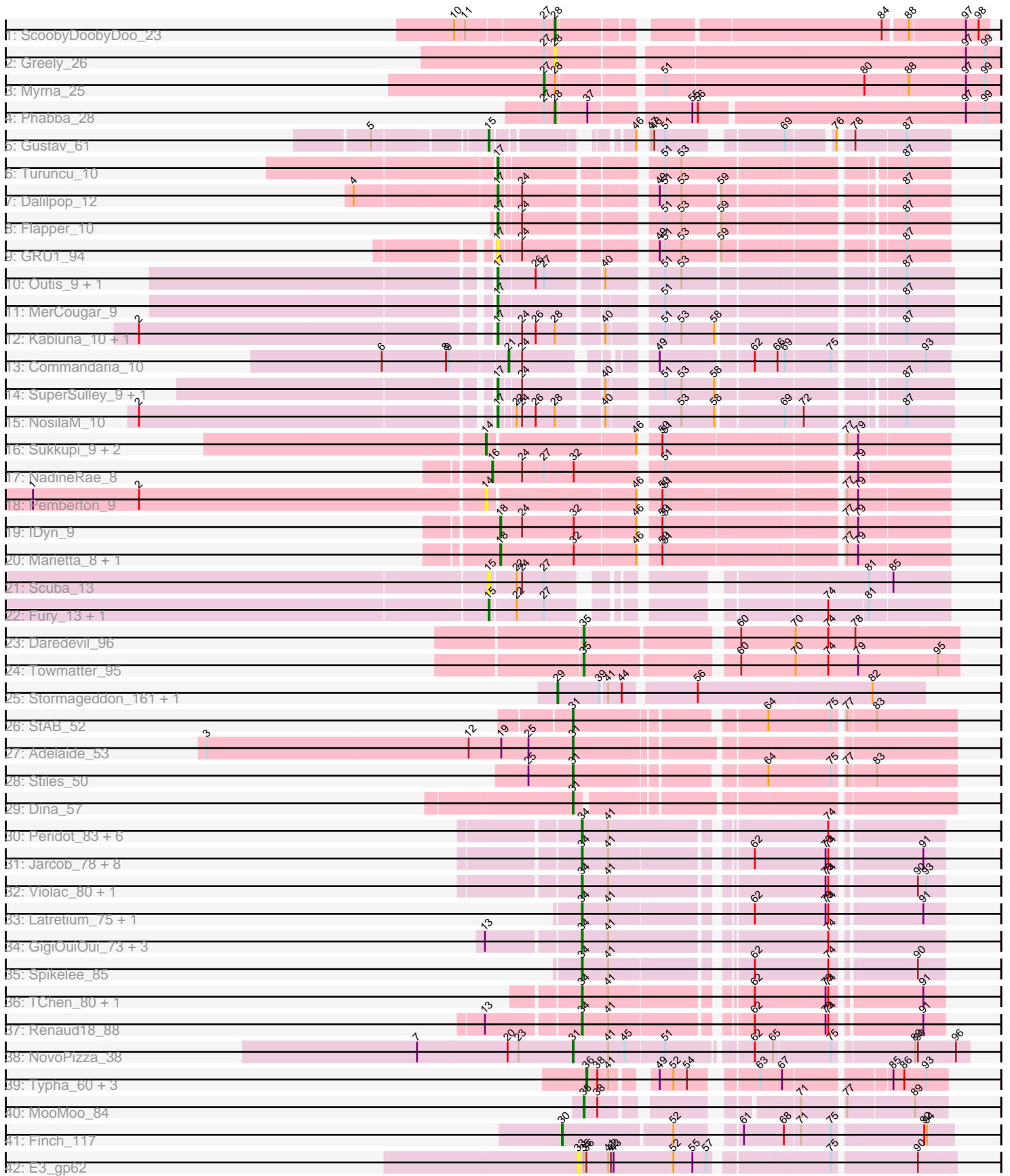


Pham 308526



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 308526 Report

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

Pham number 308526 has 73 members, 7 are drafts.

Phages represented in each track:

- Track 1 : ScoobyDoobyDoo_23
- Track 2 : Greely_26
- Track 3 : Myrna_25
- Track 4 : Phabba_28
- Track 5 : Gustav_61
- Track 6 : Turuncu_10
- Track 7 : Dalilpop_12
- Track 8 : Flapper_10
- Track 9 : GRU1_94
- Track 10 : Outis_9, StarStruck_9
- Track 11 : MerCougar_9
- Track 12 : Kabluna_10, Bonum_10
- Track 13 : Commandaria_10
- Track 14 : SuperSulley_9, Buggaboo_9
- Track 15 : NosilaM_10
- Track 16 : Sukkupi_9, BiPauneto_9, Yndexa_9
- Track 17 : NadineRae_8
- Track 18 : Pemberton_9
- Track 19 : IDyn_9
- Track 20 : Marietta_8, WhoseManz_8
- Track 21 : Scuba_13
- Track 22 : Fury_13, Pleakley_13
- Track 23 : Daredevil_96
- Track 24 : Towmatter_95
- Track 25 : Stormageddon_161, RedWattleHog_160
- Track 26 : StAB_52
- Track 27 : Adelaide_53
- Track 28 : Stiles_50
- Track 29 : Dina_57
- Track 30 : Peridot_83, LittleShirley_85, Totinger_81, LilMoolah_77, Starcevich_79, Nivrat_75, Fastidio_79
- Track 31 : Jarcob_78, DRBy19_82, James_79, ShroomBoi_79, IbOuu_73, OlympiaSaint_78, Clifton_71, Philus_81, Bipolar_81
- Track 32 : Violac_80, Che8_82
- Track 33 : Latretium_75, OwlsT2W_80
- Track 34 : GigiOuiOui_73, Vivum_79, PhilipPhlop_80, EmiMonkey_79
- Track 35 : Spikelee_85

- Track 36 : TChen_80, LunaStella_78
- Track 37 : Renaud18_88
- Track 38 : NovoPizza_38
- Track 39 : Typha_60, AuntGwenStacy_61, Faiyaz_61, Hilltopfarm_60
- Track 40 : MooMoo_84
- Track 41 : Finch_117
- Track 42 : E3_gp62

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

The start number called the most often in the published annotations is 34, it was called in 26 of the 66 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Bipolar_81, Che8_82, Clifton_71, DRBy19_82, EmiMonkey_79, Fastidio_79, GigiOuiOui_73, IbOuu_73, James_79, Jarcob_78, Latretium_75, LilMoolah_77, LittleShirley_85, LunaStella_78, Nivrat_75, OlympiaSaint_78, OwlsT2W_80, Peridot_83, Philus_81, PhlipPhlop_80, Renaud18_88, ShroomBoi_79, Spikelee_85, Starcevich_79, TChen_80, Totinger_81, Violac_80, Vivum_79,

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

-

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

- Adelaide_53, AuntGwenStacy_61, BiPauneto_9, Bonum_10, Buggaboo_9, Commandaria_10, Dalilpop_12, Daredevil_96, Dina_57, E3_gp62, Faiyaz_61, Finch_117, Flapper_10, Fury_13, GRU1_94, Greely_26, Gustav_61, Hilltopfarm_60, IDyn_9, Kabluna_10, Marietta_8, MerCougar_9, MooMoo_84, Myrna_25, NadineRae_8, NosilaM_10, NovoPizza_38, Otis_9, Pemberton_9, Phabba_28, Pleakley_13, RedWattleHog_160, ScoobyDoobyDoo_23, Scuba_13, StAB_52, StarStruck_9, Stiles_50, Stormageddon_161, Sukkupi_9, SuperSulley_9, Towmatter_95, Turuncu_10, Typha_60, WhoseManz_8, Yndexa_9,

Summary by start number:

Start 14:

- Found in 4 of 73 (5.5%) of genes in pham
- Manual Annotations of this start: 3 of 66
- Called 100.0% of time when present
- Phage (with cluster) where this start called: BiPauneto_9 (CR4), Pemberton_9 (CR4), Sukkupi_9 (CR4), Yndexa_9 (CR4),

Start 15:

- Found in 4 of 73 (5.5%) of genes in pham
- Manual Annotations of this start: 3 of 66
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Fury_13 (CR5), Gustav_61 (CD), Pleakley_13 (CR5), Scuba_13 (CR5),

Start 16:

- Found in 1 of 73 (1.4%) of genes in pham
- Manual Annotations of this start: 1 of 66
- Called 100.0% of time when present
- Phage (with cluster) where this start called: NadineRae_8 (CR4),

Start 17:

- Found in 12 of 73 (16.4%) of genes in pham
- Manual Annotations of this start: 11 of 66
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Bonum_10 (CR2), Buggaboo_9 (CR2), Dalilpop_12 (CR1), Flapper_10 (CR1), GRU1_94 (CR1), Kabluna_10 (CR2), MerCougar_9 (CR2), NosilaM_10 (CR2), Outis_9 (CR2), StarStruck_9 (CR2), SuperSulley_9 (CR2), Turuncu_10 (CR1),

Start 18:

- Found in 3 of 73 (4.1%) of genes in pham
- Manual Annotations of this start: 3 of 66
- Called 100.0% of time when present
- Phage (with cluster) where this start called: IDyn_9 (CR4), Marietta_8 (CR4), WhoseManz_8 (CR4),

Start 21:

- Found in 1 of 73 (1.4%) of genes in pham
- Manual Annotations of this start: 1 of 66
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Commandaria_10 (CR2),

Start 27:

- Found in 10 of 73 (13.7%) of genes in pham
- Manual Annotations of this start: 1 of 66
- Called 10.0% of time when present
- Phage (with cluster) where this start called: Myrna_25 (C2),

Start 28:

- Found in 7 of 73 (9.6%) of genes in pham
- Manual Annotations of this start: 2 of 66
- Called 42.9% of time when present
- Phage (with cluster) where this start called: Greely_26 (C2), Phabba_28 (C2), ScoobyDoobyDoo_23 (C2),

Start 29:

- Found in 2 of 73 (2.7%) of genes in pham
- Manual Annotations of this start: 2 of 66
- Called 100.0% of time when present
- Phage (with cluster) where this start called: RedWattleHog_160 (DX), Stormageddon_161 (DX),

Start 30:

- Found in 1 of 73 (1.4%) of genes in pham
- Manual Annotations of this start: 1 of 66
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Finch_117 (singleton),

Start 31:

- Found in 5 of 73 (6.8%) of genes in pham
- Manual Annotations of this start: 5 of 66
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Adelaide_53 (EP), Dina_57 (EP), NovoPizza_38 (Q), StAB_52 (EP), Stiles_50 (EP),

Start 33:

- Found in 1 of 73 (1.4%) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: E3_gp62 (singleton),

Start 34:

- Found in 28 of 73 (38.4%) of genes in pham
- Manual Annotations of this start: 26 of 66
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Bipolar_81 (F1), Che8_82 (F1), Clifton_71 (F1), DRBy19_82 (F1), EmiMonkey_79 (F1), Fastidio_79 (F1), GigiOuiOui_73 (F1), IbOuu_73 (F1), James_79 (F1), Jarcob_78 (F1), Latretium_75 (F1), LilMoolah_77 (F1), LittleShirley_85 (F1), LunaStella_78 (F4), Nivrat_75 (F1), OlympiaSaint_78 (F1), OwlsT2W_80 (F1), Peridot_83 (F1), Philus_81 (F1), PhilipPhlop_80 (F1), Renaud18_88 (F4), ShroomBoi_79 (F1), Spikelee_85 (F1), Starceвич_79 (F1), TChen_80 (F4), Totinger_81 (F1), Violac_80 (F1), Vivum_79 (F1),

Start 35:

- Found in 4 of 73 (5.5%) of genes in pham
- Manual Annotations of this start: 3 of 66
- Called 75.0% of time when present
- Phage (with cluster) where this start called: Daredevil_96 (DL), MooMoo_84 (singleton), Towmatter_95 (DL),

Start 36:

- Found in 5 of 73 (6.8%) of genes in pham
- Manual Annotations of this start: 4 of 66
- Called 80.0% of time when present
- Phage (with cluster) where this start called: AuntGwenStacy_61 (Y), Faiyaz_61 (Y), Hilltopfarm_60 (Y), Typha_60 (Y),

Summary by clusters:

There are 14 clusters represented in this pham: CR2, F1, DL, CR1, F4, CR4, CR5, singleton, CD, Q, DX, Y, C2, EP,

Info for manual annotations of cluster C2:

- Start number 27 was manually annotated 1 time for cluster C2.
- Start number 28 was manually annotated 2 times for cluster C2.

Info for manual annotations of cluster CD:

- Start number 15 was manually annotated 1 time for cluster CD.

Info for manual annotations of cluster CR1:

- Start number 17 was manually annotated 3 times for cluster CR1.

Info for manual annotations of cluster CR2:

- Start number 17 was manually annotated 8 times for cluster CR2.
- Start number 21 was manually annotated 1 time for cluster CR2.

Info for manual annotations of cluster CR4:

- Start number 14 was manually annotated 3 times for cluster CR4.
- Start number 16 was manually annotated 1 time for cluster CR4.
- Start number 18 was manually annotated 3 times for cluster CR4.

Info for manual annotations of cluster CR5:

- Start number 15 was manually annotated 2 times for cluster CR5.

Info for manual annotations of cluster DL:

- Start number 35 was manually annotated 2 times for cluster DL.

Info for manual annotations of cluster DX:

- Start number 29 was manually annotated 2 times for cluster DX.

Info for manual annotations of cluster EP:

- Start number 31 was manually annotated 4 times for cluster EP.

Info for manual annotations of cluster F1:

- Start number 34 was manually annotated 23 times for cluster F1.

Info for manual annotations of cluster F4:

- Start number 34 was manually annotated 3 times for cluster F4.

Info for manual annotations of cluster Q:

- Start number 31 was manually annotated 1 time for cluster Q.

Info for manual annotations of cluster Y:

- Start number 36 was manually annotated 4 times for cluster Y.

Gene Information:

Gene: Adelaide_53 Start: 41100, Stop: 41483, Start Num: 31

Candidate Starts for Adelaide_53:

(3, 40698), (12, 40986), (19, 41022), (25, 41052), (Start: 31 @41100 has 5 MA's),

Gene: AuntGwenStacy_61 Start: 44340, Stop: 44672, Start Num: 36

Candidate Starts for AuntGwenStacy_61:

(Start: 36 @44340 has 4 MA's), (38, 44352), (41, 44364), (49, 44397), (52, 44412), (54, 44427), (63, 44484), (67, 44508), (85, 44613), (86, 44625), (93, 44649),

Gene: BiPauneto_9 Start: 4386, Stop: 4853, Start Num: 14

Candidate Starts for BiPauneto_9:

(Start: 14 @4386 has 3 MA's), (46, 4542), (50, 4557), (51, 4560), (77, 4743), (79, 4755),

Gene: Bipolar_81 Start: 49898, Stop: 50251, Start Num: 34

Candidate Starts for Bipolar_81:

(Start: 34 @49898 has 26 MA's), (41, 49925), (62, 50057), (73, 50135), (74, 50138), (91, 50228),

Gene: Bonum_10 Start: 5796, Stop: 6227, Start Num: 17

Candidate Starts for Bonum_10:

(2, 5427), (Start: 17 @5796 has 11 MA's), (24, 5817), (26, 5832), (Start: 28 @5853 has 2 MA's), (40, 5898), (51, 5946), (53, 5964), (58, 6000), (87, 6177),

Gene: Buggaboo_9 Start: 5315, Stop: 5746, Start Num: 17

Candidate Starts for Buggaboo_9:

(Start: 17 @5315 has 11 MA's), (24, 5336), (40, 5417), (51, 5465), (53, 5483), (58, 5519), (87, 5696),

Gene: Che8_82 Start: 48631, Stop: 48987, Start Num: 34

Candidate Starts for Che8_82:

(Start: 34 @48631 has 26 MA's), (41, 48658), (73, 48871), (74, 48874), (90, 48958), (93, 48967),

Gene: Clifton_71 Start: 46466, Stop: 46819, Start Num: 34

Candidate Starts for Clifton_71:

(Start: 34 @46466 has 26 MA's), (41, 46493), (62, 46625), (73, 46703), (74, 46706), (91, 46796),

Gene: Commandaria_10 Start: 5673, Stop: 6080, Start Num: 21

Candidate Starts for Commandaria_10:

(6, 5541), (8, 5610), (9, 5613), (Start: 21 @5673 has 1 MA's), (24, 5688), (49, 5793), (62, 5886), (66, 5910), (69, 5916), (75, 5964), (93, 6054),

Gene: DRBy19_82 Start: 50195, Stop: 50548, Start Num: 34

Candidate Starts for DRBy19_82:

(Start: 34 @50195 has 26 MA's), (41, 50222), (62, 50354), (73, 50432), (74, 50435), (91, 50525),

Gene: Dalilpop_12 Start: 6793, Stop: 7221, Start Num: 17

Candidate Starts for Dalilpop_12:

(4, 6643), (Start: 17 @6793 has 11 MA's), (24, 6814), (49, 6937), (51, 6943), (53, 6961), (59, 7000), (87, 7174),

Gene: Daredevil_96 Start: 64552, Stop: 64944, Start Num: 35

Candidate Starts for Daredevil_96:

(Start: 35 @64552 has 3 MA's), (60, 64705), (70, 64765), (74, 64801), (78, 64831),

Gene: Dina_57 Start: 40543, Stop: 40917, Start Num: 31

Candidate Starts for Dina_57:

(Start: 31 @40543 has 5 MA's),

Gene: E3_gp62 Start: 24510, Stop: 24896, Start Num: 33

Candidate Starts for E3_gp62:

(33, 24510), (Start: 35 @24516 has 3 MA's), (Start: 36 @24519 has 4 MA's), (41, 24543), (42, 24546), (43, 24549), (52, 24615), (55, 24636), (57, 24651), (75, 24768), (90, 24855),

Gene: EmiMonkey_79 Start: 52180, Stop: 52536, Start Num: 34

Candidate Starts for EmiMonkey_79:

(13, 52084), (Start: 34 @52180 has 26 MA's), (41, 52207), (74, 52423),

Gene: Faiyaz_61 Start: 44330, Stop: 44662, Start Num: 36

Candidate Starts for Faiyaz_61:

(Start: 36 @44330 has 4 MA's), (38, 44342), (41, 44354), (49, 44387), (52, 44402), (54, 44417), (63, 44474), (67, 44498), (85, 44603), (86, 44615), (93, 44639),

Gene: Fastidio_79 Start: 45442, Stop: 45798, Start Num: 34

Candidate Starts for Fastidio_79:

(Start: 34 @45442 has 26 MA's), (41, 45469), (74, 45685),

Gene: Finch_117 Start: 86737, Stop: 87120, Start Num: 30

Candidate Starts for Finch_117:

(Start: 30 @86737 has 1 MA's), (52, 86854), (61, 86908), (68, 86950), (71, 86965), (75, 86998), (92, 87088), (94, 87091),

Gene: Flapper_10 Start: 5630, Stop: 6058, Start Num: 17

Candidate Starts for Flapper_10:

(Start: 17 @5630 has 11 MA's), (24, 5651), (51, 5780), (53, 5798), (59, 5837), (87, 6011),

Gene: Fury_13 Start: 5917, Stop: 6342, Start Num: 15

Candidate Starts for Fury_13:

(Start: 15 @5917 has 3 MA's), (22, 5944), (Start: 27 @5974 has 1 MA's), (74, 6214), (81, 6256),

Gene: GRU1_94 Start: 64725, Stop: 65153, Start Num: 17

Candidate Starts for GRU1_94:

(Start: 17 @64725 has 11 MA's), (24, 64746), (49, 64869), (51, 64875), (53, 64893), (59, 64932), (87, 65106),

Gene: GigiOuiOui_73 Start: 47038, Stop: 47394, Start Num: 34

Candidate Starts for GigiOuiOui_73:

(13, 46942), (Start: 34 @47038 has 26 MA's), (41, 47065), (74, 47281),

Gene: Greely_26 Start: 10271, Stop: 10741, Start Num: 28

Candidate Starts for Greely_26:

(Start: 27 @10259 has 1 MA's), (Start: 28 @10271 has 2 MA's), (97, 10703), (99, 10724),

Gene: Gustav_61 Start: 41194, Stop: 40802, Start Num: 15

Candidate Starts for Gustav_61:

(5, 41308), (Start: 15 @41194 has 3 MA's), (46, 41083), (47, 41080), (48, 41077), (51, 41065), (69, 40960), (76, 40915), (78, 40903), (87, 40849),

Gene: Hilltopfarm_60 Start: 44032, Stop: 44364, Start Num: 36

Candidate Starts for Hilltopfarm_60:

(Start: 36 @44032 has 4 MA's), (38, 44044), (41, 44056), (49, 44089), (52, 44104), (54, 44119), (63, 44176), (67, 44200), (85, 44305), (86, 44317), (93, 44341),

Gene: IDyn_9 Start: 4709, Stop: 5167, Start Num: 18

Candidate Starts for IDyn_9:

(Start: 18 @4709 has 3 MA's), (24, 4733), (32, 4790), (46, 4856), (50, 4871), (51, 4874), (77, 5057), (79, 5069),

Gene: lbOuu_73 Start: 46272, Stop: 46625, Start Num: 34

Candidate Starts for lbOuu_73:

(Start: 34 @46272 has 26 MA's), (41, 46299), (62, 46431), (73, 46509), (74, 46512), (91, 46602),

Gene: James_79 Start: 49530, Stop: 49883, Start Num: 34

Candidate Starts for James_79:

(Start: 34 @49530 has 26 MA's), (41, 49557), (62, 49689), (73, 49767), (74, 49770), (91, 49860),

Gene: Jarcob_78 Start: 49127, Stop: 49480, Start Num: 34

Candidate Starts for Jarcob_78:

(Start: 34 @49127 has 26 MA's), (41, 49154), (62, 49286), (73, 49364), (74, 49367), (91, 49457),

Gene: Kabluna_10 Start: 5187, Stop: 5618, Start Num: 17

Candidate Starts for Kabluna_10:

(2, 4818), (Start: 17 @5187 has 11 MA's), (24, 5208), (26, 5223), (Start: 28 @5244 has 2 MA's), (40, 5289), (51, 5337), (53, 5355), (58, 5391), (87, 5568),

Gene: Latretium_75 Start: 45992, Stop: 46345, Start Num: 34

Candidate Starts for Latretium_75:

(Start: 34 @45992 has 26 MA's), (41, 46019), (62, 46151), (73, 46229), (74, 46232), (91, 46322),

Gene: LilMoolah_77 Start: 48185, Stop: 48448, Start Num: 34

Candidate Starts for LilMoolah_77:

(Start: 34 @48185 has 26 MA's), (41, 48212), (74, 48428),

Gene: LittleShirley_85 Start: 49115, Stop: 49471, Start Num: 34

Candidate Starts for LittleShirley_85:

(Start: 34 @49115 has 26 MA's), (41, 49142), (74, 49358),

Gene: LunaStella_78 Start: 47826, Stop: 48179, Start Num: 34

Candidate Starts for LunaStella_78:

(Start: 34 @47826 has 26 MA's), (41, 47853), (62, 47985), (73, 48063), (74, 48066), (91, 48156),

Gene: Marietta_8 Start: 4121, Stop: 4579, Start Num: 18

Candidate Starts for Marietta_8:

(Start: 18 @4121 has 3 MA's), (32, 4202), (46, 4268), (50, 4283), (51, 4286), (77, 4469), (79, 4481),

Gene: MerCougar_9 Start: 5538, Stop: 5972, Start Num: 17

Candidate Starts for MerCougar_9:

(Start: 17 @5538 has 11 MA's), (51, 5691), (87, 5922),

Gene: MooMoo_84 Start: 49010, Stop: 49342, Start Num: 35

Candidate Starts for MooMoo_84:

(Start: 35 @49010 has 3 MA's), (38, 49025), (71, 49193), (77, 49235), (89, 49307),

Gene: Myrna_25 Start: 10663, Stop: 11142, Start Num: 27

Candidate Starts for Myrna_25:

(Start: 27 @10663 has 1 MA's), (Start: 28 @10675 has 2 MA's), (51, 10777), (80, 10993), (88, 11041), (97, 11104), (99, 11125),

Gene: NadineRae_8 Start: 3822, Stop: 4295, Start Num: 16

Candidate Starts for NadineRae_8:

(Start: 16 @3822 has 1 MA's), (24, 3855), (Start: 27 @3879 has 1 MA's), (32, 3912), (51, 3999), (79, 4197),

Gene: Nivrat_75 Start: 48058, Stop: 48321, Start Num: 34

Candidate Starts for Nivrat_75:

(Start: 34 @48058 has 26 MA's), (41, 48085), (74, 48301),

Gene: NosilaM_10 Start: 6075, Stop: 6506, Start Num: 17

Candidate Starts for NosilaM_10:

(2, 5706), (Start: 17 @6075 has 11 MA's), (22, 6090), (24, 6096), (26, 6111), (Start: 28 @6132 has 2 MA's), (40, 6177), (53, 6243), (58, 6279), (69, 6345), (72, 6363), (87, 6456),

Gene: NovoPizza_38 Start: 33244, Stop: 32846, Start Num: 31

Candidate Starts for NovoPizza_38:

(7, 33415), (20, 33316), (23, 33304), (Start: 31 @33244 has 5 MA's), (41, 33205), (45, 33187), (51, 33145), (62, 33064), (65, 33046), (75, 32986), (89, 32905), (90, 32902), (96, 32860),

Gene: OlympiaSaint_78 Start: 48472, Stop: 48825, Start Num: 34

Candidate Starts for OlympiaSaint_78:

(Start: 34 @48472 has 26 MA's), (41, 48499), (62, 48631), (73, 48709), (74, 48712), (91, 48802),

Gene: Outis_9 Start: 5229, Stop: 5666, Start Num: 17

Candidate Starts for Outis_9:

(Start: 17 @5229 has 11 MA's), (26, 5268), (Start: 27 @5277 has 1 MA's), (40, 5334), (51, 5385), (53, 5403), (87, 5616),

Gene: OwlsT2W_80 Start: 48157, Stop: 48510, Start Num: 34

Candidate Starts for OwlsT2W_80:

(Start: 34 @48157 has 26 MA's), (41, 48184), (62, 48316), (73, 48394), (74, 48397), (91, 48487),

Gene: Pemberton_9 Start: 4236, Stop: 4703, Start Num: 14

Candidate Starts for Pemberton_9:

(1, 3747), (2, 3864), (Start: 14 @4236 has 3 MA's), (46, 4392), (50, 4407), (51, 4410), (77, 4593), (79, 4605),

Gene: Peridot_83 Start: 48830, Stop: 49186, Start Num: 34

Candidate Starts for Peridot_83:

(Start: 34 @48830 has 26 MA's), (41, 48857), (74, 49073),

Gene: Phabba_28 Start: 10603, Stop: 11067, Start Num: 28

Candidate Starts for Phabba_28:

(Start: 27 @10591 has 1 MA's), (Start: 28 @10603 has 2 MA's), (37, 10636), (55, 10738), (56, 10744), (97, 11029), (99, 11050),

Gene: Philus_81 Start: 50171, Stop: 50524, Start Num: 34

Candidate Starts for Philus_81:

(Start: 34 @50171 has 26 MA's), (41, 50198), (62, 50330), (73, 50408), (74, 50411), (91, 50501),

Gene: PhlipPhlop_80 Start: 52180, Stop: 52536, Start Num: 34

Candidate Starts for PhlipPhlop_80:

(13, 52084), (Start: 34 @52180 has 26 MA's), (41, 52207), (74, 52423),

Gene: Pleakley_13 Start: 5917, Stop: 6342, Start Num: 15

Candidate Starts for Pleakley_13:

(Start: 15 @5917 has 3 MA's), (22, 5944), (Start: 27 @5974 has 1 MA's), (74, 6214), (81, 6256),

Gene: RedWattleHog_160 Start: 106582, Stop: 106965, Start Num: 29

Candidate Starts for RedWattleHog_160:

(Start: 29 @106582 has 2 MA's), (39, 106627), (41, 106633), (44, 106648), (56, 106720), (82, 106909),

Gene: Renaud18_88 Start: 49125, Stop: 49478, Start Num: 34

Candidate Starts for Renaud18_88:

(13, 49029), (Start: 34 @49125 has 26 MA's), (41, 49152), (62, 49284), (73, 49362), (74, 49365), (91, 49455),

Gene: ScoobyDoobyDoo_23 Start: 8219, Stop: 8644, Start Num: 28

Candidate Starts for ScoobyDoobyDoo_23:

(10, 8114), (11, 8126), (Start: 27 @8207 has 1 MA's), (Start: 28 @8219 has 2 MA's), (84, 8537), (88, 8561), (97, 8621), (98, 8633),

Gene: Scuba_13 Start: 6015, Stop: 6443, Start Num: 15

Candidate Starts for Scuba_13:

(Start: 15 @6015 has 3 MA's), (22, 6042), (24, 6048), (Start: 27 @6072 has 1 MA's), (81, 6357), (85, 6381),

Gene: ShroomBoi_79 Start: 48390, Stop: 48743, Start Num: 34

Candidate Starts for ShroomBoi_79:

(Start: 34 @48390 has 26 MA's), (41, 48417), (62, 48549), (73, 48627), (74, 48630), (91, 48720),

Gene: Spikelee_85 Start: 50696, Stop: 51049, Start Num: 34

Candidate Starts for Spikelee_85:

(Start: 34 @50696 has 26 MA's), (41, 50723), (62, 50855), (74, 50936), (90, 51020),

Gene: StAB_52 Start: 41624, Stop: 42001, Start Num: 31

Candidate Starts for StAB_52:

(Start: 31 @41624 has 5 MA's), (64, 41810), (75, 41876), (77, 41885), (83, 41915),

Gene: StarStruck_9 Start: 5229, Stop: 5666, Start Num: 17

Candidate Starts for StarStruck_9:

(Start: 17 @5229 has 11 MA's), (26, 5268), (Start: 27 @5277 has 1 MA's), (40, 5334), (51, 5385), (53, 5403), (87, 5616),

Gene: Starcevich_79 Start: 49396, Stop: 49752, Start Num: 34

Candidate Starts for Starcevich_79:

(Start: 34 @49396 has 26 MA's), (41, 49423), (74, 49639),

Gene: Stiles_50 Start: 40247, Stop: 40624, Start Num: 31

Candidate Starts for Stiles_50:

(25, 40199), (Start: 31 @40247 has 5 MA's), (64, 40433), (75, 40499), (77, 40508), (83, 40538),

Gene: Stormageddon_161 Start: 107546, Stop: 107929, Start Num: 29

Candidate Starts for Stormageddon_161:

(Start: 29 @107546 has 2 MA's), (39, 107591), (41, 107597), (44, 107612), (56, 107684), (82, 107873),

Gene: Sukkupi_9 Start: 4277, Stop: 4744, Start Num: 14

Candidate Starts for Sukkupi_9:

(Start: 14 @4277 has 3 MA's), (46, 4433), (50, 4448), (51, 4451), (77, 4634), (79, 4646),

Gene: SuperSulley_9 Start: 5315, Stop: 5746, Start Num: 17

Candidate Starts for SuperSulley_9:

(Start: 17 @5315 has 11 MA's), (24, 5336), (40, 5417), (51, 5465), (53, 5483), (58, 5519), (87, 5696),

Gene: TChen_80 Start: 49777, Stop: 50130, Start Num: 34
Candidate Starts for TChen_80:
(Start: 34 @49777 has 26 MA's), (41, 49804), (62, 49936), (73, 50014), (74, 50017), (91, 50107),

Gene: Totinger_81 Start: 48192, Stop: 48548, Start Num: 34
Candidate Starts for Totinger_81:
(Start: 34 @48192 has 26 MA's), (41, 48219), (74, 48435),

Gene: Towmatter_95 Start: 64634, Stop: 65026, Start Num: 35
Candidate Starts for Towmatter_95:
(Start: 35 @64634 has 3 MA's), (60, 64787), (70, 64847), (74, 64883), (79, 64916), (95, 65003),

Gene: Turuncu_10 Start: 5145, Stop: 5576, Start Num: 17
Candidate Starts for Turuncu_10:
(Start: 17 @5145 has 11 MA's), (51, 5295), (53, 5313), (87, 5529),

Gene: Typha_60 Start: 44340, Stop: 44672, Start Num: 36
Candidate Starts for Typha_60:
(Start: 36 @44340 has 4 MA's), (38, 44352), (41, 44364), (49, 44397), (52, 44412), (54, 44427), (63, 44484), (67, 44508), (85, 44613), (86, 44625), (93, 44649),

Gene: Violac_80 Start: 49457, Stop: 49813, Start Num: 34
Candidate Starts for Violac_80:
(Start: 34 @49457 has 26 MA's), (41, 49484), (73, 49697), (74, 49700), (90, 49784), (93, 49793),

Gene: Vivum_79 Start: 50082, Stop: 50438, Start Num: 34
Candidate Starts for Vivum_79:
(13, 49986), (Start: 34 @50082 has 26 MA's), (41, 50109), (74, 50325),

Gene: WhoseManz_8 Start: 3732, Stop: 4190, Start Num: 18
Candidate Starts for WhoseManz_8:
(Start: 18 @3732 has 3 MA's), (32, 3813), (46, 3879), (50, 3894), (51, 3897), (77, 4080), (79, 4092),

Gene: Yndexa_9 Start: 4277, Stop: 4744, Start Num: 14
Candidate Starts for Yndexa_9:
(Start: 14 @4277 has 3 MA's), (46, 4433), (50, 4448), (51, 4451), (77, 4634), (79, 4646),