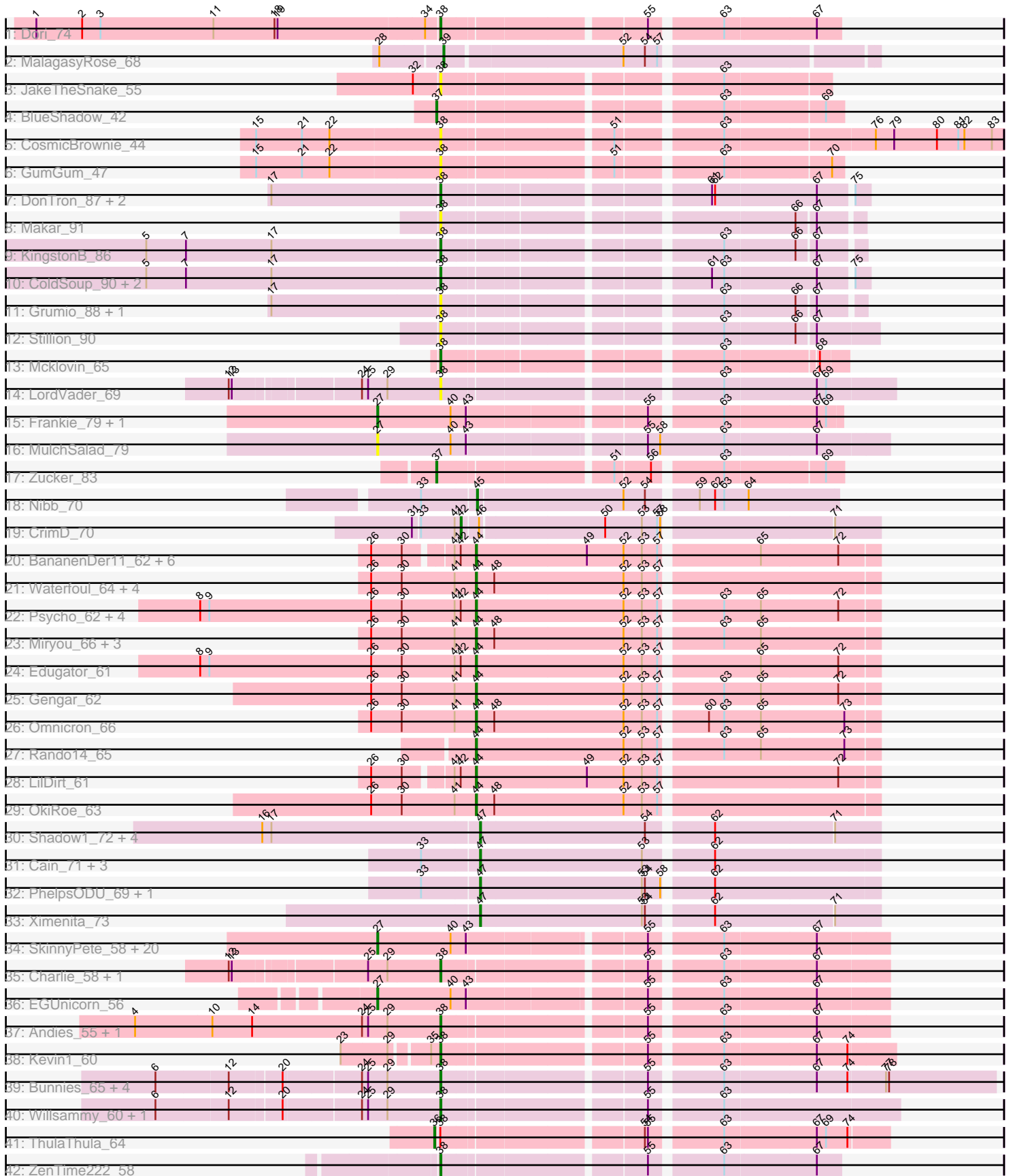


Pham 311432



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 311432 Report

This analysis was run 06/27/26 on database version 652.

Pham number 311432 has 100 members, 15 are drafts.

Phages represented in each track:

- Track 1 : Dori_74
- Track 2 : MalagasyRose_68
- Track 3 : JakeTheSnake_55
- Track 4 : BlueShadow_42
- Track 5 : CosmicBrownie_44
- Track 6 : GumGum_47
- Track 7 : DonTron_87, Soos_83, Sting_86
- Track 8 : Makar_91
- Track 9 : KingstonB_86
- Track 10 : ColdSoup_90, Jollymon_87, Amo99_90
- Track 11 : Grumio_88, Purplicious_87
- Track 12 : Stillion_90
- Track 13 : Mcklovin_65
- Track 14 : LordVader_69
- Track 15 : Frankie_79, Piper2020_85
- Track 16 : MulchSalad_79
- Track 17 : Zucker_83
- Track 18 : Nibb_70
- Track 19 : CrimD_70
- Track 20 : BananenDer11_62, DoubleChamp_59, Agent47_62, ViviJ_61, Collard_60, Kratio_60, InvictusManeo_60
- Track 21 : Waterfoul_64, Feyre_65, SoSeph_63, Heftyboy_63, Thyatira_65
- Track 22 : Psycho_62, Dadosky_64, AlleyCat_64, Larva_63, Neighly_64
- Track 23 : Miryou_66, Leston_62, Guillsminger_63, Paola_62
- Track 24 : Edugator_61
- Track 25 : Gengar_62
- Track 26 : Omnicron_66
- Track 27 : Rando14_65
- Track 28 : LilDirt_61
- Track 29 : OkiRoe_63
- Track 30 : Shadow1_72, Tigress9_72, Krueger_72, Syra333_71, Sunflower1121_73
- Track 31 : Cain_71, Phrank_71, Bryler_71, Tierra_71
- Track 32 : PhelpsODU_69, Unicorn_69
- Track 33 : Ximenita_73
- Track 34 : SkinnyPete_58, Fulbright_59, FirstPlacePfu_63, Pipsqueaks_62, Smurph_61, Carcharodon_61, Magsby_60, Phloss_59, Chewbacca_64, Schnauzer_62, Duplicity_59, Philonius_61, LordVader_79, Silvafighter_63,

Xerxes_61, Tessdabest_62, Parmesanjohn_61, Silvy_57, Melville_66, Aggie_57, Gex_62

- Track 35 : Charlie_58, Bosection6_56
- Track 36 : EGUnicorn_56
- Track 37 : Andies_55, Tapioca_59
- Track 38 : Kevin1_60
- Track 39 : Bunnies_65, Glaske_59, CactusJack_60, KilKor_60, Phalm_60
- Track 40 : Willsammy_60, Ksquared_63
- Track 41 : ThulaThula_64
- Track 42 : ZenTime222_58

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

The start number called the most often in the published annotations is 44, it was called in 25 of the 85 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Agent47_62, AlleyCat_64, BananenDer11_62, Collard_60, Dadosky_64, DoubleChamp_59, Edugator_61, Feyre_65, Gengar_62, Guillsminger_63, Heftyboy_63, InvictusManeo_60, Kratio_60, Larva_63, Leston_62, LilDirt_61, Miryou_66, Neighly_64, OkiRoe_63, Omnicron_66, Paola_62, Psycho_62, Rando14_65, SoSeph_63, Thyatira_65, ViviJ_61, Waterfoul_64,

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

-

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

- Aggie_57, Amo99_90, Andies_55, BlueShadow_42, Bosection6_56, Bryler_71, Bunnies_65, CactusJack_60, Cain_71, Carcharodon_61, Charlie_58, Chewbacca_64, ColdSoup_90, CosmicBrownie_44, CrimD_70, DonTron_87, Dori_74, Duplicity_59, EGUnicorn_56, FirstPlacePfu_63, Frankie_79, Fulbright_59, Gex_62, Glaske_59, Grumio_88, GumGum_47, JakeTheSnake_55, Jollymon_87, Kevin1_60, KilKor_60, KingstonB_86, Krueger_72, Ksquared_63, LordVader_69, LordVader_79, Magsby_60, Makar_91, MalagasyRose_68, Mcklovin_65, Melville_66, MulchSalad_79, Nibb_70, Parmesanjohn_61, Phalm_60, PhelpsODU_69, Philonius_61, Phloss_59, Phrank_71, Piper2020_85, Pipsqueaks_62, Purpicious_87, Schnauzer_62, Shadow1_72, Silvafighter_63, Silvy_57, SkinnyPete_58, Smurph_61, Soos_83, Stillion_90, Sting_86, Sunflower1121_73, Syra333_71, Tapioca_59, Tessdabest_62, ThulaThula_64, Tierra_71, Tigress9_72, Unicorn_69, Willsammy_60, Xerxes_61, Ximenita_73, ZenTime222_58, Zucker_83,

Summary by start number:

Start 27:

- Found in 25 of 100 (25.0%) of genes in pham
- Manual Annotations of this start: 22 of 85
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Aggie_57 (N), Carcharodon_61 (N), Chewbacca_64 (N), Duplicity_59 (N), EGUnicorn_56 (N), FirstPlacePfu_63 (P1), Frankie_79 (F1), Fulbright_59 (N), Gex_62 (N), LordVader_79 (F), Magsby_60 (N),

Melville_66 (N), MulchSalad_79 (F7), Parmesanjohn_61 (N), Philonius_61 (N), Phloss_59 (N), Piper2020_85 (F1), Pipsqueaks_62 (N), Schnauzer_62 (N), Silvafighter_63 (N), Silvy_57 (N), SkinnyPete_58 (N), Smurph_61 (N), Tessdabest_62 (N), Xerxes_61 (N),

Start 36:

- Found in 1 of 100 (1.0%) of genes in pham
- Manual Annotations of this start: 1 of 85
- Called 100.0% of time when present
- Phage (with cluster) where this start called: ThulaThula_64 (P5),

Start 37:

- Found in 2 of 100 (2.0%) of genes in pham
- Manual Annotations of this start: 2 of 85
- Called 100.0% of time when present
- Phage (with cluster) where this start called: BlueShadow_42 (AY), Zucker_83 (FN),

Start 38:

- Found in 31 of 100 (31.0%) of genes in pham
- Manual Annotations of this start: 20 of 85
- Called 96.8% of time when present
- Phage (with cluster) where this start called: Amo99_90 (CP), Andies_55 (N), Bosection6_56 (N), Bunnies_65 (P1), CactusJack_60 (P1), Charlie_58 (N), ColdSoup_90 (CP), CosmicBrownie_44 (AY), DonTron_87 (CP), Dori_74 (AD), Glaske_59 (P1), Grumio_88 (CP), GumGum_47 (AY), JakeTheSnake_55 (AY), Jollymon_87 (CP), Kevin1_60 (N), KilKor_60 (P1), KingstonB_86 (CP), Ksquared_63 (P1), LordVader_69 (F), Makar_91 (CP), Mcklovin_65 (CZ4), Phalm_60 (P1), Purplicious_87 (CP), Soos_83 (CP), Stillion_90 (CP), Sting_86 (CP), Tapioca_59 (N), Willsammy_60 (P1), ZenTime222_58 (T),

Start 39:

- Found in 1 of 100 (1.0%) of genes in pham
- Manual Annotations of this start: 1 of 85
- Called 100.0% of time when present
- Phage (with cluster) where this start called: MalagasyRose_68 (AG),

Start 42:

- Found in 15 of 100 (15.0%) of genes in pham
- Manual Annotations of this start: 1 of 85
- Called 6.7% of time when present
- Phage (with cluster) where this start called: CrimD_70 (K1),

Start 44:

- Found in 27 of 100 (27.0%) of genes in pham
- Manual Annotations of this start: 25 of 85
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Agent47_62 (K5), AlleyCat_64 (K5), BananenDer11_62 (K5), Collard_60 (K5), Dadosky_64 (K5), DoubleChamp_59 (K5), Edugator_61 (K5), Feyre_65 (K5), Gengar_62 (K5), Guillsminger_63 (K5), Heftyboy_63 (K5), InvictusManeo_60 (K5), Kratio_60 (K5), Larva_63 (K5), Leston_62 (K5), LilDirt_61 (K5), Miryou_66 (K5), Neighly_64 (K3), OkiRoe_63 (K5), Omnicron_66 (K5), Paola_62 (K5), Psycho_62 (K5), Rando14_65 (K5), SoSeph_63 (K5), Thyatira_65 (K5), ViviJ_61 (K5), Waterfoul_64 (K5),

Start 45:

- Found in 1 of 100 (1.0%) of genes in pham
- Manual Annotations of this start: 1 of 85
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Nibb_70 (K1),

Start 47:

- Found in 12 of 100 (12.0%) of genes in pham
- Manual Annotations of this start: 12 of 85
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Bryler_71 (K6), Cain_71 (K6), Krueger_72 (K6), PhelpsODU_69 (K6), Phrank_71 (K6), Shadow1_72 (K6), Sunflower1121_73 (K6), Syra333_71 (K6), Tierra_71 (K6), Tigress9_72 (K6), Unicorn_69 (K6), Ximenita_73 (K6),

Summary by clusters:

There are 17 clusters represented in this pham: F1, P1, AD, AG, P5, F7, F, CZ4, N, K3, K1, K6, K5, AY, CP, FN, T,

Info for manual annotations of cluster AD:

- Start number 38 was manually annotated 1 time for cluster AD.

Info for manual annotations of cluster AG:

- Start number 39 was manually annotated 1 time for cluster AG.

Info for manual annotations of cluster AY:

- Start number 37 was manually annotated 1 time for cluster AY.

Info for manual annotations of cluster CP:

- Start number 38 was manually annotated 5 times for cluster CP.

Info for manual annotations of cluster CZ4:

- Start number 38 was manually annotated 1 time for cluster CZ4.

Info for manual annotations of cluster F1:

- Start number 27 was manually annotated 2 times for cluster F1.

Info for manual annotations of cluster FN:

- Start number 37 was manually annotated 1 time for cluster FN.

Info for manual annotations of cluster K1:

- Start number 42 was manually annotated 1 time for cluster K1.
- Start number 45 was manually annotated 1 time for cluster K1.

Info for manual annotations of cluster K5:

- Start number 44 was manually annotated 25 times for cluster K5.

Info for manual annotations of cluster K6:

- Start number 47 was manually annotated 12 times for cluster K6.

Info for manual annotations of cluster N:

- Start number 27 was manually annotated 19 times for cluster N.
- Start number 38 was manually annotated 5 times for cluster N.

Info for manual annotations of cluster P1:

- Start number 27 was manually annotated 1 time for cluster P1.
- Start number 38 was manually annotated 7 times for cluster P1.

Info for manual annotations of cluster P5:

- Start number 36 was manually annotated 1 time for cluster P5.

Info for manual annotations of cluster T:

- Start number 38 was manually annotated 1 time for cluster T.

Gene Information:

Gene: Agent47_62 Start: 41490, Stop: 41870, Start Num: 44

Candidate Starts for Agent47_62:

(26, 41400), (30, 41430), (41, 41469), (Start: 42 @41475 has 1 MA's), (Start: 44 @41490 has 25 MA's), (49, 41598), (52, 41634), (53, 41652), (57, 41667), (65, 41757), (72, 41832),

Gene: Aggie_57 Start: 39395, Stop: 39856, Start Num: 27

Candidate Starts for Aggie_57:

(Start: 27 @39395 has 22 MA's), (40, 39467), (43, 39482), (55, 39641), (63, 39704), (67, 39791),

Gene: AlleyCat_64 Start: 41814, Stop: 42194, Start Num: 44

Candidate Starts for AlleyCat_64:

(8, 41544), (9, 41553), (26, 41712), (30, 41742), (41, 41793), (Start: 42 @41799 has 1 MA's), (Start: 44 @41814 has 25 MA's), (52, 41958), (53, 41976), (57, 41991), (63, 42045), (65, 42081), (72, 42156),

Gene: Amo99_90 Start: 56291, Stop: 56665, Start Num: 38

Candidate Starts for Amo99_90:

(5, 56006), (7, 56045), (17, 56129), (Start: 38 @56291 has 20 MA's), (61, 56522), (63, 56534), (67, 56621), (75, 56651),

Gene: Andies_55 Start: 38900, Stop: 39301, Start Num: 38

Candidate Starts for Andies_55:

(4, 38603), (10, 38678), (14, 38717), (24, 38825), (25, 38831), (29, 38849), (Start: 38 @38900 has 20 MA's), (55, 39083), (63, 39146), (67, 39233),

Gene: BananenDer11_62 Start: 41451, Stop: 41831, Start Num: 44

Candidate Starts for BananenDer11_62:

(26, 41361), (30, 41391), (41, 41430), (Start: 42 @41436 has 1 MA's), (Start: 44 @41451 has 25 MA's), (49, 41559), (52, 41595), (53, 41613), (57, 41628), (65, 41718), (72, 41793),

Gene: BlueShadow_42 Start: 28586, Stop: 28227, Start Num: 37

Candidate Starts for BlueShadow_42:

(Start: 37 @28586 has 2 MA's), (63, 28337), (69, 28244),

Gene: Bosection6_56 Start: 38504, Stop: 38905, Start Num: 38
Candidate Starts for Bosection6_56:
(12, 38315), (13, 38318), (25, 38435), (29, 38453), (Start: 38 @38504 has 20 MA's), (55, 38687), (63, 38750), (67, 38837),

Gene: Bryler_71 Start: 43715, Stop: 44089, Start Num: 47
Candidate Starts for Bryler_71:
(33, 43661), (Start: 47 @43715 has 12 MA's), (53, 43871), (62, 43931),

Gene: Bunnies_65 Start: 41638, Stop: 42144, Start Num: 38
Candidate Starts for Bunnies_65:
(6, 41374), (12, 41443), (20, 41491), (24, 41563), (25, 41569), (29, 41587), (Start: 38 @41638 has 20 MA's), (55, 41821), (63, 41884), (67, 41971), (74, 42001), (77, 42037), (78, 42040),

Gene: CactusJack_60 Start: 40506, Stop: 41012, Start Num: 38
Candidate Starts for CactusJack_60:
(6, 40242), (12, 40311), (20, 40359), (24, 40431), (25, 40437), (29, 40455), (Start: 38 @40506 has 20 MA's), (55, 40689), (63, 40752), (67, 40839), (74, 40869), (77, 40905), (78, 40908),

Gene: Cain_71 Start: 43703, Stop: 44077, Start Num: 47
Candidate Starts for Cain_71:
(33, 43649), (Start: 47 @43703 has 12 MA's), (53, 43859), (62, 43919),

Gene: Carcharodon_61 Start: 38739, Stop: 39203, Start Num: 27
Candidate Starts for Carcharodon_61:
(Start: 27 @38739 has 22 MA's), (40, 38811), (43, 38826), (55, 38985), (63, 39048), (67, 39135),

Gene: Charlie_58 Start: 38128, Stop: 38529, Start Num: 38
Candidate Starts for Charlie_58:
(12, 37939), (13, 37942), (25, 38059), (29, 38077), (Start: 38 @38128 has 20 MA's), (55, 38311), (63, 38374), (67, 38461),

Gene: Chewbacca_64 Start: 38634, Stop: 39098, Start Num: 27
Candidate Starts for Chewbacca_64:
(Start: 27 @38634 has 22 MA's), (40, 38706), (43, 38721), (55, 38880), (63, 38943), (67, 39030),

Gene: ColdSoup_90 Start: 56372, Stop: 56746, Start Num: 38
Candidate Starts for ColdSoup_90:
(5, 56087), (7, 56126), (17, 56210), (Start: 38 @56372 has 20 MA's), (61, 56603), (63, 56615), (67, 56702), (75, 56732),

Gene: Collard_60 Start: 41451, Stop: 41831, Start Num: 44
Candidate Starts for Collard_60:
(26, 41361), (30, 41391), (41, 41430), (Start: 42 @41436 has 1 MA's), (Start: 44 @41451 has 25 MA's), (49, 41559), (52, 41595), (53, 41613), (57, 41628), (65, 41718), (72, 41793),

Gene: CosmicBrownie_44 Start: 29321, Stop: 29833, Start Num: 38
Candidate Starts for CosmicBrownie_44:
(15, 29144), (21, 29189), (22, 29216), (Start: 38 @29321 has 20 MA's), (51, 29474), (63, 29567), (76, 29708), (79, 29726), (80, 29768), (81, 29789), (82, 29795), (83, 29822),

Gene: CrimD_70 Start: 44874, Stop: 45260, Start Num: 42
Candidate Starts for CrimD_70:

(31, 44829), (33, 44835), (41, 44868), (Start: 42 @44874 has 1 MA's), (46, 44889), (50, 45006), (53, 45042), (57, 45057), (58, 45060), (71, 45216),

Gene: Dadosky_64 Start: 41816, Stop: 42196, Start Num: 44

Candidate Starts for Dadosky_64:

(8, 41546), (9, 41555), (26, 41714), (30, 41744), (41, 41795), (Start: 42 @41801 has 1 MA's), (Start: 44 @41816 has 25 MA's), (52, 41960), (53, 41978), (57, 41993), (63, 42047), (65, 42083), (72, 42158),

Gene: DonTron_87 Start: 56250, Stop: 56624, Start Num: 38

Candidate Starts for DonTron_87:

(17, 56088), (Start: 38 @56250 has 20 MA's), (61, 56481), (62, 56484), (67, 56580), (75, 56610),

Gene: Dori_74 Start: 55849, Stop: 56205, Start Num: 38

Candidate Starts for Dori_74:

(1, 55459), (2, 55504), (3, 55522), (11, 55633), (18, 55693), (19, 55696), (34, 55837), (Start: 38 @55849 has 20 MA's), (55, 56032), (63, 56095), (67, 56182),

Gene: DoubleChamp_59 Start: 41451, Stop: 41831, Start Num: 44

Candidate Starts for DoubleChamp_59:

(26, 41361), (30, 41391), (41, 41430), (Start: 42 @41436 has 1 MA's), (Start: 44 @41451 has 25 MA's), (49, 41559), (52, 41595), (53, 41613), (57, 41628), (65, 41718), (72, 41793),

Gene: Duplicity_59 Start: 37996, Stop: 38460, Start Num: 27

Candidate Starts for Duplicity_59:

(Start: 27 @37996 has 22 MA's), (40, 38068), (43, 38083), (55, 38242), (63, 38305), (67, 38392),

Gene: EGUnicorn_56 Start: 37062, Stop: 37526, Start Num: 27

Candidate Starts for EGUnicorn_56:

(Start: 27 @37062 has 22 MA's), (40, 37134), (43, 37149), (55, 37308), (63, 37371), (67, 37458),

Gene: Edugator_61 Start: 43237, Stop: 43617, Start Num: 44

Candidate Starts for Edugator_61:

(8, 42967), (9, 42976), (26, 43135), (30, 43165), (41, 43216), (Start: 42 @43222 has 1 MA's), (Start: 44 @43237 has 25 MA's), (52, 43381), (53, 43399), (57, 43414), (65, 43504), (72, 43579),

Gene: Feyre_65 Start: 45225, Stop: 45605, Start Num: 44

Candidate Starts for Feyre_65:

(26, 45123), (30, 45153), (41, 45204), (Start: 44 @45225 has 25 MA's), (48, 45243), (52, 45369), (53, 45387), (57, 45402),

Gene: FirstPlacePfu_63 Start: 38539, Stop: 39003, Start Num: 27

Candidate Starts for FirstPlacePfu_63:

(Start: 27 @38539 has 22 MA's), (40, 38611), (43, 38626), (55, 38785), (63, 38848), (67, 38935),

Gene: Frankie_79 Start: 47128, Stop: 47547, Start Num: 27

Candidate Starts for Frankie_79:

(Start: 27 @47128 has 22 MA's), (40, 47200), (43, 47215), (55, 47374), (63, 47437), (67, 47524), (69, 47533),

Gene: Fulbright_59 Start: 37433, Stop: 37897, Start Num: 27

Candidate Starts for Fulbright_59:

(Start: 27 @37433 has 22 MA's), (40, 37505), (43, 37520), (55, 37679), (63, 37742), (67, 37829),

Gene: Gengar_62 Start: 43211, Stop: 43591, Start Num: 44

Candidate Starts for Gengar_62:

(26, 43109), (30, 43139), (41, 43190), (Start: 44 @43211 has 25 MA's), (52, 43355), (53, 43373), (57, 43388), (63, 43442), (65, 43478), (72, 43553),

Gene: Gex_62 Start: 38755, Stop: 39219, Start Num: 27

Candidate Starts for Gex_62:

(Start: 27 @38755 has 22 MA's), (40, 38827), (43, 38842), (55, 39001), (63, 39064), (67, 39151),

Gene: Glaske_59 Start: 40506, Stop: 41012, Start Num: 38

Candidate Starts for Glaske_59:

(6, 40242), (12, 40311), (20, 40359), (24, 40431), (25, 40437), (29, 40455), (Start: 38 @40506 has 20 MA's), (55, 40689), (63, 40752), (67, 40839), (74, 40869), (77, 40905), (78, 40908),

Gene: Grumio_88 Start: 55850, Stop: 56215, Start Num: 38

Candidate Starts for Grumio_88:

(17, 55688), (Start: 38 @55850 has 20 MA's), (63, 56093), (66, 56159), (67, 56174),

Gene: Guillsminger_63 Start: 43165, Stop: 43545, Start Num: 44

Candidate Starts for Guillsminger_63:

(26, 43063), (30, 43093), (41, 43144), (Start: 44 @43165 has 25 MA's), (48, 43183), (52, 43309), (53, 43327), (57, 43342), (63, 43396), (65, 43432),

Gene: GumGum_47 Start: 29741, Stop: 30097, Start Num: 38

Candidate Starts for GumGum_47:

(15, 29564), (21, 29609), (22, 29636), (Start: 38 @29741 has 20 MA's), (51, 29894), (63, 29987), (70, 30086),

Gene: Heftyboy_63 Start: 43532, Stop: 43912, Start Num: 44

Candidate Starts for Heftyboy_63:

(26, 43430), (30, 43460), (41, 43511), (Start: 44 @43532 has 25 MA's), (48, 43550), (52, 43676), (53, 43694), (57, 43709),

Gene: InvictusManeo_60 Start: 41494, Stop: 41874, Start Num: 44

Candidate Starts for InvictusManeo_60:

(26, 41404), (30, 41434), (41, 41473), (Start: 42 @41479 has 1 MA's), (Start: 44 @41494 has 25 MA's), (49, 41602), (52, 41638), (53, 41656), (57, 41671), (65, 41761), (72, 41836),

Gene: JakeTheSnake_55 Start: 32735, Stop: 33079, Start Num: 38

Candidate Starts for JakeTheSnake_55:

(32, 32711), (Start: 38 @32735 has 20 MA's), (63, 32981),

Gene: Jollymon_87 Start: 56372, Stop: 56746, Start Num: 38

Candidate Starts for Jollymon_87:

(5, 56087), (7, 56126), (17, 56210), (Start: 38 @56372 has 20 MA's), (61, 56603), (63, 56615), (67, 56702), (75, 56732),

Gene: Kevin1_60 Start: 37027, Stop: 37434, Start Num: 38

Candidate Starts for Kevin1_60:

(23, 36940), (29, 36985), (35, 37018), (Start: 38 @37027 has 20 MA's), (55, 37210), (63, 37273), (67, 37360), (74, 37390),

Gene: KilKor_60 Start: 41199, Stop: 41705, Start Num: 38

Candidate Starts for KilKor_60:

(6, 40935), (12, 41004), (20, 41052), (24, 41124), (25, 41130), (29, 41148), (Start: 38 @41199 has 20 MA's), (55, 41382), (63, 41445), (67, 41532), (74, 41562), (77, 41598), (78, 41601),

Gene: KingstonB_86 Start: 55783, Stop: 56148, Start Num: 38

Candidate Starts for KingstonB_86:

(5, 55498), (7, 55537), (17, 55621), (Start: 38 @55783 has 20 MA's), (63, 56026), (66, 56092), (67, 56107),

Gene: Kratio_60 Start: 41230, Stop: 41610, Start Num: 44

Candidate Starts for Kratio_60:

(26, 41140), (30, 41170), (41, 41209), (Start: 42 @41215 has 1 MA's), (Start: 44 @41230 has 25 MA's), (49, 41338), (52, 41374), (53, 41392), (57, 41407), (65, 41497), (72, 41572),

Gene: Krueger_72 Start: 43991, Stop: 44365, Start Num: 47

Candidate Starts for Krueger_72:

(16, 43781), (17, 43790), (Start: 47 @43991 has 12 MA's), (54, 44150), (62, 44207), (71, 44321),

Gene: Ksquared_63 Start: 41638, Stop: 42021, Start Num: 38

Candidate Starts for Ksquared_63:

(6, 41374), (12, 41443), (20, 41491), (24, 41563), (25, 41569), (29, 41587), (Start: 38 @41638 has 20 MA's), (55, 41821), (63, 41884),

Gene: Larva_63 Start: 42688, Stop: 43068, Start Num: 44

Candidate Starts for Larva_63:

(8, 42418), (9, 42427), (26, 42586), (30, 42616), (41, 42667), (Start: 42 @42673 has 1 MA's), (Start: 44 @42688 has 25 MA's), (52, 42832), (53, 42850), (57, 42865), (63, 42919), (65, 42955), (72, 43030),

Gene: Leston_62 Start: 43294, Stop: 43674, Start Num: 44

Candidate Starts for Leston_62:

(26, 43192), (30, 43222), (41, 43273), (Start: 44 @43294 has 25 MA's), (48, 43312), (52, 43438), (53, 43456), (57, 43471), (63, 43525), (65, 43561),

Gene: LilDirt_61 Start: 41252, Stop: 41632, Start Num: 44

Candidate Starts for LilDirt_61:

(26, 41162), (30, 41192), (41, 41231), (Start: 42 @41237 has 1 MA's), (Start: 44 @41252 has 25 MA's), (49, 41360), (52, 41396), (53, 41414), (57, 41429), (72, 41594),

Gene: LordVader_79 Start: 46008, Stop: 46472, Start Num: 27

Candidate Starts for LordVader_79:

(Start: 27 @46008 has 22 MA's), (40, 46080), (43, 46095), (55, 46254), (63, 46317), (67, 46404),

Gene: LordVader_69 Start: 40263, Stop: 40670, Start Num: 38

Candidate Starts for LordVader_69:

(12, 40074), (13, 40077), (24, 40188), (25, 40194), (29, 40212), (Start: 38 @40263 has 20 MA's), (63, 40509), (67, 40596), (69, 40605),

Gene: Magsby_60 Start: 38701, Stop: 39165, Start Num: 27

Candidate Starts for Magsby_60:

(Start: 27 @38701 has 22 MA's), (40, 38773), (43, 38788), (55, 38947), (63, 39010), (67, 39097),

Gene: Makar_91 Start: 56322, Stop: 56687, Start Num: 38

Candidate Starts for Makar_91:

(Start: 38 @56322 has 20 MA's), (66, 56631), (67, 56646),

Gene: MalagasyRose_68 Start: 43493, Stop: 43888, Start Num: 39

Candidate Starts for MalagasyRose_68:

(28, 43436), (Start: 39 @43493 has 1 MA's), (52, 43661), (54, 43682), (57, 43694),

Gene: Mcklovin_65 Start: 48076, Stop: 48429, Start Num: 38

Candidate Starts for Mcklovin_65:

(Start: 38 @48076 has 20 MA's), (63, 48319), (68, 48403),

Gene: Melville_66 Start: 38310, Stop: 38774, Start Num: 27

Candidate Starts for Melville_66:

(Start: 27 @38310 has 22 MA's), (40, 38382), (43, 38397), (55, 38556), (63, 38619), (67, 38706),

Gene: Miryou_66 Start: 45908, Stop: 46288, Start Num: 44

Candidate Starts for Miryou_66:

(26, 45806), (30, 45836), (41, 45887), (Start: 44 @45908 has 25 MA's), (48, 45926), (52, 46052), (53, 46070), (57, 46085), (63, 46139), (65, 46175),

Gene: MulchSalad_79 Start: 47746, Stop: 48222, Start Num: 27

Candidate Starts for MulchSalad_79:

(Start: 27 @47746 has 22 MA's), (40, 47818), (43, 47833), (55, 47992), (58, 48004), (63, 48067), (67, 48154),

Gene: Neighly_64 Start: 42687, Stop: 43067, Start Num: 44

Candidate Starts for Neighly_64:

(8, 42417), (9, 42426), (26, 42585), (30, 42615), (41, 42666), (Start: 42 @42672 has 1 MA's), (Start: 44 @42687 has 25 MA's), (52, 42831), (53, 42849), (57, 42864), (63, 42918), (65, 42954), (72, 43029),

Gene: Nibb_70 Start: 44218, Stop: 44553, Start Num: 45

Candidate Starts for Nibb_70:

(33, 44167), (Start: 45 @44218 has 1 MA's), (52, 44356), (54, 44377), (59, 44419), (62, 44434), (63, 44443), (64, 44467),

Gene: OkiRoe_63 Start: 43580, Stop: 43960, Start Num: 44

Candidate Starts for OkiRoe_63:

(26, 43478), (30, 43508), (41, 43559), (Start: 44 @43580 has 25 MA's), (48, 43598), (52, 43724), (53, 43742), (57, 43757),

Gene: Omnicron_66 Start: 43686, Stop: 44066, Start Num: 44

Candidate Starts for Omnicron_66:

(26, 43584), (30, 43614), (41, 43665), (Start: 44 @43686 has 25 MA's), (48, 43704), (52, 43830), (53, 43848), (57, 43863), (60, 43902), (63, 43917), (65, 43953), (73, 44034),

Gene: Paola_62 Start: 43165, Stop: 43545, Start Num: 44

Candidate Starts for Paola_62:

(26, 43063), (30, 43093), (41, 43144), (Start: 44 @43165 has 25 MA's), (48, 43183), (52, 43309), (53, 43327), (57, 43342), (63, 43396), (65, 43432),

Gene: Parmesanjohn_61 Start: 38759, Stop: 39223, Start Num: 27

Candidate Starts for Parmesanjohn_61:

(Start: 27 @38759 has 22 MA's), (40, 38831), (43, 38846), (55, 39005), (63, 39068), (67, 39155),

Gene: Phalm_60 Start: 40506, Stop: 41012, Start Num: 38

Candidate Starts for Phalm_60:

(6, 40242), (12, 40311), (20, 40359), (24, 40431), (25, 40437), (29, 40455), (Start: 38 @40506 has 20 MA's), (55, 40689), (63, 40752), (67, 40839), (74, 40869), (77, 40905), (78, 40908),

Gene: PhelpsODU_69 Start: 43630, Stop: 44004, Start Num: 47

Candidate Starts for PhelpsODU_69:

(33, 43576), (Start: 47 @43630 has 12 MA's), (53, 43786), (54, 43789), (58, 43804), (62, 43846),

Gene: Philonius_61 Start: 38924, Stop: 39388, Start Num: 27

Candidate Starts for Philonius_61:

(Start: 27 @38924 has 22 MA's), (40, 38996), (43, 39011), (55, 39170), (63, 39233), (67, 39320),

Gene: Phloss_59 Start: 38166, Stop: 38630, Start Num: 27

Candidate Starts for Phloss_59:

(Start: 27 @38166 has 22 MA's), (40, 38238), (43, 38253), (55, 38412), (63, 38475), (67, 38562),

Gene: Phrank_71 Start: 43693, Stop: 44067, Start Num: 47

Candidate Starts for Phrank_71:

(33, 43639), (Start: 47 @43693 has 12 MA's), (53, 43849), (62, 43909),

Gene: Piper2020_85 Start: 51523, Stop: 51987, Start Num: 27

Candidate Starts for Piper2020_85:

(Start: 27 @51523 has 22 MA's), (40, 51595), (43, 51610), (55, 51769), (63, 51832), (67, 51919), (69, 51928),

Gene: Pipsqueaks_62 Start: 38737, Stop: 39201, Start Num: 27

Candidate Starts for Pipsqueaks_62:

(Start: 27 @38737 has 22 MA's), (40, 38809), (43, 38824), (55, 38983), (63, 39046), (67, 39133),

Gene: Psycho_62 Start: 41813, Stop: 42193, Start Num: 44

Candidate Starts for Psycho_62:

(8, 41543), (9, 41552), (26, 41711), (30, 41741), (41, 41792), (Start: 42 @41798 has 1 MA's), (Start: 44 @41813 has 25 MA's), (52, 41957), (53, 41975), (57, 41990), (63, 42044), (65, 42080), (72, 42155),

Gene: Purplicious_87 Start: 55615, Stop: 55980, Start Num: 38

Candidate Starts for Purplicious_87:

(17, 55453), (Start: 38 @55615 has 20 MA's), (63, 55858), (66, 55924), (67, 55939),

Gene: Rando14_65 Start: 42494, Stop: 42874, Start Num: 44

Candidate Starts for Rando14_65:

(Start: 44 @42494 has 25 MA's), (52, 42638), (53, 42656), (57, 42671), (63, 42725), (65, 42761), (73, 42842),

Gene: Schnauzer_62 Start: 38759, Stop: 39223, Start Num: 27

Candidate Starts for Schnauzer_62:

(Start: 27 @38759 has 22 MA's), (40, 38831), (43, 38846), (55, 39005), (63, 39068), (67, 39155),

Gene: Shadow1_72 Start: 44143, Stop: 44517, Start Num: 47

Candidate Starts for Shadow1_72:

(16, 43933), (17, 43942), (Start: 47 @44143 has 12 MA's), (54, 44302), (62, 44359), (71, 44473),

Gene: Silvafighter_63 Start: 38302, Stop: 38766, Start Num: 27

Candidate Starts for Silvafighter_63:

(Start: 27 @38302 has 22 MA's), (40, 38374), (43, 38389), (55, 38548), (63, 38611), (67, 38698),

Gene: Silvy_57 Start: 39395, Stop: 39856, Start Num: 27

Candidate Starts for Silvy_57:

(Start: 27 @39395 has 22 MA's), (40, 39467), (43, 39482), (55, 39641), (63, 39704), (67, 39791),

Gene: SkinnyPete_58 Start: 38506, Stop: 38970, Start Num: 27

Candidate Starts for SkinnyPete_58:

(Start: 27 @38506 has 22 MA's), (40, 38578), (43, 38593), (55, 38752), (63, 38815), (67, 38902),

Gene: Smurph_61 Start: 38759, Stop: 39223, Start Num: 27

Candidate Starts for Smurph_61:

(Start: 27 @38759 has 22 MA's), (40, 38831), (43, 38846), (55, 39005), (63, 39068), (67, 39155),

Gene: SoSeph_63 Start: 43532, Stop: 43912, Start Num: 44

Candidate Starts for SoSeph_63:

(26, 43430), (30, 43460), (41, 43511), (Start: 44 @43532 has 25 MA's), (48, 43550), (52, 43676), (53, 43694), (57, 43709),

Gene: Soos_83 Start: 55576, Stop: 55950, Start Num: 38

Candidate Starts for Soos_83:

(17, 55414), (Start: 38 @55576 has 20 MA's), (61, 55807), (62, 55810), (67, 55906), (75, 55936),

Gene: Stillion_90 Start: 56941, Stop: 57324, Start Num: 38

Candidate Starts for Stillion_90:

(Start: 38 @56941 has 20 MA's), (63, 57184), (66, 57250), (67, 57265),

Gene: Sting_86 Start: 56015, Stop: 56389, Start Num: 38

Candidate Starts for Sting_86:

(17, 55853), (Start: 38 @56015 has 20 MA's), (61, 56246), (62, 56249), (67, 56345), (75, 56375),

Gene: Sunflower1121_73 Start: 44289, Stop: 44663, Start Num: 47

Candidate Starts for Sunflower1121_73:

(16, 44079), (17, 44088), (Start: 47 @44289 has 12 MA's), (54, 44448), (62, 44505), (71, 44619),

Gene: Syra333_71 Start: 44003, Stop: 44377, Start Num: 47

Candidate Starts for Syra333_71:

(16, 43793), (17, 43802), (Start: 47 @44003 has 12 MA's), (54, 44162), (62, 44219), (71, 44333),

Gene: Tapioca_59 Start: 39339, Stop: 39740, Start Num: 38

Candidate Starts for Tapioca_59:

(4, 39042), (10, 39117), (14, 39156), (24, 39264), (25, 39270), (29, 39288), (Start: 38 @39339 has 20 MA's), (55, 39522), (63, 39585), (67, 39672),

Gene: Tessdabest_62 Start: 38893, Stop: 39357, Start Num: 27

Candidate Starts for Tessdabest_62:

(Start: 27 @38893 has 22 MA's), (40, 38965), (43, 38980), (55, 39139), (63, 39202), (67, 39289),

Gene: ThulaThula_64 Start: 43444, Stop: 43848, Start Num: 36

Candidate Starts for ThulaThula_64:

(Start: 36 @43444 has 1 MA's), (Start: 38 @43447 has 20 MA's), (54, 43627), (55, 43630), (63, 43693), (67, 43780), (69, 43789), (74, 43810),

Gene: Thyatira_65 Start: 45497, Stop: 45877, Start Num: 44

Candidate Starts for Thyatira_65:

(26, 45395), (30, 45425), (41, 45476), (Start: 44 @45497 has 25 MA's), (48, 45515), (52, 45641), (53, 45659), (57, 45674),

Gene: Tierra_71 Start: 44504, Stop: 44878, Start Num: 47

Candidate Starts for Tierra_71:

(33, 44450), (Start: 47 @44504 has 12 MA's), (53, 44660), (62, 44720),

Gene: Tigress9_72 Start: 44320, Stop: 44694, Start Num: 47

Candidate Starts for Tigress9_72:

(16, 44110), (17, 44119), (Start: 47 @44320 has 12 MA's), (54, 44479), (62, 44536), (71, 44650),

Gene: Unicorn_69 Start: 43630, Stop: 44004, Start Num: 47

Candidate Starts for Unicorn_69:

(33, 43576), (Start: 47 @43630 has 12 MA's), (53, 43786), (54, 43789), (58, 43804), (62, 43846),

Gene: ViviJ_61 Start: 41251, Stop: 41631, Start Num: 44

Candidate Starts for ViviJ_61:

(26, 41161), (30, 41191), (41, 41230), (Start: 42 @41236 has 1 MA's), (Start: 44 @41251 has 25 MA's), (49, 41359), (52, 41395), (53, 41413), (57, 41428), (65, 41518), (72, 41593),

Gene: Waterfoul_64 Start: 43594, Stop: 43974, Start Num: 44

Candidate Starts for Waterfoul_64:

(26, 43492), (30, 43522), (41, 43573), (Start: 44 @43594 has 25 MA's), (48, 43612), (52, 43738), (53, 43756), (57, 43771),

Gene: Willsammy_60 Start: 40682, Stop: 41095, Start Num: 38

Candidate Starts for Willsammy_60:

(6, 40418), (12, 40487), (20, 40535), (24, 40607), (25, 40613), (29, 40631), (Start: 38 @40682 has 20 MA's), (55, 40865), (63, 40928),

Gene: Xerxes_61 Start: 38756, Stop: 39220, Start Num: 27

Candidate Starts for Xerxes_61:

(Start: 27 @38756 has 22 MA's), (40, 38828), (43, 38843), (55, 39002), (63, 39065), (67, 39152),

Gene: Ximenita_73 Start: 44332, Stop: 44706, Start Num: 47

Candidate Starts for Ximenita_73:

(Start: 47 @44332 has 12 MA's), (53, 44488), (54, 44491), (62, 44548), (71, 44662),

Gene: ZenTime222_58 Start: 39792, Stop: 40148, Start Num: 38

Candidate Starts for ZenTime222_58:

(Start: 38 @39792 has 20 MA's), (55, 39975), (63, 40038), (67, 40125),

Gene: Zucker_83 Start: 48730, Stop: 49089, Start Num: 37

Candidate Starts for Zucker_83:

(Start: 37 @48730 has 2 MA's), (51, 48886), (56, 48919), (63, 48979), (69, 49072),