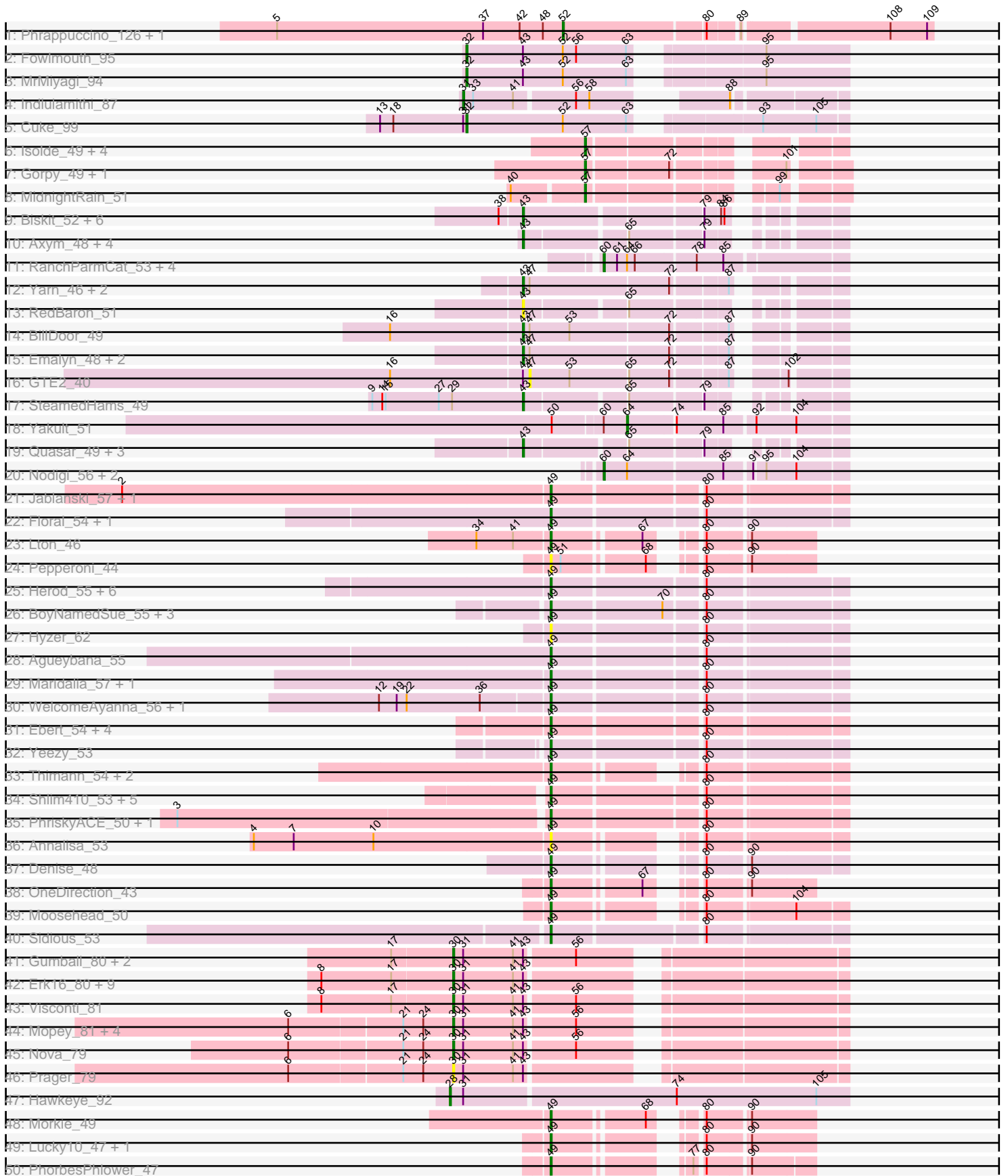
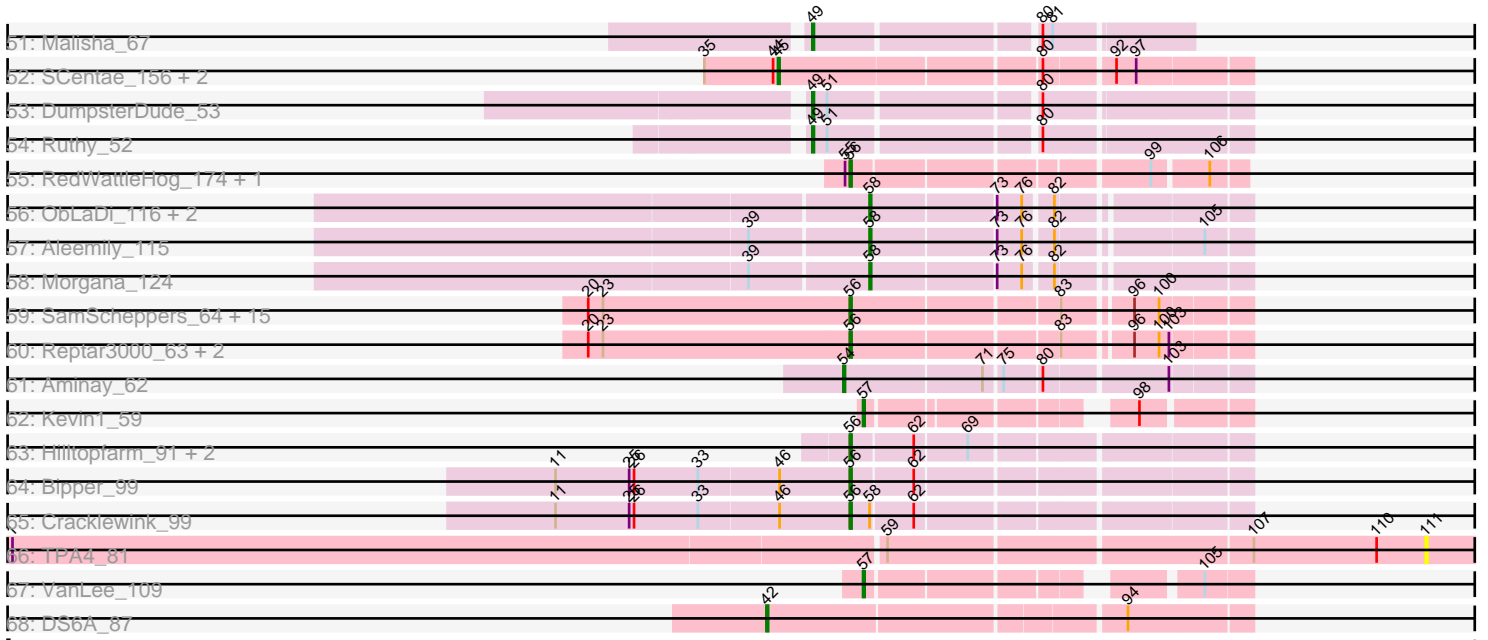


Pham 193785



Pham 193785



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 193785 Report

This analysis was run 11/02/24 on database version 579.

Pham number 193785 has 162 members, 15 are drafts.

Phages represented in each track:

- Track 1 : Phrappuccino_126, Settecandela_126
- Track 2 : Fowlmouth_95
- Track 3 : MrMiyagi_94
- Track 4 : Indlulamithi_87
- Track 5 : Cuke_99
- Track 6 : Isolde_49, Raphaella_49, Auxilium_46, Tiff81_50, YoungHarleezy_50
- Track 7 : Gorpy_49, Sakai_48
- Track 8 : MidnightRain_51
- Track 9 : Biskit_52, Troje_52, SketchMex_50, Buttrmlkdreams_52, Horseradish_52, MScarn_54, Yummy_52
- Track 10 : Axym_48, Typhonomachy_49, Burnsey_49, Agatha_49, Cozz_47
- Track 11 : RanchParmCat_53, GiKK_53, Margaret_54, Button_51, Jamzy_53
- Track 12 : Yarn_46, AndPeggy_46, Tolls_50
- Track 13 : RedBaron_51
- Track 14 : BillDoor_49
- Track 15 : Emalyn_48, AikoCarson_50, Amok_50
- Track 16 : GTE2_40
- Track 17 : SteamedHams_49
- Track 18 : Yakult_51
- Track 19 : Quasar_49, Nina_48, SweatNTears_51, MunkgeeRoachy_47
- Track 20 : Nodigi_56, Orla_56, Hexbug_56
- Track 21 : Jablanski_57, Pytheas_57
- Track 22 : Floral_54, Pollux_56
- Track 23 : Lton_46
- Track 24 : Pepperoni_44
- Track 25 : Herod_55, Eviarto_57, BatStarr_56, Nymphadora_57, PantheRoc_57, TimTam_57, Hugley_53
- Track 26 : BoyNamedSue_55, Marteena_52, AlumE_55, EMSquaredA_53
- Track 27 : Hyzer_62
- Track 28 : Agueybana_55
- Track 29 : Maridalia_57, Bunnybear_49
- Track 30 : WelcomeAyanna_56, ThankyouJordi_56
- Track 31 : Ebert_54, Cashline_53, Ohgeesy_54, BaxterFox_57, Madeline_54
- Track 32 : Yeezy_53
- Track 33 : Thimann_54, Easley_49, Oregano_54
- Track 34 : Shlim410_53, Adora_52, Mcklovin_51, Hortense_55, Twinkle_54, Howe_55

- Track 35 : PhriskyACE_50, Powerball_51
- Track 36 : Annalisa_53
- Track 37 : Denise_48
- Track 38 : OneDirection_43
- Track 39 : Moosehead_50
- Track 40 : Sidious_53
- Track 41 : Gumball_80, PLOT_80, SirHarley_82
- Track 42 : Erk16_80, Delton_80, WaldoWhy_82, Thoth_80, PBI1_76, Butterscotch_78, Chill_82, Adjutor_78, Penelope2018_80, BigMama_78
- Track 43 : Visconti_81
- Track 44 : Mopey_81, Giuseppe_81, Troll4_79, Helpful_82, KandZ_77
- Track 45 : Nova_79
- Track 46 : Prager_79
- Track 47 : Hawkeye_92
- Track 48 : Morkie_49
- Track 49 : Lucky10_47, Faith5x5_42
- Track 50 : PhorbessPhlower_47
- Track 51 : Malisha_67
- Track 52 : SCentae_156, Pupper_157, CherryTomatoes_158
- Track 53 : DumpsterDude_53
- Track 54 : Ruthy_52
- Track 55 : RedWattleHog_174, Stormageddon_175
- Track 56 : ObLaDi_116, Cafasso_117, ModicumRichard_117
- Track 57 : Aleemily_115
- Track 58 : Morgana_124
- Track 59 : SamScheppers_64, Eponine_68, Ruthiejr_67, Y2_64, Mitti_66, Cheetobro_66, Malthus_67, Taquito_65, Y10_64, Juliette_68, Fionnbharth_66, Slarp_66, Wintermute_66, Chancellor_66, OmniCritical_65, JF1_66
- Track 60 : Reptar3000_63, MissDaisy_63, Patt_62
- Track 61 : Aminay_62
- Track 62 : Kevin1_59
- Track 63 : Hilltopfarm_91, Typha_89, AuntGwenStacy_89
- Track 64 : Bipper_99
- Track 65 : Cracklewink_99
- Track 66 : TPA4_81
- Track 67 : VanLee_109
- Track 68 : DS6A_87

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

The start number called the most often in the published annotations is 49, it was called in 47 of the 147 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Adora_52, Agueybana_55, AlumE_55, Annalisa_53, BatStarr_56, BaxterFox_57, BoyNamedSue_55, Bunnybear_49, Cashline_53, Denise_48, DumpsterDude_53, EMSquaredA_53, Easley_49, Ebert_54, Eviarto_57, Faith5x5_42, Floral_54, Herod_55, Hortense_55, Howe_55, Hugley_53, Hyzer_62, Jablanski_57, Lton_46, Lucky10_47, Madeline_54, Malisha_67, Maridalia_57, Marteena_52, Mcklovin_51, Moosehead_50, Morkie_49, Nymphadora_57, Ohgeesy_54, OneDirection_43,

Oregano_54, PantheRoc_57, Pepperoni_44, PhorbesPhlower_47, PhriskyACE_50, Pollux_56, Powerball_51, Pytheas_57, Ruthy_52, Shlim410_53, Sidious_53, ThankyouJordi_56, Thimann_54, TimTam_57, Twinkle_54, WelcomeAyanna_56, Yeezy_53,

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

-

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

- Adjutor_78, Agatha_49, AikoCarson_50, Aleemily_115, Aminay_62, Amok_50, AndPeggy_46, AuntGwenStacy_89, Auxilium_46, Axym_48, BigMama_78, BillDoor_49, Bipper_99, Biskit_52, Burnsey_49, Butterscotch_78, Button_51, Buttrmilkdreams_52, Cafasso_117, Chancellor_66, Cheetobro_66, CherryTomatoes_158, Chill_82, Cozz_47, Cracklewink_99, Cuke_99, DS6A_87, Delton_80, Emalyn_48, Eponine_68, Erk16_80, Fionnbharth_66, Fowlmouth_95, GTE2_40, GiKK_53, Giuseppe_81, Gorpy_49, Gumball_80, Hawkeye_92, Helpful_82, Hexbug_56, Hilltopfarm_91, Horseradish_52, Indlulamithi_87, Isolde_49, JF1_66, Jamzy_53, Juliette_68, KandZ_77, Kevin1_59, MScarn_54, Malthus_67, Margaret_54, MidnightRain_51, MissDaisy_63, Mitti_66, ModicumRichard_117, Mopey_81, Morgana_124, MrMiyagi_94, MunkgeeRoachy_47, Nina_48, Nodigi_56, Nova_79, ObLaDi_116, OmniCritical_65, Orla_56, PBI1_76, PLOT_80, Patt_62, Penelope2018_80, Phrappuccino_126, Prager_79, Pupper_157, Quasar_49, RanchParmCat_53, Raphaella_49, RedBaron_51, RedWattleHog_174, Reptar3000_63, Ruthiejr_67, SCentae_156, Sakai_48, SamScheppers_64, Settecandela_126, SirHarley_82, SketchMex_50, Slarp_66, SteamedHams_49, Stormageddon_175, SweatNTears_51, TPA4_81, Taquito_65, Thoth_80, Tiff81_50, Tolls_50, Troje_52, Troll4_79, Typha_89, Typhonmacy_49, VanLee_109, Visconti_81, WaldoWhy_82, Wintermute_66, Y10_64, Y2_64, Yakult_51, Yarn_46, YoungHarleezy_50, Yummy_52,

Summary by start number:

Start 28:

- Found in 1 of 162 (0.6%) of genes in pham
- Manual Annotations of this start: 1 of 147
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Hawkeye_92 (D2),

Start 30:

- Found in 21 of 162 (13.0%) of genes in pham
- Manual Annotations of this start: 20 of 147
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Adjutor_78 (D1), BigMama_78 (D1), Butterscotch_78 (D1), Chill_82 (D1), Delton_80 (D1), Erk16_80 (D1), Giuseppe_81 (D1), Gumball_80 (D1), Helpful_82 (D1), KandZ_77 (D1), Mopey_81 (D1), Nova_79 (D1), PBI1_76 (D1), PLOT_80 (D1), Penelope2018_80 (D1), Prager_79 (D1), SirHarley_82 (D1), Thoth_80 (D1), Troll4_79 (D1), Visconti_81 (D1), WaldoWhy_82 (D1),

Start 31:

- Found in 24 of 162 (14.8%) of genes in pham
- Manual Annotations of this start: 1 of 147
- Called 4.2% of time when present

- Phage (with cluster) where this start called: Indlulamithi_87 (AC),

Start 32:

- Found in 3 of 162 (1.9%) of genes in pham
- Manual Annotations of this start: 3 of 147
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Cuke_99 (AC), Fowlmouth_95 (AC), MrMiyagi_94 (AC),

Start 42:

- Found in 3 of 162 (1.9%) of genes in pham
- Manual Annotations of this start: 1 of 147
- Called 33.3% of time when present
- Phage (with cluster) where this start called: DS6A_87 (singleton),

Start 43:

- Found in 49 of 162 (30.2%) of genes in pham
- Manual Annotations of this start: 23 of 147
- Called 51.0% of time when present
- Phage (with cluster) where this start called: Agatha_49 (CT), AikoCarson_50 (CT), Amok_50 (CT), AndPeggy_46 (CT), Axym_48 (CT), BillDoor_49 (CT), Biskit_52 (CT), Burnsey_49 (CT), Buttrmlkdreams_52 (CT), Cozz_47 (CT), Emalyn_48 (CT), Horseradish_52 (CT), MScarn_54 (CT), MunkgeeRoachy_47 (CT), Nina_48 (CT), Quasar_49 (CT), RedBaron_51 (CT), SketchMex_50 (CT), SteamedHams_49 (CT), SweatNTears_51 (CT), Tolls_50 (CT), Troje_52 (CT), Typhonmarchy_49 (CT), Yarn_46 (CT), Yummy_52 (CT),

Start 45:

- Found in 3 of 162 (1.9%) of genes in pham
- Manual Annotations of this start: 3 of 147
- Called 100.0% of time when present
- Phage (with cluster) where this start called: CherryTomatoes_158 (DO), Pupper_157 (DO), SCentae_156 (DO),

Start 47:

- Found in 8 of 162 (4.9%) of genes in pham
- No Manual Annotations of this start.
- Called 12.5% of time when present
- Phage (with cluster) where this start called: GTE2_40 (CT),

Start 49:

- Found in 52 of 162 (32.1%) of genes in pham
- Manual Annotations of this start: 47 of 147
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Adora_52 (CZ4), Agueybana_55 (CZ1), AlumE_55 (CZ1), Annalisa_53 (CZ4), BatStarr_56 (CZ1), BaxterFox_57 (CZ3), BoyNamedSue_55 (CZ1), Bunnybear_49 (CZ), Cashline_53 (CY), Denise_48 (CZ5), DumpsterDude_53 (DW), EMsquaredA_53 (CY1), Easley_49 (CZ4), Ebert_54 (CZ2), Eviarto_57 (CZ1), Faith5x5_42 (CZ6), Floral_54 (CY1), Herod_55 (CZ1), Hortense_55 (CZ4), Howe_55 (CZ4), Hugley_53 (CZ1), Hyzer_62 (CZ1), Jablanski_57 (CY), Lton_46 (CZ), Lucky10_47 (DH), Madeline_54 (CZ1), Malisha_67 (DN), Maridalia_57 (CZ1), Marteena_52 (CY1), Mcklovin_51 (CZ4), Moosehead_50 (CZ6), Morkie_49 (DH), Nymphadora_57 (CZ1), Ohgeesy_54 (CZ), OneDirection_43

(CZ6), Oregano_54 (CZ4), PantheRoc_57 (CZ3), Pepperoni_44 (CZ), PhorbesPhlower_47 (DH), PhriskyACE_50 (CZ4), Pollux_56 (CY1), Powerball_51 (CZ4), Pytheas_57 (CY), Ruthy_52 (DW), Shlim410_53 (CZ4), Sidious_53 (CZ7), ThankyouJordi_56 (CZ1), Thimann_54 (CZ4), TimTam_57 (CZ1), Twinkle_54 (CZ4), WelcomeAyanna_56 (CZ1), Yeezy_53 (CZ3),

Start 52:

- Found in 5 of 162 (3.1%) of genes in pham
- Manual Annotations of this start: 2 of 147
- Called 40.0% of time when present
- Phage (with cluster) where this start called: Phrappuccino_126 (AA), Settecandela_126 (AA),

Start 54:

- Found in 1 of 162 (0.6%) of genes in pham
- Manual Annotations of this start: 1 of 147
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Aminay_62 (K7),

Start 56:

- Found in 38 of 162 (23.5%) of genes in pham
- Manual Annotations of this start: 25 of 147
- Called 68.4% of time when present
- Phage (with cluster) where this start called: AuntGwenStacy_89 (Y), Bipper_99 (Y), Chancellor_66 (K4), Cheetobro_66 (K4), Cracklewink_99 (Y), Eponine_68 (K4), Fionnbharth_66 (K4), Hilltopfarm_91 (Y), JF1_66 (K4), Juliette_68 (K4), Malthus_67 (K4), MissDaisy_63 (K4), Mitti_66 (K4), OmniCritical_65 (K4), Patt_62 (K4), RedWattleHog_174 (DX), Reptar3000_63 (K4), Ruthiejr_67 (K4), SamScheppers_64 (K4), Slarp_66 (K4), Stormageddon_175 (DX), Taquito_65 (K4), Typha_89 (Y), Wintermute_66 (K4), Y10_64 (K4), Y2_64 (K4),

Start 57:

- Found in 10 of 162 (6.2%) of genes in pham
- Manual Annotations of this start: 8 of 147
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Auxilium_46 (AY), Gorpy_49 (AY), Isolde_49 (AY), Kevin1_59 (N), MidnightRain_51 (AY), Raphaella_49 (AY), Sakai_48 (AY), Tiff81_50 (AY), VanLee_109 (singleton), YoungHarleezy_50 (AY),

Start 58:

- Found in 7 of 162 (4.3%) of genes in pham
- Manual Annotations of this start: 4 of 147
- Called 71.4% of time when present
- Phage (with cluster) where this start called: Aleemily_115 (DZ), Cafasso_117 (DZ), ModicumRichard_117 (DZ), Morgana_124 (DZ), ObLaDi_116 (DZ),

Start 60:

- Found in 9 of 162 (5.6%) of genes in pham
- Manual Annotations of this start: 7 of 147
- Called 88.9% of time when present
- Phage (with cluster) where this start called: Button_51 (CT), GiKK_53 (CT), Hexbug_56 (CT), Jamzy_53 (CT), Margaret_54 (CT), Nodigi_56 (CT), Orla_56 (CT), RanchParmCat_53 (CT),

Start 64:

- Found in 9 of 162 (5.6%) of genes in pham
- Manual Annotations of this start: 1 of 147
- Called 11.1% of time when present
- Phage (with cluster) where this start called: Yakult_51 (CT),

Start 111:

- Found in 1 of 162 (0.6%) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: TPA4_81 (singleton),

Summary by clusters:

There are 27 clusters represented in this pham: DN, DO, singleton, DH, CZ2, CZ3, CZ1, CZ6, CY1, CZ4, CZ5, AY, K7, DX, K4, DW, AA, AC, N, CZ, CY, Y, CT, CZ7, DZ, D2, D1,

Info for manual annotations of cluster AA:

- Start number 52 was manually annotated 2 times for cluster AA.

Info for manual annotations of cluster AC:

- Start number 31 was manually annotated 1 time for cluster AC.
- Start number 32 was manually annotated 3 times for cluster AC.

Info for manual annotations of cluster AY:

- Start number 57 was manually annotated 6 times for cluster AY.

Info for manual annotations of cluster CT:

- Start number 43 was manually annotated 23 times for cluster CT.
- Start number 60 was manually annotated 7 times for cluster CT.
- Start number 64 was manually annotated 1 time for cluster CT.

Info for manual annotations of cluster CY:

- Start number 49 was manually annotated 3 times for cluster CY.

Info for manual annotations of cluster CY1:

- Start number 49 was manually annotated 4 times for cluster CY1.

Info for manual annotations of cluster CZ:

- Start number 49 was manually annotated 3 times for cluster CZ.

Info for manual annotations of cluster CZ1:

- Start number 49 was manually annotated 12 times for cluster CZ1.

Info for manual annotations of cluster CZ2:

- Start number 49 was manually annotated 1 time for cluster CZ2.

Info for manual annotations of cluster CZ3:

- Start number 49 was manually annotated 3 times for cluster CZ3.

Info for manual annotations of cluster CZ4:

- Start number 49 was manually annotated 10 times for cluster CZ4.

Info for manual annotations of cluster CZ5:

- Start number 49 was manually annotated 1 time for cluster CZ5.

Info for manual annotations of cluster CZ6:

- Start number 49 was manually annotated 3 times for cluster CZ6.

Info for manual annotations of cluster CZ7:

- Start number 49 was manually annotated 1 time for cluster CZ7.

Info for manual annotations of cluster D1:

- Start number 30 was manually annotated 20 times for cluster D1.

Info for manual annotations of cluster D2:

- Start number 28 was manually annotated 1 time for cluster D2.

Info for manual annotations of cluster DH:

- Start number 49 was manually annotated 3 times for cluster DH.

Info for manual annotations of cluster DN:

- Start number 49 was manually annotated 1 time for cluster DN.

Info for manual annotations of cluster DO:

- Start number 45 was manually annotated 3 times for cluster DO.

Info for manual annotations of cluster DW:

- Start number 49 was manually annotated 2 times for cluster DW.

Info for manual annotations of cluster DX:

- Start number 56 was manually annotated 2 times for cluster DX.

Info for manual annotations of cluster DZ:

- Start number 58 was manually annotated 4 times for cluster DZ.

Info for manual annotations of cluster K4:

- Start number 56 was manually annotated 19 times for cluster K4.

Info for manual annotations of cluster K7:

- Start number 54 was manually annotated 1 time for cluster K7.

Info for manual annotations of cluster N:

- Start number 57 was manually annotated 1 time for cluster N.

Info for manual annotations of cluster Y:

- Start number 56 was manually annotated 4 times for cluster Y.

Gene Information:

Gene: Adjutor_78 Start: 58520, Stop: 58834, Start Num: 30

Candidate Starts for Adjutor_78:

(8, 58403), (17, 58466), (Start: 30 @58520 has 20 MA's), (Start: 31 @58529 has 1 MA's), (41, 58574), (Start: 43 @58583 has 23 MA's),

Gene: Adora_52 Start: 38735, Stop: 38977, Start Num: 49
Candidate Starts for Adora_52:
(Start: 49 @38735 has 47 MA's), (80, 38861),

Gene: Agatha_49 Start: 36030, Stop: 35797, Start Num: 43
Candidate Starts for Agatha_49:
(Start: 43 @36030 has 23 MA's), (65, 35946), (79, 35886),

Gene: Agueybana_55 Start: 39414, Stop: 39656, Start Num: 49
Candidate Starts for Agueybana_55:
(Start: 49 @39414 has 47 MA's), (80, 39540),

Gene: AikoCarson_50 Start: 36349, Stop: 36098, Start Num: 43
Candidate Starts for AikoCarson_50:
(Start: 43 @36349 has 23 MA's), (47, 36343), (72, 36220), (87, 36175),

Gene: Aleemily_115 Start: 64180, Stop: 63974, Start Num: 58
Candidate Starts for Aleemily_115:
(39, 64249), (Start: 58 @64180 has 4 MA's), (73, 64108), (76, 64093), (82, 64078), (105, 64000),

Gene: AlumE_55 Start: 39196, Stop: 39438, Start Num: 49
Candidate Starts for AlumE_55:
(Start: 49 @39196 has 47 MA's), (70, 39292), (80, 39322),

Gene: Aminay_62 Start: 41845, Stop: 42069, Start Num: 54
Candidate Starts for Aminay_62:
(Start: 54 @41845 has 1 MA's), (71, 41926), (75, 41935), (80, 41956), (103, 42025),

Gene: Amok_50 Start: 36274, Stop: 36023, Start Num: 43
Candidate Starts for Amok_50:
(Start: 43 @36274 has 23 MA's), (47, 36268), (72, 36145), (87, 36100),

Gene: AndPeggy_46 Start: 35560, Stop: 35309, Start Num: 43
Candidate Starts for AndPeggy_46:
(Start: 43 @35560 has 23 MA's), (47, 35554), (72, 35431), (87, 35386),

Gene: Annalisa_53 Start: 35580, Stop: 35795, Start Num: 49
Candidate Starts for Annalisa_53:
(4, 35316), (7, 35352), (10, 35424), (Start: 49 @35580 has 47 MA's), (80, 35679),

Gene: AuntGwenStacy_89 Start: 58871, Stop: 59092, Start Num: 56
Candidate Starts for AuntGwenStacy_89:
(Start: 56 @58871 has 25 MA's), (62, 58907), (69, 58937),

Gene: Auxilium_46 Start: 28442, Stop: 28633, Start Num: 57
Candidate Starts for Auxilium_46:
(Start: 57 @28442 has 8 MA's),

Gene: Axym_48 Start: 35927, Stop: 35694, Start Num: 43
Candidate Starts for Axym_48:

(Start: 43 @35927 has 23 MA's), (65, 35843), (79, 35783),

Gene: BatStarr_56 Start: 40720, Stop: 40962, Start Num: 49

Candidate Starts for BatStarr_56:

(Start: 49 @40720 has 47 MA's), (80, 40846),

Gene: BaxterFox_57 Start: 40474, Stop: 40716, Start Num: 49

Candidate Starts for BaxterFox_57:

(Start: 49 @40474 has 47 MA's), (80, 40600),

Gene: BigMama_78 Start: 58605, Stop: 58919, Start Num: 30

Candidate Starts for BigMama_78:

(8, 58488), (17, 58551), (Start: 30 @58605 has 20 MA's), (Start: 31 @58614 has 1 MA's), (41, 58659), (Start: 43 @58668 has 23 MA's),

Gene: BillDoor_49 Start: 35229, Stop: 34978, Start Num: 43

Candidate Starts for BillDoor_49:

(16, 35346), (Start: 43 @35229 has 23 MA's), (47, 35223), (53, 35187), (72, 35100), (87, 35055),

Gene: Bipper_99 Start: 62157, Stop: 62378, Start Num: 56

Candidate Starts for Bipper_99:

(11, 61980), (25, 62025), (26, 62028), (33, 62067), (46, 62115), (Start: 56 @62157 has 25 MA's), (62, 62193),

Gene: Biskit_52 Start: 36207, Stop: 35971, Start Num: 43

Candidate Starts for Biskit_52:

(38, 36225), (Start: 43 @36207 has 23 MA's), (79, 36060), (84, 36048), (86, 36045),

Gene: BoyNamedSue_55 Start: 39196, Stop: 39438, Start Num: 49

Candidate Starts for BoyNamedSue_55:

(Start: 49 @39196 has 47 MA's), (70, 39292), (80, 39322),

Gene: Bunnybear_49 Start: 37204, Stop: 37446, Start Num: 49

Candidate Starts for Bunnybear_49:

(Start: 49 @37204 has 47 MA's), (80, 37330),

Gene: Burnsey_49 Start: 36021, Stop: 35788, Start Num: 43

Candidate Starts for Burnsey_49:

(Start: 43 @36021 has 23 MA's), (65, 35937), (79, 35877),

Gene: Butterscotch_78 Start: 58571, Stop: 58885, Start Num: 30

Candidate Starts for Butterscotch_78:

(8, 58454), (17, 58517), (Start: 30 @58571 has 20 MA's), (Start: 31 @58580 has 1 MA's), (41, 58625), (Start: 43 @58634 has 23 MA's),

Gene: Button_51 Start: 36058, Stop: 35855, Start Num: 60

Candidate Starts for Button_51:

(Start: 60 @36058 has 7 MA's), (61, 36046), (Start: 64 @36037 has 1 MA's), (66, 36031), (78, 35980), (85, 35956),

Gene: Buttrmlkdreams_52 Start: 36654, Stop: 36418, Start Num: 43

Candidate Starts for Buttrmlkdreams_52:

(38, 36672), (Start: 43 @36654 has 23 MA's), (79, 36507), (84, 36495), (86, 36492),

Gene: Cafasso_117 Start: 64785, Stop: 64579, Start Num: 58
Candidate Starts for Cafasso_117:
(Start: 58 @64785 has 4 MA's), (73, 64713), (76, 64698), (82, 64683),

Gene: Cashline_53 Start: 39714, Stop: 39956, Start Num: 49
Candidate Starts for Cashline_53:
(Start: 49 @39714 has 47 MA's), (80, 39840),

Gene: Chancellor_66 Start: 41921, Stop: 42139, Start Num: 56
Candidate Starts for Chancellor_66:
(20, 41762), (23, 41771), (Start: 56 @41921 has 25 MA's), (83, 42038), (96, 42074), (100, 42089),

Gene: Cheetobro_66 Start: 41918, Stop: 42136, Start Num: 56
Candidate Starts for Cheetobro_66:
(20, 41759), (23, 41768), (Start: 56 @41918 has 25 MA's), (83, 42035), (96, 42071), (100, 42086),

Gene: CherryTomatoes_158 Start: 111644, Stop: 111907, Start Num: 45
Candidate Starts for CherryTomatoes_158:
(35, 111599), (44, 111641), (Start: 45 @111644 has 3 MA's), (80, 111794), (92, 111830), (97, 111842),

Gene: Chill_82 Start: 58548, Stop: 58862, Start Num: 30
Candidate Starts for Chill_82:
(8, 58431), (17, 58494), (Start: 30 @58548 has 20 MA's), (Start: 31 @58557 has 1 MA's), (41, 58602),
(Start: 43 @58611 has 23 MA's),

Gene: Cozz_47 Start: 35618, Stop: 35385, Start Num: 43
Candidate Starts for Cozz_47:
(Start: 43 @35618 has 23 MA's), (65, 35534), (79, 35474),

Gene: Cracklewink_99 Start: 61392, Stop: 61613, Start Num: 56
Candidate Starts for Cracklewink_99:
(11, 61215), (25, 61260), (26, 61263), (33, 61302), (46, 61350), (Start: 56 @61392 has 25 MA's),
(Start: 58 @61404 has 4 MA's), (62, 61428),

Gene: Cuke_99 Start: 56679, Stop: 56984, Start Num: 32
Candidate Starts for Cuke_99:
(13, 56601), (18, 56613), (Start: 31 @56676 has 1 MA's), (Start: 32 @56679 has 3 MA's), (Start: 52 @56766 has 2 MA's), (63, 56823), (93, 56910), (105, 56958),

Gene: DS6A_87 Start: 56210, Stop: 56485, Start Num: 42
Candidate Starts for DS6A_87:
(Start: 42 @56210 has 1 MA's), (94, 56414),

Gene: Delton_80 Start: 58981, Stop: 59295, Start Num: 30
Candidate Starts for Delton_80:
(8, 58864), (17, 58927), (Start: 30 @58981 has 20 MA's), (Start: 31 @58990 has 1 MA's), (41, 59035),
(Start: 43 @59044 has 23 MA's),

Gene: Denise_48 Start: 33091, Stop: 33306, Start Num: 49
Candidate Starts for Denise_48:
(Start: 49 @33091 has 47 MA's), (80, 33190), (90, 33223),

Gene: DumpsterDude_53 Start: 41558, Stop: 41800, Start Num: 49
Candidate Starts for DumpsterDude_53:
(Start: 49 @41558 has 47 MA's), (51, 41567), (80, 41684),

Gene: EMSquaredA_53 Start: 38371, Stop: 38613, Start Num: 49
Candidate Starts for EMSquaredA_53:
(Start: 49 @38371 has 47 MA's), (70, 38467), (80, 38497),

Gene: Easley_49 Start: 35528, Stop: 35743, Start Num: 49
Candidate Starts for Easley_49:
(Start: 49 @35528 has 47 MA's), (80, 35627),

Gene: Ebert_54 Start: 34571, Stop: 34813, Start Num: 49
Candidate Starts for Ebert_54:
(Start: 49 @34571 has 47 MA's), (80, 34697),

Gene: Emalyn_48 Start: 35066, Stop: 34815, Start Num: 43
Candidate Starts for Emalyn_48:
(Start: 43 @35066 has 23 MA's), (47, 35060), (72, 34937), (87, 34892),

Gene: Eponine_68 Start: 42764, Stop: 42982, Start Num: 56
Candidate Starts for Eponine_68:
(20, 42605), (23, 42614), (Start: 56 @42764 has 25 MA's), (83, 42881), (96, 42917), (100, 42932),

Gene: Erk16_80 Start: 58641, Stop: 58955, Start Num: 30
Candidate Starts for Erk16_80:
(8, 58524), (17, 58587), (Start: 30 @58641 has 20 MA's), (Start: 31 @58650 has 1 MA's), (41, 58695),
(Start: 43 @58704 has 23 MA's),

Gene: Eviarto_57 Start: 40695, Stop: 40937, Start Num: 49
Candidate Starts for Eviarto_57:
(Start: 49 @40695 has 47 MA's), (80, 40821),

Gene: Faith5x5_42 Start: 30278, Stop: 30463, Start Num: 49
Candidate Starts for Faith5x5_42:
(Start: 49 @30278 has 47 MA's), (80, 30377), (90, 30410),

Gene: Fionnbharth_66 Start: 42162, Stop: 42380, Start Num: 56
Candidate Starts for Fionnbharth_66:
(20, 42003), (23, 42012), (Start: 56 @42162 has 25 MA's), (83, 42279), (96, 42315), (100, 42330),

Gene: Floral_54 Start: 40277, Stop: 40519, Start Num: 49
Candidate Starts for Floral_54:
(Start: 49 @40277 has 47 MA's), (80, 40403),

Gene: Fowlmouth_95 Start: 57786, Stop: 58094, Start Num: 32
Candidate Starts for Fowlmouth_95:
(Start: 32 @57786 has 3 MA's), (Start: 43 @57837 has 23 MA's), (Start: 52 @57873 has 2 MA's),
(Start: 56 @57885 has 25 MA's), (63, 57930), (95, 58020),

Gene: GTE2_40 Start: 35662, Stop: 35417, Start Num: 47
Candidate Starts for GTE2_40:

(16, 35785), (Start: 43 @35668 has 23 MA's), (47, 35662), (53, 35626), (65, 35575), (72, 35539), (87, 35494), (102, 35461),

Gene: GiKK_53 Start: 36382, Stop: 36179, Start Num: 60

Candidate Starts for GiKK_53:

(Start: 60 @36382 has 7 MA's), (61, 36370), (Start: 64 @36361 has 1 MA's), (66, 36355), (78, 36304), (85, 36280),

Gene: Giuseppe_81 Start: 58355, Stop: 58669, Start Num: 30

Candidate Starts for Giuseppe_81:

(6, 58211), (21, 58310), (24, 58328), (Start: 30 @58355 has 20 MA's), (Start: 31 @58364 has 1 MA's), (41, 58409), (Start: 43 @58418 has 23 MA's), (Start: 56 @58460 has 25 MA's),

Gene: Gorpy_49 Start: 31480, Stop: 31674, Start Num: 57

Candidate Starts for Gorpy_49:

(Start: 57 @31480 has 8 MA's), (72, 31549), (101, 31627),

Gene: Gumball_80 Start: 58986, Stop: 59300, Start Num: 30

Candidate Starts for Gumball_80:

(17, 58932), (Start: 30 @58986 has 20 MA's), (Start: 31 @58995 has 1 MA's), (41, 59040), (Start: 43 @59049 has 23 MA's), (Start: 56 @59091 has 25 MA's),

Gene: Hawkeye_92 Start: 60485, Stop: 60838, Start Num: 28

Candidate Starts for Hawkeye_92:

(Start: 28 @60485 has 1 MA's), (Start: 31 @60497 has 1 MA's), (74, 60683), (105, 60809),

Gene: Helpful_82 Start: 58743, Stop: 59057, Start Num: 30

Candidate Starts for Helpful_82:

(6, 58599), (21, 58698), (24, 58716), (Start: 30 @58743 has 20 MA's), (Start: 31 @58752 has 1 MA's), (41, 58797), (Start: 43 @58806 has 23 MA's), (Start: 56 @58848 has 25 MA's),

Gene: Herod_55 Start: 40739, Stop: 40981, Start Num: 49

Candidate Starts for Herod_55:

(Start: 49 @40739 has 47 MA's), (80, 40865),

Gene: Hexbug_56 Start: 38441, Stop: 38238, Start Num: 60

Candidate Starts for Hexbug_56:

(Start: 60 @38441 has 7 MA's), (Start: 64 @38420 has 1 MA's), (85, 38339), (91, 38318), (95, 38309), (104, 38282),

Gene: Hilltopfarm_91 Start: 59257, Stop: 59478, Start Num: 56

Candidate Starts for Hilltopfarm_91:

(Start: 56 @59257 has 25 MA's), (62, 59293), (69, 59323),

Gene: Horseradish_52 Start: 36140, Stop: 35904, Start Num: 43

Candidate Starts for Horseradish_52:

(38, 36158), (Start: 43 @36140 has 23 MA's), (79, 35993), (84, 35981), (86, 35978),

Gene: Hortense_55 Start: 40090, Stop: 40332, Start Num: 49

Candidate Starts for Hortense_55:

(Start: 49 @40090 has 47 MA's), (80, 40216),

Gene: Howe_55 Start: 40090, Stop: 40332, Start Num: 49

Candidate Starts for Howe_55:
(Start: 49 @40090 has 47 MA's), (80, 40216),

Gene: Hugley_53 Start: 40719, Stop: 40961, Start Num: 49
Candidate Starts for Hugley_53:
(Start: 49 @40719 has 47 MA's), (80, 40845),

Gene: Hyzer_62 Start: 42111, Stop: 42353, Start Num: 49
Candidate Starts for Hyzer_62:
(Start: 49 @42111 has 47 MA's), (80, 42237),

Gene: Indlulamithi_87 Start: 59764, Stop: 60048, Start Num: 31
Candidate Starts for Indlulamithi_87:
(Start: 31 @59764 has 1 MA's), (33, 59773), (41, 59809), (Start: 56 @59860 has 25 MA's), (Start: 58 @59872 has 4 MA's), (88, 59956),

Gene: Isolde_49 Start: 30525, Stop: 30716, Start Num: 57
Candidate Starts for Isolde_49:
(Start: 57 @30525 has 8 MA's),

Gene: JF1_66 Start: 42079, Stop: 42297, Start Num: 56
Candidate Starts for JF1_66:
(20, 41920), (23, 41929), (Start: 56 @42079 has 25 MA's), (83, 42196), (96, 42232), (100, 42247),

Gene: Jablanski_57 Start: 41777, Stop: 42019, Start Num: 49
Candidate Starts for Jablanski_57:
(2, 41396), (Start: 49 @41777 has 47 MA's), (80, 41903),

Gene: Jamzy_53 Start: 36362, Stop: 36159, Start Num: 60
Candidate Starts for Jamzy_53:
(Start: 60 @36362 has 7 MA's), (61, 36350), (Start: 64 @36341 has 1 MA's), (66, 36335), (78, 36284), (85, 36260),

Gene: Juliette_68 Start: 42226, Stop: 42444, Start Num: 56
Candidate Starts for Juliette_68:
(20, 42067), (23, 42076), (Start: 56 @42226 has 25 MA's), (83, 42343), (96, 42379), (100, 42394),

Gene: KandZ_77 Start: 58571, Stop: 58885, Start Num: 30
Candidate Starts for KandZ_77:
(6, 58427), (21, 58526), (24, 58544), (Start: 30 @58571 has 20 MA's), (Start: 31 @58580 has 1 MA's), (41, 58625), (Start: 43 @58634 has 23 MA's), (Start: 56 @58676 has 25 MA's),

Gene: Kevin1_59 Start: 36836, Stop: 37027, Start Num: 57
Candidate Starts for Kevin1_59:
(Start: 57 @36836 has 8 MA's), (98, 36968),

Gene: Lton_46 Start: 30324, Stop: 30512, Start Num: 49
Candidate Starts for Lton_46:
(34, 30261), (41, 30294), (Start: 49 @30324 has 47 MA's), (67, 30396), (80, 30423), (90, 30456),

Gene: Lucky10_47 Start: 33042, Stop: 33230, Start Num: 49
Candidate Starts for Lucky10_47:
(Start: 49 @33042 has 47 MA's), (80, 33141), (90, 33174),

Gene: MScarn_54 Start: 36322, Stop: 36086, Start Num: 43

Candidate Starts for MScarn_54:

(38, 36340), (Start: 43 @36322 has 23 MA's), (79, 36175), (84, 36163), (86, 36160),

Gene: Madeline_54 Start: 39604, Stop: 39846, Start Num: 49

Candidate Starts for Madeline_54:

(Start: 49 @39604 has 47 MA's), (80, 39730),

Gene: Malisha_67 Start: 41399, Stop: 41608, Start Num: 49

Candidate Starts for Malisha_67:

(Start: 49 @41399 has 47 MA's), (80, 41525), (81, 41531),

Gene: Malthus_67 Start: 41914, Stop: 42132, Start Num: 56

Candidate Starts for Malthus_67:

(20, 41755), (23, 41764), (Start: 56 @41914 has 25 MA's), (83, 42031), (96, 42067), (100, 42082),

Gene: Margaret_54 Start: 37114, Stop: 36911, Start Num: 60

Candidate Starts for Margaret_54:

(Start: 60 @37114 has 7 MA's), (61, 37102), (Start: 64 @37093 has 1 MA's), (66, 37087), (78, 37036), (85, 37012),

Gene: Maridalia_57 Start: 38950, Stop: 39192, Start Num: 49

Candidate Starts for Maridalia_57:

(Start: 49 @38950 has 47 MA's), (80, 39076),

Gene: Marteena_52 Start: 38371, Stop: 38613, Start Num: 49

Candidate Starts for Marteena_52:

(Start: 49 @38371 has 47 MA's), (70, 38467), (80, 38497),

Gene: Mcklovin_51 Start: 41557, Stop: 41799, Start Num: 49

Candidate Starts for Mcklovin_51:

(Start: 49 @41557 has 47 MA's), (80, 41683),

Gene: MidnightRain_51 Start: 31618, Stop: 31809, Start Num: 57

Candidate Starts for MidnightRain_51:

(40, 31558), (Start: 57 @31618 has 8 MA's), (99, 31756),

Gene: MissDaisy_63 Start: 40826, Stop: 41044, Start Num: 56

Candidate Starts for MissDaisy_63:

(20, 40667), (23, 40676), (Start: 56 @40826 has 25 MA's), (83, 40943), (96, 40979), (100, 40994), (103, 41000),

Gene: Mitti_66 Start: 42093, Stop: 42311, Start Num: 56

Candidate Starts for Mitti_66:

(20, 41934), (23, 41943), (Start: 56 @42093 has 25 MA's), (83, 42210), (96, 42246), (100, 42261),

Gene: ModicumRichard_117 Start: 65073, Stop: 64867, Start Num: 58

Candidate Starts for ModicumRichard_117:

(Start: 58 @65073 has 4 MA's), (73, 65001), (76, 64986), (82, 64971),

Gene: Moosehead_50 Start: 31430, Stop: 31645, Start Num: 49

Candidate Starts for Moosehead_50:

(Start: 49 @31430 has 47 MA's), (80, 31529), (104, 31601),

Gene: Mopey_81 Start: 58381, Stop: 58695, Start Num: 30

Candidate Starts for Mopey_81:

(6, 58237), (21, 58336), (24, 58354), (Start: 30 @58381 has 20 MA's), (Start: 31 @58390 has 1 MA's), (41, 58435), (Start: 43 @58444 has 23 MA's), (Start: 56 @58486 has 25 MA's),

Gene: Morgana_124 Start: 67243, Stop: 67037, Start Num: 58

Candidate Starts for Morgana_124:

(39, 67312), (Start: 58 @67243 has 4 MA's), (73, 67171), (76, 67156), (82, 67141),

Gene: Morkie_49 Start: 32379, Stop: 32567, Start Num: 49

Candidate Starts for Morkie_49:

(Start: 49 @32379 has 47 MA's), (68, 32454), (80, 32478), (90, 32511),

Gene: MrMiyagi_94 Start: 58054, Stop: 58362, Start Num: 32

Candidate Starts for MrMiyagi_94:

(Start: 32 @58054 has 3 MA's), (Start: 43 @58105 has 23 MA's), (Start: 52 @58141 has 2 MA's), (63, 58198), (95, 58288),

Gene: MunkgeeRoachy_47 Start: 35379, Stop: 35146, Start Num: 43

Candidate Starts for MunkgeeRoachy_47:

(Start: 43 @35379 has 23 MA's), (65, 35295), (79, 35235),

Gene: Nina_48 Start: 36199, Stop: 35966, Start Num: 43

Candidate Starts for Nina_48:

(Start: 43 @36199 has 23 MA's), (65, 36115), (79, 36055),

Gene: Nodigi_56 Start: 38471, Stop: 38268, Start Num: 60

Candidate Starts for Nodigi_56:

(Start: 60 @38471 has 7 MA's), (Start: 64 @38450 has 1 MA's), (85, 38369), (91, 38348), (95, 38339), (104, 38312),

Gene: Nova_79 Start: 58848, Stop: 59162, Start Num: 30

Candidate Starts for Nova_79:

(6, 58704), (21, 58803), (24, 58821), (Start: 30 @58848 has 20 MA's), (Start: 31 @58857 has 1 MA's), (41, 58902), (Start: 43 @58911 has 23 MA's), (Start: 56 @58953 has 25 MA's),

Gene: Nymphadora_57 Start: 40719, Stop: 40961, Start Num: 49

Candidate Starts for Nymphadora_57:

(Start: 49 @40719 has 47 MA's), (80, 40845),

Gene: ObLaDi_116 Start: 64475, Stop: 64269, Start Num: 58

Candidate Starts for ObLaDi_116:

(Start: 58 @64475 has 4 MA's), (73, 64403), (76, 64388), (82, 64373),

Gene: Ohgeesy_54 Start: 38818, Stop: 39060, Start Num: 49

Candidate Starts for Ohgeesy_54:

(Start: 49 @38818 has 47 MA's), (80, 38944),

Gene: OmniCritical_65 Start: 41983, Stop: 42201, Start Num: 56

Candidate Starts for OmniCritical_65:

(20, 41824), (23, 41833), (Start: 56 @41983 has 25 MA's), (83, 42100), (96, 42136), (100, 42151),

Gene: OneDirection_43 Start: 29772, Stop: 29960, Start Num: 49
Candidate Starts for OneDirection_43:
(Start: 49 @29772 has 47 MA's), (67, 29844), (80, 29871), (90, 29904),

Gene: Oregano_54 Start: 36212, Stop: 36427, Start Num: 49
Candidate Starts for Oregano_54:
(Start: 49 @36212 has 47 MA's), (80, 36311),

Gene: Orla_56 Start: 38400, Stop: 38197, Start Num: 60
Candidate Starts for Orla_56:
(Start: 60 @38400 has 7 MA's), (Start: 64 @38379 has 1 MA's), (85, 38298), (91, 38277), (95, 38268),
(104, 38241),

Gene: PBI1_76 Start: 58502, Stop: 58816, Start Num: 30
Candidate Starts for PBI1_76:
(8, 58385), (17, 58448), (Start: 30 @58502 has 20 MA's), (Start: 31 @58511 has 1 MA's), (41, 58556),
(Start: 43 @58565 has 23 MA's),

Gene: PLOT_80 Start: 58539, Stop: 58853, Start Num: 30
Candidate Starts for PLOT_80:
(17, 58485), (Start: 30 @58539 has 20 MA's), (Start: 31 @58548 has 1 MA's), (41, 58593), (Start: 43
@58602 has 23 MA's), (Start: 56 @58644 has 25 MA's),

Gene: PantheRoc_57 Start: 39540, Stop: 39782, Start Num: 49
Candidate Starts for PantheRoc_57:
(Start: 49 @39540 has 47 MA's), (80, 39666),

Gene: Patt_62 Start: 40550, Stop: 40768, Start Num: 56
Candidate Starts for Patt_62:
(20, 40391), (23, 40400), (Start: 56 @40550 has 25 MA's), (83, 40667), (96, 40703), (100, 40718),
(103, 40724),

Gene: Penelope2018_80 Start: 58570, Stop: 58884, Start Num: 30
Candidate Starts for Penelope2018_80:
(8, 58453), (17, 58516), (Start: 30 @58570 has 20 MA's), (Start: 31 @58579 has 1 MA's), (41, 58624),
(Start: 43 @58633 has 23 MA's),

Gene: Pepperoni_44 Start: 31534, Stop: 31722, Start Num: 49
Candidate Starts for Pepperoni_44:
(Start: 49 @31534 has 47 MA's), (51, 31543), (68, 31609), (80, 31633), (90, 31666),

Gene: PhorbesPhlower_47 Start: 31528, Stop: 31713, Start Num: 49
Candidate Starts for PhorbesPhlower_47:
(Start: 49 @31528 has 47 MA's), (77, 31621), (80, 31627), (90, 31660),

Gene: Phrappuccino_126 Start: 92677, Stop: 92982, Start Num: 52
Candidate Starts for Phrappuccino_126:
(5, 92419), (37, 92605), (Start: 42 @92638 has 1 MA's), (48, 92659), (Start: 52 @92677 has 2 MA's),
(80, 92800), (89, 92824), (108, 92944), (109, 92977),

Gene: PhriskyACE_50 Start: 36177, Stop: 36419, Start Num: 49
Candidate Starts for PhriskyACE_50:

(3, 35853), (Start: 49 @36177 has 47 MA's), (80, 36303),

Gene: Pollux_56 Start: 40277, Stop: 40519, Start Num: 49

Candidate Starts for Pollux_56:

(Start: 49 @40277 has 47 MA's), (80, 40403),

Gene: Powerball_51 Start: 36303, Stop: 36545, Start Num: 49

Candidate Starts for Powerball_51:

(3, 35979), (Start: 49 @36303 has 47 MA's), (80, 36429),

Gene: Prager_79 Start: 58475, Stop: 58789, Start Num: 30

Candidate Starts for Prager_79:

(6, 58331), (21, 58430), (24, 58448), (Start: 30 @58475 has 20 MA's), (Start: 31 @58484 has 1 MA's), (41, 58529), (Start: 43 @58538 has 23 MA's),

Gene: Pupper_157 Start: 111884, Stop: 112147, Start Num: 45

Candidate Starts for Pupper_157:

(35, 111839), (44, 111881), (Start: 45 @111884 has 3 MA's), (80, 112034), (92, 112070), (97, 112082),

Gene: Pytheas_57 Start: 41776, Stop: 42018, Start Num: 49

Candidate Starts for Pytheas_57:

(2, 41395), (Start: 49 @41776 has 47 MA's), (80, 41902),

Gene: Quasar_49 Start: 36624, Stop: 36391, Start Num: 43

Candidate Starts for Quasar_49:

(Start: 43 @36624 has 23 MA's), (65, 36540), (79, 36480),

Gene: RanchParmCat_53 Start: 37255, Stop: 37052, Start Num: 60

Candidate Starts for RanchParmCat_53:

(Start: 60 @37255 has 7 MA's), (61, 37243), (Start: 64 @37234 has 1 MA's), (66, 37228), (78, 37177), (85, 37153),

Gene: Raphaella_49 Start: 30457, Stop: 30648, Start Num: 57

Candidate Starts for Raphaella_49:

(Start: 57 @30457 has 8 MA's),

Gene: RedBaron_51 Start: 36246, Stop: 36013, Start Num: 43

Candidate Starts for RedBaron_51:

(Start: 43 @36246 has 23 MA's), (65, 36162),

Gene: RedWattleHog_174 Start: 111466, Stop: 111675, Start Num: 56

Candidate Starts for RedWattleHog_174:

(55, 111463), (Start: 56 @111466 has 25 MA's), (99, 111625), (106, 111655),

Gene: Reptar3000_63 Start: 40538, Stop: 40756, Start Num: 56

Candidate Starts for Reptar3000_63:

(20, 40379), (23, 40388), (Start: 56 @40538 has 25 MA's), (83, 40655), (96, 40691), (100, 40706), (103, 40712),

Gene: Ruthiejr_67 Start: 41964, Stop: 42182, Start Num: 56

Candidate Starts for Ruthiejr_67:

(20, 41805), (23, 41814), (Start: 56 @41964 has 25 MA's), (83, 42081), (96, 42117), (100, 42132),

Gene: Ruthy_52 Start: 39090, Stop: 39332, Start Num: 49

Candidate Starts for Ruthy_52:

(Start: 49 @39090 has 47 MA's), (51, 39099), (80, 39216),

Gene: SCentae_156 Start: 112038, Stop: 112301, Start Num: 45

Candidate Starts for SCentae_156:

(35, 111993), (44, 112035), (Start: 45 @112038 has 3 MA's), (80, 112188), (92, 112224), (97, 112236),

Gene: Sakai_48 Start: 30191, Stop: 30385, Start Num: 57

Candidate Starts for Sakai_48:

(Start: 57 @30191 has 8 MA's), (72, 30260), (101, 30338),

Gene: SamScheppers_64 Start: 42393, Stop: 42611, Start Num: 56

Candidate Starts for SamScheppers_64:

(20, 42234), (23, 42243), (Start: 56 @42393 has 25 MA's), (83, 42510), (96, 42546), (100, 42561),

Gene: Settecandela_126 Start: 92677, Stop: 92982, Start Num: 52

Candidate Starts for Settecandela_126:

(5, 92419), (37, 92605), (Start: 42 @92638 has 1 MA's), (48, 92659), (Start: 52 @92677 has 2 MA's), (80, 92800), (89, 92824), (108, 92944), (109, 92977),

Gene: Shlim410_53 Start: 40090, Stop: 40332, Start Num: 49

Candidate Starts for Shlim410_53:

(Start: 49 @40090 has 47 MA's), (80, 40216),

Gene: Sidious_53 Start: 38484, Stop: 38726, Start Num: 49

Candidate Starts for Sidious_53:

(Start: 49 @38484 has 47 MA's), (80, 38610),

Gene: SirHarley_82 Start: 58970, Stop: 59284, Start Num: 30

Candidate Starts for SirHarley_82:

(17, 58916), (Start: 30 @58970 has 20 MA's), (Start: 31 @58979 has 1 MA's), (41, 59024), (Start: 43 @59033 has 23 MA's), (Start: 56 @59075 has 25 MA's),

Gene: SketchMex_50 Start: 36207, Stop: 35971, Start Num: 43

Candidate Starts for SketchMex_50:

(38, 36225), (Start: 43 @36207 has 23 MA's), (79, 36060), (84, 36048), (86, 36045),

Gene: Slarp_66 Start: 41921, Stop: 42139, Start Num: 56

Candidate Starts for Slarp_66:

(20, 41762), (23, 41771), (Start: 56 @41921 has 25 MA's), (83, 42038), (96, 42074), (100, 42089),

Gene: SteamedHams_49 Start: 35394, Stop: 35161, Start Num: 43

Candidate Starts for SteamedHams_49:

(9, 35529), (14, 35520), (15, 35517), (27, 35469), (29, 35457), (Start: 43 @35394 has 23 MA's), (65, 35310), (79, 35250),

Gene: Stormageddon_175 Start: 112431, Stop: 112640, Start Num: 56

Candidate Starts for Stormageddon_175:

(55, 112428), (Start: 56 @112431 has 25 MA's), (99, 112590), (106, 112620),

Gene: SweatNTears_51 Start: 36160, Stop: 35927, Start Num: 43
Candidate Starts for SweatNTears_51:
(Start: 43 @36160 has 23 MA's), (65, 36076), (79, 36016),

Gene: TPA4_81 Start: 53987, Stop: 54289, Start Num: 111
Candidate Starts for TPA4_81:
(1, 53147), (59, 53672), (107, 53882), (110, 53957), (111, 53987),

Gene: Taquito_65 Start: 42156, Stop: 42374, Start Num: 56
Candidate Starts for Taquito_65:
(20, 41997), (23, 42006), (Start: 56 @42156 has 25 MA's), (83, 42273), (96, 42309), (100, 42324),

Gene: ThankyouJordi_56 Start: 40759, Stop: 41001, Start Num: 49
Candidate Starts for ThankyouJordi_56:
(12, 40612), (19, 40627), (22, 40636), (36, 40702), (Start: 49 @40759 has 47 MA's), (80, 40885),

Gene: Thimann_54 Start: 37092, Stop: 37307, Start Num: 49
Candidate Starts for Thimann_54:
(Start: 49 @37092 has 47 MA's), (80, 37191),

Gene: Thoth_80 Start: 58624, Stop: 58938, Start Num: 30
Candidate Starts for Thoth_80:
(8, 58507), (17, 58570), (Start: 30 @58624 has 20 MA's), (Start: 31 @58633 has 1 MA's), (41, 58678),
(Start: 43 @58687 has 23 MA's),

Gene: Tiff81_50 Start: 28970, Stop: 29161, Start Num: 57
Candidate Starts for Tiff81_50:
(Start: 57 @28970 has 8 MA's),

Gene: TimTam_57 Start: 40719, Stop: 40961, Start Num: 49
Candidate Starts for TimTam_57:
(Start: 49 @40719 has 47 MA's), (80, 40845),

Gene: Tolls_50 Start: 35802, Stop: 35551, Start Num: 43
Candidate Starts for Tolls_50:
(Start: 43 @35802 has 23 MA's), (47, 35796), (72, 35673), (87, 35628),

Gene: Troje_52 Start: 36545, Stop: 36309, Start Num: 43
Candidate Starts for Troje_52:
(38, 36563), (Start: 43 @36545 has 23 MA's), (79, 36398), (84, 36386), (86, 36383),

Gene: Troll4_79 Start: 58537, Stop: 58851, Start Num: 30
Candidate Starts for Troll4_79:
(6, 58393), (21, 58492), (24, 58510), (Start: 30 @58537 has 20 MA's), (Start: 31 @58546 has 1 MA's),
(41, 58591), (Start: 43 @58600 has 23 MA's), (Start: 56 @58642 has 25 MA's),

Gene: Twinkle_54 Start: 41149, Stop: 41391, Start Num: 49
Candidate Starts for Twinkle_54:
(Start: 49 @41149 has 47 MA's), (80, 41275),

Gene: Typha_89 Start: 58872, Stop: 59093, Start Num: 56
Candidate Starts for Typha_89:
(Start: 56 @58872 has 25 MA's), (62, 58908), (69, 58938),

Gene: Typhonomachy_49 Start: 35740, Stop: 35507, Start Num: 43

Candidate Starts for Typhonomachy_49:

(Start: 43 @35740 has 23 MA's), (65, 35656), (79, 35596),

Gene: VanLee_109 Start: 57771, Stop: 57962, Start Num: 57

Candidate Starts for VanLee_109:

(Start: 57 @57771 has 8 MA's), (105, 57936),

Gene: Visconti_81 Start: 58585, Stop: 58899, Start Num: 30

Candidate Starts for Visconti_81:

(8, 58468), (17, 58531), (Start: 30 @58585 has 20 MA's), (Start: 31 @58594 has 1 MA's), (41, 58639),
(Start: 43 @58648 has 23 MA's), (Start: 56 @58690 has 25 MA's),

Gene: WaldoWhy_82 Start: 58548, Stop: 58862, Start Num: 30

Candidate Starts for WaldoWhy_82:

(8, 58431), (17, 58494), (Start: 30 @58548 has 20 MA's), (Start: 31 @58557 has 1 MA's), (41, 58602),
(Start: 43 @58611 has 23 MA's),

Gene: WelcomeAyanna_56 Start: 40906, Stop: 41148, Start Num: 49

Candidate Starts for WelcomeAyanna_56:

(12, 40759), (19, 40774), (22, 40783), (36, 40849), (Start: 49 @40906 has 47 MA's), (80, 41032),

Gene: Wintermute_66 Start: 42151, Stop: 42369, Start Num: 56

Candidate Starts for Wintermute_66:

(20, 41992), (23, 42001), (Start: 56 @42151 has 25 MA's), (83, 42268), (96, 42304), (100, 42319),

Gene: Y10_64 Start: 42079, Stop: 42297, Start Num: 56

Candidate Starts for Y10_64:

(20, 41920), (23, 41929), (Start: 56 @42079 has 25 MA's), (83, 42196), (96, 42232), (100, 42247),

Gene: Y2_64 Start: 42079, Stop: 42297, Start Num: 56

Candidate Starts for Y2_64:

(20, 41920), (23, 41929), (Start: 56 @42079 has 25 MA's), (83, 42196), (96, 42232), (100, 42247),

Gene: Yakult_51 Start: 37137, Stop: 36952, Start Num: 64

Candidate Starts for Yakult_51:

(50, 37200), (Start: 60 @37158 has 7 MA's), (Start: 64 @37137 has 1 MA's), (74, 37098), (85, 37056),
(92, 37032), (104, 36996),

Gene: Yarn_46 Start: 35565, Stop: 35314, Start Num: 43

Candidate Starts for Yarn_46:

(Start: 43 @35565 has 23 MA's), (47, 35559), (72, 35436), (87, 35391),

Gene: Yeezy_53 Start: 37368, Stop: 37610, Start Num: 49

Candidate Starts for Yeezy_53:

(Start: 49 @37368 has 47 MA's), (80, 37494),

Gene: YoungHarleezy_50 Start: 31023, Stop: 31214, Start Num: 57

Candidate Starts for YoungHarleezy_50:

(Start: 57 @31023 has 8 MA's),

Gene: Yummy_52 Start: 36254, Stop: 36018, Start Num: 43

Candidate Starts for Yummy_52:

(38, 36272), (Start: 43 @36254 has 23 MA's), (79, 36107), (84, 36095), (86, 36092),