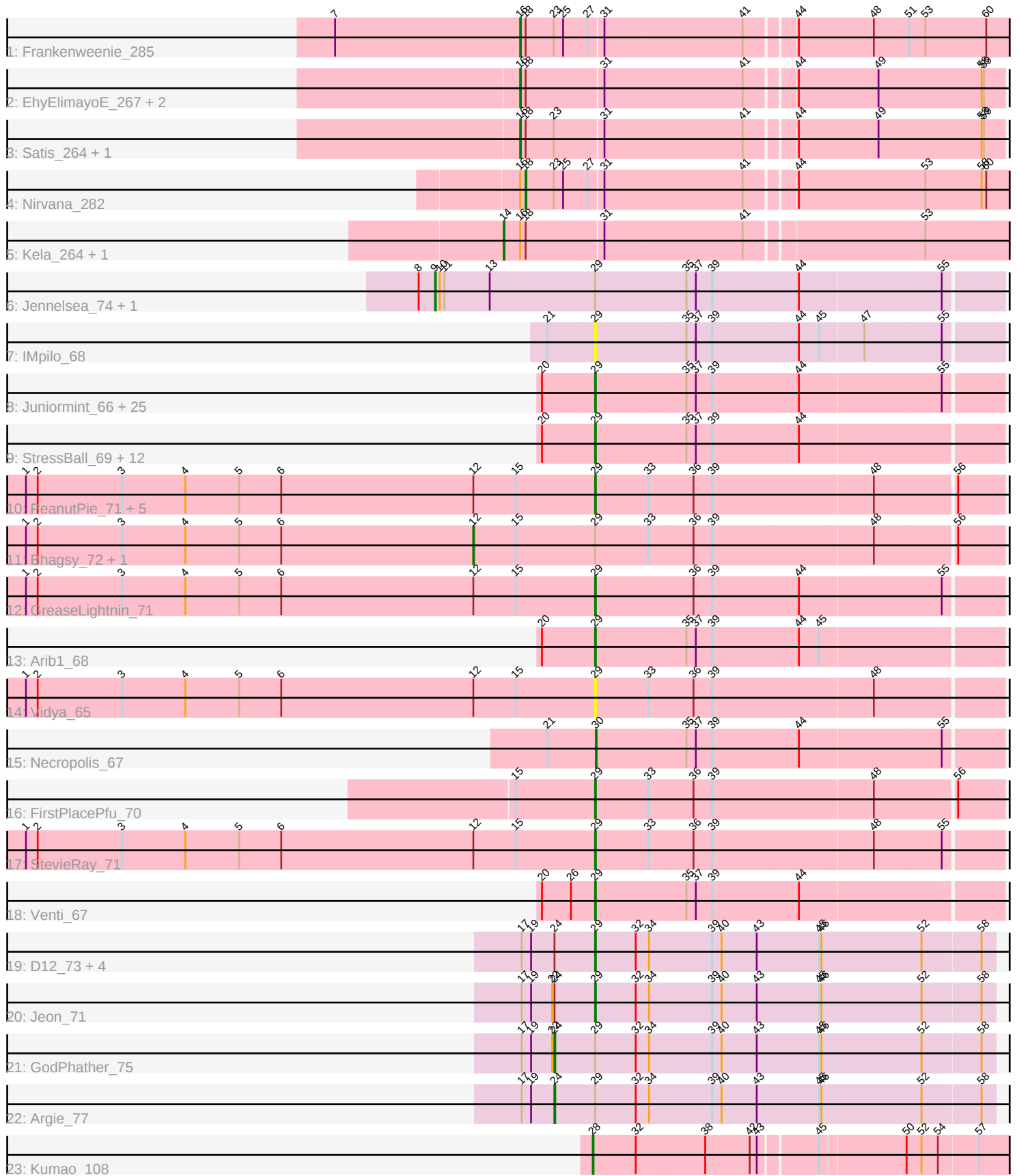


Pham 330786



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 330786 Report

This analysis was run 09/05/26 on database version 662.

Pham number 330786 has 75 members, 7 are drafts.

Phages represented in each track:

- Track 1 : Frankenweenie_285
- Track 2 : EhyElimayoE_267, Quantum_262, Kradal_264
- Track 3 : Satis_264, Sarkar_263
- Track 4 : Nirvana_282
- Track 5 : Kela_264, JustBecause_264
- Track 6 : Jennelsea_74, Zizzle_80
- Track 7 : IMpilo_68
- Track 8 : Juniormint_66, Langerak_68, Xula_62, Chubbello_68, Malithi_69, Phegasus_72, Bogie_72, Polkaroo_70, HUHilltop_72, Mangethe_72, Pygmy_73, Phineas_70, Camster_70, Sonah_70, Jebeks_67, DillTech15_79, Majeke_72, Fastidio_72, Zilizebeth_74, GaloreK_67, Fishburne_68, Techage_70, Donovan_69, Dynamo_69, BronnyJr_63, Shipwreck_72
- Track 9 : StressBall_69, Etoile_67, Glaske_69, KilKor_70, Bartholomew_65, Phalm_70, Megiddo_69, CactusJack_70, Totinger_74, LittleShirley_78, Gavriela_69, Willsammy_71, Kari_69
- Track 10 : PeanutPie_71, Jung_67, Atcoo_68, Thespis_68, Ksquared_70, Brusacoram_68
- Track 11 : Bhagsy_72, Bunnies_72
- Track 12 : GreaseLightnin_71
- Track 13 : Arib1_68
- Track 14 : Vidya_65
- Track 15 : Necropolis_67
- Track 16 : FirstPlacePfu_70
- Track 17 : StevieRay_71
- Track 18 : Venti_67
- Track 19 : D12_73, Megabear_73, PR_74, Taptic_76, Cepens_75
- Track 20 : Jeon_71
- Track 21 : GodPhather_75
- Track 22 : Argie_77
- Track 23 : Kumao_108

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

The start number called the most often in the published annotations is 29, it was called in 51 of the 68 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Arib1_68, Atcoo_68, Bartholomew_65, Bogie_72, BronnyJr_63, Brusacoram_68, CactusJack_70, Camster_70, Cepens_75, Chubbello_68, D12_73, DillTech15_79, Donovan_69, Dynamo_69, Etoile_67, Fastidio_72, FirstPlacePfu_70, Fishburne_68, GaloreK_67, Gavriela_69, Glaske_69, GreaseLightnin_71, HUHilltop_72, IMpilo_68, Jebeks_67, Jeon_71, Jung_67, Juniormint_66, Kari_69, KilKor_70, Ksquared_70, Langerak_68, LittleShirley_78, Majeke_72, Malithi_69, Mangethe_72, Megabear_73, Megiddo_69, PR_74, PeanutPie_71, Phalm_70, Phegasus_72, Phineas_70, Polkaroo_70, Pygmy_73, Shipwreck_72, Sonah_70, StevieRay_71, StressBall_69, Taptic_76, Techage_70, Thespis_68, Totinger_74, Venti_67, Vidya_65, Willsammy_71, Xula_62, Zilizebeth_74,

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

- Argie_77, Bhagsy_72, Bunnies_72, GodPhather_75, Jennelsea_74, Zizzle_80,

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

- EhyElimayoE_267, Frankenweenie_285, JustBecause_264, Kela_264, Kradal_264, Kumao_108, Necropolis_67, Nirvana_282, Quantum_262, Sarkar_263, Satis_264,

Summary by start number:

Start 9:

- Found in 2 of 75 (2.7%) of genes in pham
- Manual Annotations of this start: 2 of 68
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Jennelsea_74 (F1), Zizzle_80 (F1),

Start 12:

- Found in 11 of 75 (14.7%) of genes in pham
- Manual Annotations of this start: 2 of 68
- Called 18.2% of time when present
- Phage (with cluster) where this start called: Bhagsy_72 (P1), Bunnies_72 (P1),

Start 14:

- Found in 2 of 75 (2.7%) of genes in pham
- Manual Annotations of this start: 2 of 68
- Called 100.0% of time when present
- Phage (with cluster) where this start called: JustBecause_264 (BM), Kela_264 (BM),

Start 16:

- Found in 9 of 75 (12.0%) of genes in pham
- Manual Annotations of this start: 6 of 68
- Called 66.7% of time when present
- Phage (with cluster) where this start called: EhyElimayoE_267 (BM), Frankenweenie_285 (BM), Kradal_264 (BM), Quantum_262 (BM), Sarkar_263 (BM), Satis_264 (BM),

Start 18:

- Found in 9 of 75 (12.0%) of genes in pham
- Manual Annotations of this start: 1 of 68

- Called 11.1% of time when present
- Phage (with cluster) where this start called: Nirvana_282 (BM),

Start 24:

- Found in 8 of 75 (10.7%) of genes in pham
- Manual Annotations of this start: 2 of 68
- Called 25.0% of time when present
- Phage (with cluster) where this start called: Argie_77 (W), GodPhather_75 (W),

Start 28:

- Found in 1 of 75 (1.3%) of genes in pham
- Manual Annotations of this start: 1 of 68
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Kumao_108 (singleton),

Start 29:

- Found in 64 of 75 (85.3%) of genes in pham
- Manual Annotations of this start: 51 of 68
- Called 90.6% of time when present
- Phage (with cluster) where this start called: Arib1_68 (P1), Atcoo_68 (P1), Bartholomew_65 (P1), Bogie_72 (P1), BronnyJr_63 (P1), Brusacoram_68 (P1), CactusJack_70 (P1), Camster_70 (P1), Cepens_75 (W), Chubbello_68 (P1), D12_73 (W), DillTech15_79 (F1), Donovan_69 (P1), Dynamo_69 (P1), Etoile_67 (P1), Fastidio_72 (F1), FirstPlacePfu_70 (P1), Fishburne_68 (P1), GaloreK_67 (P1), Gavriela_69 (P1), Glaske_69 (P1), GreaseLightnin_71 (P1), HUHilltop_72 (P1), IMpilo_68 (F1), Jebeks_67 (P1), Jeon_71 (W), Jung_67 (P1), Juniormint_66 (P1), Kari_69 (P1), KilKor_70 (P1), Ksquared_70 (P1), Langerak_68 (P1), LittleShirley_78 (F1), Majeke_72 (P1), Malithi_69 (P1), Mangethe_72 (P1), Megabear_73 (W), Megiddo_69 (P1), PR_74 (W), PeanutPie_71 (P1), Phalm_70 (P1), Phegasus_72 (P1), Phineas_70 (P1), Polkaroo_70 (P1), Pygmy_73 (P1), Shipwreck_72 (P1), Sonah_70 (P1), StevieRay_71 (P1), StressBall_69 (P1), Taptic_76 (W), Techage_70 (P1), Thespis_68 (P1), Totinger_74 (F1), Venti_67 (P1), Vidya_65 (P1), Willsammy_71 (P1), Xula_62 (I1), Zilizebeth_74 (P1),

Start 30:

- Found in 1 of 75 (1.3%) of genes in pham
- Manual Annotations of this start: 1 of 68
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Necropolis_67 (P1),

Summary by clusters:

There are 6 clusters represented in this pham: F1, singleton, P1, I1, BM, W,

Info for manual annotations of cluster BM:

- Start number 14 was manually annotated 2 times for cluster BM.
- Start number 16 was manually annotated 6 times for cluster BM.
- Start number 18 was manually annotated 1 time for cluster BM.

Info for manual annotations of cluster F1:

- Start number 9 was manually annotated 2 times for cluster F1.
- Start number 29 was manually annotated 4 times for cluster F1.

Info for manual annotations of cluster I1:

- Start number 29 was manually annotated 1 time for cluster I1.

Info for manual annotations of cluster P1:

- Start number 12 was manually annotated 2 times for cluster P1.
- Start number 29 was manually annotated 40 times for cluster P1.
- Start number 30 was manually annotated 1 time for cluster P1.

Info for manual annotations of cluster W:

- Start number 24 was manually annotated 2 times for cluster W.
- Start number 29 was manually annotated 6 times for cluster W.

Gene Information:

Gene: Argie_77 Start: 54826, Stop: 55377, Start Num: 24

Candidate Starts for Argie_77:

(17, 54784), (19, 54796), (Start: 24 @54826 has 2 MA's), (Start: 29 @54877 has 51 MA's), (32, 54928), (34, 54943), (39, 55024), (40, 55036), (43, 55081), (45, 55159), (46, 55162), (52, 55288), (58, 55360),

Gene: Arib1_68 Start: 42771, Stop: 43271, Start Num: 29

Candidate Starts for Arib1_68:

(20, 42705), (Start: 29 @42771 has 51 MA's), (35, 42885), (37, 42897), (39, 42918), (44, 43026), (45, 43050),

Gene: Atcoo_68 Start: 45509, Stop: 46009, Start Num: 29

Candidate Starts for Atcoo_68:

(1, 44783), (2, 44798), (3, 44906), (4, 44987), (5, 45056), (6, 45110), (Start: 12 @45356 has 2 MA's), (15, 45410), (Start: 29 @45509 has 51 MA's), (33, 45575), (36, 45632), (39, 45656), (48, 45854), (56, 45950),

Gene: Bartholomew_65 Start: 42051, Stop: 42551, Start Num: 29

Candidate Starts for Bartholomew_65:

(20, 41985), (Start: 29 @42051 has 51 MA's), (35, 42165), (37, 42177), (39, 42198), (44, 42306),

Gene: Bhagsy_72 Start: 44473, Stop: 45126, Start Num: 12

Candidate Starts for Bhagsy_72:

(1, 43900), (2, 43915), (3, 44023), (4, 44104), (5, 44173), (6, 44227), (Start: 12 @44473 has 2 MA's), (15, 44527), (Start: 29 @44626 has 51 MA's), (33, 44692), (36, 44749), (39, 44773), (48, 44971), (56, 45067),

Gene: Bogie_72 Start: 45121, Stop: 45621, Start Num: 29

Candidate Starts for Bogie_72:

(20, 45055), (Start: 29 @45121 has 51 MA's), (35, 45235), (37, 45247), (39, 45268), (44, 45376), (55, 45550),

Gene: BronnyJr_63 Start: 43393, Stop: 43893, Start Num: 29

Candidate Starts for BronnyJr_63:

(20, 43327), (Start: 29 @43393 has 51 MA's), (35, 43507), (37, 43519), (39, 43540), (44, 43648), (55, 43822),

Gene: Brusacoram_68 Start: 44052, Stop: 44552, Start Num: 29

Candidate Starts for Brusacoram_68:

(1, 43326), (2, 43341), (3, 43449), (4, 43530), (5, 43599), (6, 43653), (Start: 12 @43899 has 2 MA's), (15, 43953), (Start: 29 @44052 has 51 MA's), (33, 44118), (36, 44175), (39, 44199), (48, 44397), (56, 44493),

Gene: Bunnies_72 Start: 45100, Stop: 45753, Start Num: 12

Candidate Starts for Bunnies_72:

(1, 44527), (2, 44542), (3, 44650), (4, 44731), (5, 44800), (6, 44854), (Start: 12 @45100 has 2 MA's), (15, 45154), (Start: 29 @45253 has 51 MA's), (33, 45319), (36, 45376), (39, 45400), (48, 45598), (56, 45694),

Gene: CactusJack_70 Start: 44749, Stop: 45249, Start Num: 29

Candidate Starts for CactusJack_70:

(20, 44683), (Start: 29 @44749 has 51 MA's), (35, 44863), (37, 44875), (39, 44896), (44, 45004),

Gene: Camster_70 Start: 43582, Stop: 44082, Start Num: 29

Candidate Starts for Camster_70:

(20, 43516), (Start: 29 @43582 has 51 MA's), (35, 43696), (37, 43708), (39, 43729), (44, 43837), (55, 44011),

Gene: Cepens_75 Start: 53686, Stop: 54186, Start Num: 29

Candidate Starts for Cepens_75:

(17, 53593), (19, 53605), (Start: 24 @53635 has 2 MA's), (Start: 29 @53686 has 51 MA's), (32, 53737), (34, 53752), (39, 53833), (40, 53845), (43, 53890), (45, 53968), (46, 53971), (52, 54097), (58, 54169),

Gene: Chubbello_68 Start: 42771, Stop: 43271, Start Num: 29

Candidate Starts for Chubbello_68:

(20, 42705), (Start: 29 @42771 has 51 MA's), (35, 42885), (37, 42897), (39, 42918), (44, 43026), (55, 43200),

Gene: D12_73 Start: 54321, Stop: 54821, Start Num: 29

Candidate Starts for D12_73:

(17, 54228), (19, 54240), (Start: 24 @54270 has 2 MA's), (Start: 29 @54321 has 51 MA's), (32, 54372), (34, 54387), (39, 54468), (40, 54480), (43, 54525), (45, 54603), (46, 54606), (52, 54732), (58, 54804),

Gene: DillTech15_79 Start: 46743, Stop: 47243, Start Num: 29

Candidate Starts for DillTech15_79:

(20, 46677), (Start: 29 @46743 has 51 MA's), (35, 46857), (37, 46869), (39, 46890), (44, 46998), (55, 47172),

Gene: Donovan_69 Start: 43711, Stop: 44211, Start Num: 29

Candidate Starts for Donovan_69:

(20, 43645), (Start: 29 @43711 has 51 MA's), (35, 43825), (37, 43837), (39, 43858), (44, 43966), (55, 44140),

Gene: Dynamo_69 Start: 43155, Stop: 43655, Start Num: 29

Candidate Starts for Dynamo_69:

(20, 43089), (Start: 29 @43155 has 51 MA's), (35, 43269), (37, 43281), (39, 43302), (44, 43410), (55, 43584),

Gene: EhyElimayoE_267 Start: 152429, Stop: 151833, Start Num: 16

Candidate Starts for EhyElimayoE_267:

(Start: 16 @152429 has 6 MA's), (Start: 18 @152423 has 1 MA's), (31, 152327), (41, 152153), (44, 152096), (49, 151994), (58, 151862), (59, 151859),

Gene: Etoile_67 Start: 43538, Stop: 44038, Start Num: 29

Candidate Starts for Etoile_67:

(20, 43472), (Start: 29 @43538 has 51 MA's), (35, 43652), (37, 43664), (39, 43685), (44, 43793),

Gene: Fastidio_72 Start: 43551, Stop: 44051, Start Num: 29

Candidate Starts for Fastidio_72:

(20, 43485), (Start: 29 @43551 has 51 MA's), (35, 43665), (37, 43677), (39, 43698), (44, 43806), (55, 43980),

Gene: FirstPlacePfu_70 Start: 42114, Stop: 42614, Start Num: 29

Candidate Starts for FirstPlacePfu_70:

(15, 42015), (Start: 29 @42114 has 51 MA's), (33, 42180), (36, 42237), (39, 42261), (48, 42459), (56, 42555),

Gene: Fishburne_68 Start: 43537, Stop: 44037, Start Num: 29

Candidate Starts for Fishburne_68:

(20, 43471), (Start: 29 @43537 has 51 MA's), (35, 43651), (37, 43663), (39, 43684), (44, 43792), (55, 43966),

Gene: Frankenweenie_285 Start: 163567, Stop: 162962, Start Num: 16

Candidate Starts for Frankenweenie_285:

(7, 163804), (Start: 16 @163567 has 6 MA's), (Start: 18 @163561 has 1 MA's), (23, 163525), (25, 163513), (27, 163483), (31, 163465), (41, 163291), (44, 163234), (48, 163138), (51, 163093), (53, 163072), (60, 162994),

Gene: GaloreK_67 Start: 43562, Stop: 44062, Start Num: 29

Candidate Starts for GaloreK_67:

(20, 43496), (Start: 29 @43562 has 51 MA's), (35, 43676), (37, 43688), (39, 43709), (44, 43817), (55, 43991),

Gene: Gavriela_69 Start: 44442, Stop: 44942, Start Num: 29

Candidate Starts for Gavriela_69:

(20, 44376), (Start: 29 @44442 has 51 MA's), (35, 44556), (37, 44568), (39, 44589), (44, 44697),

Gene: Glaske_69 Start: 44749, Stop: 45249, Start Num: 29

Candidate Starts for Glaske_69:

(20, 44683), (Start: 29 @44749 has 51 MA's), (35, 44863), (37, 44875), (39, 44896), (44, 45004),

Gene: GodPhather_75 Start: 54280, Stop: 54831, Start Num: 24

Candidate Starts for GodPhather_75:

(17, 54238), (19, 54250), (22, 54277), (Start: 24 @54280 has 2 MA's), (Start: 29 @54331 has 51 MA's), (32, 54382), (34, 54397), (39, 54478), (40, 54490), (43, 54535), (45, 54613), (46, 54616), (52, 54742), (58, 54814),

Gene: GreaseLightnin_71 Start: 44906, Stop: 45406, Start Num: 29

Candidate Starts for GreaseLightnin_71:

(1, 44180), (2, 44195), (3, 44303), (4, 44384), (5, 44453), (6, 44507), (Start: 12 @44753 has 2 MA's), (15, 44807), (Start: 29 @44906 has 51 MA's), (36, 45029), (39, 45053), (44, 45161), (55, 45335),

Gene: HUHilltop_72 Start: 43378, Stop: 43878, Start Num: 29

Candidate Starts for HUHilltop_72:

(20, 43312), (Start: 29 @43378 has 51 MA's), (35, 43492), (37, 43504), (39, 43525), (44, 43633), (55, 43807),

Gene: IMpilo_68 Start: 43866, Stop: 44366, Start Num: 29

Candidate Starts for IMpilo_68:

(21, 43806), (Start: 29 @43866 has 51 MA's), (35, 43980), (37, 43992), (39, 44013), (44, 44121), (45, 44145), (47, 44199), (55, 44295),

Gene: Jebeks_67 Start: 42009, Stop: 42509, Start Num: 29

Candidate Starts for Jebeks_67:

(20, 41943), (Start: 29 @42009 has 51 MA's), (35, 42123), (37, 42135), (39, 42156), (44, 42264), (55, 42438),

Gene: Jennelsea_74 Start: 46411, Stop: 47115, Start Num: 9

Candidate Starts for Jennelsea_74:

(8, 46390), (Start: 9 @46411 has 2 MA's), (10, 46417), (11, 46423), (13, 46480), (Start: 29 @46615 has 51 MA's), (35, 46729), (37, 46741), (39, 46762), (44, 46870), (55, 47044),

Gene: Jeon_71 Start: 53824, Stop: 54324, Start Num: 29

Candidate Starts for Jeon_71:

(17, 53731), (19, 53743), (22, 53770), (Start: 24 @53773 has 2 MA's), (Start: 29 @53824 has 51 MA's), (32, 53875), (34, 53890), (39, 53971), (40, 53983), (43, 54028), (45, 54106), (46, 54109), (52, 54235), (58, 54307),

Gene: Jung_67 Start: 43030, Stop: 43530, Start Num: 29

Candidate Starts for Jung_67:

(1, 42304), (2, 42319), (3, 42427), (4, 42508), (5, 42577), (6, 42631), (Start: 12 @42877 has 2 MA's), (15, 42931), (Start: 29 @43030 has 51 MA's), (33, 43096), (36, 43153), (39, 43177), (48, 43375), (56, 43471),

Gene: Juniormint_66 Start: 42124, Stop: 42624, Start Num: 29

Candidate Starts for Juniormint_66:

(20, 42058), (Start: 29 @42124 has 51 MA's), (35, 42238), (37, 42250), (39, 42271), (44, 42379), (55, 42553),

Gene: JustBecause_264 Start: 149134, Stop: 148508, Start Num: 14

Candidate Starts for JustBecause_264:

(Start: 14 @149134 has 2 MA's), (Start: 16 @149113 has 6 MA's), (Start: 18 @149107 has 1 MA's), (31, 149011), (41, 148837), (53, 148618),

Gene: Kari_69 Start: 43534, Stop: 44034, Start Num: 29

Candidate Starts for Kari_69:

(20, 43468), (Start: 29 @43534 has 51 MA's), (35, 43648), (37, 43660), (39, 43681), (44, 43789),

Gene: Kela_264 Start: 150738, Stop: 150112, Start Num: 14

Candidate Starts for Kela_264:

(Start: 14 @150738 has 2 MA's), (Start: 16 @150717 has 6 MA's), (Start: 18 @150711 has 1 MA's), (31, 150615), (41, 150441), (53, 150222),

Gene: KilKor_70 Start: 45442, Stop: 45942, Start Num: 29

Candidate Starts for KilKor_70:

(20, 45376), (Start: 29 @45442 has 51 MA's), (35, 45556), (37, 45568), (39, 45589), (44, 45697),

Gene: Kradal_264 Start: 152426, Stop: 151830, Start Num: 16

Candidate Starts for Kradal_264:

(Start: 16 @152426 has 6 MA's), (Start: 18 @152420 has 1 MA's), (31, 152324), (41, 152150), (44, 152093), (49, 151991), (58, 151859), (59, 151856),

Gene: Ksquared_70 Start: 45130, Stop: 45630, Start Num: 29

Candidate Starts for Ksquared_70:

(1, 44404), (2, 44419), (3, 44527), (4, 44608), (5, 44677), (6, 44731), (Start: 12 @44977 has 2 MA's), (15, 45031), (Start: 29 @45130 has 51 MA's), (33, 45196), (36, 45253), (39, 45277), (48, 45475), (56, 45571),

Gene: Kumao_108 Start: 65513, Stop: 65010, Start Num: 28

Candidate Starts for Kumao_108:

(Start: 28 @65513 has 1 MA's), (32, 65459), (38, 65372), (42, 65315), (43, 65306), (45, 65240), (50, 65135), (52, 65117), (54, 65096), (57, 65048),

Gene: Langerak_68 Start: 43515, Stop: 44015, Start Num: 29

Candidate Starts for Langerak_68:

(20, 43449), (Start: 29 @43515 has 51 MA's), (35, 43629), (37, 43641), (39, 43662), (44, 43770), (55, 43944),

Gene: LittleShirley_78 Start: 47224, Stop: 47724, Start Num: 29

Candidate Starts for LittleShirley_78:

(20, 47158), (Start: 29 @47224 has 51 MA's), (35, 47338), (37, 47350), (39, 47371), (44, 47479),

Gene: Majeke_72 Start: 44160, Stop: 44660, Start Num: 29

Candidate Starts for Majeke_72:

(20, 44094), (Start: 29 @44160 has 51 MA's), (35, 44274), (37, 44286), (39, 44307), (44, 44415), (55, 44589),

Gene: Malithi_69 Start: 43304, Stop: 43804, Start Num: 29

Candidate Starts for Malithi_69:

(20, 43238), (Start: 29 @43304 has 51 MA's), (35, 43418), (37, 43430), (39, 43451), (44, 43559), (55, 43733),

Gene: Mangethe_72 Start: 44160, Stop: 44660, Start Num: 29

Candidate Starts for Mangethe_72:

(20, 44094), (Start: 29 @44160 has 51 MA's), (35, 44274), (37, 44286), (39, 44307), (44, 44415), (55, 44589),

Gene: Megabear_73 Start: 53607, Stop: 54107, Start Num: 29

Candidate Starts for Megabear_73:

(17, 53514), (19, 53526), (Start: 24 @53556 has 2 MA's), (Start: 29 @53607 has 51 MA's), (32, 53658), (34, 53673), (39, 53754), (40, 53766), (43, 53811), (45, 53889), (46, 53892), (52, 54018), (58, 54090),

Gene: Megiddo_69 Start: 45310, Stop: 45810, Start Num: 29

Candidate Starts for Megiddo_69:

(20, 45244), (Start: 29 @45310 has 51 MA's), (35, 45424), (37, 45436), (39, 45457), (44, 45565),

Gene: Necropolis_67 Start: 42745, Stop: 43245, Start Num: 30

Candidate Starts for Necropolis_67:

(21, 42685), (Start: 30 @42745 has 1 MA's), (35, 42859), (37, 42871), (39, 42892), (44, 43000), (55, 43174),

Gene: Nirvana_282 Start: 164015, Stop: 163416, Start Num: 18

Candidate Starts for Nirvana_282:

(Start: 16 @164021 has 6 MA's), (Start: 18 @164015 has 1 MA's), (23, 163979), (25, 163967), (27, 163937), (31, 163919), (41, 163745), (44, 163688), (53, 163526), (58, 163454), (60, 163448),

Gene: PR_74 Start: 54298, Stop: 54798, Start Num: 29

Candidate Starts for PR_74:

(17, 54205), (19, 54217), (Start: 24 @54247 has 2 MA's), (Start: 29 @54298 has 51 MA's), (32, 54349), (34, 54364), (39, 54445), (40, 54457), (43, 54502), (45, 54580), (46, 54583), (52, 54709), (58, 54781),

Gene: PeanutPie_71 Start: 44629, Stop: 45129, Start Num: 29

Candidate Starts for PeanutPie_71:

(1, 43903), (2, 43918), (3, 44026), (4, 44107), (5, 44176), (6, 44230), (Start: 12 @44476 has 2 MA's), (15, 44530), (Start: 29 @44629 has 51 MA's), (33, 44695), (36, 44752), (39, 44776), (48, 44974), (56, 45070),

Gene: Phalm_70 Start: 44740, Stop: 45240, Start Num: 29

Candidate Starts for Phalm_70:

(20, 44674), (Start: 29 @44740 has 51 MA's), (35, 44854), (37, 44866), (39, 44887), (44, 44995),

Gene: Phegasus_72 Start: 44127, Stop: 44627, Start Num: 29

Candidate Starts for Phegasus_72:

(20, 44061), (Start: 29 @44127 has 51 MA's), (35, 44241), (37, 44253), (39, 44274), (44, 44382), (55, 44556),

Gene: Phineas_70 Start: 43712, Stop: 44212, Start Num: 29

Candidate Starts for Phineas_70:

(20, 43646), (Start: 29 @43712 has 51 MA's), (35, 43826), (37, 43838), (39, 43859), (44, 43967), (55, 44141),

Gene: Polkaroo_70 Start: 45452, Stop: 45952, Start Num: 29

Candidate Starts for Polkaroo_70:

(20, 45386), (Start: 29 @45452 has 51 MA's), (35, 45566), (37, 45578), (39, 45599), (44, 45707), (55, 45881),

Gene: Pygmy_73 Start: 45094, Stop: 45594, Start Num: 29

Candidate Starts for Pygmy_73:

(20, 45028), (Start: 29 @45094 has 51 MA's), (35, 45208), (37, 45220), (39, 45241), (44, 45349), (55, 45523),

Gene: Quantum_262 Start: 152420, Stop: 151824, Start Num: 16

Candidate Starts for Quantum_262:

(Start: 16 @152420 has 6 MA's), (Start: 18 @152414 has 1 MA's), (31, 152318), (41, 152144), (44, 152087), (49, 151985), (58, 151853), (59, 151850),

Gene: Sarkar_263 Start: 152471, Stop: 151875, Start Num: 16

Candidate Starts for Sarkar_263:

(Start: 16 @152471 has 6 MA's), (Start: 18 @152465 has 1 MA's), (23, 152429), (31, 152369), (41, 152195), (44, 152138), (49, 152036), (58, 151904), (59, 151901),

Gene: Satis_264 Start: 152763, Stop: 152167, Start Num: 16

Candidate Starts for Satis_264:

(Start: 16 @152763 has 6 MA's), (Start: 18 @152757 has 1 MA's), (23, 152721), (31, 152661), (41, 152487), (44, 152430), (49, 152328), (58, 152196), (59, 152193),

Gene: Shipwreck_72 Start: 45152, Stop: 45652, Start Num: 29

Candidate Starts for Shipwreck_72:

(20, 45086), (Start: 29 @45152 has 51 MA's), (35, 45266), (37, 45278), (39, 45299), (44, 45407), (55, 45581),

Gene: Sonah_70 Start: 42849, Stop: 43349, Start Num: 29

Candidate Starts for Sonah_70:

(20, 42783), (Start: 29 @42849 has 51 MA's), (35, 42963), (37, 42975), (39, 42996), (44, 43104), (55, 43278),

Gene: StevieRay_71 Start: 45286, Stop: 45786, Start Num: 29

Candidate Starts for StevieRay_71:

(1, 44560), (2, 44575), (3, 44683), (4, 44764), (5, 44833), (6, 44887), (Start: 12 @45133 has 2 MA's), (15, 45187), (Start: 29 @45286 has 51 MA's), (33, 45352), (36, 45409), (39, 45433), (48, 45631), (55, 45715),

Gene: StressBall_69 Start: 44442, Stop: 44942, Start Num: 29

Candidate Starts for StressBall_69:

(20, 44376), (Start: 29 @44442 has 51 MA's), (35, 44556), (37, 44568), (39, 44589), (44, 44697),

Gene: Taptic_76 Start: 54303, Stop: 54803, Start Num: 29

Candidate Starts for Taptic_76:

(17, 54210), (19, 54222), (Start: 24 @54252 has 2 MA's), (Start: 29 @54303 has 51 MA's), (32, 54354), (34, 54369), (39, 54450), (40, 54462), (43, 54507), (45, 54585), (46, 54588), (52, 54714), (58, 54786),

Gene: Techage_70 Start: 43643, Stop: 44143, Start Num: 29

Candidate Starts for Techage_70:

(20, 43577), (Start: 29 @43643 has 51 MA's), (35, 43757), (37, 43769), (39, 43790), (44, 43898), (55, 44072),

Gene: Thespis_68 Start: 44052, Stop: 44552, Start Num: 29

Candidate Starts for Thespis_68:

(1, 43326), (2, 43341), (3, 43449), (4, 43530), (5, 43599), (6, 43653), (Start: 12 @43899 has 2 MA's), (15, 43953), (Start: 29 @44052 has 51 MA's), (33, 44118), (36, 44175), (39, 44199), (48, 44397), (56, 44493),

Gene: Totinger_74 Start: 46301, Stop: 46801, Start Num: 29

Candidate Starts for Totinger_74:

(20, 46235), (Start: 29 @46301 has 51 MA's), (35, 46415), (37, 46427), (39, 46448), (44, 46556),

Gene: Venti_67 Start: 42051, Stop: 42551, Start Num: 29

Candidate Starts for Venti_67:

(20, 41985), (26, 42021), (Start: 29 @42051 has 51 MA's), (35, 42165), (37, 42177), (39, 42198), (44, 42306),

Gene: Vidya_65 Start: 42340, Stop: 42840, Start Num: 29

Candidate Starts for Vidya_65:

(1, 41614), (2, 41629), (3, 41737), (4, 41818), (5, 41887), (6, 41941), (Start: 12 @42187 has 2 MA's), (15, 42241), (Start: 29 @42340 has 51 MA's), (33, 42406), (36, 42463), (39, 42487), (48, 42685),

Gene: Willsammy_71 Start: 44926, Stop: 45426, Start Num: 29

Candidate Starts for Willsammy_71:

(20, 44860), (Start: 29 @44926 has 51 MA's), (35, 45040), (37, 45052), (39, 45073), (44, 45181),

Gene: Xula_62 Start: 42299, Stop: 42799, Start Num: 29

Candidate Starts for Xula_62:

(20, 42233), (Start: 29 @42299 has 51 MA's), (35, 42413), (37, 42425), (39, 42446), (44, 42554), (55, 42728),

Gene: Zilizebeth_74 Start: 44484, Stop: 44984, Start Num: 29

Candidate Starts for Zilizebeth_74:

(20, 44418), (Start: 29 @44484 has 51 MA's), (35, 44598), (37, 44610), (39, 44631), (44, 44739), (55, 44913),

Gene: Zizzle_80 Start: 49276, Stop: 49980, Start Num: 9

Candidate Starts for Zizzle_80:

(8, 49255), (Start: 9 @49276 has 2 MA's), (10, 49282), (11, 49288), (13, 49345), (Start: 29 @49480 has 51 MA's), (35, 49594), (37, 49606), (39, 49627), (44, 49735), (55, 49909),