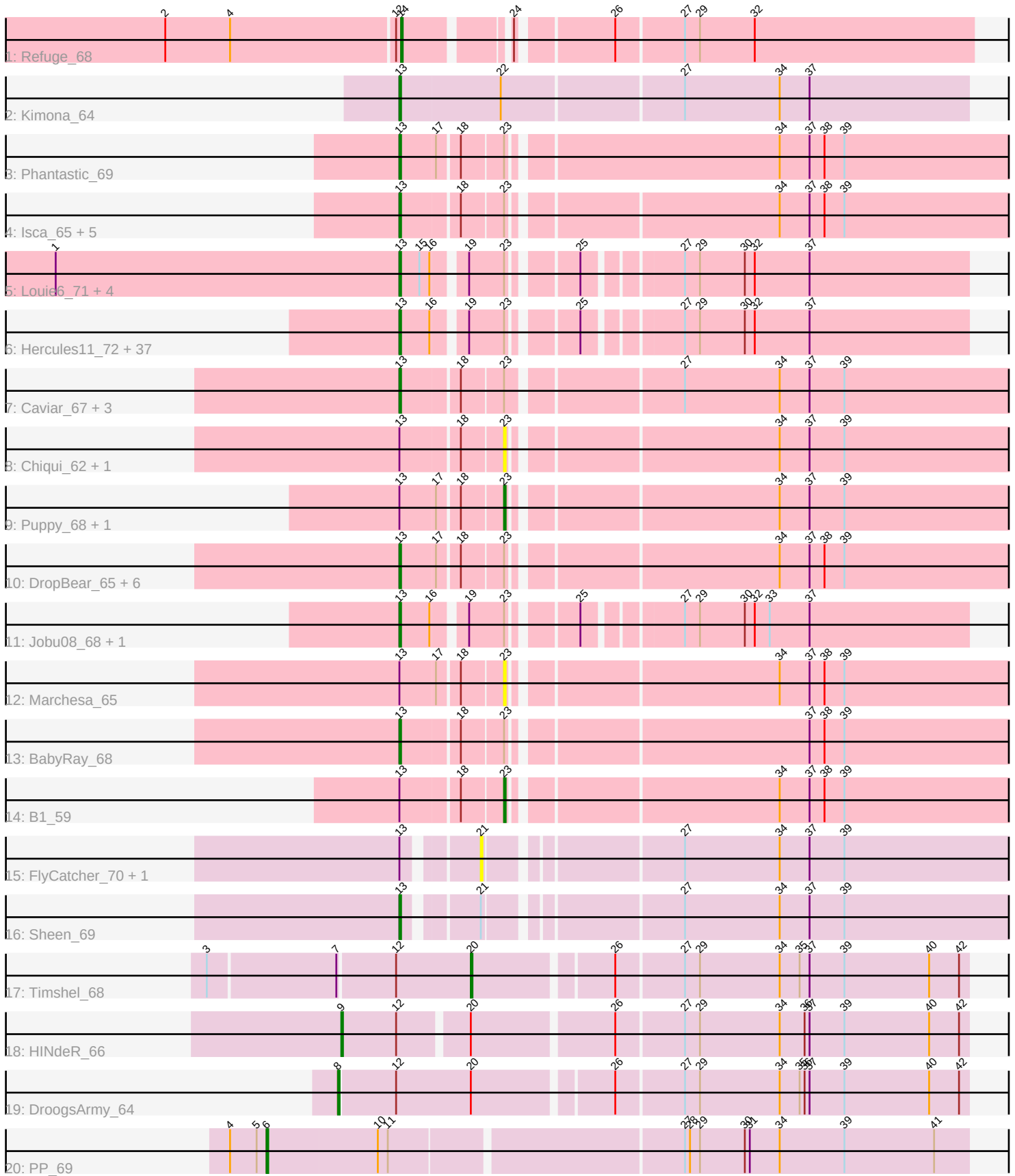


Pham 280362



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 280362 Report

This analysis was run 02/07/26 on database version 634.

Pham number 280362 has 79 members, 8 are drafts.

Phages represented in each track:

- Track 1 : Refuge_68
- Track 2 : Kimona_64
- Track 3 : Phantastic_69
- Track 4 : Isca_65, MA5_67, JF4_65, MK4_67, Rockstar_66, JF2_65
- Track 5 : Louie6_71, KADY_69, Misomonster_73, BuzzBuzz_66, TinyPebbles_71
- Track 6 : Hercules11_72, EpicPhail_73, DaHudson_71, Malinsilva_74, P28Green_72, MarQuardt_72, Phoxy_72, Aglet_73, Fernando_72, Spike509_72, Grum1_71, Rummer_71, Cullens_72, Anubis_75, JenCasNa_73, BreSam8_72, Taurus_73, Sabinator_70, Lilith_70, LBerry_73, PGHhamlin_74, MoneyMay_71, Grub_70, Penny1_72, Beauxregard13_71, LugYA_75, PotatoSplit_73, Vix_68, Colbster_68, Ollie_72, Microwolf_68, SoYo_69, StepMih_71, AugsMagnumOpus_75, Marie_70, MuchMore_75, Pembroke_72, Watson_71
- Track 7 : Caviar_67, Texage_65, Lambert1_67, Noella_67
- Track 8 : Chiqui_62, BabyJohn_62
- Track 9 : Puppy_68, TNguyen7_68
- Track 10 : DropBear_65, Scout_66, HelDan_67, Heathen_67, Kachowdy_65, Zarafa_65, Fred313_65
- Track 11 : Jobu08_68, SoilDragon_71
- Track 12 : Marchesa_65
- Track 13 : BabyRay_68
- Track 14 : B1_59
- Track 15 : FlyCatcher_70, Toro_68
- Track 16 : Sheen_69
- Track 17 : Timshel_68
- Track 18 : HINdeR_66
- Track 19 : DroogsArmy_64
- Track 20 : 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 13, it was called in 63 of the 71 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Aglet_73, Anubis_75, AugsMagnumOpus_75, BabyRay_68, Beauxregard13_71, BreSam8_72, BuzzBuzz_66, Caviar_67, Colbster_68, Cullens_72, DaHudson_71, DropBear_65, EpicPhail_73, Fernando_72, Fred313_65, Grub_70, Grum1_71, Heathen_67, HelDan_67, Hercules11_72, Isca_65, JF2_65, JF4_65, JenCasNa_73, Jobu08_68, KADY_69, Kachowdy_65, Kimona_64, LBerry_73, Lambert1_67, Lilith_70, Louie6_71, LugYA_75, MA5_67, MK4_67, Malinsilva_74, MarQuardt_72, Marie_70, Microwolf_68, Misomonster_73, MoneyMay_71, MuchMore_75, Noella_67, Ollie_72, P28Green_72, PGHhamlin_74, Pembroke_72, Penny1_72, Phantastic_69, Phoxy_72, PotatoSplit_73, Rockstar_66, Rummer_71, Sabinator_70, Scout_66, Sheen_69, SoYo_69, SoilDragon_71, Spike509_72, StepMih_71, Taurus_73, Texage_65, TinyPebbles_71, Vix_68, Watson_71, 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, TNguyen7_68, Toro_68,

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

- DroogsArmy_64, HINdeR_66, PP_69, Refuge_68, Timshel_68,

Summary by start number:

Start 6:

- Found in 1 of 79 (1.3%) of genes in pham
- Manual Annotations of this start: 1 of 71
- Called 100.0% of time when present
- Phage (with cluster) where this start called: PP_69 (A7),

Start 8:

- Found in 1 of 79 (1.3%) of genes in pham
- Manual Annotations of this start: 1 of 71
- Called 100.0% of time when present
- Phage (with cluster) where this start called: DroogsArmy_64 (A7),

Start 9:

- Found in 1 of 79 (1.3%) of genes in pham
- Manual Annotations of this start: 1 of 71
- Called 100.0% of time when present
- Phage (with cluster) where this start called: HINdeR_66 (A7),

Start 13:

- Found in 74 of 79 (93.7%) of genes in pham
- Manual Annotations of this start: 63 of 71
- Called 89.2% of time when present
- Phage (with cluster) where this start called: Aglet_73 (A3), Anubis_75 (A3), AugsMagnumOpus_75 (A3), BabyRay_68 (A3), Beauxregard13_71 (A3), BreSam8_72 (A3), BuzzBuzz_66 (A3), Caviar_67 (A3), Colbster_68 (A3), Cullens_72 (A3), DaHudson_71 (A3), DropBear_65 (A3), EpicPhail_73 (A3), Fernando_72 (A3), Fred313_65 (A3), Grub_70 (A3), Grum1_71 (A3), Heathen_67 (A3), HelDan_67 (A3), Hercules11_72 (A3), Isca_65 (A3), JF2_65 (A3), JF4_65 (A3), JenCasNa_73 (A3), Jobu08_68 (A3), KADY_69 (A3), Kachowdy_65 (A3), Kimona_64 (A19), LBerry_73 (A3), Lambert1_67 (A3), Lilith_70 (A3), Louie6_71 (A3), LugYA_75 (A3), MA5_67 (A3), MK4_67 (A3), Malinsilva_74 (A3), MarQuardt_72 (A3), Marie_70 (A3), Microwolf_68 (A3), Misomonster_73 (A3), MoneyMay_71 (A3), MuchMore_75 (A3),

Noella_67 (A3), Ollie_72 (A3), P28Green_72 (A3), PGHhamlin_74 (A3), Pembroke_72 (A3), Penny1_72 (A3), Phantastic_69 (A3), Phoxy_72 (A3), PotatoSplit_73 (A3), Rockstar_66 (A3), Rummer_71 (A3), Sabinator_70 (A3), Scout_66 (A3), Sheen_69 (A7), SoYo_69 (A3), SoilDragon_71 (A3), Spike509_72 (A3), StepMih_71 (A3), Taurus_73 (A3), Texage_65 (A3), TinyPebbles_71 (A3), Vix_68 (A3), Watson_71 (A3), Zafafa_65 (A3),

Start 14:

- Found in 1 of 79 (1.3%) of genes in pham
- Manual Annotations of this start: 1 of 71
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Refuge_68 (A12),

Start 20:

- Found in 3 of 79 (3.8%) of genes in pham
- Manual Annotations of this start: 1 of 71
- Called 33.3% of time when present
- Phage (with cluster) where this start called: Timshel_68 (A7),

Start 21:

- Found in 3 of 79 (3.8%) 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 23:

- Found in 70 of 79 (88.6%) of genes in pham
- Manual Annotations of this start: 3 of 71
- Called 8.6% 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),

Summary by clusters:

There are 4 clusters represented in this pham: A3, A19, A7, A12,

Info for manual annotations of cluster A12:

- Start number 14 was manually annotated 1 time for cluster A12.

Info for manual annotations of cluster A19:

- Start number 13 was manually annotated 1 time for cluster A19.

Info for manual annotations of cluster A3:

- Start number 13 was manually annotated 61 times for cluster A3.
- Start number 23 was manually annotated 3 times for cluster A3.

Info for manual annotations of cluster A7:

- Start number 6 was manually annotated 1 time for cluster A7.
- Start number 8 was manually annotated 1 time for cluster A7.
- Start number 9 was manually annotated 1 time for cluster A7.
- Start number 13 was manually annotated 1 time for cluster A7.
- Start number 20 was manually annotated 1 time for cluster A7.

Gene Information:

Gene: Aglet_73 Start: 42442, Stop: 42134, Start Num: 13

Candidate Starts for Aglet_73:

(Start: 13 @42442 has 63 MA's), (16, 42424), (19, 42409), (Start: 23 @42388 has 3 MA's), (25, 42355), (27, 42304), (29, 42295), (30, 42268), (32, 42262), (37, 42229),

Gene: Anubis_75 Start: 42328, Stop: 42020, Start Num: 13

Candidate Starts for Anubis_75:

(Start: 13 @42328 has 63 MA's), (16, 42310), (19, 42295), (Start: 23 @42274 has 3 MA's), (25, 42241), (27, 42190), (29, 42181), (30, 42154), (32, 42148), (37, 42115),

Gene: AugsMagnumOpus_75 Start: 42433, Stop: 42125, Start Num: 13

Candidate Starts for AugsMagnumOpus_75:

(Start: 13 @42433 has 63 MA's), (16, 42415), (19, 42400), (Start: 23 @42379 has 3 MA's), (25, 42346), (27, 42295), (29, 42286), (30, 42259), (32, 42253), (37, 42220),

Gene: B1_59 Start: 40295, Stop: 39984, Start Num: 23

Candidate Starts for B1_59:

(Start: 13 @40352 has 63 MA's), (18, 40319), (Start: 23 @40295 has 3 MA's), (34, 40145), (37, 40127), (38, 40118), (39, 40106),

Gene: BabyJohn_62 Start: 42122, Stop: 41811, Start Num: 23

Candidate Starts for BabyJohn_62:

(Start: 13 @42179 has 63 MA's), (18, 42146), (Start: 23 @42122 has 3 MA's), (34, 41972), (37, 41954), (39, 41933),

Gene: BabyRay_68 Start: 42157, Stop: 41789, Start Num: 13

Candidate Starts for BabyRay_68:

(Start: 13 @42157 has 63 MA's), (18, 42124), (Start: 23 @42100 has 3 MA's), (37, 41932), (38, 41923), (39, 41911),

Gene: Beauxregard13_71 Start: 42445, Stop: 42137, Start Num: 13

Candidate Starts for Beauxregard13_71:

(Start: 13 @42445 has 63 MA's), (16, 42427), (19, 42412), (Start: 23 @42391 has 3 MA's), (25, 42358), (27, 42307), (29, 42298), (30, 42271), (32, 42265), (37, 42232),

Gene: BreSam8_72 Start: 42435, Stop: 42127, Start Num: 13

Candidate Starts for BreSam8_72:

(Start: 13 @42435 has 63 MA's), (16, 42417), (19, 42402), (Start: 23 @42381 has 3 MA's), (25, 42348), (27, 42297), (29, 42288), (30, 42261), (32, 42255), (37, 42222),

Gene: BuzzBuzz_66 Start: 42469, Stop: 42161, Start Num: 13

Candidate Starts for BuzzBuzz_66:

(1, 42676), (Start: 13 @42469 has 63 MA's), (15, 42457), (16, 42451), (19, 42436), (Start: 23 @42415 has 3 MA's), (25, 42382), (27, 42331), (29, 42322), (30, 42295), (32, 42289), (37, 42256),

Gene: Caviar_67 Start: 42160, Stop: 41789, Start Num: 13

Candidate Starts for Caviar_67:

(Start: 13 @42160 has 63 MA's), (18, 42127), (Start: 23 @42103 has 3 MA's), (27, 42007), (34, 41950), (37, 41932), (39, 41911),

Gene: Chiqui_62 Start: 42131, Stop: 41820, Start Num: 23

Candidate Starts for Chiqui_62:

(Start: 13 @42188 has 63 MA's), (18, 42155), (Start: 23 @42131 has 3 MA's), (34, 41981), (37, 41963), (39, 41942),

Gene: Colbster_68 Start: 42445, Stop: 42137, Start Num: 13

Candidate Starts for Colbster_68:

(Start: 13 @42445 has 63 MA's), (16, 42427), (19, 42412), (Start: 23 @42391 has 3 MA's), (25, 42358), (27, 42307), (29, 42298), (30, 42271), (32, 42265), (37, 42232),

Gene: Cullens_72 Start: 42441, Stop: 42133, Start Num: 13

Candidate Starts for Cullens_72:

(Start: 13 @42441 has 63 MA's), (16, 42423), (19, 42408), (Start: 23 @42387 has 3 MA's), (25, 42354), (27, 42303), (29, 42294), (30, 42267), (32, 42261), (37, 42228),

Gene: DaHudson_71 Start: 42434, Stop: 42126, Start Num: 13

Candidate Starts for DaHudson_71:

(Start: 13 @42434 has 63 MA's), (16, 42416), (19, 42401), (Start: 23 @42380 has 3 MA's), (25, 42347), (27, 42296), (29, 42287), (30, 42260), (32, 42254), (37, 42221),

Gene: DroogsArmy_64 Start: 45309, Stop: 44944, Start Num: 8

Candidate Starts for DroogsArmy_64:

(Start: 8 @45309 has 1 MA's), (12, 45276), (Start: 20 @45231 has 1 MA's), (26, 45153), (27, 45114), (29, 45105), (34, 45057), (35, 45045), (36, 45042), (37, 45039), (39, 45018), (40, 44967), (42, 44949),

Gene: DropBear_65 Start: 42103, Stop: 41738, Start Num: 13

Candidate Starts for DropBear_65:

(Start: 13 @42103 has 63 MA's), (17, 42082), (18, 42070), (Start: 23 @42046 has 3 MA's), (34, 41896), (37, 41878), (38, 41869), (39, 41857),

Gene: EpicPhail_73 Start: 42445, Stop: 42137, Start Num: 13

Candidate Starts for EpicPhail_73:

(Start: 13 @42445 has 63 MA's), (16, 42427), (19, 42412), (Start: 23 @42391 has 3 MA's), (25, 42358), (27, 42307), (29, 42298), (30, 42271), (32, 42265), (37, 42232),

Gene: Fernando_72 Start: 42441, Stop: 42133, Start Num: 13

Candidate Starts for Fernando_72:

(Start: 13 @42441 has 63 MA's), (16, 42423), (19, 42408), (Start: 23 @42387 has 3 MA's), (25, 42354), (27, 42303), (29, 42294), (30, 42267), (32, 42261), (37, 42228),

Gene: FlyCatcher_70 Start: 45930, Stop: 45607, Start Num: 21

Candidate Starts for FlyCatcher_70:

(Start: 13 @45966 has 63 MA's), (21, 45930), (27, 45825), (34, 45768), (37, 45750), (39, 45729),

Gene: Fred313_65 Start: 41797, Stop: 41432, Start Num: 13

Candidate Starts for Fred313_65:

(Start: 13 @41797 has 63 MA's), (17, 41776), (18, 41764), (Start: 23 @41740 has 3 MA's), (34, 41590), (37, 41572), (38, 41563), (39, 41551),

Gene: Grub_70 Start: 42433, Stop: 42125, Start Num: 13

Candidate Starts for Grub_70:

(Start: 13 @42433 has 63 MA's), (16, 42415), (19, 42400), (Start: 23 @42379 has 3 MA's), (25, 42346), (27, 42295), (29, 42286), (30, 42259), (32, 42253), (37, 42220),

Gene: Grum1_71 Start: 42441, Stop: 42133, Start Num: 13

Candidate Starts for Grum1_71:

(Start: 13 @42441 has 63 MA's), (16, 42423), (19, 42408), (Start: 23 @42387 has 3 MA's), (25, 42354), (27, 42303), (29, 42294), (30, 42267), (32, 42261), (37, 42228),

Gene: HINdeR_66 Start: 44898, Stop: 44536, Start Num: 9

Candidate Starts for HINdeR_66:

(Start: 9 @44898 has 1 MA's), (12, 44865), (Start: 20 @44826 has 1 MA's), (26, 44745), (27, 44706), (29, 44697), (34, 44649), (36, 44634), (37, 44631), (39, 44610), (40, 44559), (42, 44541),

Gene: Heathen_67 Start: 41892, Stop: 41527, Start Num: 13

Candidate Starts for Heathen_67:

(Start: 13 @41892 has 63 MA's), (17, 41871), (18, 41859), (Start: 23 @41835 has 3 MA's), (34, 41685), (37, 41667), (38, 41658), (39, 41646),

Gene: HelDan_67 Start: 42108, Stop: 41743, Start Num: 13

Candidate Starts for HelDan_67:

(Start: 13 @42108 has 63 MA's), (17, 42087), (18, 42075), (Start: 23 @42051 has 3 MA's), (34, 41901), (37, 41883), (38, 41874), (39, 41862),

Gene: Hercules11_72 Start: 42450, Stop: 42142, Start Num: 13

Candidate Starts for Hercules11_72:

(Start: 13 @42450 has 63 MA's), (16, 42432), (19, 42417), (Start: 23 @42396 has 3 MA's), (25, 42363), (27, 42312), (29, 42303), (30, 42276), (32, 42270), (37, 42237),

Gene: Isca_65 Start: 41657, Stop: 41289, Start Num: 13

Candidate Starts for Isca_65:

(Start: 13 @41657 has 63 MA's), (18, 41624), (Start: 23 @41600 has 3 MA's), (34, 41450), (37, 41432), (38, 41423), (39, 41411),

Gene: JF2_65 Start: 40352, Stop: 39984, Start Num: 13

Candidate Starts for JF2_65:

(Start: 13 @40352 has 63 MA's), (18, 40319), (Start: 23 @40295 has 3 MA's), (34, 40145), (37, 40127), (38, 40118), (39, 40106),

Gene: JF4_65 Start: 40352, Stop: 39984, Start Num: 13

Candidate Starts for JF4_65:

(Start: 13 @40352 has 63 MA's), (18, 40319), (Start: 23 @40295 has 3 MA's), (34, 40145), (37, 40127), (38, 40118), (39, 40106),

Gene: JenCasNa_73 Start: 42441, Stop: 42133, Start Num: 13

Candidate Starts for JenCasNa_73:

(Start: 13 @42441 has 63 MA's), (16, 42423), (19, 42408), (Start: 23 @42387 has 3 MA's), (25, 42354), (27, 42303), (29, 42294), (30, 42267), (32, 42261), (37, 42228),

Gene: Jobu08_68 Start: 42273, Stop: 41965, Start Num: 13

Candidate Starts for Jobu08_68:

(Start: 13 @42273 has 63 MA's), (16, 42255), (19, 42240), (Start: 23 @42219 has 3 MA's), (25, 42186), (27, 42135), (29, 42126), (30, 42099), (32, 42093), (33, 42084), (37, 42060),

Gene: KADY_69 Start: 42469, Stop: 42161, Start Num: 13

Candidate Starts for KADY_69:

(1, 42676), (Start: 13 @42469 has 63 MA's), (15, 42457), (16, 42451), (19, 42436), (Start: 23 @42415 has 3 MA's), (25, 42382), (27, 42331), (29, 42322), (30, 42295), (32, 42289), (37, 42256),

Gene: Kachowdy_65 Start: 42144, Stop: 41779, Start Num: 13

Candidate Starts for Kachowdy_65:

(Start: 13 @42144 has 63 MA's), (17, 42123), (18, 42111), (Start: 23 @42087 has 3 MA's), (34, 41937), (37, 41919), (38, 41910), (39, 41898),

Gene: Kimona_64 Start: 41048, Stop: 40713, Start Num: 13

Candidate Starts for Kimona_64:

(Start: 13 @41048 has 63 MA's), (22, 40988), (27, 40883), (34, 40826), (37, 40808),

Gene: LBerry_73 Start: 42445, Stop: 42137, Start Num: 13

Candidate Starts for LBerry_73:

(Start: 13 @42445 has 63 MA's), (16, 42427), (19, 42412), (Start: 23 @42391 has 3 MA's), (25, 42358), (27, 42307), (29, 42298), (30, 42271), (32, 42265), (37, 42232),

Gene: Lambert1_67 Start: 42160, Stop: 41789, Start Num: 13

Candidate Starts for Lambert1_67:

(Start: 13 @42160 has 63 MA's), (18, 42127), (Start: 23 @42103 has 3 MA's), (27, 42007), (34, 41950), (37, 41932), (39, 41911),

Gene: Lilith_70 Start: 42434, Stop: 42126, Start Num: 13

Candidate Starts for Lilith_70:

(Start: 13 @42434 has 63 MA's), (16, 42416), (19, 42401), (Start: 23 @42380 has 3 MA's), (25, 42347), (27, 42296), (29, 42287), (30, 42260), (32, 42254), (37, 42221),

Gene: Louie6_71 Start: 42471, Stop: 42163, Start Num: 13

Candidate Starts for Louie6_71:

(1, 42678), (Start: 13 @42471 has 63 MA's), (15, 42459), (16, 42453), (19, 42438), (Start: 23 @42417 has 3 MA's), (25, 42384), (27, 42333), (29, 42324), (30, 42297), (32, 42291), (37, 42258),

Gene: LugYA_75 Start: 42442, Stop: 42134, Start Num: 13

Candidate Starts for LugYA_75:

(Start: 13 @42442 has 63 MA's), (16, 42424), (19, 42409), (Start: 23 @42388 has 3 MA's), (25, 42355), (27, 42304), (29, 42295), (30, 42268), (32, 42262), (37, 42229),

Gene: MA5_67 Start: 41561, Stop: 41193, Start Num: 13

Candidate Starts for MA5_67:

(Start: 13 @41561 has 63 MA's), (18, 41528), (Start: 23 @41504 has 3 MA's), (34, 41354), (37, 41336), (38, 41327), (39, 41315),

Gene: MK4_67 Start: 41636, Stop: 41268, Start Num: 13

Candidate Starts for MK4_67:

(Start: 13 @41636 has 63 MA's), (18, 41603), (Start: 23 @41579 has 3 MA's), (34, 41429), (37, 41411), (38, 41402), (39, 41390),

Gene: Malinsilva_74 Start: 42433, Stop: 42125, Start Num: 13

Candidate Starts for Malinsilva_74:

(Start: 13 @42433 has 63 MA's), (16, 42415), (19, 42400), (Start: 23 @42379 has 3 MA's), (25, 42346), (27, 42295), (29, 42286), (30, 42259), (32, 42253), (37, 42220),

Gene: MarQuardt_72 Start: 42443, Stop: 42135, Start Num: 13

Candidate Starts for MarQuardt_72:

(Start: 13 @42443 has 63 MA's), (16, 42425), (19, 42410), (Start: 23 @42389 has 3 MA's), (25, 42356), (27, 42305), (29, 42296), (30, 42269), (32, 42263), (37, 42230),

Gene: Marchesa_65 Start: 42037, Stop: 41729, Start Num: 23

Candidate Starts for Marchesa_65:

(Start: 13 @42094 has 63 MA's), (17, 42073), (18, 42061), (Start: 23 @42037 has 3 MA's), (34, 41887), (37, 41869), (38, 41860), (39, 41848),

Gene: Marie_70 Start: 42441, Stop: 42133, Start Num: 13

Candidate Starts for Marie_70:

(Start: 13 @42441 has 63 MA's), (16, 42423), (19, 42408), (Start: 23 @42387 has 3 MA's), (25, 42354), (27, 42303), (29, 42294), (30, 42267), (32, 42261), (37, 42228),

Gene: Microwolf_68 Start: 42457, Stop: 42149, Start Num: 13

Candidate Starts for Microwolf_68:

(Start: 13 @42457 has 63 MA's), (16, 42439), (19, 42424), (Start: 23 @42403 has 3 MA's), (25, 42370), (27, 42319), (29, 42310), (30, 42283), (32, 42277), (37, 42244),

Gene: Misomonster_73 Start: 42468, Stop: 42160, Start Num: 13

Candidate Starts for Misomonster_73:

(1, 42675), (Start: 13 @42468 has 63 MA's), (15, 42456), (16, 42450), (19, 42435), (Start: 23 @42414 has 3 MA's), (25, 42381), (27, 42330), (29, 42321), (30, 42294), (32, 42288), (37, 42255),

Gene: MoneyMay_71 Start: 42441, Stop: 42133, Start Num: 13

Candidate Starts for MoneyMay_71:

(Start: 13 @42441 has 63 MA's), (16, 42423), (19, 42408), (Start: 23 @42387 has 3 MA's), (25, 42354), (27, 42303), (29, 42294), (30, 42267), (32, 42261), (37, 42228),

Gene: MuchMore_75 Start: 42433, Stop: 42125, Start Num: 13

Candidate Starts for MuchMore_75:

(Start: 13 @42433 has 63 MA's), (16, 42415), (19, 42400), (Start: 23 @42379 has 3 MA's), (25, 42346), (27, 42295), (29, 42286), (30, 42259), (32, 42253), (37, 42220),

Gene: Noella_67 Start: 42161, Stop: 41790, Start Num: 13

Candidate Starts for Noella_67:

(Start: 13 @42161 has 63 MA's), (18, 42128), (Start: 23 @42104 has 3 MA's), (27, 42008), (34, 41951), (37, 41933), (39, 41912),

Gene: Ollie_72 Start: 42312, Stop: 42004, Start Num: 13

Candidate Starts for Ollie_72:

(Start: 13 @42312 has 63 MA's), (16, 42294), (19, 42279), (Start: 23 @42258 has 3 MA's), (25, 42225), (27, 42174), (29, 42165), (30, 42138), (32, 42132), (37, 42099),

Gene: P28Green_72 Start: 42444, Stop: 42136, Start Num: 13

Candidate Starts for P28Green_72:

(Start: 13 @42444 has 63 MA's), (16, 42426), (19, 42411), (Start: 23 @42390 has 3 MA's), (25, 42357), (27, 42306), (29, 42297), (30, 42270), (32, 42264), (37, 42231),

Gene: PGHhamlin_74 Start: 42433, Stop: 42125, Start Num: 13

Candidate Starts for PGHhamlin_74:

(Start: 13 @42433 has 63 MA's), (16, 42415), (19, 42400), (Start: 23 @42379 has 3 MA's), (25, 42346), (27, 42295), (29, 42286), (30, 42259), (32, 42253), (37, 42220),

Gene: PP_69 Start: 46873, Stop: 46463, Start Num: 6

Candidate Starts for PP_69:

(4, 46894), (5, 46879), (Start: 6 @46873 has 1 MA's), (10, 46807), (11, 46801), (27, 46633), (28, 46630), (29, 46624), (30, 46597), (31, 46594), (34, 46576), (39, 46537), (41, 46483),

Gene: Pembroke_72 Start: 42442, Stop: 42134, Start Num: 13

Candidate Starts for Pembroke_72:

(Start: 13 @42442 has 63 MA's), (16, 42424), (19, 42409), (Start: 23 @42388 has 3 MA's), (25, 42355), (27, 42304), (29, 42295), (30, 42268), (32, 42262), (37, 42229),

Gene: Penny1_72 Start: 42445, Stop: 42137, Start Num: 13

Candidate Starts for Penny1_72:

(Start: 13 @42445 has 63 MA's), (16, 42427), (19, 42412), (Start: 23 @42391 has 3 MA's), (25, 42358), (27, 42307), (29, 42298), (30, 42271), (32, 42265), (37, 42232),

Gene: Phantastic_69 Start: 41822, Stop: 41451, Start Num: 13

Candidate Starts for Phantastic_69:

(Start: 13 @41822 has 63 MA's), (17, 41801), (18, 41789), (Start: 23 @41765 has 3 MA's), (34, 41612), (37, 41594), (38, 41585), (39, 41573),

Gene: Phoxy_72 Start: 42466, Stop: 42158, Start Num: 13

Candidate Starts for Phoxy_72:

(Start: 13 @42466 has 63 MA's), (16, 42448), (19, 42433), (Start: 23 @42412 has 3 MA's), (25, 42379), (27, 42328), (29, 42319), (30, 42292), (32, 42286), (37, 42253),

Gene: PotatoSplit_73 Start: 42445, Stop: 42137, Start Num: 13

Candidate Starts for PotatoSplit_73:

(Start: 13 @42445 has 63 MA's), (16, 42427), (19, 42412), (Start: 23 @42391 has 3 MA's), (25, 42358), (27, 42307), (29, 42298), (30, 42271), (32, 42265), (37, 42232),

Gene: Puppy_68 Start: 41766, Stop: 41455, Start Num: 23

Candidate Starts for Puppy_68:

(Start: 13 @41823 has 63 MA's), (17, 41802), (18, 41790), (Start: 23 @41766 has 3 MA's), (34, 41616), (37, 41598), (39, 41577),

Gene: Refuge_68 Start: 43722, Stop: 43405, Start Num: 14

Candidate Starts for Refuge_68:

(2, 43860), (4, 43821), (12, 43725), (Start: 14 @43722 has 1 MA's), (24, 43668), (26, 43617), (27, 43578), (29, 43569), (32, 43536),

Gene: Rockstar_66 Start: 41645, Stop: 41277, Start Num: 13

Candidate Starts for Rockstar_66:

(Start: 13 @41645 has 63 MA's), (18, 41612), (Start: 23 @41588 has 3 MA's), (34, 41438), (37, 41420), (38, 41411), (39, 41399),

Gene: Rummer_71 Start: 42469, Stop: 42161, Start Num: 13

Candidate Starts for Rummer_71:

(Start: 13 @42469 has 63 MA's), (16, 42451), (19, 42436), (Start: 23 @42415 has 3 MA's), (25, 42382), (27, 42331), (29, 42322), (30, 42295), (32, 42289), (37, 42256),

Gene: Sabinator_70 Start: 42440, Stop: 42132, Start Num: 13

Candidate Starts for Sabinator_70:

(Start: 13 @42440 has 63 MA's), (16, 42422), (19, 42407), (Start: 23 @42386 has 3 MA's), (25, 42353), (27, 42302), (29, 42293), (30, 42266), (32, 42260), (37, 42227),

Gene: Scout_66 Start: 41355, Stop: 40990, Start Num: 13

Candidate Starts for Scout_66:

(Start: 13 @41355 has 63 MA's), (17, 41334), (18, 41322), (Start: 23 @41298 has 3 MA's), (34, 41148), (37, 41130), (38, 41121), (39, 41109),

Gene: Sheen_69 Start: 45854, Stop: 45495, Start Num: 13

Candidate Starts for Sheen_69:

(Start: 13 @45854 has 63 MA's), (21, 45818), (27, 45713), (34, 45656), (37, 45638), (39, 45617),

Gene: SoYo_69 Start: 42353, Stop: 42045, Start Num: 13

Candidate Starts for SoYo_69:

(Start: 13 @42353 has 63 MA's), (16, 42335), (19, 42320), (Start: 23 @42299 has 3 MA's), (25, 42266), (27, 42215), (29, 42206), (30, 42179), (32, 42173), (37, 42140),

Gene: SoilDragon_71 Start: 41889, Stop: 41581, Start Num: 13

Candidate Starts for SoilDragon_71:

(Start: 13 @41889 has 63 MA's), (16, 41871), (19, 41856), (Start: 23 @41835 has 3 MA's), (25, 41802), (27, 41751), (29, 41742), (30, 41715), (32, 41709), (33, 41700), (37, 41676),

Gene: Spike509_72 Start: 42466, Stop: 42158, Start Num: 13

Candidate Starts for Spike509_72:

(Start: 13 @42466 has 63 MA's), (16, 42448), (19, 42433), (Start: 23 @42412 has 3 MA's), (25, 42379), (27, 42328), (29, 42319), (30, 42292), (32, 42286), (37, 42253),

Gene: StepMih_71 Start: 42435, Stop: 42127, Start Num: 13

Candidate Starts for StepMih_71:

(Start: 13 @42435 has 63 MA's), (16, 42417), (19, 42402), (Start: 23 @42381 has 3 MA's), (25, 42348), (27, 42297), (29, 42288), (30, 42261), (32, 42255), (37, 42222),

Gene: TNguyen7_68 Start: 42107, Stop: 41796, Start Num: 23

Candidate Starts for TNguyen7_68:

(Start: 13 @42164 has 63 MA's), (17, 42143), (18, 42131), (Start: 23 @42107 has 3 MA's), (34, 41957), (37, 41939), (39, 41918),

Gene: Taurus_73 Start: 42441, Stop: 42133, Start Num: 13

Candidate Starts for Taurus_73:

(Start: 13 @42441 has 63 MA's), (16, 42423), (19, 42408), (Start: 23 @42387 has 3 MA's), (25, 42354), (27, 42303), (29, 42294), (30, 42267), (32, 42261), (37, 42228),

Gene: Texage_65 Start: 42161, Stop: 41790, Start Num: 13

Candidate Starts for Texage_65:

(Start: 13 @42161 has 63 MA's), (18, 42128), (Start: 23 @42104 has 3 MA's), (27, 42008), (34, 41951), (37, 41933), (39, 41912),

Gene: Timshel_68 Start: 45505, Stop: 45218, Start Num: 20

Candidate Starts for Timshel_68:

(3, 45658), (7, 45583), (12, 45550), (Start: 20 @45505 has 1 MA's), (26, 45427), (27, 45388), (29, 45379), (34, 45331), (35, 45319), (37, 45313), (39, 45292), (40, 45241), (42, 45223),

Gene: TinyPebbles_71 Start: 42471, Stop: 42163, Start Num: 13

Candidate Starts for TinyPebbles_71:

(1, 42678), (Start: 13 @42471 has 63 MA's), (15, 42459), (16, 42453), (19, 42438), (Start: 23 @42417 has 3 MA's), (25, 42384), (27, 42333), (29, 42324), (30, 42297), (32, 42291), (37, 42258),

Gene: Toro_68 Start: 45930, Stop: 45607, Start Num: 21

Candidate Starts for Toro_68:

(Start: 13 @45966 has 63 MA's), (21, 45930), (27, 45825), (34, 45768), (37, 45750), (39, 45729),

Gene: Vix_68 Start: 42524, Stop: 42216, Start Num: 13

Candidate Starts for Vix_68:

(Start: 13 @42524 has 63 MA's), (16, 42506), (19, 42491), (Start: 23 @42470 has 3 MA's), (25, 42437), (27, 42386), (29, 42377), (30, 42350), (32, 42344), (37, 42311),

Gene: Watson_71 Start: 42433, Stop: 42125, Start Num: 13

Candidate Starts for Watson_71:

(Start: 13 @42433 has 63 MA's), (16, 42415), (19, 42400), (Start: 23 @42379 has 3 MA's), (25, 42346), (27, 42295), (29, 42286), (30, 42259), (32, 42253), (37, 42220),

Gene: Zarafa_65 Start: 42117, Stop: 41752, Start Num: 13

Candidate Starts for Zarafa_65:

(Start: 13 @42117 has 63 MA's), (17, 42096), (18, 42084), (Start: 23 @42060 has 3 MA's), (34, 41910), (37, 41892), (38, 41883), (39, 41871),