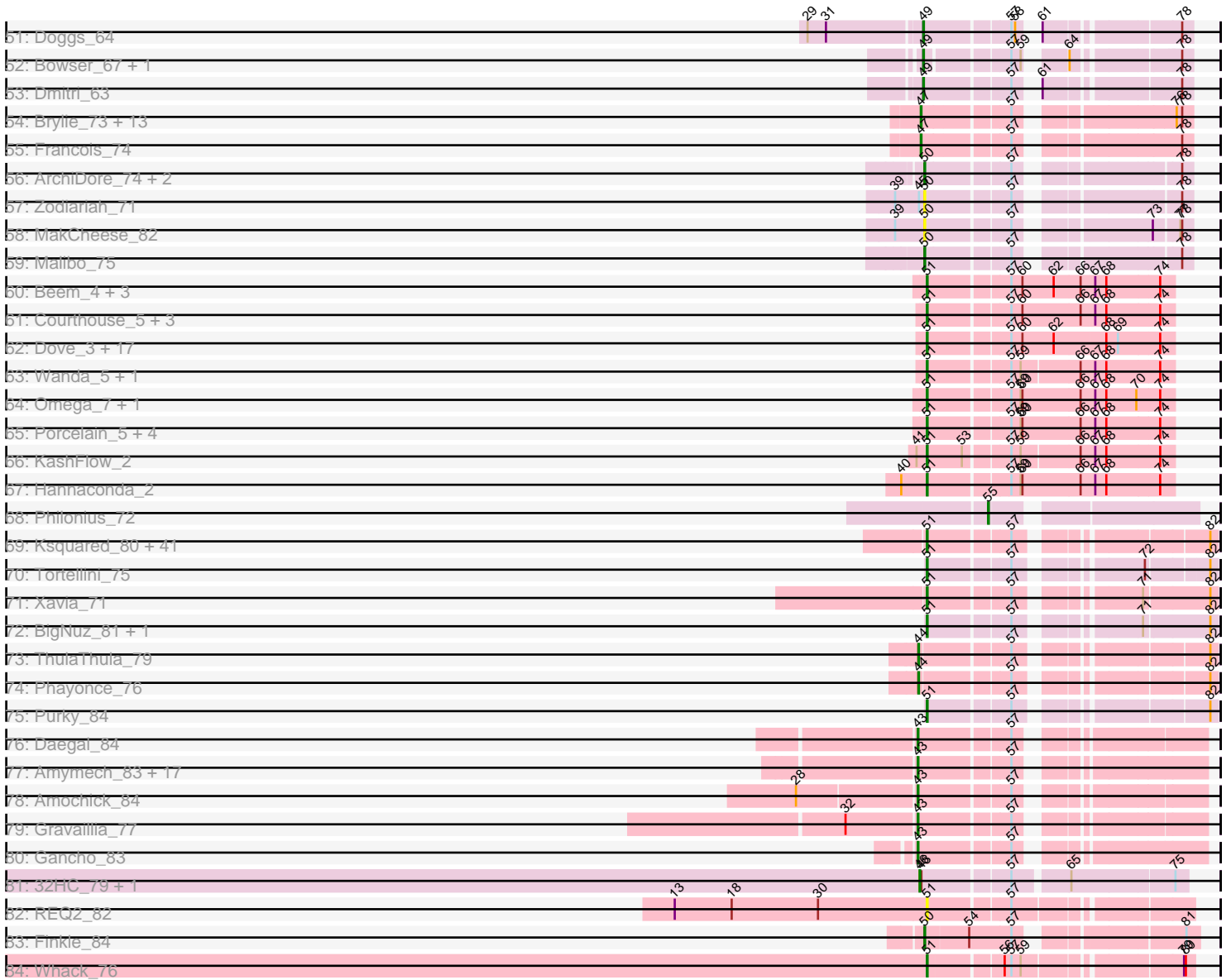


Pham 202653



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 202653 Report

This analysis was run 01/18/25 on database version 583.

Pham number 202653 has 239 members, 20 are drafts.

Phages represented in each track:

- Track 1 : JustASigh_89
- Track 2 : Begonia_78
- Track 3 : Jalammah_82, Fenry_78
- Track 4 : Wocket_79
- Track 5 : BlingBling_76
- Track 6 : Blueberry_86, Gambino_89, Frokostdame_84, Azula_86, MissRona_86
- Track 7 : Guacamole_78, JasperJr_78
- Track 8 : Utz_71, UmaThurman_83, Obliviate_80
- Track 9 : Samba_79
- Track 10 : Zarbodnamra_84
- Track 11 : Barco_77
- Track 12 : PrincePatrick_80, Fairfaxidum_81
- Track 13 : Blino_81, CarolAnn_80
- Track 14 : William_83
- Track 15 : JuJu_88
- Track 16 : CaptainKirk2_79
- Track 17 : PCoral7_80, Toast_81
- Track 18 : Malachai_77
- Track 19 : Wisp_79
- Track 20 : Mellie_76
- Track 21 : ZiggyZoo_80
- Track 22 : Melba_79
- Track 23 : Lysidious_83
- Track 24 : Walrus_84
- Track 25 : Murp_78
- Track 26 : PhrostedPhlake_88
- Track 27 : Ohgeesy_85, Yeezy_87
- Track 28 : Lamberg_71, GemG_75, Bjanes7_72, Cynthia_75, Ebert_78, Sproutie_75, Mocha12_75, Haley23_75, Clap_75, Attis_74, Savage_75, Nettuno_71, SoilAssassin_74, Sahara_72, LordFarquaad_76
- Track 29 : Matteo_68, Denise_78
- Track 30 : Pickett_74, EdnaMode_75
- Track 31 : PantheRoc_87, Archis_82
- Track 32 : BaxterFox_85
- Track 33 : DobbysSock_73
- Track 34 : Hortense_80, Twinkle_79, Adora_77, Howe_80, Shlim410_78
- Track 35 : Oregano_79

- Track 36 : PhriskyACE_74
- Track 37 : Clark_78, Easley_77, Beenie_73, MichaelScott_80
- Track 38 : WinkNick_80, Annalisa_79, Dolores_80, Sekhmet_79
- Track 39 : Dorito_75
- Track 40 : Samman98_79, Invecetra_80
- Track 41 : Suerte_74
- Track 42 : Powerball_76
- Track 43 : Thimann_80
- Track 44 : Sidious_79
- Track 45 : Hedwig_70
- Track 46 : RayTheFireFly_73, Coriander_66, Moonflower_65
- Track 47 : Bunker_61, MagicMan_70, Eyes_65, TaronosaurusRx_77, BackstagePass_72, BBQValindra_67, GEazy_73, Schnabeltier_71, HannahD_70
- Track 48 : Opie_73
- Track 49 : DirtyBoi_68
- Track 50 : Kiko_67
- Track 51 : Doggs_64
- Track 52 : Bowser_67, ZAYM_76
- Track 53 : Dmitri_63
- Track 54 : Brylie_73, Bock_75, WheatThin_73, Ayotoya_74, BetterKatz_74, GrandSlam_75, Mulch_73, Nadeem_73, Parada_73, Pimento_76, DelRio_74, NancyRae_72, Chop_75, Hamood_75
- Track 55 : Francois_74
- Track 56 : ArchiDore_74, Ruthy_72, DumpsterDude_70
- Track 57 : Zodiariah_71
- Track 58 : MakCheese_82
- Track 59 : Malibo_75
- Track 60 : Beem_4, Bobby_5, Halley_4, Ejimix_5
- Track 61 : Courthouse_5, Ariel_4, Zelink_4, JuicyJay_5
- Track 62 : Dove_3, DmpstrDiver_4, BAKA_4, HokkenD_4, EricMillard_4, Duke13_4, Optimus_4, Bagrid_3, Pound_4, ThreeRngTarjay_4, Schatzie_3, Minerva_4, Constella_3, NihilNomen_4, Hughesyang_4, Yeet_3, Phoebus_4, Kalah2_5
- Track 63 : Wanda_5, Klein_5
- Track 64 : Omega_7, LittleE_5
- Track 65 : Porcelain_5, Gonephishing_8, MiaZeal_5, Lucky2013_5, Squint_5
- Track 66 : KashFlow_2
- Track 67 : Hannaconda_2
- Track 68 : Philonius_72
- Track 69 : Ksquared_80, Bunnies_81, Shipwreck_81, Gavriela_77, Necropolis_76, Kari_77, Mangethe_81, Arib1_78, Zilizebeth_83, Jebeks_77, Camster_80, CactusJack_79, Thespis_78, HUHilltop_81, Sonah_81, Glaske_78, Malithi_79, Donovan_78, Fishburne_77, Phegasus_81, Polkaroo_80, Bogie_81, GreaseLightnin_80, Brusacoram_78, Atcoo_78, Bartholomew_77, Pygmy_82, Juniormint_74, Megiddo_78, FirstPlacePfu_82, Langerak_77, Majeke_81, Techage_79, Dynamo_78, StressBall_78, StevieRay_81, Phalm_79, Jung_77, Willsammy_80, Vidya_76, KilKor_79, Venti_79
- Track 70 : Tortellini_75
- Track 71 : Xavia_71
- Track 72 : BigNuz_81, Nazo_82
- Track 73 : ThulaThula_79
- Track 74 : Phayonce_76
- Track 75 : Purky_84
- Track 76 : Daegal_84

- Track 77 : Amymech_83, OBUpride_82, Kinbote_81, Ubuntu_83, Ein37_83, Evanesce_82, Luna22_76, LilHazelNut_83, DeepSoil15_83, Webster2_83, HH92_82, Giles_76, Hadrien_80, Dewey_76, Hail_76, Luke_80, Forge_76, Wishmaker_76
- Track 78 : Amochick_84
- Track 79 : Gravaillia_77
- Track 80 : Gancho_83
- Track 81 : 32HC_79, Rem711_78
- Track 82 : REQ2_82
- Track 83 : Finkle_84
- Track 84 : Whack_76

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

The start number called the most often in the published annotations is 51, it was called in 88 of the 219 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Arib1_78, Ariel_4, Atcoo_78, Azula_86, BAKA_4, Bagrid_3, Bartholomew_77, Beem_4, BigNuz_81, Blino_81, Blueberry_86, Bobby_5, Bogie_81, Brusacoram_78, Bunnies_81, CactusJack_79, Camster_80, CarolAnn_80, Constella_3, Courthouse_5, DmpstrDiver_4, Donovan_78, Dove_3, Duke13_4, Dynamo_78, Ejimix_5, EricMillard_4, FirstPlacePfu_82, Fishburne_77, Frokostdame_84, Gambino_89, Gavriela_77, Glaske_78, Gonephishing_8, GreaseLightnin_80, HUHilltop_81, Halley_4, Hannaconda_2, HokkenD_4, Hughesyang_4, Jebeks_77, JuJu_88, JuicyJay_5, Jung_77, Juniormint_74, Kalah2_5, Kari_77, KashFlow_2, KilKor_79, Klein_5, Ksqared_80, Langerak_77, LittleE_5, Lucky2013_5, Majeke_81, Malithi_79, Mangethe_81, Megiddo_78, MiaZeal_5, Minerva_4, MissRona_86, Nazo_82, Necropolis_76, NihilNomen_4, Omega_7, Optimus_4, Phalm_79, Phegasus_81, Phoebus_4, Polkaroo_80, Porcelain_5, Pound_4, Purky_84, Pygmy_82, REQ2_82, Schatzie_3, Shipwreck_81, Sonah_81, Squint_5, StevieRay_81, StressBall_78, Techage_79, Thespis_78, ThreeRngTarjay_4, Tortellini_75, Venti_79, Vidya_76, Walrus_84, Wanda_5, Whack_76, Willsammy_80, Xavia_71, Yeet_3, Zelink_4, Zilizebeth_83,

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

-

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

- 32HC_79, Adora_77, Amochick_84, Amymech_83, Annalisa_79, ArchiDore_74, Archis_82, Attis_74, Ayotoya_74, BBQValindra_67, BackstagePass_72, Barco_77, BaxterFox_85, Beenie_73, Begonia_78, BetterKatz_74, Bjaner7_72, BlingBling_76, Bock_75, Bowser_67, Brylie_73, Bunker_61, CaptainKirk2_79, Chop_75, Clap_75, Clark_78, Coriander_66, Cynthia_75, Daegal_84, DeepSoil15_83, DelRio_74, Denise_78, Dewey_76, DirtyBoi_68, Dmitri_63, DobbysSock_73, Doggs_64, Dolores_80, Dorito_75, DumpsterDude_70, Easley_77, Ebert_78, EdnaMode_75, Ein37_83, Evanesce_82, Eyes_65, Fairfaxidum_81, Fenry_78, Finkle_84, Forge_76, Francois_74, GEazy_73, Gancho_83, GemG_75, Giles_76, GrandSlam_75, Gravaillia_77, Guacamole_78, HH92_82, Hadrien_80, Hail_76, Haley23_75, Hamood_75, HannahD_70, Hedwig_70, Hortense_80, Howe_80, Invectra_80, Jalammah_82, JasperJr_78, JustASigh_89, Kiko_67, Kinbote_81, Lamberg_71,

LilHazelnut_83, LordFarquaad_76, Luke_80, Luna22_76, Lysidious_83, MagicMan_70, MakCheese_82, Malachai_77, Malibo_75, Matteo_68, Melba_79, Mellie_76, MichaelScott_80, Mocha12_75, Moonflower_65, Mulch_73, Murp_78, Nadeem_73, NancyRae_72, Nettuno_71, OBUpride_82, Obliviate_80, Ohgeesy_85, Opie_73, Oregano_79, PCoral7_80, PantheRoc_87, Parada_73, Phayonce_76, Philonius_72, PhriskyACE_74, PhrostedPhlake_88, Pickett_74, Pimento_76, Powerball_76, PrincePatrick_80, RayTheFireFly_73, Rem711_78, Ruthy_72, Sahara_72, Samba_79, Samman98_79, Savage_75, Schnabeltier_71, Sekhmet_79, Shlim410_78, Sidious_79, SoilAssassin_74, Sproutie_75, Suerte_74, TaronosaurusRx_77, Thimann_80, ThulaThula_79, Toast_81, Twinkle_79, Ubuntu_83, UmaThurman_83, Utz_71, Webster2_83, WheatThin_73, William_83, WinkNick_80, Wishmaker_76, Wisp_79, Wocket_79, Yeezy_87, ZAYM_76, Zarbodnamra_84, ZiggyZoo_80, Zodiariah_71,

Summary by start number:

Start 34:

- Found in 6 of 239 (2.5%) of genes in pham
- Manual Annotations of this start: 1 of 219
- Called 16.7% of time when present
- Phage (with cluster) where this start called: Begonia_78 (CV),

Start 42:

- Found in 1 of 239 (0.4%) of genes in pham
- Manual Annotations of this start: 1 of 219
- Called 100.0% of time when present
- Phage (with cluster) where this start called: JustASigh_89 (AH),

Start 43:

- Found in 22 of 239 (9.2%) of genes in pham
- Manual Annotations of this start: 22 of 219
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Amochick_84 (Q), Amymech_83 (Q), Daegal_84 (Q), DeepSoil15_83 (Q), Dewey_76 (Q), Ein37_83 (Q), Evanesce_82 (Q), Forge_76 (Q), Gancho_83 (Q), Giles_76 (Q), Gravallia_77 (Q), HH92_82 (Q), Hadrien_80 (Q), Hail_76 (Q), Kinbote_81 (Q), LilHazelnut_83 (Q), Luke_80 (Q), Luna22_76 (Q), OBUpride_82 (Q), Ubuntu_83 (Q), Webster2_83 (Q), Wishmaker_76 (Q),

Start 44:

- Found in 2 of 239 (0.8%) of genes in pham
- Manual Annotations of this start: 2 of 219
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Phayonce_76 (P5), ThulaThula_79 (P5),

Start 46:

- Found in 2 of 239 (0.8%) of genes in pham
- Manual Annotations of this start: 1 of 219
- Called 100.0% of time when present
- Phage (with cluster) where this start called: 32HC_79 (Z), Rem711_78 (Z),

Start 47:

- Found in 15 of 239 (6.3%) of genes in pham

- Manual Annotations of this start: 15 of 219
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Ayotoya_74 (DI), BetterKatz_74 (DI), Bock_75 (DI), Brylie_73 (DI), Chop_75 (DI), DelRio_74 (DI), Francois_74 (DI), GrandSlam_75 (DI), Hamood_75 (DI), Mulch_73 (DI), Nadeem_73 (DI), NancyRae_72 (DI), Parada_73 (DI), Pimento_76 (DI), WheatThin_73 (DI),

Start 49:

- Found in 94 of 239 (39.3%) of genes in pham
- Manual Annotations of this start: 84 of 219
- Called 98.9% of time when present
- Phage (with cluster) where this start called: Adora_77 (CZ4), Annalisa_79 (CZ4), Archis_82 (CV), Attis_74 (CZ2), BBQValindra_67 (DB), BackstagePass_72 (DB), Barco_77 (CV), BaxterFox_85 (CZ3), Beenie_73 (CZ4), Bjanest_72 (CZ2), BlingBling_76 (CV), Bowser_67 (DB), Bunker_61 (DB), CaptainKirk2_79 (CV), Clap_75 (CZ2), Clark_78 (CZ4), Coriander_66 (DB), Cynthia_75 (CZ2), Denise_78 (CZ5), DirtyBoi_68 (DB), Dmitri_63 (DB), DobbysSock_73 (CZ4), Doggs_64 (DB), Dolores_80 (CZ4), Dorito_75 (CZ4), Easley_77 (CZ4), Ebert_78 (CZ2), EdnaMode_75 (CZ2), Eyes_65 (DB), Fairfaxidum_81 (CV), Fenry_78 (CV), GEazy_73 (DB), GemG_75 (CZ2), Guacamole_78 (CV), Haley23_75 (CZ2), HannahD_70 (DB), Hedwig_70 (DB), Hortense_80 (CZ4), Howe_80 (CZ4), Invectra_80 (CZ4), Jalammah_82 (CV), JasperJr_78 (CV), Kiko_67 (DB), Lamberg_71 (CZ2), LordFarquaad_76 (CZ2), Lysidious_83 (CV), MagicMan_70 (DB), Malachai_77 (CV), Matteo_68 (CZ2), Melba_79 (CV), Mellie_76 (CV), MichaelScott_80 (CZ4), Mocha12_75 (CZ2), Moonflower_65 (DB), Murp_78 (CV), Nettuno_71 (CZ2), Obliviate_80 (CV), Ohgeesy_85 (CZ), Opie_73 (DB), Oregano_79 (CZ4), PCoral7_80 (CV), PantheRoc_87 (CZ3), PhriskyACE_74 (CZ4), PhrostedPhlake_88 (CV), Pickett_74 (CZ2), Powerball_76 (CZ4), PrincePatrick_80 (CV), RayTheFireFly_73 (DB), Sahara_72 (CZ2), Samba_79 (CV), Samman98_79 (CZ4), Savage_75 (CZ2), Schnabeltier_71 (DB), Sekhmet_79 (CZ4), Shlim410_78 (CZ4), Sidious_79 (CZ7), SoilAssassin_74 (CZ2), Sproutie_75 (CZ2), Suerte_74 (CZ4), TaronosaurusRx_77 (DB), Thimann_80 (CZ4), Toast_81 (CV), Twinkle_79 (CZ4), UmaThurman_83 (CV), Utz_71 (CV), William_83 (CV), WinkNick_80 (CZ4), Wisp_79 (CV), Wocket_79 (CV), Yeezy_87 (CZ3), ZAYM_76 (DB), Zarbodnamra_84 (CV), ZiggyZoo_80 (CV),

Start 50:

- Found in 7 of 239 (2.9%) of genes in pham
- Manual Annotations of this start: 4 of 219
- Called 100.0% of time when present
- Phage (with cluster) where this start called: ArchiDore_74 (DW), DumpsterDude_70 (DW), Finkle_84 (singleton), MakCheese_82 (DW), Malibo_75 (DW), Ruthy_72 (DW), Zodiariah_71 (DW),

Start 51:

- Found in 95 of 239 (39.7%) of genes in pham
- Manual Annotations of this start: 88 of 219
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Arib1_78 (P1), Ariel_4 (J), Atcoo_78 (P1), Azula_86 (CV), BAKA_4 (J), Bagrid_3 (J), Bartholomew_77 (P1), Beem_4 (J), BigNuz_81 (P4), Blino_81 (CV), Blueberry_86 (CV), Bobby_5 (J), Bogie_81 (P1), Brusacoram_78 (P1), Bunnies_81 (P1), CactusJack_79 (P1), Camster_80 (P1), CarolAnn_80 (CV), Constella_3 (J), Courthouse_5 (J), DmpstrDiver_4 (J),

Donovan_78 (P1), Dove_3 (J), Duke13_4 (J), Dynamo_78 (P1), Ejimix_5 (J), EricMillard_4 (J), FirstPlacePfu_82 (P1), Fishburne_77 (P1), Frokostdame_84 (CV), Gambino_89 (CV), Gavriela_77 (P1), Glaske_78 (P1), Gonephishing_8 (J), GreaseLightnin_80 (P1), HUHilltop_81 (P1), Halley_4 (J), Hannaconda_2 (J), HokkenD_4 (J), Hughesyang_4 (J), Jebeks_77 (P1), JuJu_88 (CV), JuicyJay_5 (J), Jung_77 (P1), Juniormint_74 (P1), Kalah2_5 (J), Kari_77 (P1), KashFlow_2 (J), KilKor_79 (P1), Klein_5 (J), Ksquared_80 (P1), Langerak_77 (P1), LittleE_5 (J), Lucky2013_5 (J), Majeke_81 (P1), Malithi_79 (P1), Mangethe_81 (P1), Megiddo_78 (P1), MiaZeal_5 (J), Minerva_4 (J), MissRona_86 (CV), Nazo_82 (P4), Necropolis_76 (P1), NihilNomen_4 (J), Omega_7 (J), Optimus_4 (J), Phalm_79 (P1), Phegasus_81 (P1), Phoebus_4 (J), Polkaroo_80 (P1), Porcelain_5 (J), Pound_4 (J), Purky_84 (P6), Pygmy_82 (P1), REQ2_82 (singleton), Schatzie_3 (J), Shipwreck_81 (P1), Sonah_81 (P1), Squint_5 (J), StevieRay_81 (P1), StressBall_78 (P1), Techage_79 (P1), Thespis_78 (P1), ThreeRngTarjay_4 (J), Tortellini_75 (P2), Venti_79 (P1), Vidya_76 (P1), Walrus_84 (CV), Wanda_5 (J), Whack_76 (singleton), Willsammy_80 (P1), Xavia_71 (P3), Yeet_3 (J), Zelink_4 (J), Zilizebeth_83 (P1),

Start 55:

- Found in 1 of 239 (0.4%) of genes in pham
- Manual Annotations of this start: 1 of 219
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Philonius_72 (N),

Summary by clusters:

There are 22 clusters represented in this pham: singleton, DI, CZ2, CZ3, DB, CZ7, CZ4, CZ5, DW, P2, P3, P1, P6, P4, P5, AH, J, N, Q, CZ, Z, CV,

Info for manual annotations of cluster AH:

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

Info for manual annotations of cluster CV:

- Start number 34 was manually annotated 1 time for cluster CV.
- Start number 49 was manually annotated 26 times for cluster CV.
- Start number 51 was manually annotated 9 times for cluster CV.

Info for manual annotations of cluster CZ:

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

Info for manual annotations of cluster CZ2:

- Start number 49 was manually annotated 18 times 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 19 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 CZ7:

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

Info for manual annotations of cluster DB:

- Start number 49 was manually annotated 15 times for cluster DB.

Info for manual annotations of cluster DI:

- Start number 47 was manually annotated 15 times for cluster DI.

Info for manual annotations of cluster DW:

- Start number 50 was manually annotated 3 times for cluster DW.

Info for manual annotations of cluster J:

- Start number 51 was manually annotated 35 times for cluster J.

Info for manual annotations of cluster N:

- Start number 55 was manually annotated 1 time for cluster N.

Info for manual annotations of cluster P1:

- Start number 51 was manually annotated 38 times for cluster P1.

Info for manual annotations of cluster P2:

- Start number 51 was manually annotated 1 time for cluster P2.

Info for manual annotations of cluster P3:

- Start number 51 was manually annotated 1 time for cluster P3.

Info for manual annotations of cluster P4:

- Start number 51 was manually annotated 2 times for cluster P4.

Info for manual annotations of cluster P5:

- Start number 44 was manually annotated 2 times for cluster P5.

Info for manual annotations of cluster P6:

- Start number 51 was manually annotated 1 time for cluster P6.

Info for manual annotations of cluster Q:

- Start number 43 was manually annotated 22 times for cluster Q.

Info for manual annotations of cluster Z:

- Start number 46 was manually annotated 1 time for cluster Z.

Gene Information:

Gene: 32HC_79 Start: 48021, Stop: 48413, Start Num: 46

Candidate Starts for 32HC_79:

(Start: 46 @48021 has 1 MA's), (48, 48024), (57, 48150), (65, 48231), (75, 48393),

Gene: Adora_77 Start: 51381, Stop: 51737, Start Num: 49

Candidate Starts for Adora_77:

(24, 51159), (Start: 49 @51381 has 84 MA's), (57, 51504),

Gene: Amochick_84 Start: 53002, Stop: 53388, Start Num: 43

Candidate Starts for Amochick_84:
(28, 52816), (Start: 43 @53002 has 22 MA's), (57, 53134),

Gene: Amymech_83 Start: 52603, Stop: 52992, Start Num: 43
Candidate Starts for Amymech_83:
(Start: 43 @52603 has 22 MA's), (57, 52735),

Gene: Annalisa_79 Start: 46848, Stop: 47156, Start Num: 49
Candidate Starts for Annalisa_79:
(9, 46026), (10, 46068), (17, 46530), (20, 46575), (Start: 49 @46848 has 84 MA's), (57, 46971),

Gene: ArchiDore_74 Start: 50880, Stop: 51233, Start Num: 50
Candidate Starts for ArchiDore_74:
(Start: 50 @50880 has 4 MA's), (57, 51000), (78, 51216),

Gene: Archis_82 Start: 48570, Stop: 48932, Start Num: 49
Candidate Starts for Archis_82:
(Start: 49 @48570 has 84 MA's), (57, 48690),

Gene: Arib1_78 Start: 46141, Stop: 46524, Start Num: 51
Candidate Starts for Arib1_78:
(Start: 51 @46141 has 88 MA's), (57, 46258), (82, 46513),

Gene: Ariel_4 Start: 1612, Stop: 1986, Start Num: 51
Candidate Starts for Ariel_4:
(Start: 51 @1612 has 88 MA's), (57, 1729), (60, 1747), (66, 1840), (67, 1861), (68, 1879), (74, 1963),

Gene: Atcoo_78 Start: 48483, Stop: 48866, Start Num: 51
Candidate Starts for Atcoo_78:
(Start: 51 @48483 has 88 MA's), (57, 48600), (82, 48855),

Gene: Attis_74 Start: 47514, Stop: 47822, Start Num: 49
Candidate Starts for Attis_74:
(Start: 49 @47514 has 84 MA's), (57, 47637),

Gene: Ayotoya_74 Start: 50124, Stop: 50486, Start Num: 47
Candidate Starts for Ayotoya_74:
(Start: 47 @50124 has 15 MA's), (57, 50247), (76, 50460), (78, 50469),

Gene: Azula_86 Start: 53170, Stop: 53538, Start Num: 51
Candidate Starts for Azula_86:
(Start: 51 @53170 has 88 MA's), (57, 53287),

Gene: BAKA_4 Start: 1934, Stop: 2308, Start Num: 51
Candidate Starts for BAKA_4:
(Start: 51 @1934 has 88 MA's), (57, 2051), (60, 2069), (62, 2120), (68, 2201), (69, 2219), (74, 2285),

Gene: BBQValindra_67 Start: 46445, Stop: 46783, Start Num: 49
Candidate Starts for BBQValindra_67:
(Start: 49 @46445 has 84 MA's), (57, 46559), (59, 46574), (78, 46766),

Gene: BackstagePass_72 Start: 45793, Stop: 46131, Start Num: 49
Candidate Starts for BackstagePass_72:

(Start: 49 @45793 has 84 MA's), (57, 45907), (59, 45922), (78, 46114),

Gene: Bagrid_3 Start: 1116, Stop: 1490, Start Num: 51

Candidate Starts for Bagrid_3:

(Start: 51 @1116 has 88 MA's), (57, 1233), (60, 1251), (62, 1302), (68, 1383), (69, 1401), (74, 1467),

Gene: Barco_77 Start: 48475, Stop: 48837, Start Num: 49

Candidate Starts for Barco_77:

(25, 48286), (31, 48346), (35, 48400), (Start: 49 @48475 has 84 MA's), (57, 48595),

Gene: Bartholomew_77 Start: 45893, Stop: 46276, Start Num: 51

Candidate Starts for Bartholomew_77:

(Start: 51 @45893 has 88 MA's), (57, 46010), (82, 46265),

Gene: BaxterFox_85 Start: 53261, Stop: 53617, Start Num: 49

Candidate Starts for BaxterFox_85:

(Start: 49 @53261 has 84 MA's), (57, 53384),

Gene: Beem_4 Start: 1577, Stop: 1951, Start Num: 51

Candidate Starts for Beem_4:

(Start: 51 @1577 has 88 MA's), (57, 1694), (60, 1712), (62, 1763), (66, 1805), (67, 1826), (68, 1844), (74, 1928),

Gene: Beenie_73 Start: 47518, Stop: 47826, Start Num: 49

Candidate Starts for Beenie_73:

(Start: 49 @47518 has 84 MA's), (57, 47641),

Gene: Begonia_78 Start: 50356, Stop: 50799, Start Num: 34

Candidate Starts for Begonia_78:

(27, 50254), (Start: 34 @50356 has 1 MA's), (35, 50359), (Start: 49 @50437 has 84 MA's), (57, 50557),

Gene: BetterKatz_74 Start: 49906, Stop: 50268, Start Num: 47

Candidate Starts for BetterKatz_74:

(Start: 47 @49906 has 15 MA's), (57, 50029), (76, 50242), (78, 50251),

Gene: BigNuz_81 Start: 48028, Stop: 48417, Start Num: 51

Candidate Starts for BigNuz_81:

(Start: 51 @48028 has 88 MA's), (57, 48145), (71, 48304), (82, 48406),

Gene: Bjaner7_72 Start: 45675, Stop: 45983, Start Num: 49

Candidate Starts for Bjaner7_72:

(Start: 49 @45675 has 84 MA's), (57, 45798),

Gene: BlingBling_76 Start: 48316, Stop: 48678, Start Num: 49

Candidate Starts for BlingBling_76:

(32, 48214), (Start: 49 @48316 has 84 MA's), (57, 48436),

Gene: Blino_81 Start: 53716, Stop: 54084, Start Num: 51

Candidate Starts for Blino_81:

(Start: 34 @53626 has 1 MA's), (35, 53629), (Start: 51 @53716 has 88 MA's), (57, 53833),

Gene: Blueberry_86 Start: 54538, Stop: 54906, Start Num: 51

Candidate Starts for Blueberry_86:

(Start: 51 @54538 has 88 MA's), (57, 54655),

Gene: Bobby_5 Start: 2312, Stop: 2686, Start Num: 51

Candidate Starts for Bobby_5:

(Start: 51 @2312 has 88 MA's), (57, 2429), (60, 2447), (62, 2498), (66, 2540), (67, 2561), (68, 2579), (74, 2663),

Gene: Bock_75 Start: 49490, Stop: 49852, Start Num: 47

Candidate Starts for Bock_75:

(Start: 47 @49490 has 15 MA's), (57, 49613), (76, 49826), (78, 49835),

Gene: Bogie_81 Start: 48048, Stop: 48431, Start Num: 51

Candidate Starts for Bogie_81:

(Start: 51 @48048 has 88 MA's), (57, 48165), (82, 48420),

Gene: Bowser_67 Start: 46139, Stop: 46477, Start Num: 49

Candidate Starts for Bowser_67:

(Start: 49 @46139 has 84 MA's), (57, 46253), (59, 46268), (64, 46310), (78, 46460),

Gene: Brusacoram_78 Start: 47026, Stop: 47409, Start Num: 51

Candidate Starts for Brusacoram_78:

(Start: 51 @47026 has 88 MA's), (57, 47143), (82, 47398),

Gene: Brylie_73 Start: 49140, Stop: 49502, Start Num: 47

Candidate Starts for Brylie_73:

(Start: 47 @49140 has 15 MA's), (57, 49263), (76, 49476), (78, 49485),

Gene: Bunker_61 Start: 45078, Stop: 45416, Start Num: 49

Candidate Starts for Bunker_61:

(Start: 49 @45078 has 84 MA's), (57, 45192), (59, 45207), (78, 45399),

Gene: Bunnies_81 Start: 48231, Stop: 48614, Start Num: 51

Candidate Starts for Bunnies_81:

(Start: 51 @48231 has 88 MA's), (57, 48348), (82, 48603),

Gene: CactusJack_79 Start: 47630, Stop: 48013, Start Num: 51

Candidate Starts for CactusJack_79:

(Start: 51 @47630 has 88 MA's), (57, 47747), (82, 48002),

Gene: Camster_80 Start: 46558, Stop: 46941, Start Num: 51

Candidate Starts for Camster_80:

(Start: 51 @46558 has 88 MA's), (57, 46675), (82, 46930),

Gene: CaptainKirk2_79 Start: 47468, Stop: 47830, Start Num: 49

Candidate Starts for CaptainKirk2_79:

(22, 47237), (26, 47282), (32, 47366), (Start: 49 @47468 has 84 MA's), (57, 47588),

Gene: CarolAnn_80 Start: 53715, Stop: 54083, Start Num: 51

Candidate Starts for CarolAnn_80:

(Start: 34 @53625 has 1 MA's), (35, 53628), (Start: 51 @53715 has 88 MA's), (57, 53832),

Gene: Chop_75 Start: 50189, Stop: 50551, Start Num: 47

Candidate Starts for Chop_75:

(Start: 47 @50189 has 15 MA's), (57, 50312), (76, 50525), (78, 50534),

Gene: Clap_75 Start: 45854, Stop: 46162, Start Num: 49

Candidate Starts for Clap_75:

(Start: 49 @45854 has 84 MA's), (57, 45977),

Gene: Clark_78 Start: 47281, Stop: 47589, Start Num: 49

Candidate Starts for Clark_78:

(Start: 49 @47281 has 84 MA's), (57, 47404),

Gene: Constella_3 Start: 1115, Stop: 1489, Start Num: 51

Candidate Starts for Constella_3:

(Start: 51 @1115 has 88 MA's), (57, 1232), (60, 1250), (62, 1301), (68, 1382), (69, 1400), (74, 1466),

Gene: Coriander_66 Start: 43793, Stop: 44143, Start Num: 49

Candidate Starts for Coriander_66:

(29, 43616), (31, 43646), (Start: 49 @43793 has 84 MA's), (57, 43916), (61, 43934), (78, 44126),

Gene: Courthouse_5 Start: 2411, Stop: 2785, Start Num: 51

Candidate Starts for Courthouse_5:

(Start: 51 @2411 has 88 MA's), (57, 2528), (60, 2546), (66, 2639), (67, 2660), (68, 2678), (74, 2762),

Gene: Cynthia_75 Start: 45852, Stop: 46160, Start Num: 49

Candidate Starts for Cynthia_75:

(Start: 49 @45852 has 84 MA's), (57, 45975),

Gene: Daegal_84 Start: 53717, Stop: 54103, Start Num: 43

Candidate Starts for Daegal_84:

(Start: 43 @53717 has 22 MA's), (57, 53849),

Gene: DeepSoil15_83 Start: 52603, Stop: 52992, Start Num: 43

Candidate Starts for DeepSoil15_83:

(Start: 43 @52603 has 22 MA's), (57, 52735),

Gene: DelRio_74 Start: 50231, Stop: 50593, Start Num: 47

Candidate Starts for DelRio_74:

(Start: 47 @50231 has 15 MA's), (57, 50354), (76, 50567), (78, 50576),

Gene: Denise_78 Start: 44676, Stop: 44984, Start Num: 49

Candidate Starts for Denise_78:

(Start: 49 @44676 has 84 MA's), (57, 44799),

Gene: Dewey_76 Start: 52603, Stop: 52992, Start Num: 43

Candidate Starts for Dewey_76:

(Start: 43 @52603 has 22 MA's), (57, 52735),

Gene: DirtyBoi_68 Start: 43434, Stop: 43784, Start Num: 49

Candidate Starts for DirtyBoi_68:

(Start: 49 @43434 has 84 MA's), (57, 43557), (61, 43575), (78, 43767),

Gene: Dmitri_63 Start: 45337, Stop: 45687, Start Num: 49

Candidate Starts for Dmitri_63:

(Start: 49 @45337 has 84 MA's), (57, 45460), (61, 45478), (78, 45670),

Gene: DmpstrDiver_4 Start: 1862, Stop: 2236, Start Num: 51

Candidate Starts for DmpstrDiver_4:

(Start: 51 @1862 has 88 MA's), (57, 1979), (60, 1997), (62, 2048), (68, 2129), (69, 2147), (74, 2213),

Gene: DobbysSock_73 Start: 47763, Stop: 48071, Start Num: 49

Candidate Starts for DobbysSock_73:

(1, 46299), (2, 46383), (3, 46671), (4, 46707), (5, 46719), (6, 46755), (7, 46791), (8, 46845), (9, 46941), (10, 46983), (17, 47445), (20, 47490), (Start: 49 @47763 has 84 MA's), (57, 47886),

Gene: Doggs_64 Start: 44986, Stop: 45336, Start Num: 49

Candidate Starts for Doggs_64:

(29, 44809), (31, 44839), (Start: 49 @44986 has 84 MA's), (57, 45109), (58, 45115), (61, 45127), (78, 45319),

Gene: Dolores_80 Start: 46901, Stop: 47209, Start Num: 49

Candidate Starts for Dolores_80:

(9, 46079), (10, 46121), (17, 46583), (20, 46628), (Start: 49 @46901 has 84 MA's), (57, 47024),

Gene: Donovan_78 Start: 46571, Stop: 46954, Start Num: 51

Candidate Starts for Donovan_78:

(Start: 51 @46571 has 88 MA's), (57, 46688), (82, 46943),

Gene: Dorito_75 Start: 46349, Stop: 46657, Start Num: 49

Candidate Starts for Dorito_75:

(36, 46286), (Start: 49 @46349 has 84 MA's), (57, 46472),

Gene: Dove_3 Start: 1115, Stop: 1489, Start Num: 51

Candidate Starts for Dove_3:

(Start: 51 @1115 has 88 MA's), (57, 1232), (60, 1250), (62, 1301), (68, 1382), (69, 1400), (74, 1466),

Gene: Duke13_4 Start: 1862, Stop: 2236, Start Num: 51

Candidate Starts for Duke13_4:

(Start: 51 @1862 has 88 MA's), (57, 1979), (60, 1997), (62, 2048), (68, 2129), (69, 2147), (74, 2213),

Gene: DumpsterDude_70 Start: 51346, Stop: 51699, Start Num: 50

Candidate Starts for DumpsterDude_70:

(Start: 50 @51346 has 4 MA's), (57, 51466), (78, 51682),

Gene: Dynamo_78 Start: 46082, Stop: 46465, Start Num: 51

Candidate Starts for Dynamo_78:

(Start: 51 @46082 has 88 MA's), (57, 46199), (82, 46454),

Gene: Easley_77 Start: 46282, Stop: 46590, Start Num: 49

Candidate Starts for Easley_77:

(Start: 49 @46282 has 84 MA's), (57, 46405),

Gene: Ebert_78 Start: 46286, Stop: 46594, Start Num: 49

Candidate Starts for Ebert_78:

(Start: 49 @46286 has 84 MA's), (57, 46409),

Gene: EdnaMode_75 Start: 46208, Stop: 46516, Start Num: 49

Candidate Starts for EdnaMode_75:

(Start: 49 @46208 has 84 MA's), (57, 46331),

Gene: Ein37_83 Start: 52603, Stop: 52992, Start Num: 43

Candidate Starts for Ein37_83:

(Start: 43 @52603 has 22 MA's), (57, 52735),

Gene: Ejimix_5 Start: 2327, Stop: 2701, Start Num: 51

Candidate Starts for Ejimix_5:

(Start: 51 @2327 has 88 MA's), (57, 2444), (60, 2462), (62, 2513), (66, 2555), (67, 2576), (68, 2594), (74, 2678),

Gene: EricMillard_4 Start: 1862, Stop: 2236, Start Num: 51

Candidate Starts for EricMillard_4:

(Start: 51 @1862 has 88 MA's), (57, 1979), (60, 1997), (62, 2048), (68, 2129), (69, 2147), (74, 2213),

Gene: Evanesce_82 Start: 52603, Stop: 52992, Start Num: 43

Candidate Starts for Evanesce_82:

(Start: 43 @52603 has 22 MA's), (57, 52735),

Gene: Eyes_65 Start: 46342, Stop: 46680, Start Num: 49

Candidate Starts for Eyes_65:

(Start: 49 @46342 has 84 MA's), (57, 46456), (59, 46471), (78, 46663),

Gene: Fairfaxidum_81 Start: 49748, Stop: 50098, Start Num: 49

Candidate Starts for Fairfaxidum_81:

(Start: 49 @49748 has 84 MA's), (57, 49868),

Gene: Fenry_78 Start: 49536, Stop: 49898, Start Num: 49

Candidate Starts for Fenry_78:

(Start: 49 @49536 has 84 MA's), (57, 49656),

Gene: Finkle_84 Start: 47378, Stop: 47758, Start Num: 50

Candidate Starts for Finkle_84:

(Start: 50 @47378 has 4 MA's), (54, 47447), (57, 47513), (81, 47738),

Gene: FirstPlacePfu_82 Start: 45089, Stop: 45472, Start Num: 51

Candidate Starts for FirstPlacePfu_82:

(Start: 51 @45089 has 88 MA's), (57, 45206), (82, 45461),

Gene: Fishburne_77 Start: 46518, Stop: 46901, Start Num: 51

Candidate Starts for Fishburne_77:

(Start: 51 @46518 has 88 MA's), (57, 46635), (82, 46890),

Gene: Forge_76 Start: 52603, Stop: 52992, Start Num: 43

Candidate Starts for Forge_76:

(Start: 43 @52603 has 22 MA's), (57, 52735),

Gene: Francois_74 Start: 49804, Stop: 50169, Start Num: 47

Candidate Starts for Francois_74:

(Start: 47 @49804 has 15 MA's), (57, 49927), (78, 50152),

Gene: Frokostdame_84 Start: 52079, Stop: 52447, Start Num: 51

Candidate Starts for Frokostdame_84:

(Start: 51 @52079 has 88 MA's), (57, 52196),

Gene: GEazy_73 Start: 46298, Stop: 46636, Start Num: 49

Candidate Starts for GEazy_73:

(Start: 49 @46298 has 84 MA's), (57, 46412), (59, 46427), (78, 46619),

Gene: Gambino_89 Start: 53170, Stop: 53538, Start Num: 51

Candidate Starts for Gambino_89:

(Start: 51 @53170 has 88 MA's), (57, 53287),

Gene: Gancho_83 Start: 52980, Stop: 53369, Start Num: 43

Candidate Starts for Gancho_83:

(Start: 43 @52980 has 22 MA's), (57, 53112),

Gene: Gavriela_77 Start: 47324, Stop: 47707, Start Num: 51

Candidate Starts for Gavriela_77:

(Start: 51 @47324 has 88 MA's), (57, 47441), (82, 47696),

Gene: GemG_75 Start: 45858, Stop: 46166, Start Num: 49

Candidate Starts for GemG_75:

(Start: 49 @45858 has 84 MA's), (57, 45981),

Gene: Giles_76 Start: 52603, Stop: 52992, Start Num: 43

Candidate Starts for Giles_76:

(Start: 43 @52603 has 22 MA's), (57, 52735),

Gene: Glaske_78 Start: 47630, Stop: 48013, Start Num: 51

Candidate Starts for Glaske_78:

(Start: 51 @47630 has 88 MA's), (57, 47747), (82, 48002),

Gene: Gonephishing_8 Start: 3463, Stop: 3834, Start Num: 51

Candidate Starts for Gonephishing_8:

(Start: 51 @3463 has 88 MA's), (57, 3577), (59, 3592), (60, 3595), (66, 3688), (67, 3709), (68, 3727), (74, 3811),

Gene: GrandSlam_75 Start: 50189, Stop: 50551, Start Num: 47

Candidate Starts for GrandSlam_75:

(Start: 47 @50189 has 15 MA's), (57, 50312), (76, 50525), (78, 50534),

Gene: Gravaillia_77 Start: 52782, Stop: 53168, Start Num: 43

Candidate Starts for Gravaillia_77:

(32, 52671), (Start: 43 @52782 has 22 MA's), (57, 52914),

Gene: GreaseLightnin_80 Start: 47833, Stop: 48216, Start Num: 51

Candidate Starts for GreaseLightnin_80:

(Start: 51 @47833 has 88 MA's), (57, 47950), (82, 48205),

Gene: Guacamole_78 Start: 49464, Stop: 49826, Start Num: 49

Candidate Starts for Guacamole_78:

(Start: 49 @49464 has 84 MA's), (57, 49584),

Gene: HH92_82 Start: 52603, Stop: 52992, Start Num: 43

Candidate Starts for HH92_82:

(Start: 43 @52603 has 22 MA's), (57, 52735),

Gene: HUHilltop_81 Start: 46305, Stop: 46688, Start Num: 51

Candidate Starts for HUHilltop_81:

(Start: 51 @46305 has 88 MA's), (57, 46422), (82, 46677),

Gene: Hadrien_80 Start: 52603, Stop: 52992, Start Num: 43

Candidate Starts for Hadrien_80:

(Start: 43 @52603 has 22 MA's), (57, 52735),

Gene: Hail_76 Start: 52603, Stop: 52992, Start Num: 43

Candidate Starts for Hail_76:

(Start: 43 @52603 has 22 MA's), (57, 52735),

Gene: Haley23_75 Start: 45854, Stop: 46162, Start Num: 49

Candidate Starts for Haley23_75:

(Start: 49 @45854 has 84 MA's), (57, 45977),

Gene: Halley_4 Start: 1577, Stop: 1951, Start Num: 51

Candidate Starts for Halley_4:

(Start: 51 @1577 has 88 MA's), (57, 1694), (60, 1712), (62, 1763), (66, 1805), (67, 1826), (68, 1844), (74, 1928),

Gene: Hamood_75 Start: 50189, Stop: 50551, Start Num: 47

Candidate Starts for Hamood_75:

(Start: 47 @50189 has 15 MA's), (57, 50312), (76, 50525), (78, 50534),

Gene: Hannaconda_2 Start: 1094, Stop: 1465, Start Num: 51

Candidate Starts for Hannaconda_2:

(40, 1052), (Start: 51 @1094 has 88 MA's), (57, 1208), (59, 1223), (60, 1226), (66, 1319), (67, 1340), (68, 1358), (74, 1442),

Gene: HannahD_70 Start: 45665, Stop: 46003, Start Num: 49

Candidate Starts for HannahD_70:

(Start: 49 @45665 has 84 MA's), (57, 45779), (59, 45794), (78, 45986),

Gene: Hedwig_70 Start: 44137, Stop: 44487, Start Num: 49

Candidate Starts for Hedwig_70:

(31, 43990), (Start: 49 @44137 has 84 MA's), (57, 44260), (58, 44266), (61, 44278), (78, 44470),

Gene: HokkenD_4 Start: 1865, Stop: 2239, Start Num: 51

Candidate Starts for HokkenD_4:

(Start: 51 @1865 has 88 MA's), (57, 1982), (60, 2000), (62, 2051), (68, 2132), (69, 2150), (74, 2216),

Gene: Hortense_80 Start: 52736, Stop: 53092, Start Num: 49

Candidate Starts for Hortense_80:

(24, 52514), (Start: 49 @52736 has 84 MA's), (57, 52859),

Gene: Howe_80 Start: 52736, Stop: 53092, Start Num: 49

Candidate Starts for Howe_80:

(24, 52514), (Start: 49 @52736 has 84 MA's), (57, 52859),

Gene: Hughesyang_4 Start: 1862, Stop: 2236, Start Num: 51

Candidate Starts for Hughesyang_4:

(Start: 51 @1862 has 88 MA's), (57, 1979), (60, 1997), (62, 2048), (68, 2129), (69, 2147), (74, 2213),

Gene: Invecetra_80 Start: 48583, Stop: 48891, Start Num: 49

Candidate Starts for Invecetra_80:

(20, 48310), (Start: 49 @48583 has 84 MA's), (57, 48706),

Gene: Jalammah_82 Start: 51123, Stop: 51485, Start Num: 49

Candidate Starts for Jalammah_82:

(Start: 49 @51123 has 84 MA's), (57, 51243),

Gene: JasperJr_78 Start: 49464, Stop: 49826, Start Num: 49

Candidate Starts for JasperJr_78:

(Start: 49 @49464 has 84 MA's), (57, 49584),

Gene: Jebeks_77 Start: 44989, Stop: 45372, Start Num: 51

Candidate Starts for Jebeks_77:

(Start: 51 @44989 has 88 MA's), (57, 45106), (82, 45361),

Gene: JuJu_88 Start: 53549, Stop: 53917, Start Num: 51

Candidate Starts for JuJu_88:

(Start: 51 @53549 has 88 MA's), (57, 53666), (77, 53900),

Gene: JuicyJay_5 Start: 2410, Stop: 2784, Start Num: 51

Candidate Starts for JuicyJay_5:

(Start: 51 @2410 has 88 MA's), (57, 2527), (60, 2545), (66, 2638), (67, 2659), (68, 2677), (74, 2761),

Gene: Jung_77 Start: 45968, Stop: 46351, Start Num: 51

Candidate Starts for Jung_77:

(Start: 51 @45968 has 88 MA's), (57, 46085), (82, 46340),

Gene: Juniormint_74 Start: 44984, Stop: 45367, Start Num: 51

Candidate Starts for Juniormint_74:

(Start: 51 @44984 has 88 MA's), (57, 45101), (82, 45356),

Gene: JustASigh_89 Start: 52239, Stop: 52625, Start Num: 42

Candidate Starts for JustASigh_89:

(Start: 42 @52239 has 1 MA's), (57, 52371),

Gene: Kalah2_5 Start: 2406, Stop: 2780, Start Num: 51

Candidate Starts for Kalah2_5:

(Start: 51 @2406 has 88 MA's), (57, 2523), (60, 2541), (62, 2592), (68, 2673), (69, 2691), (74, 2757),

Gene: Kari_77 Start: 46932, Stop: 47315, Start Num: 51

Candidate Starts for Kari_77:

(Start: 51 @46932 has 88 MA's), (57, 47049), (82, 47304),

Gene: KashFlow_2 Start: 1184, Stop: 1552, Start Num: 51

Candidate Starts for KashFlow_2:

(41, 1175), (Start: 51 @1184 has 88 MA's), (53, 1241), (57, 1301), (59, 1316), (66, 1406), (67, 1427), (68, 1445), (74, 1529),

Gene: Kiko_67 Start: 43864, Stop: 44214, Start Num: 49

Candidate Starts for Kiko_67:

(Start: 49 @43864 has 84 MA's), (52, 43876), (57, 43987), (63, 44026), (64, 44044), (72, 44143), (77, 44194), (78, 44197),

Gene: KilKor_79 Start: 48323, Stop: 48706, Start Num: 51

Candidate Starts for KilKor_79:

(Start: 51 @48323 has 88 MA's), (57, 48440), (82, 48695),

Gene: Kinbote_81 Start: 52603, Stop: 52992, Start Num: 43

Candidate Starts for Kinbote_81:

(Start: 43 @52603 has 22 MA's), (57, 52735),

Gene: Klein_5 Start: 2410, Stop: 2778, Start Num: 51

Candidate Starts for Klein_5:

(Start: 51 @2410 has 88 MA's), (57, 2527), (59, 2542), (66, 2632), (67, 2653), (68, 2671), (74, 2755),

Gene: Ksquared_80 Start: 48108, Stop: 48491, Start Num: 51

Candidate Starts for Ksquared_80:

(Start: 51 @48108 has 88 MA's), (57, 48225), (82, 48480),

Gene: Lamberg_71 Start: 44363, Stop: 44671, Start Num: 49

Candidate Starts for Lamberg_71:

(Start: 49 @44363 has 84 MA's), (57, 44486),

Gene: Langerak_77 Start: 46496, Stop: 46879, Start Num: 51

Candidate Starts for Langerak_77:

(Start: 51 @46496 has 88 MA's), (57, 46613), (82, 46868),

Gene: LilHazelnut_83 Start: 52603, Stop: 52992, Start Num: 43

Candidate Starts for LilHazelnut_83:

(Start: 43 @52603 has 22 MA's), (57, 52735),

Gene: LittleE_5 Start: 1974, Stop: 2345, Start Num: 51

Candidate Starts for LittleE_5:

(Start: 51 @1974 has 88 MA's), (57, 2088), (59, 2103), (60, 2106), (66, 2199), (67, 2220), (68, 2238), (70, 2286), (74, 2322),

Gene: LordFarquaad_76 Start: 47496, Stop: 47804, Start Num: 49

Candidate Starts for LordFarquaad_76:

(Start: 49 @47496 has 84 MA's), (57, 47619),

Gene: Lucky2013_5 Start: 2039, Stop: 2410, Start Num: 51

Candidate Starts for Lucky2013_5:

(Start: 51 @2039 has 88 MA's), (57, 2153), (59, 2168), (60, 2171), (66, 2264), (67, 2285), (68, 2303), (74, 2387),

Gene: Luke_80 Start: 52558, Stop: 52947, Start Num: 43

Candidate Starts for Luke_80:

(Start: 43 @52558 has 22 MA's), (57, 52690),

Gene: Luna22_76 Start: 52587, Stop: 52976, Start Num: 43

Candidate Starts for Luna22_76:

(Start: 43 @52587 has 22 MA's), (57, 52719),

Gene: Lysidious_83 Start: 50525, Stop: 50887, Start Num: 49

Candidate Starts for Lysidious_83:

(32, 50423), (Start: 49 @50525 has 84 MA's), (57, 50645),

Gene: MagicMan_70 Start: 47168, Stop: 47506, Start Num: 49

Candidate Starts for MagicMan_70:

(Start: 49 @47168 has 84 MA's), (57, 47282), (59, 47297), (78, 47489),

Gene: Majeke_81 Start: 47020, Stop: 47403, Start Num: 51

Candidate Starts for Majeke_81:

(Start: 51 @47020 has 88 MA's), (57, 47137), (82, 47392),

Gene: MakCheese_82 Start: 50597, Stop: 50950, Start Num: 50

Candidate Starts for MakCheese_82:

(39, 50549), (Start: 50 @50597 has 4 MA's), (57, 50717), (73, 50894), (77, 50930), (78, 50933),

Gene: Malachai_77 Start: 50437, Stop: 50799, Start Num: 49

Candidate Starts for Malachai_77:

(27, 50254), (Start: 34 @50356 has 1 MA's), (35, 50359), (Start: 49 @50437 has 84 MA's), (57, 50557),

Gene: Malibo_75 Start: 49012, Stop: 49365, Start Num: 50

Candidate Starts for Malibo_75:

(Start: 50 @49012 has 4 MA's), (57, 49132), (78, 49348),

Gene: Malithi_79 Start: 46278, Stop: 46661, Start Num: 51

Candidate Starts for Malithi_79:

(Start: 51 @46278 has 88 MA's), (57, 46395), (82, 46650),

Gene: Mangethe_81 Start: 47020, Stop: 47403, Start Num: 51

Candidate Starts for Mangethe_81:

(Start: 51 @47020 has 88 MA's), (57, 47137), (82, 47392),

Gene: Matteo_68 Start: 43712, Stop: 44020, Start Num: 49

Candidate Starts for Matteo_68:

(Start: 49 @43712 has 84 MA's), (57, 43835),

Gene: Megiddo_78 Start: 48191, Stop: 48574, Start Num: 51

Candidate Starts for Megiddo_78:

(Start: 51 @48191 has 88 MA's), (57, 48308), (82, 48563),

Gene: Melba_79 Start: 47920, Stop: 48282, Start Num: 49

Candidate Starts for Melba_79:

(27, 47734), (Start: 49 @47920 has 84 MA's), (57, 48040),

Gene: Mellie_76 Start: 47585, Stop: 47947, Start Num: 49

Candidate Starts for Mellie_76:

(25, 47396), (31, 47456), (Start: 34 @47507 has 1 MA's), (35, 47510), (Start: 49 @47585 has 84 MA's), (57, 47705),

Gene: MiaZeal_5 Start: 2108, Stop: 2479, Start Num: 51

Candidate Starts for MiaZeal_5:

(Start: 51 @2108 has 88 MA's), (57, 2222), (59, 2237), (60, 2240), (66, 2333), (67, 2354), (68, 2372), (74, 2456),

Gene: MichaelScott_80 Start: 47962, Stop: 48270, Start Num: 49
Candidate Starts for MichaelScott_80:
(Start: 49 @47962 has 84 MA's), (57, 48085),

Gene: Minerva_4 Start: 1866, Stop: 2240, Start Num: 51
Candidate Starts for Minerva_4:
(Start: 51 @1866 has 88 MA's), (57, 1983), (60, 2001), (62, 2052), (68, 2133), (69, 2151), (74, 2217),

Gene: MissRona_86 Start: 53171, Stop: 53539, Start Num: 51
Candidate Starts for MissRona_86:
(Start: 51 @53171 has 88 MA's), (57, 53288),

Gene: Mocha12_75 Start: 45854, Stop: 46162, Start Num: 49
Candidate Starts for Mocha12_75:
(Start: 49 @45854 has 84 MA's), (57, 45977),

Gene: Moonflower_65 Start: 44889, Stop: 45239, Start Num: 49
Candidate Starts for Moonflower_65:
(29, 44712), (31, 44742), (Start: 49 @44889 has 84 MA's), (57, 45012), (61, 45030), (78, 45222),

Gene: Mulch_73 Start: 49179, Stop: 49541, Start Num: 47
Candidate Starts for Mulch_73:
(Start: 47 @49179 has 15 MA's), (57, 49302), (76, 49515), (78, 49524),

Gene: Murp_78 Start: 51067, Stop: 51432, Start Num: 49
Candidate Starts for Murp_78:
(Start: 49 @51067 has 84 MA's), (57, 51187),

Gene: Nadeem_73 Start: 49167, Stop: 49529, Start Num: 47
Candidate Starts for Nadeem_73:
(Start: 47 @49167 has 15 MA's), (57, 49290), (76, 49503), (78, 49512),

Gene: NancyRae_72 Start: 49045, Stop: 49407, Start Num: 47
Candidate Starts for NancyRae_72:
(Start: 47 @49045 has 15 MA's), (57, 49168), (76, 49381), (78, 49390),

Gene: Nazo_82 Start: 47914, Stop: 48303, Start Num: 51
Candidate Starts for Nazo_82:
(Start: 51 @47914 has 88 MA's), (57, 48031), (71, 48190), (82, 48292),

Gene: Necropolis_76 Start: 45672, Stop: 46055, Start Num: 51
Candidate Starts for Necropolis_76:
(Start: 51 @45672 has 88 MA's), (57, 45789), (82, 46044),

Gene: Nettuno_71 Start: 44161, Stop: 44469, Start Num: 49
Candidate Starts for Nettuno_71:
(Start: 49 @44161 has 84 MA's), (57, 44284),

Gene: NihilNomen_4 Start: 1866, Stop: 2240, Start Num: 51
Candidate Starts for NihilNomen_4:

(Start: 51 @1866 has 88 MA's), (57, 1983), (60, 2001), (62, 2052), (68, 2133), (69, 2151), (74, 2217),

Gene: OBUpride_82 Start: 52647, Stop: 53036, Start Num: 43

Candidate Starts for OBUpride_82:

(Start: 43 @52647 has 22 MA's), (57, 52779),

Gene: Obliviate_80 Start: 48856, Stop: 49218, Start Num: 49

Candidate Starts for Obliviate_80:

(27, 48673), (32, 48754), (Start: 49 @48856 has 84 MA's), (57, 48976),

Gene: Ohgeesy_85 Start: 53016, Stop: 53372, Start Num: 49

Candidate Starts for Ohgeesy_85:

(37, 52962), (38, 52965), (Start: 49 @53016 has 84 MA's), (57, 53139),

Gene: Omega_7 Start: 3319, Stop: 3690, Start Num: 51

Candidate Starts for Omega_7:

(Start: 51 @3319 has 88 MA's), (57, 3433), (59, 3448), (60, 3451), (66, 3544), (67, 3565), (68, 3583), (70, 3631), (74, 3667),

Gene: Opie_73 Start: 47283, Stop: 47621, Start Num: 49

Candidate Starts for Opie_73:

(Start: 49 @47283 has 84 MA's), (57, 47397), (59, 47412), (78, 47604),

Gene: Optimus_4 Start: 1862, Stop: 2236, Start Num: 51

Candidate Starts for Optimus_4:

(Start: 51 @1862 has 88 MA's), (57, 1979), (60, 1997), (62, 2048), (68, 2129), (69, 2147), (74, 2213),

Gene: Oregano_79 Start: 47140, Stop: 47448, Start Num: 49

Candidate Starts for Oregano_79:

(9, 46318), (10, 46360), (17, 46822), (20, 46867), (Start: 49 @47140 has 84 MA's), (57, 47263),

Gene: PCoral7_80 Start: 49167, Stop: 49517, Start Num: 49

Candidate Starts for PCoral7_80:

(Start: 49 @49167 has 84 MA's), (57, 49287),

Gene: PantheRoc_87 Start: 53085, Stop: 53441, Start Num: 49

Candidate Starts for PantheRoc_87:

(Start: 49 @53085 has 84 MA's), (57, 53208),

Gene: Parada_73 Start: 49179, Stop: 49541, Start Num: 47

Candidate Starts for Parada_73:

(Start: 47 @49179 has 15 MA's), (57, 49302), (76, 49515), (78, 49524),

Gene: Phalm_79 Start: 47621, Stop: 48004, Start Num: 51

Candidate Starts for Phalm_79:

(Start: 51 @47621 has 88 MA's), (57, 47738), (82, 47993),

Gene: Phayonce_76 Start: 48244, Stop: 48636, Start Num: 44

Candidate Starts for Phayonce_76:

(Start: 44 @48244 has 2 MA's), (57, 48370), (82, 48625),

Gene: Phegasus_81 Start: 46987, Stop: 47370, Start Num: 51

Candidate Starts for Phegasus_81:

(Start: 51 @46987 has 88 MA's), (57, 47104), (82, 47359),

Gene: Philonius_72 Start: 43400, Stop: 43699, Start Num: 55

Candidate Starts for Philonius_72:

(Start: 55 @43400 has 1 MA's),

Gene: Phoebus_4 Start: 1862, Stop: 2236, Start Num: 51

Candidate Starts for Phoebus_4:

(Start: 51 @1862 has 88 MA's), (57, 1979), (60, 1997), (62, 2048), (68, 2129), (69, 2147), (74, 2213),

Gene: PhriskyACE_74 Start: 46797, Stop: 47105, Start Num: 49

Candidate Starts for PhriskyACE_74:

(20, 46524), (Start: 49 @46797 has 84 MA's), (57, 46920),

Gene: PhrostedPhlake_88 Start: 51612, Stop: 51974, Start Num: 49

Candidate Starts for PhrostedPhlake_88:

(25, 51417), (31, 51477), (32, 51507), (Start: 49 @51612 has 84 MA's), (57, 51732),

Gene: Pickett_74 Start: 45046, Stop: 45354, Start Num: 49

Candidate Starts for Pickett_74:

(Start: 49 @45046 has 84 MA's), (57, 45169),

Gene: Pimento_76 Start: 49264, Stop: 49626, Start Num: 47

Candidate Starts for Pimento_76:

(Start: 47 @49264 has 15 MA's), (57, 49387), (76, 49600), (78, 49609),

Gene: Polkaroo_80 Start: 48493, Stop: 48876, Start Num: 51

Candidate Starts for Polkaroo_80:

(Start: 51 @48493 has 88 MA's), (57, 48610), (82, 48865),

Gene: Porcelain_5 Start: 2108, Stop: 2479, Start Num: 51

Candidate Starts for Porcelain_5:

(Start: 51 @2108 has 88 MA's), (57, 2222), (59, 2237), (60, 2240), (66, 2333), (67, 2354), (68, 2372), (74, 2456),

Gene: Pound_4 Start: 1862, Stop: 2236, Start Num: 51

Candidate Starts for Pound_4:

(Start: 51 @1862 has 88 MA's), (57, 1979), (60, 1997), (62, 2048), (68, 2129), (69, 2147), (74, 2213),

Gene: Powerball_76 Start: 47248, Stop: 47556, Start Num: 49

Candidate Starts for Powerball_76:

(Start: 49 @47248 has 84 MA's), (57, 47371),

Gene: PrincePatrick_80 Start: 48397, Stop: 48747, Start Num: 49

Candidate Starts for PrincePatrick_80:

(Start: 49 @48397 has 84 MA's), (57, 48517),

Gene: Purky_84 Start: 49951, Stop: 50334, Start Num: 51

Candidate Starts for Purky_84:

(Start: 51 @49951 has 88 MA's), (57, 50068), (82, 50323),

Gene: Pygmy_82 Start: 48021, Stop: 48404, Start Num: 51

Candidate Starts for Pygmy_82:

(Start: 51 @48021 has 88 MA's), (57, 48138), (82, 48393),

Gene: REQ2_82 Start: 48914, Stop: 49288, Start Num: 51

Candidate Starts for REQ2_82:

(13, 48503), (18, 48596), (30, 48737), (Start: 51 @48914 has 88 MA's), (57, 49031),

Gene: RayTheFireFly_73 Start: 45355, Stop: 45705, Start Num: 49

Candidate Starts for RayTheFireFly_73:

(29, 45178), (31, 45208), (Start: 49 @45355 has 84 MA's), (57, 45478), (61, 45496), (78, 45688),

Gene: Rem711_78 Start: 47971, Stop: 48363, Start Num: 46

Candidate Starts for Rem711_78:

(Start: 46 @47971 has 1 MA's), (48, 47974), (57, 48100), (65, 48181), (75, 48343),

Gene: Ruthy_72 Start: 50444, Stop: 50797, Start Num: 50

Candidate Starts for Ruthy_72:

(Start: 50 @50444 has 4 MA's), (57, 50564), (78, 50780),

Gene: Sahara_72 Start: 44705, Stop: 45013, Start Num: 49

Candidate Starts for Sahara_72:

(Start: 49 @44705 has 84 MA's), (57, 44828),

Gene: Samba_79 Start: 51070, Stop: 51432, Start Num: 49

Candidate Starts for Samba_79:

(15, 50740), (22, 50836), (26, 50881), (32, 50968), (Start: 49 @51070 has 84 MA's), (57, 51190),

Gene: Samman98_79 Start: 47113, Stop: 47421, Start Num: 49

Candidate Starts for Samman98_79:

(20, 46840), (Start: 49 @47113 has 84 MA's), (57, 47236),

Gene: Savage_75 Start: 45854, Stop: 46162, Start Num: 49

Candidate Starts for Savage_75:

(Start: 49 @45854 has 84 MA's), (57, 45977),

Gene: Schatzie_3 Start: 1116, Stop: 1490, Start Num: 51

Candidate Starts for Schatzie_3:

(Start: 51 @1116 has 88 MA's), (57, 1233), (60, 1251), (62, 1302), (68, 1383), (69, 1401), (74, 1467),

Gene: Schnabeltier_71 Start: 46465, Stop: 46803, Start Num: 49

Candidate Starts for Schnabeltier_71:

(Start: 49 @46465 has 84 MA's), (57, 46579), (59, 46594), (78, 46786),

Gene: Sekhmet_79 Start: 47300, Stop: 47608, Start Num: 49

Candidate Starts for Sekhmet_79:

(9, 46478), (10, 46520), (17, 46982), (20, 47027), (Start: 49 @47300 has 84 MA's), (57, 47423),

Gene: Shipwreck_81 Start: 48079, Stop: 48462, Start Num: 51

Candidate Starts for Shipwreck_81:

(Start: 51 @48079 has 88 MA's), (57, 48196), (82, 48451),

Gene: Shlim410_78 Start: 52736, Stop: 53092, Start Num: 49

Candidate Starts for Shlim410_78:

(24, 52514), (Start: 49 @52736 has 84 MA's), (57, 52859),

Gene: Sidious_79 Start: 51297, Stop: 51653, Start Num: 49
Candidate Starts for Sidious_79:
(20, 51024), (Start: 49 @51297 has 84 MA's), (57, 51420),

Gene: SoilAssassin_74 Start: 47513, Stop: 47821, Start Num: 49
Candidate Starts for SoilAssassin_74:
(Start: 49 @47513 has 84 MA's), (57, 47636),

Gene: Sonah_81 Start: 45823, Stop: 46206, Start Num: 51
Candidate Starts for Sonah_81:
(Start: 51 @45823 has 88 MA's), (57, 45940), (82, 46195),

Gene: Sproutie_75 Start: 45854, Stop: 46162, Start Num: 49
Candidate Starts for Sproutie_75:
(Start: 49 @45854 has 84 MA's), (57, 45977),

Gene: Squint_5 Start: 2039, Stop: 2410, Start Num: 51
Candidate Starts for Squint_5:
(Start: 51 @2039 has 88 MA's), (57, 2153), (59, 2168), (60, 2171), (66, 2264), (67, 2285), (68, 2303),
(74, 2387),

Gene: StevieRay_81 Start: 48224, Stop: 48607, Start Num: 51
Candidate Starts for StevieRay_81:
(Start: 51 @48224 has 88 MA's), (57, 48341), (82, 48596),

Gene: StressBall_78 Start: 47323, Stop: 47706, Start Num: 51
Candidate Starts for StressBall_78:
(Start: 51 @47323 has 88 MA's), (57, 47440), (82, 47695),

Gene: Suerte_74 Start: 46871, Stop: 47179, Start Num: 49
Candidate Starts for Suerte_74:
(17, 46553), (20, 46598), (Start: 49 @46871 has 84 MA's), (57, 46994),

Gene: TaronosaurusRx_77 Start: 46841, Stop: 47179, Start Num: 49
Candidate Starts for TaronosaurusRx_77:
(Start: 49 @46841 has 84 MA's), (57, 46955), (59, 46970), (78, 47162),

Gene: Techage_79 Start: 46503, Stop: 46886, Start Num: 51
Candidate Starts for Techage_79:
(Start: 51 @46503 has 88 MA's), (57, 46620), (82, 46875),

Gene: Thespis_78 Start: 47026, Stop: 47409, Start Num: 51
Candidate Starts for Thespis_78:
(Start: 51 @47026 has 88 MA's), (57, 47143), (82, 47398),

Gene: Thimann_80 Start: 47611, Stop: 47919, Start Num: 49
Candidate Starts for Thimann_80:
(14, 47275), (20, 47338), (Start: 49 @47611 has 84 MA's), (57, 47734),

Gene: ThreeRngTarjay_4 Start: 1862, Stop: 2236, Start Num: 51
Candidate Starts for ThreeRngTarjay_4:
(Start: 51 @1862 has 88 MA's), (57, 1979), (60, 1997), (62, 2048), (68, 2129), (69, 2147), (74, 2213),

Gene: ThulaThula_79 Start: 49453, Stop: 49845, Start Num: 44
Candidate Starts for ThulaThula_79:
(Start: 44 @49453 has 2 MA's), (57, 49579), (82, 49834),

Gene: Toast_81 Start: 49167, Stop: 49517, Start Num: 49
Candidate Starts for Toast_81:
(Start: 49 @49167 has 84 MA's), (57, 49287),

Gene: Tortellini_75 Start: 48723, Stop: 49103, Start Num: 51
Candidate Starts for Tortellini_75:
(Start: 51 @48723 has 88 MA's), (57, 48840), (72, 49002), (82, 49092),

Gene: Twinkle_79 Start: 53795, Stop: 54151, Start Num: 49
Candidate Starts for Twinkle_79:
(24, 53573), (Start: 49 @53795 has 84 MA's), (57, 53918),

Gene: Ubuntu_83 Start: 52603, Stop: 52992, Start Num: 43
Candidate Starts for Ubuntu_83:
(Start: 43 @52603 has 22 MA's), (57, 52735),

Gene: UmaThurman_83 Start: 49697, Stop: 50059, Start Num: 49
Candidate Starts for UmaThurman_83:
(27, 49514), (32, 49595), (Start: 49 @49697 has 84 MA's), (57, 49817),

Gene: Utz_71 Start: 49339, Stop: 49701, Start Num: 49
Candidate Starts for Utz_71:
(27, 49156), (32, 49237), (Start: 49 @49339 has 84 MA's), (57, 49459),

Gene: Venti_79 Start: 45893, Stop: 46276, Start Num: 51
Candidate Starts for Venti_79:
(Start: 51 @45893 has 88 MA's), (57, 46010), (82, 46265),

Gene: Vidya_76 Start: 45911, Stop: 46294, Start Num: 51
Candidate Starts for Vidya_76:
(Start: 51 @45911 has 88 MA's), (57, 46028), (82, 46283),

Gene: Walrus_84 Start: 51572, Stop: 51940, Start Num: 51
Candidate Starts for Walrus_84:
(22, 51332), (26, 51377), (32, 51461), (Start: 51 @51572 has 88 MA's), (57, 51689),

Gene: Wanda_5 Start: 2410, Stop: 2778, Start Num: 51
Candidate Starts for Wanda_5:
(Start: 51 @2410 has 88 MA's), (57, 2527), (59, 2542), (66, 2632), (67, 2653), (68, 2671), (74, 2755),

Gene: Webster2_83 Start: 52603, Stop: 52992, Start Num: 43
Candidate Starts for Webster2_83:
(Start: 43 @52603 has 22 MA's), (57, 52735),

Gene: Whack_76 Start: 48575, Stop: 48946, Start Num: 51
Candidate Starts for Whack_76:
(Start: 51 @48575 has 88 MA's), (56, 48680), (57, 48689), (59, 48704), (79, 48929), (80, 48932),

Gene: WheatThin_73 Start: 49167, Stop: 49529, Start Num: 47
Candidate Starts for WheatThin_73:
(Start: 47 @49167 has 15 MA's), (57, 49290), (76, 49503), (78, 49512),

Gene: William_83 Start: 50248, Stop: 50646, Start Num: 49
Candidate Starts for William_83:
(27, 50053), (33, 50149), (Start: 34 @50158 has 1 MA's), (Start: 49 @50248 has 84 MA's), (57, 50368),

Gene: Willsammy_80 Start: 47807, Stop: 48190, Start Num: 51
Candidate Starts for Willsammy_80:
(Start: 51 @47807 has 88 MA's), (57, 47924), (82, 48179),

Gene: WinkNick_80 Start: 46824, Stop: 47132, Start Num: 49
Candidate Starts for WinkNick_80:
(9, 46002), (10, 46044), (17, 46506), (20, 46551), (Start: 49 @46824 has 84 MA's), (57, 46947),

Gene: Wishmaker_76 Start: 52603, Stop: 52992, Start Num: 43
Candidate Starts for Wishmaker_76:
(Start: 43 @52603 has 22 MA's), (57, 52735),

Gene: Wisp_79 Start: 49191, Stop: 49553, Start Num: 49
Candidate Starts for Wisp_79:
(11, 48594), (12, 48654), (19, 48906), (23, 48963), (31, 49056), (Start: 49 @49191 has 84 MA's), (57, 49311),

Gene: Wocket_79 Start: 49336, Stop: 49698, Start Num: 49
Candidate Starts for Wocket_79:
(Start: 49 @49336 has 84 MA's), (57, 49456),

Gene: Xavia_71 Start: 49232, Stop: 49621, Start Num: 51
Candidate Starts for Xavia_71:
(Start: 51 @49232 has 88 MA's), (57, 49349), (71, 49508), (82, 49610),

Gene: Yeet_3 Start: 1116, Stop: 1490, Start Num: 51
Candidate Starts for Yeet_3:
(Start: 51 @1116 has 88 MA's), (57, 1233), (60, 1251), (62, 1302), (68, 1383), (69, 1401), (74, 1467),

Gene: Yeezy_87 Start: 51428, Stop: 51784, Start Num: 49
Candidate Starts for Yeezy_87:
(37, 51374), (38, 51377), (Start: 49 @51428 has 84 MA's), (57, 51551),

Gene: ZAYM_76 Start: 46682, Stop: 47020, Start Num: 49
Candidate Starts for ZAYM_76:
(Start: 49 @46682 has 84 MA's), (57, 46796), (59, 46811), (64, 46853), (78, 47003),

Gene: Zarbodnamra_84 Start: 49299, Stop: 49661, Start Num: 49
Candidate Starts for Zarbodnamra_84:
(16, 48975), (21, 49035), (22, 49068), (26, 49113), (32, 49197), (Start: 49 @49299 has 84 MA's), (57, 49419),

Gene: Zelink_4 Start: 1660, Stop: 2034, Start Num: 51
Candidate Starts for Zelink_4:
(Start: 51 @1660 has 88 MA's), (57, 1777), (60, 1795), (66, 1888), (67, 1909), (68, 1927), (74, 2011),

Gene: ZiggyZoo_80 Start: 50561, Stop: 50923, Start Num: 49

Candidate Starts for ZiggyZoo_80:

(25, 50369), (31, 50429), (32, 50459), (Start: 49 @50561 has 84 MA's), (57, 50681),

Gene: Zilizebeth_83 Start: 47465, Stop: 47848, Start Num: 51

Candidate Starts for Zilizebeth_83:

(Start: 51 @47465 has 88 MA's), (57, 47582), (82, 47837),

Gene: Zodiariah_71 Start: 49979, Stop: 50332, Start Num: 50

Candidate Starts for Zodiariah_71:

(39, 49931), (45, 49970), (Start: 50 @49979 has 4 MA's), (57, 50099), (78, 50315),