41268, Start Num: 8

Candidate Starts for MK4_67:

(Start: 8 @41636 has 32 MA's), (12, 41603), (Start: 15 @41579 has 3 MA's), (25, 41429), (28, 41411), (29, 41402), (30, 41390),

Gene: Marchesa_65 Start: 42037, Stop: 41729, Start Num: 15

Candidate Starts for Marchesa_65:

(Start: 8 @42094 has 32 MA's), (10, 42073), (12, 42061), (Start: 15 @42037 has 3 MA's), (25, 41887), (28, 41869), (29, 41860), (30, 41848),

Gene: Margo_67 Start: 42186, Stop: 41815, Start Num: 8

Candidate Starts for Margo_67:

(Start: 8 @42186 has 32 MA's), (12, 42153), (Start: 15 @42129 has 3 MA's), (19, 42033), (25, 41976), (28, 41958), (30, 41937),

Gene: Noella_67 Start: 42161, Stop: 41790, Start Num: 8

Candidate Starts for Noella_67:

(Start: 8 @42161 has 32 MA's), (12, 42128), (Start: 15 @42104 has 3 MA's), (19, 42008), (25, 41951), (28, 41933), (30, 41912),

Gene: Norbert_63 Start: 42160, Stop: 41789, Start Num: 8

Candidate Starts for Norbert_63:

(Start: 8 @42160 has 32 MA's), (12, 42127), (Start: 15 @42103 has 3 MA's), (19, 42007), (25, 41950), (28, 41932), (30, 41911),

Gene: PP_69 Start: 46873, Stop: 46463, Start Num: 3

Candidate Starts for PP_69:

(1, 46894), (2, 46879), (Start: 3 @46873 has 1 MA's), (5, 46807), (6, 46801), (19, 46633), (20, 46630), (21, 46624), (22, 46597), (23, 46594), (25, 46576), (30, 46537), (32, 46483),

Gene: Panamaxus_65 Start: 42160, Stop: 41789, Start Num: 8

Candidate Starts for Panamaxus_65:

(Start: 8 @42160 has 32 MA's), (12, 42127), (Start: 15 @42103 has 3 MA's), (19, 42007), (25, 41950), (28, 41932), (30, 41911),

Gene: Phantastic_69 Start: 41822, Stop: 41451, Start Num: 8

Candidate Starts for Phantastic_69:

(Start: 8 @41822 has 32 MA's), (10, 41801), (12, 41789), (Start: 15 @41765 has 3 MA's), (25, 41612), (28, 41594), (29, 41585), (30, 41573),

Gene: Pistachio_67 Start: 41751, Stop: 41383, Start Num: 8

Candidate Starts for Pistachio_67:

(Start: 8 @41751 has 32 MA's), (10, 41730), (12, 41718), (Start: 15 @41694 has 3 MA's), (25, 41544), (28, 41526), (30, 41505),

Gene: Pocahontas_66 Start: 42157, Stop: 41786, Start Num: 8

Candidate Starts for Pocahontas_66:

(Start: 8 @42157 has 32 MA's), (12, 42124), (Start: 15 @42100 has 3 MA's), (19, 42004), (25, 41947), (28, 41929), (30, 41908),

Gene: Popsicle_67 Start: 42157, Stop: 41786, Start Num: 8

Candidate Starts for Popsicle_67:

(Start: 8 @42157 has 32 MA's), (12, 42124), (Start: 15 @42100 has 3 MA's), (19, 42004), (25, 41947), (28, 41929), (30, 41908),

Gene: Puppy_68 Start: 41766, Stop: 41455, Start Num: 15

Candidate Starts for Puppy_68:

(Start: 8 @41823 has 32 MA's), (10, 41802), (12, 41790), (Start: 15 @41766 has 3 MA's), (25, 41616), (28, 41598), (30, 41577),

Gene: QuinnKiro_66 Start: 42160, Stop: 41789, Start Num: 8

Candidate Starts for QuinnKiro_66:

(Start: 8 @42160 has 32 MA's), (12, 42127), (Start: 15 @42103 has 3 MA's), (19, 42007), (25, 41950), (28, 41932), (30, 41911),

Gene: ResDef_65 Start: 42160, Stop: 41789, Start Num: 8

Candidate Starts for ResDef_65:

(Start: 8 @42160 has 32 MA's), (12, 42127), (Start: 15 @42103 has 3 MA's), (19, 42007), (25, 41950), (28, 41932), (30, 41911),

Gene: Rockstar_66 Start: 41645, Stop: 41277, Start Num: 8

Candidate Starts for Rockstar_66:

(Start: 8 @41645 has 32 MA's), (12, 41612), (Start: 15 @41588 has 3 MA's), (25, 41438), (28, 41420), (29, 41411), (30, 41399),

Gene: Roimos_65 Start: 42024, Stop: 41659, Start Num: 8

Candidate Starts for Roimos_65:

(Start: 8 @42024 has 32 MA's), (10, 42003), (12, 41991), (Start: 15 @41967 has 3 MA's), (25, 41817), (28, 41799), (29, 41790), (30, 41778),

Gene: Sanya_62 Start: 43541, Stop: 43293, Start Num: 16

Candidate Starts for Sanya_62:

(Start: 8 @43613 has 32 MA's), (11, 43586), (16, 43541), (17, 43511), (19, 43463), (24, 43421),

Gene: SaturnRing_67 Start: 42204, Stop: 41836, Start Num: 8

Candidate Starts for SaturnRing_67:

(Start: 8 @42204 has 32 MA's), (10, 42183), (12, 42171), (Start: 15 @42147 has 3 MA's), (25, 41997), (28, 41979), (30, 41958),

Gene: Scout_66 Start: 41355, Stop: 40990, Start Num: 8

Candidate Starts for Scout_66:

(Start: 8 @41355 has 32 MA's), (10, 41334), (12, 41322), (Start: 15 @41298 has 3 MA's), (25, 41148), (28, 41130), (29, 41121), (30, 41109),

Gene: Sheen_69 Start: 45854, Stop: 45495, Start Num: 8

Candidate Starts for Sheen_69:

(Start: 8 @45854 has 32 MA's), (13, 45818), (19, 45713), (25, 45656), (28, 45638), (30, 45617),

Gene: TNguyen7_68 Start: 42107, Stop: 41796, Start Num: 15

Candidate Starts for TNguyen7_68:

(Start: 8 @42164 has 32 MA's), (10, 42143), (12, 42131), (Start: 15 @42107 has 3 MA's), (25, 41957), (28, 41939), (30, 41918),

Gene: Texage_65 Start: 42161, Stop: 41790, Start Num: 8

Candidate Starts for Texage_65:

(Start: 8 @42161 has 32 MA's), (12, 42128), (Start: 15 @42104 has 3 MA's), (19, 42008), (25, 41951), (28, 41933), (30, 41912),

Gene: Todacoro_67 Start: 42160, Stop: 41789, Start Num: 8

Candidate Starts for Todacoro_67:

(Start: 8 @42160 has 32 MA's), (12, 42127), (Start: 15 @42103 has 3 MA's), (19, 42007), (25, 41950), (28, 41932), (30, 41911),

Gene: Toro_68 Start: 45930, Stop: 45607, Start Num: 13

Candidate Starts for Toro_68:

(Start: 8 @45966 has 32 MA's), (13, 45930), (19, 45825), (25, 45768), (28, 45750), (30, 45729),

Gene: Veracruz_64 Start: 42160, Stop: 41789, Start Num: 8

Candidate Starts for Veracruz_64:

(Start: 8 @42160 has 32 MA's), (12, 42127), (Start: 15 @42103 has 3 MA's), (19, 42007), (25, 41950), (28, 41932), (30, 41911),

Gene: Zarafa_65 Start: 42117, Stop: 41752, Start Num: 8

Candidate Starts for Zarafa_65:

(Start: 8 @42117 has 32 MA's), (10, 42096), (12, 42084), (Start: 15 @42060 has 3 MA's), (25, 41910), (28, 41892), (29, 41883), (30, 41871),