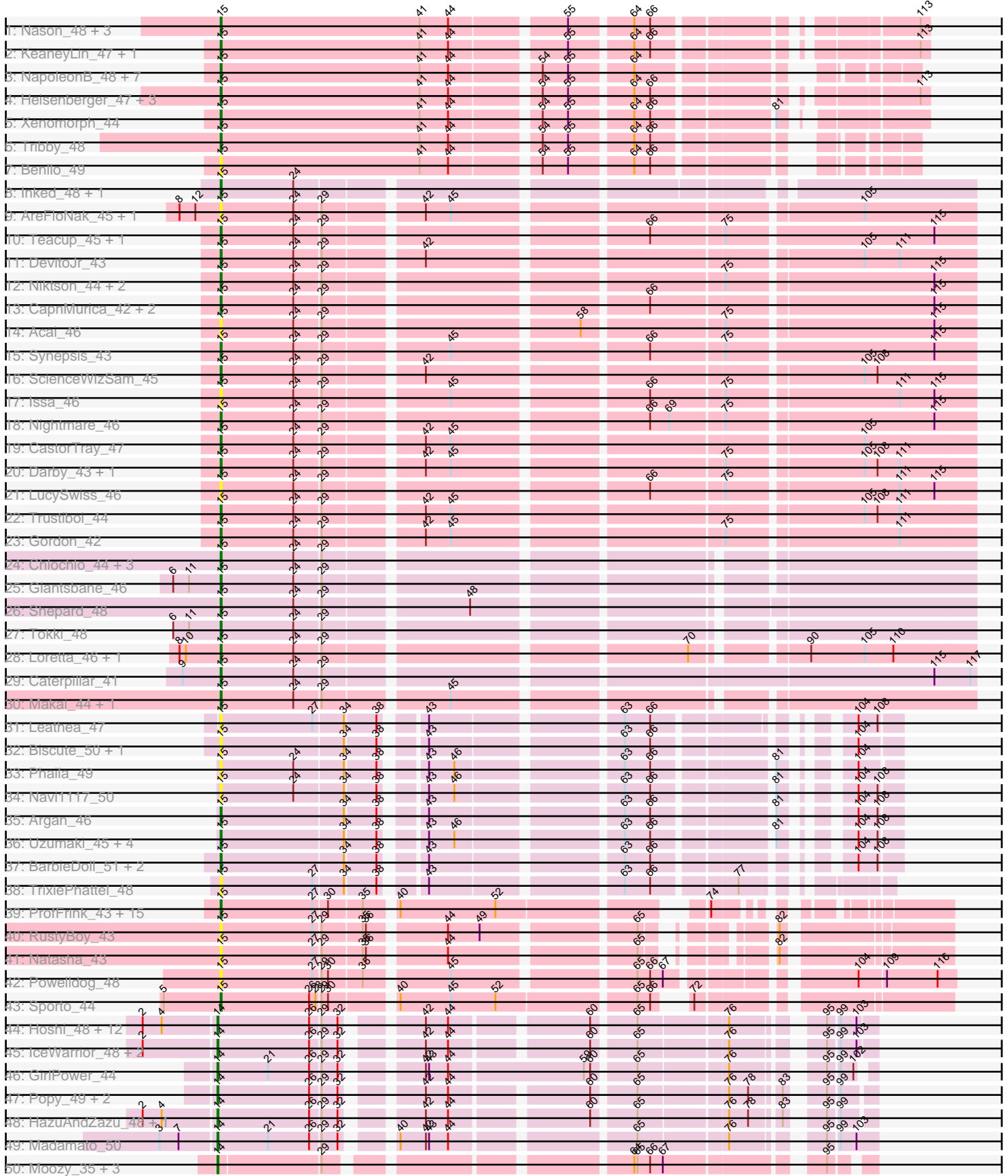


Pham 224303



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 224303 Report

This analysis was run 03/28/25 on database version 593.

Pham number 224303 has 200 members, 42 are drafts.

Phages represented in each track:

- Track 1 : Nason_48, Arcadia_48, Elsa_48, Circum_50
- Track 2 : KeaneyLin_47, GoCrazy_47
- Track 3 : NapoleonB_48, BenitoAntonio_48, Cheesy_48, Bowling_47, Hankly_47, Kardesai_49, Mooshroom_50, Dynamite_48
- Track 4 : Heisenberger_47, Correa_46, Mudcat_45, JEGGS_47
- Track 5 : Xenomorph_44
- Track 6 : Tribby_48
- Track 7 : Benllo_49
- Track 8 : Inked_48, Zippen_46
- Track 9 : AreFloNak_45, Nivinsha_45
- Track 10 : Teacup_45, Brunswick_45
- Track 11 : DevitoJr_43
- Track 12 : Niktson_44, ElephantMan_44, Tatanka_43
- Track 13 : CapnMurica_42, Tenno_45, MiniBagel_44
- Track 14 : Acai_46
- Track 15 : Synopsis_43
- Track 16 : ScienceWizSam_45
- Track 17 : Issa_46
- Track 18 : Nightmare_46
- Track 19 : CastorTray_47
- Track 20 : Darby_43, Breylor17_45
- Track 21 : LucySwiss_46
- Track 22 : Trustiboi_44
- Track 23 : Gordon_42
- Track 24 : Chlochlo_44, Bouchard_44, LilHuddy_46, Phaby_46
- Track 25 : Giantsbane_46
- Track 26 : Shepard_48
- Track 27 : Tokki_48
- Track 28 : Loretta_46, Ingrid_46
- Track 29 : Caterpillar_41
- Track 30 : Makai_44, Truckee_42
- Track 31 : Leathea_47
- Track 32 : Biscute_50, Renaldo_52
- Track 33 : Phaila_49
- Track 34 : Navi1117_50
- Track 35 : Argan_46

- Track 36 : Uzumaki_45, Tenney120_49, GantcherGoblin_46, KevinMinion_48, Zeina_48
- Track 37 : BarbieDoll_51, Kinny_51, Lewando_49
- Track 38 : TrixiePhattel_48
- Track 39 : ProfFrink_43, Sloopyjoe_43, Linda_43, Michelle_43, Stayer_43, Djungelskog_43, Egad_43, Raunak_46, Boog_44, BronxBay_43, StarLord_43, HerbBucket_43, Shiba_42, MrAaronian_43, DoctorPepper_42, Salk_43
- Track 40 : RustyBoy_43
- Track 41 : Natasha_43
- Track 42 : PowellDog_48
- Track 43 : Sporto_44
- Track 44 : Hoshi_48, Namu_50, Indigenous_49, Esketit_49, FidgetOrca_49, Maya_49, Rima_50, OlympicHelado_49, Spectropatronm_49, TonyStarch_48, Meibysrarus_47, Jaylociraptor_49, TieDye_48
- Track 45 : IceWarrior_48, CherryBlossom_49, TaidaOne_49
- Track 46 : GirlPower_44
- Track 47 : Popy_49, FrodoSwaggins_49, DrGrey_48
- Track 48 : HazuAndZazu_48, Soshi_48
- Track 49 : Madamoto_50
- Track 50 : Moozy_35, HotFries_35, SheRa_36, Annihilus_36
- Track 51 : Bilo_34
- Track 52 : Scap1_35
- Track 53 : PherryCruz_35, GoblinVoyage_36, RavenPuff_35
- Track 54 : Doxi13_36
- Track 55 : RosaAsantewaa_32
- Track 56 : LibertyBell_44
- Track 57 : FromIndy_45, Miek_44, Regigigas_46, Rainydai_44, CricKo_45, Thiqqums_45, SendItCS_43
- Track 58 : Bing_52
- Track 59 : Kardashian_47
- Track 60 : ClubPenguin_48
- Track 61 : Trufflozitus_58, JulesRay_56, Avazak_55
- Track 62 : ShaggyRogers_58, Gusicorn_57, Hydrus_57, Nadmeg_56, Madvan_55, Phepper_56, Burley_55, BetterYeti_57, Untouchable_56, Runhaar_55, Vardy_54, Crocheter_55
- Track 63 : Rickmore_51
- Track 64 : TenaciousP_55, Duffington_53, Chikenjars_53, EndAve_56, Citrus_55, AlainaMarie_54, OlgasClover_56, Aflac_54, Figliar_53, Jodelie19_54
- Track 65 : Gravy_53, Roney_54, Tanis_54, Capybara_54, NoPickles_53, Kerry_53
- Track 66 : Demure_52, Arataki_51, Zeph_57
- Track 67 : Captrips_53
- Track 68 : Odesza_53
- Track 69 : Pherobrine_56, Mysticmoon_56
- Track 70 : Petite_56
- Track 71 : Conley_53
- Track 72 : Hortihabitatio_55
- Track 73 : Eddiemania_57, Kenosha_54, MajinBuu_55
- Track 74 : Mossy_58
- Track 75 : Dancer_56, FortCran_54
- Track 76 : Nithya_55
- Track 77 : OhMyWard_53
- Track 78 : Gill_54, Magel_55
- Track 79 : Fazel_55

- Track 80 : Artorias_54
- Track 81 : Secretariat_54
- Track 82 : Pippin15_44
- Track 83 : Sweetclover_39
- Track 84 : Serenabean_42
- Track 85 : AddiRose_41
- Track 86 : JoyLin_44
- Track 87 : Eevee_44, Yotsuba_44
- Track 88 : Daddyjeff_42

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

The start number called the most often in the published annotations is 15, it was called in 112 of the 158 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Acai_46, AddiRose_41, Aflac_54, AlainaMarie_54, Arataki_51, Arcadia_48, AreFloNak_45, Argan_46, Avazak_55, BarbieDoll_51, BenitoAntonio_48, Benllo_49, BetterYeti_57, Biscute_50, Boog_44, Bouchard_44, Bowling_47, Breylor17_45, BronxBay_43, Brunswick_45, Burley_55, CapnMurica_42, Captrips_53, Copybara_54, CastorTray_47, Caterpillar_41, Cheesy_48, Chikenjars_53, Chlochlo_44, Circum_50, Citrus_55, Conley_53, Correa_46, Crocheter_55, Daddyjeff_42, Dancer_56, Darby_43, Demure_52, DevitoJr_43, Djungelskog_43, DoctorPepper_42, Duffington_53, Dynamite_48, Eddiemania_57, Eevee_44, Egad_43, ElephantMan_44, Elsa_48, EndAve_56, Fazel_55, Figliar_53, FortCran_54, GantcherGoblin_46, Giantsbane_46, GoCrazy_47, Gordon_42, Gravy_53, Gusicorn_57, Hankly_47, Heisenberger_47, HerbBucket_43, Hortihabitatio_55, Hydrus_57, Ingrid_46, Inked_48, Issa_46, JEGGS_47, Jodelie19_54, JoyLin_44, JulesRay_56, Kardesai_49, KeaneyLin_47, Kenosha_54, Kerry_53, KevinMinion_48, Kinny_51, Leathea_47, Lewando_49, LilHuddy_46, Linda_43, Loretta_46, LucySwiss_46, Madvan_55, MajinBuu_55, Makai_44, Michelle_43, MiniBagel_44, Mooshroom_50, Mossy_58, MrAaronian_43, Mudcat_45, Mysticmoon_56, Nadmeg_56, NapoleonB_48, Nason_48, Natasha_43, Navi1117_50, Nightmare_46, Niktson_44, Nithya_55, Nivinsha_45, NoPickles_53, Odesza_53, OhMyWard_53, OlgasClover_56, Petite_56, Phaby_46, Phaila_49, Phepper_56, Pherobrine_56, Pippin15_44, PowellDog_48, ProfFrink_43, Raunak_46, Renaldo_52, Rickmore_51, Roney_54, Runhaar_55, RustyBoy_43, Salk_43, ScienceWizSam_45, Secretariat_54, Serenabean_42, ShaggyRogers_58, Shepard_48, Shiba_42, Sloopyjoe_43, Sporto_44, StarLord_43, Stayer_43, Sweetclover_39, Synepsis_43, Tanis_54, Tatanka_43, Teacup_45, TenaciousP_55, Tenney120_49, Tenno_45, Tokki_48, Tribby_48, TrixiePhattel_48, Truckee_42, Trufflozitus_58, Trustiboi_44, Untouchable_56, Uzumaki_45, Vardy_54, Xenomorph_44, Yotsuba_44, Zeina_48, Zeph_57, Zippen_46,

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

- Artorias_54, Gill_54, Magel_55,

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

- Annihilus_36, Bilo_34, Bing_52, CherryBlossom_49, ClubPenguin_48, CricKo_45, Doxi13_36, DrGrey_48, Esketit_49, FidgetOrca_49, FrodoSwaggins_49,

FromIndy_45, GirlPower_44, GoblinVoyage_36, HazuAndZazu_48, Hoshi_48, HotFries_35, IceWarrior_48, Indigenous_49, Jaylociraptor_49, Kardashian_47, LibertyBell_44, Madamato_50, Maya_49, Meibysrarus_47, Miek_44, Moozy_35, Namu_50, OlympicHelado_49, PherryCruz_35, Popy_49, Rainydai_44, RavenPuff_35, Regigigas_46, Rima_50, RosaAsantewaa_32, Scap1_35, SendItCS_43, SheRa_36, Soshi_48, Spectropatronm_49, TaidaOne_49, Thiqqums_45, TieDye_48, TonyStarch_48,

Summary by start number:

Start 13:

- Found in 11 of 200 (5.5%) of genes in pham
- Manual Annotations of this start: 9 of 158
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Bing_52 (BI5), ClubPenguin_48 (BI7), CricKo_45 (BI4), FromIndy_45 (BI4), Kardashian_47 (BI6), LibertyBell_44 (BI3), Miek_44 (BI4), Rainydai_44 (BI4), Regigigas_46 (BI4), SendItCS_43 (BI4), Thiqqums_45 (BI4),

Start 14:

- Found in 34 of 200 (17.0%) of genes in pham
- Manual Annotations of this start: 34 of 158
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Annihilus_36 (BI2), Bilo_34 (BI2), CherryBlossom_49 (BI1), Doxi13_36 (BI2), DrGrey_48 (BI1), Esketit_49 (BI1), FidgetOrca_49 (BI1), FrodoSwaggins_49 (BI1), GirlPower_44 (BI1), GoblinVoyage_36 (BI2), HazuAndZazu_48 (BI1), Hoshi_48 (BI1), HotFries_35 (BI2), IceWarrior_48 (BI1), Indigenous_49 (BI1), Jaylociraptor_49 (BI1), Madamato_50 (BI1), Maya_49 (BI1), Meibysrarus_47 (BI1), Moozy_35 (BI2), Namu_50 (BI1), OlympicHelado_49 (BI1), PherryCruz_35 (BI2), Popy_49 (BI1), RavenPuff_35 (BI2), Rima_50 (BI1), RosaAsantewaa_32 (BI2), Scap1_35 (BI2), SheRa_36 (BI2), Soshi_48 (BI1), Spectropatronm_49 (BI1), TaidaOne_49 (BI1), TieDye_48 (BI1), TonyStarch_48 (BI1),

Start 15:

- Found in 155 of 200 (77.5%) of genes in pham
- Manual Annotations of this start: 112 of 158
- Called 98.1% of time when present
- Phage (with cluster) where this start called: Acai_46 (AU1), AddiRose_41 (JA), Aflac_54 (DJ), AlainaMarie_54 (DJ), Arataki_51 (DJ), Arcadia_48 (AM), AreFloNak_45 (AU1), Argan_46 (AU6), Avazak_55 (DJ), BarbieDoll_51 (AU6), BenitoAntonio_48 (AM), Benllo_49 (AM), BetterYeti_57 (DJ), Biscute_50 (AU6), Boog_44 (AW), Bouchard_44 (AU2), Bowling_47 (AM), Breylor17_45 (AU1), BronxBay_43 (AW), Brunswick_45 (AU1), Burley_55 (DJ), CapnMurica_42 (AU1), Captrips_53 (DJ), Copybara_54 (DJ), CastorTray_47 (AU1), Caterpillar_41 (AU4), Cheesy_48 (AM), Chikenjars_53 (DJ), Chlochlo_44 (AU2), Circum_50 (AM), Citrus_55 (DJ), Conley_53 (DJ), Correa_46 (AM), Crocheter_55 (DJ), Daddyjeff_42 (JA), Dancer_56 (DJ), Darby_43 (AU1), Demure_52 (DJ), DevitoJr_43 (AU1), Djungelskog_43 (AW), DoctorPepper_42 (AW), Duffington_53 (DJ), Dynamite_48 (AM), Eddiemania_57 (DJ), Eevee_44 (JA), Egad_43 (AW), ElephantMan_44 (AU1), Elsa_48 (AM), EndAve_56 (DJ), Fazel_55 (DJ), Figliar_53 (DJ), FortCran_54 (DJ), GantcherGoblin_46 (AU6), Giantsbane_46 (AU2), GoCrazy_47 (AM), Gordon_42 (AU1), Gravy_53 (DJ), Gusicorn_57 (DJ), Hankly_47 (AM), Heisenberger_47 (AM),

HerbBucket_43 (AW), Hortihabitatio_55 (DJ), Hydrus_57 (DJ), Ingrid_46 (AU3), Inked_48 (AU), Issa_46 (AU1), JEGGS_47 (AM), Jodelie19_54 (DJ), JoyLin_44 (JA), JulesRay_56 (DJ), Kardesai_49 (AM), KeaneyLin_47 (AM), Kenosha_54 (DJ), Kerry_53 (DJ), KevinMinion_48 (AU6), Kinny_51 (AU6), Leathea_47 (AU6), Lewando_49 (AU6), LilHuddy_46 (AU2), Linda_43 (AW), Loretta_46 (AU3), LucySwiss_46 (AU1), Madvan_55 (DJ), MajinBuu_55 (DJ), Makai_44 (AU5), Michelle_43 (AW), MiniBagel_44 (AU1), Mooshroom_50 (AM), Mossy_58 (DJ), MrAaronian_43 (AW), Mudcat_45 (AM), Mysticmoon_56 (DJ), Nadmeg_56 (DJ), NapoleonB_48 (AM), Nason_48 (AM), Natasha_43 (AW), Navi1117_50 (AU6), Nightmare_46 (AU1), Niktson_44 (AU1), Nithya_55 (DJ), Nivinsha_45 (AU1), NoPickles_53 (DJ), Odesza_53 (DJ), OhMyWard_53 (DJ), OlgasClover_56 (DJ), Petite_56 (DJ), Phaby_46 (AU2), Phaila_49 (AU6), Phepper_56 (DJ), Pherobrine_56 (DJ), Pippin15_44 (JA), PowellDog_48 (AW), ProfFrink_43 (AW), Raunak_46 (AW), Renaldo_52 (AU6), Rickmore_51 (DJ), Roney_54 (DJ), Runhaar_55 (DJ), RustyBoy_43 (AW), Salk_43 (AW), ScienceWizSam_45 (AU1), Secretariat_54 (DJ), Serenabean_42 (JA), ShaggyRogers_58 (DJ), Shepard_48 (AU2), Shiba_42 (AW), Sloopyjoe_43 (AW), Sporto_44 (AW), StarLord_43 (AW), Stayer_43 (AW), Sweetclover_39 (JA), Synopsis_43 (AU1), Tanis_54 (DJ), Tatanka_43 (AU1), Teacup_45 (AU1), TenaciousP_55 (DJ), Tenney120_49 (AU6), Tenno_45 (AU1), Tokki_48 (AU2), Tribby_48 (AM), TrixiePhattel_48 (AU6), Truckee_42 (AU5), Trufflozitus_58 (DJ), Trustiboi_44 (AU1), Untouchable_56 (DJ), Uzumaki_45 (AU6), Vardy_54 (DJ), Xenomorph_44 (AM), Yotsuba_44 (JA), Zeina_48 (AU6), Zeph_57 (DJ), Zippen_46 (AU3),

Start 16:

- Found in 18 of 200 (9.0%) of genes in pham
- Manual Annotations of this start: 3 of 158
- Called 16.7% of time when present
- Phage (with cluster) where this start called: Artorias_54 (DJ), Gill_54 (DJ), Magel_55 (DJ),

Summary by clusters:

There are 18 clusters represented in this pham: AU, DJ, AM, BI3, AU1, AU3, AU2, AU5, AU4, AW, AU6, BI6, BI7, BI4, BI5, BI2, JA, BI1,

Info for manual annotations of cluster AM:

- Start number 15 was manually annotated 19 times for cluster AM.

Info for manual annotations of cluster AU:

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

Info for manual annotations of cluster AU1:

- Start number 15 was manually annotated 17 times for cluster AU1.

Info for manual annotations of cluster AU2:

- Start number 15 was manually annotated 5 times for cluster AU2.

Info for manual annotations of cluster AU3:

- Start number 15 was manually annotated 2 times for cluster AU3.

Info for manual annotations of cluster AU4:

- Start number 15 was manually annotated 1 time for cluster AU4.

Info for manual annotations of cluster AU5:

- Start number 15 was manually annotated 2 times for cluster AU5.

Info for manual annotations of cluster AU6:

- Start number 15 was manually annotated 5 times for cluster AU6.

Info for manual annotations of cluster AW:

- Start number 15 was manually annotated 14 times for cluster AW.

Info for manual annotations of cluster BI1:

- Start number 14 was manually annotated 23 times for cluster BI1.

Info for manual annotations of cluster BI2:

- Start number 14 was manually annotated 11 times for cluster BI2.

Info for manual annotations of cluster BI3:

- Start number 13 was manually annotated 1 time for cluster BI3.

Info for manual annotations of cluster BI4:

- Start number 13 was manually annotated 5 times for cluster BI4.

Info for manual annotations of cluster BI5:

- Start number 13 was manually annotated 1 time for cluster BI5.

Info for manual annotations of cluster BI6:

- Start number 13 was manually annotated 1 time for cluster BI6.

Info for manual annotations of cluster BI7:

- Start number 13 was manually annotated 1 time for cluster BI7.

Info for manual annotations of cluster DJ:

- Start number 15 was manually annotated 39 times for cluster DJ.
- Start number 16 was manually annotated 3 times for cluster DJ.

Info for manual annotations of cluster JA:

- Start number 15 was manually annotated 7 times for cluster JA.

Gene Information:

Gene: Acai_46 Start: 33525, Stop: 34184, Start Num: 15

Candidate Starts for Acai_46:

(Start: 15 @33525 has 112 MA's), (24, 33594), (29, 33618), (58, 33837), (75, 33960), (115, 34146),

Gene: AddiRose_41 Start: 30292, Stop: 30936, Start Num: 15

Candidate Starts for AddiRose_41:

(Start: 15 @30292 has 112 MA's), (27, 30376), (57, 30583), (63, 30631), (66, 30655), (68, 30670), (77, 30724),

Gene: Aflac_54 Start: 37624, Stop: 38262, Start Num: 15

Candidate Starts for Aflac_54:

(Start: 15 @37624 has 112 MA's), (45, 37831), (47, 37837), (63, 37975), (95, 38155), (112, 38233), (114, 38245),

Gene: AlainaMarie_54 Start: 37610, Stop: 38248, Start Num: 15

Candidate Starts for AlainaMarie_54:

(Start: 15 @37610 has 112 MA's), (45, 37817), (47, 37823), (63, 37961), (95, 38141), (112, 38219), (114, 38231),

Gene: Annihilus_36 Start: 26356, Stop: 26877, Start Num: 14

Candidate Starts for Annihilus_36:

(Start: 14 @26356 has 34 MA's), (29, 26449), (64, 26692), (65, 26695), (66, 26707), (67, 26719), (95, 26845),

Gene: Arataki_51 Start: 36745, Stop: 37380, Start Num: 15

Candidate Starts for Arataki_51:

(Start: 15 @36745 has 112 MA's), (45, 36952), (53, 36997), (56, 37054), (63, 37096), (112, 37351), (114, 37363),

Gene: Arcadia_48 Start: 31859, Stop: 32455, Start Num: 15

Candidate Starts for Arcadia_48:

(Start: 15 @31859 has 112 MA's), (41, 32048), (44, 32075), (55, 32174), (64, 32228), (66, 32243), (113, 32447),

Gene: AreFloNak_45 Start: 33292, Stop: 33951, Start Num: 15

Candidate Starts for AreFloNak_45:

(8, 33253), (12, 33268), (Start: 15 @33292 has 112 MA's), (24, 33361), (29, 33385), (42, 33469), (45, 33493), (105, 33847),

Gene: Argan_46 Start: 32018, Stop: 32551, Start Num: 15

Candidate Starts for Argan_46:

(Start: 15 @32018 has 112 MA's), (34, 32132), (38, 32159), (43, 32189), (63, 32351), (66, 32375), (81, 32471), (104, 32513), (108, 32531),

Gene: Artorias_54 Start: 36960, Stop: 37574, Start Num: 16

Candidate Starts for Artorias_54:

(Start: 15 @36957 has 112 MA's), (Start: 16 @36960 has 3 MA's), (45, 37164), (63, 37308), (92, 37473), (114, 37560),

Gene: Avazak_55 Start: 37284, Stop: 37901, Start Num: 15

Candidate Starts for Avazak_55:

(Start: 15 @37284 has 112 MA's), (Start: 16 @37287 has 3 MA's), (45, 37491), (63, 37635), (97, 37809), (114, 37887),

Gene: BarbieDoll_51 Start: 33705, Stop: 34238, Start Num: 15

Candidate Starts for BarbieDoll_51:

(Start: 15 @33705 has 112 MA's), (34, 33819), (38, 33846), (43, 33876), (63, 34038), (66, 34062), (104, 34200), (108, 34218),

Gene: BenitoAntonio_48 Start: 31423, Stop: 31992, Start Num: 15

Candidate Starts for BenitoAntonio_48:

(Start: 15 @31423 has 112 MA's), (41, 31612), (44, 31639), (54, 31714), (55, 31738), (64, 31792),

Gene: Benllo_49 Start: 32107, Stop: 32676, Start Num: 15

Candidate Starts for Benllo_49:

(Start: 15 @32107 has 112 MA's), (41, 32296), (44, 32323), (54, 32398), (55, 32422), (64, 32476), (66, 32491),

Gene: BetterYeti_57 Start: 37708, Stop: 38343, Start Num: 15

Candidate Starts for BetterYeti_57:

(Start: 15 @37708 has 112 MA's), (45, 37915), (63, 38059), (112, 38314), (114, 38326),

Gene: Bilo_34 Start: 26468, Stop: 26989, Start Num: 14

Candidate Starts for Bilo_34:

(Start: 14 @26468 has 34 MA's), (20, 26507), (29, 26561), (64, 26804), (65, 26807), (66, 26819), (95, 26957),

Gene: Bing_52 Start: 33497, Stop: 34048, Start Num: 13

Candidate Starts for Bing_52:

(Start: 13 @33497 has 9 MA's), (17, 33509), (43, 33671), (44, 33689), (51, 33719), (65, 33854), (76, 33935), (89, 33986),

Gene: Biscute_50 Start: 33357, Stop: 33890, Start Num: 15

Candidate Starts for Biscute_50:

(Start: 15 @33357 has 112 MA's), (34, 33471), (38, 33498), (43, 33528), (63, 33690), (66, 33714), (104, 33852),

Gene: Boog_44 Start: 30697, Stop: 31257, Start Num: 15

Candidate Starts for Boog_44:

(Start: 15 @30697 has 112 MA's), (27, 30784), (30, 30796), (35, 30826), (40, 30850), (52, 30940), (74, 31099),

Gene: Bouchard_44 Start: 33214, Stop: 33864, Start Num: 15

Candidate Starts for Bouchard_44:

(Start: 15 @33214 has 112 MA's), (24, 33283), (29, 33307),

Gene: Bowling_47 Start: 31632, Stop: 32201, Start Num: 15

Candidate Starts for Bowling_47:

(Start: 15 @31632 has 112 MA's), (41, 31821), (44, 31848), (54, 31923), (55, 31947), (64, 32001),

Gene: Breylor17_45 Start: 34090, Stop: 34749, Start Num: 15

Candidate Starts for Breylor17_45:

(Start: 15 @34090 has 112 MA's), (24, 34159), (29, 34183), (42, 34267), (45, 34291), (75, 34525), (105, 34645), (108, 34657), (111, 34678),

Gene: BronxBay_43 Start: 30995, Stop: 31555, Start Num: 15

Candidate Starts for BronxBay_43:

(Start: 15 @30995 has 112 MA's), (27, 31082), (30, 31094), (35, 31124), (40, 31148), (52, 31238), (74, 31397),

Gene: Brunswick_45 Start: 33172, Stop: 33831, Start Num: 15

Candidate Starts for Brunswick_45:

(Start: 15 @33172 has 112 MA's), (24, 33241), (29, 33265), (66, 33541), (75, 33607), (115, 33793),

Gene: Burley_55 Start: 37396, Stop: 38031, Start Num: 15

Candidate Starts for Burley_55:

(Start: 15 @37396 has 112 MA's), (45, 37603), (63, 37747), (112, 38002), (114, 38014),

Gene: CapnMurica_42 Start: 34070, Stop: 34729, Start Num: 15

Candidate Starts for CapnMurica_42:

(Start: 15 @34070 has 112 MA's), (24, 34139), (29, 34163), (66, 34439), (115, 34691),

Gene: Captrips_53 Start: 36432, Stop: 37049, Start Num: 15

Candidate Starts for Captrips_53:

(Start: 15 @36432 has 112 MA's), (Start: 16 @36435 has 3 MA's), (45, 36639), (63, 36783), (92, 36948), (97, 36957), (114, 37035),

Gene: Capybara_54 Start: 36783, Stop: 37382, Start Num: 15

Candidate Starts for Capybara_54:

(Start: 15 @36783 has 112 MA's), (Start: 16 @36786 has 3 MA's), (30, 36885), (45, 36990), (63, 37134), (84, 37284), (92, 37299), (114, 37368),

Gene: CastorTray_47 Start: 33900, Stop: 34559, Start Num: 15

Candidate Starts for CastorTray_47:

(Start: 15 @33900 has 112 MA's), (24, 33969), (29, 33993), (42, 34077), (45, 34101), (105, 34455),

Gene: Caterpillar_41 Start: 32360, Stop: 33028, Start Num: 15

Candidate Starts for Caterpillar_41:

(9, 32324), (Start: 15 @32360 has 112 MA's), (24, 32429), (29, 32453), (115, 32990), (117, 33023),

Gene: Cheesy_48 Start: 31608, Stop: 32177, Start Num: 15

Candidate Starts for Cheesy_48:

(Start: 15 @31608 has 112 MA's), (41, 31797), (44, 31824), (54, 31899), (55, 31923), (64, 31977),

Gene: CherryBlossom_49 Start: 32728, Stop: 33255, Start Num: 14

Candidate Starts for CherryBlossom_49:

(2, 32665), (Start: 14 @32728 has 34 MA's), (26, 32815), (29, 32824), (32, 32839), (42, 32896), (44, 32917), (60, 33034), (65, 33070), (76, 33148), (95, 33214), (99, 33223), (103, 33238),

Gene: Chikenjars_53 Start: 37622, Stop: 38260, Start Num: 15

Candidate Starts for Chikenjars_53:

(Start: 15 @37622 has 112 MA's), (45, 37829), (47, 37835), (63, 37973), (95, 38153), (112, 38231), (114, 38243),

Gene: Chlochlo_44 Start: 33279, Stop: 33929, Start Num: 15

Candidate Starts for Chlochlo_44:

(Start: 15 @33279 has 112 MA's), (24, 33348), (29, 33372),

Gene: Circum_50 Start: 32270, Stop: 32866, Start Num: 15

Candidate Starts for Circum_50:

(Start: 15 @32270 has 112 MA's), (41, 32459), (44, 32486), (55, 32585), (64, 32639), (66, 32654), (113, 32858),

Gene: Citrus_55 Start: 37900, Stop: 38538, Start Num: 15

Candidate Starts for Citrus_55:

(Start: 15 @37900 has 112 MA's), (45, 38107), (47, 38113), (63, 38251), (95, 38431), (112, 38509), (114, 38521),

Gene: ClubPenguin_48 Start: 32048, Stop: 32584, Start Num: 13

Candidate Starts for ClubPenguin_48:

(Start: 13 @32048 has 9 MA's), (18, 32063), (29, 32144), (50, 32276), (55, 32345), (57, 32351), (58, 32357), (66, 32414), (76, 32483), (83, 32528),

Gene: Conley_53 Start: 37570, Stop: 38184, Start Num: 15

Candidate Starts for Conley_53:

(Start: 15 @37570 has 112 MA's), (Start: 16 @37573 has 3 MA's), (45, 37777), (63, 37921), (73, 37990), (75, 38017), (86, 38074), (114, 38170),

Gene: Correa_46 Start: 30727, Stop: 31323, Start Num: 15

Candidate Starts for Correa_46:

(Start: 15 @30727 has 112 MA's), (41, 30916), (44, 30943), (54, 31018), (55, 31042), (64, 31096), (66, 31111), (113, 31315),

Gene: CricKo_45 Start: 30767, Stop: 31297, Start Num: 13

Candidate Starts for CricKo_45:

(Start: 13 @30767 has 9 MA's), (26, 30857), (29, 30866), (39, 30905), (40, 30914), (45, 30962), (76, 31184), (89, 31232), (95, 31250),

Gene: Crocheter_55 Start: 37792, Stop: 38427, Start Num: 15

Candidate Starts for Crocheter_55:

(Start: 15 @37792 has 112 MA's), (45, 37999), (63, 38143), (112, 38398), (114, 38410),

Gene: Daddyjeff_42 Start: 30571, Stop: 31212, Start Num: 15

Candidate Starts for Daddyjeff_42:

(Start: 15 @30571 has 112 MA's), (27, 30655), (57, 30862), (63, 30910), (77, 31003),

Gene: Dancer_56 Start: 36692, Stop: 37309, Start Num: 15

Candidate Starts for Dancer_56:

(Start: 15 @36692 has 112 MA's), (Start: 16 @36695 has 3 MA's), (45, 36899), (63, 37043), (92, 37208), (114, 37295),

Gene: Darby_43 Start: 33072, Stop: 33731, Start Num: 15

Candidate Starts for Darby_43:

(Start: 15 @33072 has 112 MA's), (24, 33141), (29, 33165), (42, 33249), (45, 33273), (75, 33507), (105, 33627), (108, 33639), (111, 33660),

Gene: Demure_52 Start: 36745, Stop: 37380, Start Num: 15

Candidate Starts for Demure_52:

(Start: 15 @36745 has 112 MA's), (45, 36952), (53, 36997), (56, 37054), (63, 37096), (112, 37351), (114, 37363),

Gene: DevitoJr_43 Start: 33260, Stop: 33919, Start Num: 15

Candidate Starts for DevitoJr_43:

(Start: 15 @33260 has 112 MA's), (24, 33329), (29, 33353), (42, 33437), (105, 33815), (111, 33848),

Gene: Djungelskog_43 Start: 30994, Stop: 31554, Start Num: 15

Candidate Starts for Djungelskog_43:

(Start: 15 @30994 has 112 MA's), (27, 31081), (30, 31093), (35, 31123), (40, 31147), (52, 31237), (74, 31396),

Gene: DoctorPepper_42 Start: 30699, Stop: 31259, Start Num: 15

Candidate Starts for DoctorPepper_42:

(Start: 15 @30699 has 112 MA's), (27, 30786), (30, 30798), (35, 30828), (40, 30852), (52, 30942), (74, 31101),

Gene: Doxi13_36 Start: 26330, Stop: 26851, Start Num: 14

Candidate Starts for Doxi13_36:

(Start: 14 @26330 has 34 MA's), (20, 26369), (29, 26423), (64, 26666), (65, 26669), (66, 26681), (67, 26693), (76, 26750),

Gene: DrGrey_48 Start: 33096, Stop: 33620, Start Num: 14

Candidate Starts for DrGrey_48:

(Start: 14 @33096 has 34 MA's), (26, 33183), (29, 33192), (32, 33207), (42, 33264), (44, 33285), (60, 33402), (65, 33438), (76, 33516), (78, 33534), (83, 33558), (95, 33582), (99, 33591),

Gene: Duffington_53 Start: 37317, Stop: 37955, Start Num: 15

Candidate Starts for Duffington_53:

(Start: 15 @37317 has 112 MA's), (45, 37524), (47, 37530), (63, 37668), (95, 37848), (112, 37926), (114, 37938),

Gene: Dynamite_48 Start: 31823, Stop: 32392, Start Num: 15

Candidate Starts for Dynamite_48:

(Start: 15 @31823 has 112 MA's), (41, 32012), (44, 32039), (54, 32114), (55, 32138), (64, 32192),

Gene: Eddiemania_57 Start: 38537, Stop: 39172, Start Num: 15

Candidate Starts for Eddiemania_57:

(Start: 15 @38537 has 112 MA's), (45, 38744), (47, 38750), (63, 38888), (112, 39143), (114, 39155),

Gene: Eevee_44 Start: 33674, Stop: 34315, Start Num: 15

Candidate Starts for Eevee_44:

(Start: 15 @33674 has 112 MA's), (19, 33704), (25, 33752), (43, 33848), (57, 33968), (62, 34010), (63, 34016), (77, 34103),

Gene: Egad_43 Start: 30996, Stop: 31556, Start Num: 15

Candidate Starts for Egad_43:

(Start: 15 @30996 has 112 MA's), (27, 31083), (30, 31095), (35, 31125), (40, 31149), (52, 31239), (74, 31398),

Gene: ElephantMan_44 Start: 33745, Stop: 34404, Start Num: 15

Candidate Starts for ElephantMan_44:

(Start: 15 @33745 has 112 MA's), (24, 33814), (29, 33838), (75, 34180), (115, 34366),

Gene: Elsa_48 Start: 31859, Stop: 32455, Start Num: 15

Candidate Starts for Elsa_48:

(Start: 15 @31859 has 112 MA's), (41, 32048), (44, 32075), (55, 32174), (64, 32228), (66, 32243), (113, 32447),

Gene: EndAve_56 Start: 37790, Stop: 38428, Start Num: 15

Candidate Starts for EndAve_56:

(Start: 15 @37790 has 112 MA's), (45, 37997), (47, 38003), (63, 38141), (95, 38321), (112, 38399), (114, 38411),

Gene: Esketit_49 Start: 32839, Stop: 33366, Start Num: 14

Candidate Starts for Esketit_49:

(2, 32776), (4, 32794), (Start: 14 @32839 has 34 MA's), (26, 32926), (29, 32935), (32, 32950), (42, 33007), (44, 33028), (60, 33145), (65, 33181), (76, 33259), (95, 33325), (99, 33334), (103, 33349),

Gene: Fazel_55 Start: 37262, Stop: 37894, Start Num: 15

Candidate Starts for Fazel_55:

(Start: 15 @37262 has 112 MA's), (22, 37310), (37, 37406), (45, 37469), (63, 37613), (68, 37652), (86, 37766), (107, 37829), (112, 37865), (114, 37877),

Gene: FidgetOrca_49 Start: 32832, Stop: 33359, Start Num: 14

Candidate Starts for FidgetOrca_49:

(2, 32769), (4, 32787), (Start: 14 @32832 has 34 MA's), (26, 32919), (29, 32928), (32, 32943), (42, 33000), (44, 33021), (60, 33138), (65, 33174), (76, 33252), (95, 33318), (99, 33327), (103, 33342),

Gene: Figliar_53 Start: 37692, Stop: 38330, Start Num: 15

Candidate Starts for Figliar_53:

(Start: 15 @37692 has 112 MA's), (45, 37899), (47, 37905), (63, 38043), (95, 38223), (112, 38301), (114, 38313),

Gene: FortCran_54 Start: 36957, Stop: 37574, Start Num: 15

Candidate Starts for FortCran_54:

(Start: 15 @36957 has 112 MA's), (Start: 16 @36960 has 3 MA's), (45, 37164), (63, 37308), (92, 37473), (114, 37560),

Gene: FrodoSwaggins_49 Start: 33490, Stop: 34014, Start Num: 14

Candidate Starts for FrodoSwaggins_49:

(Start: 14 @33490 has 34 MA's), (26, 33577), (29, 33586), (32, 33601), (42, 33658), (44, 33679), (60, 33796), (65, 33832), (76, 33910), (78, 33928), (83, 33952), (95, 33976), (99, 33985),

Gene: FromIndy_45 Start: 30371, Stop: 30901, Start Num: 13

Candidate Starts for FromIndy_45:

(Start: 13 @30371 has 9 MA's), (26, 30461), (29, 30470), (39, 30509), (40, 30518), (45, 30566), (76, 30788), (89, 30836), (95, 30854),

Gene: GantcherGoblin_46 Start: 32217, Stop: 32750, Start Num: 15

Candidate Starts for GantcherGoblin_46:

(Start: 15 @32217 has 112 MA's), (34, 32331), (38, 32358), (43, 32388), (46, 32412), (63, 32550), (66, 32574), (81, 32670), (104, 32712), (108, 32730),

Gene: Giantsbane_46 Start: 32465, Stop: 33115, Start Num: 15

Candidate Starts for Giantsbane_46:

(6, 32420), (11, 32435), (Start: 15 @32465 has 112 MA's), (24, 32534), (29, 32558),

Gene: Gill_54 Start: 36803, Stop: 37399, Start Num: 16

Candidate Starts for Gill_54:

(Start: 15 @36800 has 112 MA's), (Start: 16 @36803 has 3 MA's), (30, 36902), (45, 37007), (63, 37151), (84, 37301), (92, 37316), (114, 37385),

Gene: GirlPower_44 Start: 33290, Stop: 33820, Start Num: 14

Candidate Starts for GirlPower_44:

(Start: 14 @33290 has 34 MA's), (21, 33338), (26, 33377), (29, 33386), (32, 33401), (42, 33458), (43, 33461), (44, 33479), (59, 33602), (60, 33608), (65, 33644), (76, 33722), (95, 33788), (99, 33797), (102, 33809),

Gene: GoCrazy_47 Start: 31735, Stop: 32331, Start Num: 15

Candidate Starts for GoCrazy_47:

(Start: 15 @31735 has 112 MA's), (41, 31924), (44, 31951), (55, 32050), (64, 32104), (66, 32119), (113, 32323),

Gene: GoblinVoyage_36 Start: 26330, Stop: 26851, Start Num: 14

Candidate Starts for GoblinVoyage_36:

(Start: 14 @26330 has 34 MA's), (29, 26423), (64, 26666), (65, 26669), (66, 26681), (67, 26693), (76, 26750),

Gene: Gordon_42 Start: 33925, Stop: 34584, Start Num: 15

Candidate Starts for Gordon_42:

(Start: 15 @33925 has 112 MA's), (24, 33994), (29, 34018), (42, 34102), (45, 34126), (75, 34360), (111, 34513),

Gene: Gravy_53 Start: 36473, Stop: 37072, Start Num: 15

Candidate Starts for Gravy_53:

(Start: 15 @36473 has 112 MA's), (Start: 16 @36476 has 3 MA's), (30, 36575), (45, 36680), (63, 36824), (84, 36974), (92, 36989), (114, 37058),

Gene: Gusicorn_57 Start: 37709, Stop: 38344, Start Num: 15

Candidate Starts for Gusicorn_57:

(Start: 15 @37709 has 112 MA's), (45, 37916), (63, 38060), (112, 38315), (114, 38327),

Gene: Hankly_47 Start: 31036, Stop: 31605, Start Num: 15

Candidate Starts for Hankly_47:

(Start: 15 @31036 has 112 MA's), (41, 31225), (44, 31252), (54, 31327), (55, 31351), (64, 31405),

Gene: HazuAndZazu_48 Start: 33090, Stop: 33614, Start Num: 14

Candidate Starts for HazuAndZazu_48:

(2, 33027), (4, 33045), (Start: 14 @33090 has 34 MA's), (26, 33177), (29, 33186), (32, 33201), (42, 33258), (44, 33279), (60, 33396), (65, 33432), (76, 33510), (78, 33528), (83, 33552), (95, 33576), (99, 33585),

Gene: Heisenberger_47 Start: 31299, Stop: 31895, Start Num: 15

Candidate Starts for Heisenberger_47:

(Start: 15 @31299 has 112 MA's), (41, 31488), (44, 31515), (54, 31590), (55, 31614), (64, 31668), (66, 31683), (113, 31887),

Gene: HerbBucket_43 Start: 30696, Stop: 31256, Start Num: 15

Candidate Starts for HerbBucket_43:

(Start: 15 @30696 has 112 MA's), (27, 30783), (30, 30795), (35, 30825), (40, 30849), (52, 30939), (74, 31098),

Gene: Hortihabitatio_55 Start: 37498, Stop: 38130, Start Num: 15

Candidate Starts for Hortihabitatio_55:

(Start: 15 @37498 has 112 MA's), (22, 37546), (23, 37555), (29, 37594), (33, 37612), (45, 37705), (63, 37849), (68, 37888), (75, 37945), (86, 38002), (112, 38101), (114, 38113),

Gene: Hoshi_48 Start: 32436, Stop: 32963, Start Num: 14

Candidate Starts for Hoshi_48:

(2, 32373), (4, 32391), (Start: 14 @32436 has 34 MA's), (26, 32523), (29, 32532), (32, 32547), (42, 32604), (44, 32625), (60, 32742), (65, 32778), (76, 32856), (95, 32922), (99, 32931), (103, 32946),

Gene: HotFries_35 Start: 26374, Stop: 26895, Start Num: 14

Candidate Starts for HotFries_35:

(Start: 14 @26374 has 34 MA's), (29, 26467), (64, 26710), (65, 26713), (66, 26725), (67, 26737), (95, 26863),

Gene: Hydrus_57 Start: 38564, Stop: 39199, Start Num: 15

Candidate Starts for Hydrus_57:

(Start: 15 @38564 has 112 MA's), (45, 38771), (63, 38915), (112, 39170), (114, 39182),

Gene: IceWarrior_48 Start: 32518, Stop: 33045, Start Num: 14

Candidate Starts for IceWarrior_48:

(2, 32455), (Start: 14 @32518 has 34 MA's), (26, 32605), (29, 32614), (32, 32629), (42, 32686), (44, 32707), (60, 32824), (65, 32860), (76, 32938), (95, 33004), (99, 33013), (103, 33028),

Gene: Indigenous_49 Start: 32833, Stop: 33360, Start Num: 14

Candidate Starts for Indigenous_49:

(2, 32770), (4, 32788), (Start: 14 @32833 has 34 MA's), (26, 32920), (29, 32929), (32, 32944), (42, 33001), (44, 33022), (60, 33139), (65, 33175), (76, 33253), (95, 33319), (99, 33328), (103, 33343),

Gene: Ingrid_46 Start: 33203, Stop: 33853, Start Num: 15

Candidate Starts for Ingrid_46:

(8, 33164), (10, 33170), (Start: 15 @33203 has 112 MA's), (24, 33272), (29, 33296), (70, 33608), (90, 33698), (105, 33749), (110, 33776),

Gene: Inked_48 Start: 34345, Stop: 34989, Start Num: 15

Candidate Starts for Inked_48:

(Start: 15 @34345 has 112 MA's), (24, 34414),

Gene: Issa_46 Start: 33364, Stop: 34023, Start Num: 15

Candidate Starts for Issa_46:

(Start: 15 @33364 has 112 MA's), (24, 33433), (29, 33457), (45, 33565), (66, 33733), (75, 33799), (111, 33952), (115, 33985),

Gene: JEGGS_47 Start: 31353, Stop: 31949, Start Num: 15

Candidate Starts for JEGGS_47:

(Start: 15 @31353 has 112 MA's), (41, 31542), (44, 31569), (54, 31644), (55, 31668), (64, 31722), (66, 31737), (113, 31941),

Gene: Jaylociraptor_49 Start: 32832, Stop: 33359, Start Num: 14

Candidate Starts for Jaylociraptor_49:

(2, 32769), (4, 32787), (Start: 14 @32832 has 34 MA's), (26, 32919), (29, 32928), (32, 32943), (42, 33000), (44, 33021), (60, 33138), (65, 33174), (76, 33252), (95, 33318), (99, 33327), (103, 33342),

Gene: Jodelie19_54 Start: 39096, Stop: 39734, Start Num: 15

Candidate Starts for Jodelie19_54:

(Start: 15 @39096 has 112 MA's), (45, 39303), (47, 39309), (63, 39447), (95, 39627), (112, 39705), (114, 39717),

Gene: JoyLin_44 Start: 33794, Stop: 34435, Start Num: 15

Candidate Starts for JoyLin_44:

(Start: 15 @33794 has 112 MA's), (19, 33824), (25, 33872), (43, 33968), (57, 34088), (63, 34136), (77, 34223),

Gene: JulesRay_56 Start: 36966, Stop: 37583, Start Num: 15

Candidate Starts for JulesRay_56:

(Start: 15 @36966 has 112 MA's), (Start: 16 @36969 has 3 MA's), (45, 37173), (63, 37317), (97, 37491), (114, 37569),

Gene: Kardashian_47 Start: 32934, Stop: 33467, Start Num: 13

Candidate Starts for Kardashian_47:

(Start: 13 @32934 has 9 MA's), (20, 32979), (29, 33033), (40, 33093), (44, 33138), (65, 33291), (76, 33360), (82, 33402), (89, 33411), (95, 33426), (100, 33438),

Gene: Kardesai_49 Start: 32007, Stop: 32576, Start Num: 15

Candidate Starts for Kardesai_49:

(Start: 15 @32007 has 112 MA's), (41, 32196), (44, 32223), (54, 32298), (55, 32322), (64, 32376),

Gene: KeaneyLin_47 Start: 31735, Stop: 32331, Start Num: 15

Candidate Starts for KeaneyLin_47:

(Start: 15 @31735 has 112 MA's), (41, 31924), (44, 31951), (55, 32050), (64, 32104), (66, 32119), (113, 32323),

Gene: Kenosha_54 Start: 38023, Stop: 38658, Start Num: 15

Candidate Starts for Kenosha_54:

(Start: 15 @38023 has 112 MA's), (45, 38230), (47, 38236), (63, 38374), (112, 38629), (114, 38641),

Gene: Kerry_53 Start: 36473, Stop: 37072, Start Num: 15

Candidate Starts for Kerry_53:

(Start: 15 @36473 has 112 MA's), (Start: 16 @36476 has 3 MA's), (30, 36575), (45, 36680), (63, 36824), (84, 36974), (92, 36989), (114, 37058),

Gene: KevinMinion_48 Start: 32975, Stop: 33508, Start Num: 15

Candidate Starts for KevinMinion_48:

(Start: 15 @32975 has 112 MA's), (34, 33089), (38, 33116), (43, 33146), (46, 33170), (63, 33308), (66, 33332), (81, 33428), (104, 33470), (108, 33488),

Gene: Kinny_51 Start: 34199, Stop: 34732, Start Num: 15

Candidate Starts for Kinny_51:

(Start: 15 @34199 has 112 MA's), (34, 34313), (38, 34340), (43, 34370), (63, 34532), (66, 34556), (104, 34694), (108, 34712),

Gene: Leathea_47 Start: 31879, Stop: 32409, Start Num: 15

Candidate Starts for Leathea_47:

(Start: 15 @31879 has 112 MA's), (27, 31966), (34, 31993), (38, 32020), (43, 32050), (63, 32212), (66, 32236), (104, 32371), (108, 32389),

Gene: Lewando_49 Start: 33491, Stop: 34024, Start Num: 15

Candidate Starts for Lewando_49:

(Start: 15 @33491 has 112 MA's), (34, 33605), (38, 33632), (43, 33662), (63, 33824), (66, 33848), (104, 33986), (108, 34004),

Gene: LibertyBell_44 Start: 30077, Stop: 30595, Start Num: 13

Candidate Starts for LibertyBell_44:

(Start: 13 @30077 has 9 MA's), (26, 30164), (29, 30173), (31, 30182), (44, 30266), (53, 30308), (61, 30392), (76, 30485), (82, 30527), (85, 30536), (94, 30551),

Gene: LilHuddy_46 Start: 33411, Stop: 34067, Start Num: 15
Candidate Starts for LilHuddy_46:
(Start: 15 @33411 has 112 MA's), (24, 33480), (29, 33504),

Gene: Linda_43 Start: 30992, Stop: 31552, Start Num: 15
Candidate Starts for Linda_43:
(Start: 15 @30992 has 112 MA's), (27, 31079), (30, 31091), (35, 31121), (40, 31145), (52, 31235), (74, 31394),

Gene: Loretta_46 Start: 33203, Stop: 33853, Start Num: 15
Candidate Starts for Loretta_46:
(8, 33164), (10, 33170), (Start: 15 @33203 has 112 MA's), (24, 33272), (29, 33296), (70, 33608), (90, 33698), (105, 33749), (110, 33776),

Gene: LucySwiss_46 Start: 33166, Stop: 33825, Start Num: 15
Candidate Starts for LucySwiss_46:
(Start: 15 @33166 has 112 MA's), (24, 33235), (29, 33259), (66, 33535), (75, 33601), (111, 33754), (115, 33787),

Gene: Madamoto_50 Start: 32898, Stop: 33428, Start Num: 14
Candidate Starts for Madamoto_50:
(3, 32847), (7, 32865), (Start: 14 @32898 has 34 MA's), (21, 32946), (26, 32985), (29, 32994), (32, 33009), (40, 33042), (42, 33066), (43, 33069), (44, 33087), (65, 33240), (76, 33318), (95, 33384), (99, 33393), (103, 33408),

Gene: Madvan_55 Start: 37433, Stop: 38068, Start Num: 15
Candidate Starts for Madvan_55:
(Start: 15 @37433 has 112 MA's), (45, 37640), (63, 37784), (112, 38039), (114, 38051),

Gene: Magel_55 Start: 36719, Stop: 37315, Start Num: 16
Candidate Starts for Magel_55:
(Start: 15 @36716 has 112 MA's), (Start: 16 @36719 has 3 MA's), (30, 36818), (45, 36923), (63, 37067), (84, 37217), (92, 37232), (114, 37301),

Gene: MajinBuu_55 Start: 37725, Stop: 38363, Start Num: 15
Candidate Starts for MajinBuu_55:
(Start: 15 @37725 has 112 MA's), (45, 37932), (47, 37938), (63, 38076), (112, 38334), (114, 38346),

Gene: Makai_44 Start: 33397, Stop: 34047, Start Num: 15
Candidate Starts for Makai_44:
(Start: 15 @33397 has 112 MA's), (24, 33466), (29, 33490), (45, 33598),

Gene: Maya_49 Start: 32846, Stop: 33373, Start Num: 14
Candidate Starts for Maya_49:
(2, 32783), (4, 32801), (Start: 14 @32846 has 34 MA's), (26, 32933), (29, 32942), (32, 32957), (42, 33014), (44, 33035), (60, 33152), (65, 33188), (76, 33266), (95, 33332), (99, 33341), (103, 33356),

Gene: Meibysrarus_47 Start: 32209, Stop: 32736, Start Num: 14
Candidate Starts for Meibysrarus_47:
(2, 32146), (4, 32164), (Start: 14 @32209 has 34 MA's), (26, 32296), (29, 32305), (32, 32320), (42, 32377), (44, 32398), (60, 32515), (65, 32551), (76, 32629), (95, 32695), (99, 32704), (103, 32719),

Gene: Michelle_43 Start: 30994, Stop: 31554, Start Num: 15

Candidate Starts for Michelle_43:

(Start: 15 @30994 has 112 MA's), (27, 31081), (30, 31093), (35, 31123), (40, 31147), (52, 31237), (74, 31396),

Gene: Miek_44 Start: 30383, Stop: 30913, Start Num: 13

Candidate Starts for Miek_44:

(Start: 13 @30383 has 9 MA's), (26, 30473), (29, 30482), (39, 30521), (40, 30530), (45, 30578), (76, 30800), (89, 30848), (95, 30866),

Gene: MiniBagel_44 Start: 34052, Stop: 34711, Start Num: 15

Candidate Starts for MiniBagel_44:

(Start: 15 @34052 has 112 MA's), (24, 34121), (29, 34145), (66, 34421), (115, 34673),

Gene: Mooshroom_50 Start: 32007, Stop: 32576, Start Num: 15

Candidate Starts for Mooshroom_50:

(Start: 15 @32007 has 112 MA's), (41, 32196), (44, 32223), (54, 32298), (55, 32322), (64, 32376),

Gene: Moozy_35 Start: 26330, Stop: 26851, Start Num: 14

Candidate Starts for Moozy_35:

(Start: 14 @26330 has 34 MA's), (29, 26423), (64, 26666), (65, 26669), (66, 26681), (67, 26693), (95, 26819),

Gene: Mossy_58 Start: 39452, Stop: 40093, Start Num: 15

Candidate Starts for Mossy_58:

(Start: 15 @39452 has 112 MA's), (22, 39500), (29, 39548), (37, 39596), (45, 39659), (63, 39803), (66, 39827), (68, 39842), (96, 39992), (101, 40007), (112, 40064), (114, 40076),

Gene: MrAaronian_43 Start: 30994, Stop: 31554, Start Num: 15

Candidate Starts for MrAaronian_43:

(Start: 15 @30994 has 112 MA's), (27, 31081), (30, 31093), (35, 31123), (40, 31147), (52, 31237), (74, 31396),

Gene: Mudcat_45 Start: 32712, Stop: 33308, Start Num: 15

Candidate Starts for Mudcat_45:

(Start: 15 @32712 has 112 MA's), (41, 32901), (44, 32928), (54, 33003), (55, 33027), (64, 33081), (66, 33096), (113, 33300),

Gene: Mysticmoon_56 Start: 38307, Stop: 38939, Start Num: 15

Candidate Starts for Mysticmoon_56:

(Start: 15 @38307 has 112 MA's), (22, 38355), (29, 38403), (37, 38451), (45, 38514), (56, 38616), (63, 38658), (68, 38697), (75, 38754), (87, 38817), (96, 38838), (107, 38874), (112, 38910), (114, 38922),

Gene: Nadmeg_56 Start: 38679, Stop: 39314, Start Num: 15

Candidate Starts for Nadmeg_56:

(Start: 15 @38679 has 112 MA's), (45, 38886), (63, 39030), (112, 39285), (114, 39297),

Gene: Namo_50 Start: 33177, Stop: 33704, Start Num: 14

Candidate Starts for Namo_50:

(2, 33114), (4, 33132), (Start: 14 @33177 has 34 MA's), (26, 33264), (29, 33273), (32, 33288), (42, 33345), (44, 33366), (60, 33483), (65, 33519), (76, 33597), (95, 33663), (99, 33672), (103, 33687),

Gene: NapoleonB_48 Start: 31823, Stop: 32392, Start Num: 15

Candidate Starts for NapoleonB_48:

(Start: 15 @31823 has 112 MA's), (41, 32012), (44, 32039), (54, 32114), (55, 32138), (64, 32192),

Gene: Nason_48 Start: 31859, Stop: 32455, Start Num: 15

Candidate Starts for Nason_48:

(Start: 15 @31859 has 112 MA's), (41, 32048), (44, 32075), (55, 32174), (64, 32228), (66, 32243), (113, 32447),

Gene: Natasha_43 Start: 30712, Stop: 31287, Start Num: 15

Candidate Starts for Natasha_43:

(Start: 15 @30712 has 112 MA's), (27, 30799), (29, 30805), (35, 30841), (36, 30844), (44, 30910), (65, 31069), (82, 31147),

Gene: Navi1117_50 Start: 32920, Stop: 33453, Start Num: 15

Candidate Starts for Navi1117_50:

(Start: 15 @32920 has 112 MA's), (24, 32989), (34, 33034), (38, 33061), (43, 33091), (46, 33115), (63, 33253), (66, 33277), (81, 33373), (104, 33415), (108, 33433),

Gene: Nightmare_46 Start: 34312, Stop: 34971, Start Num: 15

Candidate Starts for Nightmare_46:

(Start: 15 @34312 has 112 MA's), (24, 34381), (29, 34405), (66, 34681), (69, 34699), (75, 34747), (115, 34933),

Gene: Niktson_44 Start: 33745, Stop: 34404, Start Num: 15

Candidate Starts for Niktson_44:

(Start: 15 @33745 has 112 MA's), (24, 33814), (29, 33838), (75, 34180), (115, 34366),

Gene: Nithya_55 Start: 37534, Stop: 38172, Start Num: 15

Candidate Starts for Nithya_55:

(Start: 15 @37534 has 112 MA's), (45, 37741), (47, 37747), (63, 37885), (95, 38065), (112, 38143), (114, 38155),

Gene: Nivinsha_45 Start: 33292, Stop: 33951, Start Num: 15

Candidate Starts for Nivinsha_45:

(8, 33253), (12, 33268), (Start: 15 @33292 has 112 MA's), (24, 33361), (29, 33385), (42, 33469), (45, 33493), (105, 33847),

Gene: NoPickles_53 Start: 36138, Stop: 36737, Start Num: 15

Candidate Starts for NoPickles_53:

(Start: 15 @36138 has 112 MA's), (Start: 16 @36141 has 3 MA's), (30, 36240), (45, 36345), (63, 36489), (84, 36639), (92, 36654), (114, 36723),

Gene: Odesza_53 Start: 36528, Stop: 37145, Start Num: 15

Candidate Starts for Odesza_53:

(Start: 15 @36528 has 112 MA's), (Start: 16 @36531 has 3 MA's), (30, 36630), (45, 36735), (63, 36879), (114, 37131),

Gene: OhMyWard_53 Start: 38645, Stop: 39286, Start Num: 15

Candidate Starts for OhMyWard_53:

(Start: 15 @38645 has 112 MA's), (22, 38693), (29, 38741), (37, 38789), (45, 38852), (63, 38996), (66, 39020), (68, 39035), (75, 39092), (96, 39185), (101, 39200), (112, 39257), (114, 39269),

Gene: OlgasClover_56 Start: 38677, Stop: 39315, Start Num: 15

Candidate Starts for OlgasClover_56:

(Start: 15 @38677 has 112 MA's), (45, 38884), (47, 38890), (63, 39028), (95, 39208), (112, 39286), (114, 39298),

Gene: OlympicHelado_49 Start: 32860, Stop: 33387, Start Num: 14

Candidate Starts for OlympicHelado_49:

(2, 32797), (4, 32815), (Start: 14 @32860 has 34 MA's), (26, 32947), (29, 32956), (32, 32971), (42, 33028), (44, 33049), (60, 33166), (65, 33202), (76, 33280), (95, 33346), (99, 33355), (103, 33370),

Gene: Petito_56 Start: 38630, Stop: 39244, Start Num: 15

Candidate Starts for Petito_56:

(Start: 15 @38630 has 112 MA's), (Start: 16 @38633 has 3 MA's), (45, 38837), (63, 38981), (73, 39050), (75, 39077), (80, 39116), (91, 39137), (97, 39152), (114, 39230),

Gene: Phaby_46 Start: 33645, Stop: 34295, Start Num: 15

Candidate Starts for Phaby_46:

(Start: 15 @33645 has 112 MA's), (24, 33714), (29, 33738),

Gene: Phaila_49 Start: 32107, Stop: 32637, Start Num: 15

Candidate Starts for Phaila_49:

(Start: 15 @32107 has 112 MA's), (24, 32176), (34, 32221), (38, 32248), (43, 32278), (46, 32302), (63, 32440), (66, 32464), (81, 32560), (104, 32602),

Gene: Phepper_56 Start: 37695, Stop: 38330, Start Num: 15

Candidate Starts for Phepper_56:

(Start: 15 @37695 has 112 MA's), (45, 37902), (63, 38046), (112, 38301), (114, 38313),

Gene: Pherobrine_56 Start: 38600, Stop: 39232, Start Num: 15

Candidate Starts for Pherobrine_56:

(Start: 15 @38600 has 112 MA's), (22, 38648), (29, 38696), (37, 38744), (45, 38807), (56, 38909), (63, 38951), (68, 38990), (75, 39047), (87, 39110), (96, 39131), (107, 39167), (112, 39203), (114, 39215),

Gene: PherryCruz_35 Start: 26326, Stop: 26847, Start Num: 14

Candidate Starts for PherryCruz_35:

(Start: 14 @26326 has 34 MA's), (29, 26419), (64, 26662), (65, 26665), (66, 26677), (67, 26689), (76, 26746),

Gene: Pippin15_44 Start: 30581, Stop: 31216, Start Num: 15

Candidate Starts for Pippin15_44:

(Start: 15 @30581 has 112 MA's), (25, 30659), (43, 30755), (57, 30875), (62, 30917), (63, 30923), (77, 31010), (95, 31058),

Gene: Popy_49 Start: 33490, Stop: 34014, Start Num: 14

Candidate Starts for Popy_49:

(Start: 14 @33490 has 34 MA's), (26, 33577), (29, 33586), (32, 33601), (42, 33658), (44, 33679), (60, 33796), (65, 33832), (76, 33910), (78, 33928), (83, 33952), (95, 33976), (99, 33985),

Gene: Powelldog_48 Start: 31692, Stop: 32306, Start Num: 15

Candidate Starts for Powelldog_48:

(Start: 15 @31692 has 112 MA's), (27, 31779), (29, 31785), (30, 31791), (35, 31821), (45, 31893), (65, 32049), (66, 32061), (67, 32073), (104, 32217), (109, 32241), (116, 32289),

Gene: ProfFrink_43 Start: 30995, Stop: 31555, Start Num: 15

Candidate Starts for ProfFrink_43:

(Start: 15 @30995 has 112 MA's), (27, 31082), (30, 31094), (35, 31124), (40, 31148), (52, 31238), (74, 31397),

Gene: Rainydai_44 Start: 30767, Stop: 31297, Start Num: 13

Candidate Starts for Rainydai_44:

(Start: 13 @30767 has 9 MA's), (26, 30857), (29, 30866), (39, 30905), (40, 30914), (45, 30962), (76, 31184), (89, 31232), (95, 31250),

Gene: Raunak_46 Start: 30692, Stop: 31252, Start Num: 15

Candidate Starts for Raunak_46:

(Start: 15 @30692 has 112 MA's), (27, 30779), (30, 30791), (35, 30821), (40, 30845), (52, 30935), (74, 31094),

Gene: RavenPuff_35 Start: 26326, Stop: 26847, Start Num: 14

Candidate Starts for RavenPuff_35:

(Start: 14 @26326 has 34 MA's), (29, 26419), (64, 26662), (65, 26665), (66, 26677), (67, 26689), (76, 26746),

Gene: Regigigas_46 Start: 30768, Stop: 31298, Start Num: 13

Candidate Starts for Regigigas_46:

(Start: 13 @30768 has 9 MA's), (26, 30858), (29, 30867), (39, 30906), (40, 30915), (45, 30963), (76, 31185), (89, 31233), (95, 31251),

Gene: Renaldo_52 Start: 33800, Stop: 34333, Start Num: 15

Candidate Starts for Renaldo_52:

(Start: 15 @33800 has 112 MA's), (34, 33914), (38, 33941), (43, 33971), (63, 34133), (66, 34157), (104, 34295),

Gene: Rickmore_51 Start: 35485, Stop: 36111, Start Num: 15

Candidate Starts for Rickmore_51:

(Start: 15 @35485 has 112 MA's), (40, 35644), (45, 35692), (53, 35737), (63, 35836), (71, 35899), (93, 36004), (98, 36013), (114, 36094),

Gene: Rima_50 Start: 33177, Stop: 33704, Start Num: 14

Candidate Starts for Rima_50:

(2, 33114), (4, 33132), (Start: 14 @33177 has 34 MA's), (26, 33264), (29, 33273), (32, 33288), (42, 33345), (44, 33366), (60, 33483), (65, 33519), (76, 33597), (95, 33663), (99, 33672), (103, 33687),

Gene: Roney_54 Start: 36826, Stop: 37425, Start Num: 15

Candidate Starts for Roney_54:

(Start: 15 @36826 has 112 MA's), (Start: 16 @36829 has 3 MA's), (30, 36928), (45, 37033), (63, 37177), (84, 37327), (92, 37342), (114, 37411),

Gene: RosaAsantewaa_32 Start: 25470, Stop: 25979, Start Num: 14

Candidate Starts for RosaAsantewaa_32:

(1, 25332), (Start: 14 @25470 has 34 MA's), (30, 25569), (46, 25662), (57, 25758), (64, 25806), (76, 25884), (79, 25911), (99, 25959),

Gene: Runhaar_55 Start: 37495, Stop: 38130, Start Num: 15

Candidate Starts for Runhaar_55:

(Start: 15 @37495 has 112 MA's), (45, 37702), (63, 37846), (112, 38101), (114, 38113),

Gene: RustyBoy_43 Start: 30693, Stop: 31268, Start Num: 15

Candidate Starts for RustyBoy_43:

(Start: 15 @30693 has 112 MA's), (27, 30780), (29, 30786), (35, 30822), (36, 30825), (44, 30891), (49, 30921), (65, 31050), (82, 31128),

Gene: Salk_43 Start: 30992, Stop: 31552, Start Num: 15

Candidate Starts for Salk_43:

(Start: 15 @30992 has 112 MA's), (27, 31079), (30, 31091), (35, 31121), (40, 31145), (52, 31235), (74, 31394),

Gene: Scap1_35 Start: 26203, Stop: 26724, Start Num: 14

Candidate Starts for Scap1_35:

(Start: 14 @26203 has 34 MA's), (20, 26242), (29, 26296), (65, 26542), (66, 26554),

Gene: ScienceWizSam_45 Start: 33402, Stop: 34061, Start Num: 15

Candidate Starts for ScienceWizSam_45:

(Start: 15 @33402 has 112 MA's), (24, 33471), (29, 33495), (42, 33579), (105, 33957), (108, 33969),

Gene: Secretariat_54 Start: 36535, Stop: 37155, Start Num: 15

Candidate Starts for Secretariat_54:

(Start: 15 @36535 has 112 MA's), (36, 36673), (45, 36742), (63, 36886), (112, 37126), (114, 37138),

Gene: SendItCS_43 Start: 30371, Stop: 30901, Start Num: 13

Candidate Starts for SendItCS_43:

(Start: 13 @30371 has 9 MA's), (26, 30461), (29, 30470), (39, 30509), (40, 30518), (45, 30566), (76, 30788), (89, 30836), (95, 30854),

Gene: Serenabean_42 Start: 30574, Stop: 31215, Start Num: 15

Candidate Starts for Serenabean_42:

(Start: 15 @30574 has 112 MA's), (27, 30658), (57, 30865), (63, 30913), (68, 30952), (77, 31006),

Gene: ShaggyRogers_58 Start: 37445, Stop: 38080, Start Num: 15

Candidate Starts for ShaggyRogers_58:

(Start: 15 @37445 has 112 MA's), (45, 37652), (63, 37796), (112, 38051), (114, 38063),

Gene: SheRa_36 Start: 26372, Stop: 26893, Start Num: 14

Candidate Starts for SheRa_36:

(Start: 14 @26372 has 34 MA's), (29, 26465), (64, 26708), (65, 26711), (66, 26723), (67, 26735), (95, 26861),

Gene: Shepard_48 Start: 33483, Stop: 34139, Start Num: 15

Candidate Starts for Shepard_48:

(Start: 15 @33483 has 112 MA's), (24, 33552), (29, 33576), (48, 33702),

Gene: Shiba_42 Start: 30692, Stop: 31252, Start Num: 15

Candidate Starts for Shiba_42:

(Start: 15 @30692 has 112 MA's), (27, 30779), (30, 30791), (35, 30821), (40, 30845), (52, 30935), (74, 31094),

Gene: Sloopyjoe_43 Start: 30996, Stop: 31556, Start Num: 15

Candidate Starts for Sloopyjoe_43:

(Start: 15 @30996 has 112 MA's), (27, 31083), (30, 31095), (35, 31125), (40, 31149), (52, 31239), (74, 31398),

Gene: Soshi_48 Start: 33109, Stop: 33633, Start Num: 14

Candidate Starts for Soshi_48:

(2, 33046), (4, 33064), (Start: 14 @33109 has 34 MA's), (26, 33196), (29, 33205), (32, 33220), (42, 33277), (44, 33298), (60, 33415), (65, 33451), (76, 33529), (78, 33547), (83, 33571), (95, 33595), (99, 33604),

Gene: Spectropatronm_49 Start: 32839, Stop: 33366, Start Num: 14

Candidate Starts for Spectropatronm_49:

(2, 32776), (4, 32794), (Start: 14 @32839 has 34 MA's), (26, 32926), (29, 32935), (32, 32950), (42, 33007), (44, 33028), (60, 33145), (65, 33181), (76, 33259), (95, 33325), (99, 33334), (103, 33349),

Gene: Sporto_44 Start: 32458, Stop: 33057, Start Num: 15

Candidate Starts for Sporto_44:

(5, 32404), (Start: 15 @32458 has 112 MA's), (26, 32542), (28, 32548), (29, 32551), (30, 32557), (40, 32611), (45, 32659), (52, 32701), (65, 32824), (66, 32836), (72, 32848),

Gene: StarLord_43 Start: 30995, Stop: 31555, Start Num: 15

Candidate Starts for StarLord_43:

(Start: 15 @30995 has 112 MA's), (27, 31082), (30, 31094), (35, 31124), (40, 31148), (52, 31238), (74, 31397),

Gene: Stayer_43 Start: 30992, Stop: 31552, Start Num: 15

Candidate Starts for Stayer_43:

(Start: 15 @30992 has 112 MA's), (27, 31079), (30, 31091), (35, 31121), (40, 31145), (52, 31235), (74, 31394),

Gene: Sweetclover_39 Start: 29341, Stop: 30015, Start Num: 15

Candidate Starts for Sweetclover_39:

(Start: 15 @29341 has 112 MA's), (27, 29425), (43, 29512), (57, 29632), (59, 29641), (63, 29680), (68, 29719), (88, 29824), (89, 29830), (106, 29887),

Gene: Synopsis_43 Start: 33411, Stop: 34073, Start Num: 15

Candidate Starts for Synopsis_43:

(Start: 15 @33411 has 112 MA's), (24, 33480), (29, 33504), (45, 33612), (66, 33780), (75, 33846), (115, 34035),

Gene: TaidaOne_49 Start: 33344, Stop: 33871, Start Num: 14

Candidate Starts for TaidaOne_49:

(2, 33281), (Start: 14 @33344 has 34 MA's), (26, 33431), (29, 33440), (32, 33455), (42, 33512), (44, 33533), (60, 33650), (65, 33686), (76, 33764), (95, 33830), (99, 33839), (103, 33854),

Gene: Tanis_54 Start: 36646, Stop: 37245, Start Num: 15

Candidate Starts for Tanis_54:

(Start: 15 @36646 has 112 MA's), (Start: 16 @36649 has 3 MA's), (30, 36748), (45, 36853), (63, 36997), (84, 37147), (92, 37162), (114, 37231),

Gene: Tatanka_43 Start: 33581, Stop: 34243, Start Num: 15

Candidate Starts for Tatanka_43:

(Start: 15 @33581 has 112 MA's), (24, 33650), (29, 33674), (75, 34016), (115, 34205),

Gene: Teacup_45 Start: 33771, Stop: 34433, Start Num: 15

Candidate Starts for Teacup_45:

(Start: 15 @33771 has 112 MA's), (24, 33840), (29, 33864), (66, 34140), (75, 34206), (115, 34395),

Gene: TenaciousP_55 Start: 39058, Stop: 39696, Start Num: 15

Candidate Starts for TenaciousP_55:

(Start: 15 @39058 has 112 MA's), (45, 39265), (47, 39271), (63, 39409), (95, 39589), (112, 39667), (114, 39679),

Gene: Tenney120_49 Start: 32517, Stop: 33050, Start Num: 15

Candidate Starts for Tenney120_49:

(Start: 15 @32517 has 112 MA's), (34, 32631), (38, 32658), (43, 32688), (46, 32712), (63, 32850), (66, 32874), (81, 32970), (104, 33012), (108, 33030),

Gene: Tenno_45 Start: 34060, Stop: 34719, Start Num: 15

Candidate Starts for Tenno_45:

(Start: 15 @34060 has 112 MA's), (24, 34129), (29, 34153), (66, 34429), (115, 34681),

Gene: Thiqqums_45 Start: 30767, Stop: 31297, Start Num: 13

Candidate Starts for Thiqqums_45:

(Start: 13 @30767 has 9 MA's), (26, 30857), (29, 30866), (39, 30905), (40, 30914), (45, 30962), (76, 31184), (89, 31232), (95, 31250),

Gene: TieDye_48 Start: 32432, Stop: 32959, Start Num: 14

Candidate Starts for TieDye_48:

(2, 32369), (4, 32387), (Start: 14 @32432 has 34 MA's), (26, 32519), (29, 32528), (32, 32543), (42, 32600), (44, 32621), (60, 32738), (65, 32774), (76, 32852), (95, 32918), (99, 32927), (103, 32942),

Gene: Tokki_48 Start: 33269, Stop: 33919, Start Num: 15

Candidate Starts for Tokki_48:

(6, 33224), (11, 33239), (Start: 15 @33269 has 112 MA's), (24, 33338), (29, 33362),

Gene: TonyStarch_48 Start: 32553, Stop: 33080, Start Num: 14

Candidate Starts for TonyStarch_48:

(2, 32490), (4, 32508), (Start: 14 @32553 has 34 MA's), (26, 32640), (29, 32649), (32, 32664), (42, 32721), (44, 32742), (60, 32859), (65, 32895), (76, 32973), (95, 33039), (99, 33048), (103, 33063),

Gene: Tribby_48 Start: 31560, Stop: 32129, Start Num: 15

Candidate Starts for Tribby_48:

(Start: 15 @31560 has 112 MA's), (41, 31749), (44, 31776), (54, 31851), (55, 31875), (64, 31929), (66, 31944),

Gene: TrixiePhattel_48 Start: 32174, Stop: 32704, Start Num: 15

Candidate Starts for TrixiePhattel_48:

(Start: 15 @32174 has 112 MA's), (27, 32261), (34, 32288), (38, 32315), (43, 32345), (63, 32507), (66, 32531), (77, 32600),

Gene: Truckee_42 Start: 33185, Stop: 33835, Start Num: 15

Candidate Starts for Truckee_42:

(Start: 15 @33185 has 112 MA's), (24, 33254), (29, 33278), (45, 33386),

Gene: Trufflozitus_58 Start: 37308, Stop: 37925, Start Num: 15

Candidate Starts for Trufflozitus_58:

(Start: 15 @37308 has 112 MA's), (Start: 16 @37311 has 3 MA's), (45, 37515), (63, 37659), (97, 37833), (114, 37911),

Gene: Trustiboi_44 Start: 33620, Stop: 34279, Start Num: 15

Candidate Starts for Trustiboi_44:

(Start: 15 @33620 has 112 MA's), (24, 33689), (29, 33713), (42, 33797), (45, 33821), (105, 34175), (108, 34187), (111, 34208),

Gene: Untouchable_56 Start: 38044, Stop: 38679, Start Num: 15

Candidate Starts for Untouchable_56:

(Start: 15 @38044 has 112 MA's), (45, 38251), (63, 38395), (112, 38650), (114, 38662),

Gene: Uzumaki_45 Start: 32211, Stop: 32744, Start Num: 15

Candidate Starts for Uzumaki_45:

(Start: 15 @32211 has 112 MA's), (34, 32325), (38, 32352), (43, 32382), (46, 32406), (63, 32544), (66, 32568), (81, 32664), (104, 32706), (108, 32724),

Gene: Vardy_54 Start: 37385, Stop: 38020, Start Num: 15

Candidate Starts for Vardy_54:

(Start: 15 @37385 has 112 MA's), (45, 37592), (63, 37736), (112, 37991), (114, 38003),

Gene: Xenomorph_44 Start: 31272, Stop: 31862, Start Num: 15

Candidate Starts for Xenomorph_44:

(Start: 15 @31272 has 112 MA's), (41, 31461), (44, 31488), (54, 31563), (55, 31587), (64, 31641), (66, 31656), (81, 31755),

Gene: Yotsuba_44 Start: 33812, Stop: 34453, Start Num: 15

Candidate Starts for Yotsuba_44:

(Start: 15 @33812 has 112 MA's), (19, 33842), (25, 33890), (43, 33986), (57, 34106), (62, 34148), (63, 34154), (77, 34241),

Gene: Zeina_48 Start: 32530, Stop: 33063, Start Num: 15

Candidate Starts for Zeina_48:

(Start: 15 @32530 has 112 MA's), (34, 32644), (38, 32671), (43, 32701), (46, 32725), (63, 32863), (66, 32887), (81, 32983), (104, 33025), (108, 33043),

Gene: Zeph_57 Start: 38532, Stop: 39167, Start Num: 15

Candidate Starts for Zeph_57:

(Start: 15 @38532 has 112 MA's), (45, 38739), (53, 38784), (56, 38841), (63, 38883), (112, 39138), (114, 39150),

Gene: Zippen_46 Start: 34044, Stop: 34688, Start Num: 15

Candidate Starts for Zippen_46:

(Start: 15 @34044 has 112 MA's), (24, 34113),