Pham 283492

Pham 283492

51: DumpTruck_44
52: ParvusTarda_48 + 9
53: LavAbarElk_48 + 2
54: Erutan_48
55: RazorC_48 + 4
56: Xenia2_45
57: Dulcita_3 + 4
58: MrMagoo_3 + 3
59: Estes_3
60: DocB7_058
61: Finch_182
62: E3_gp97
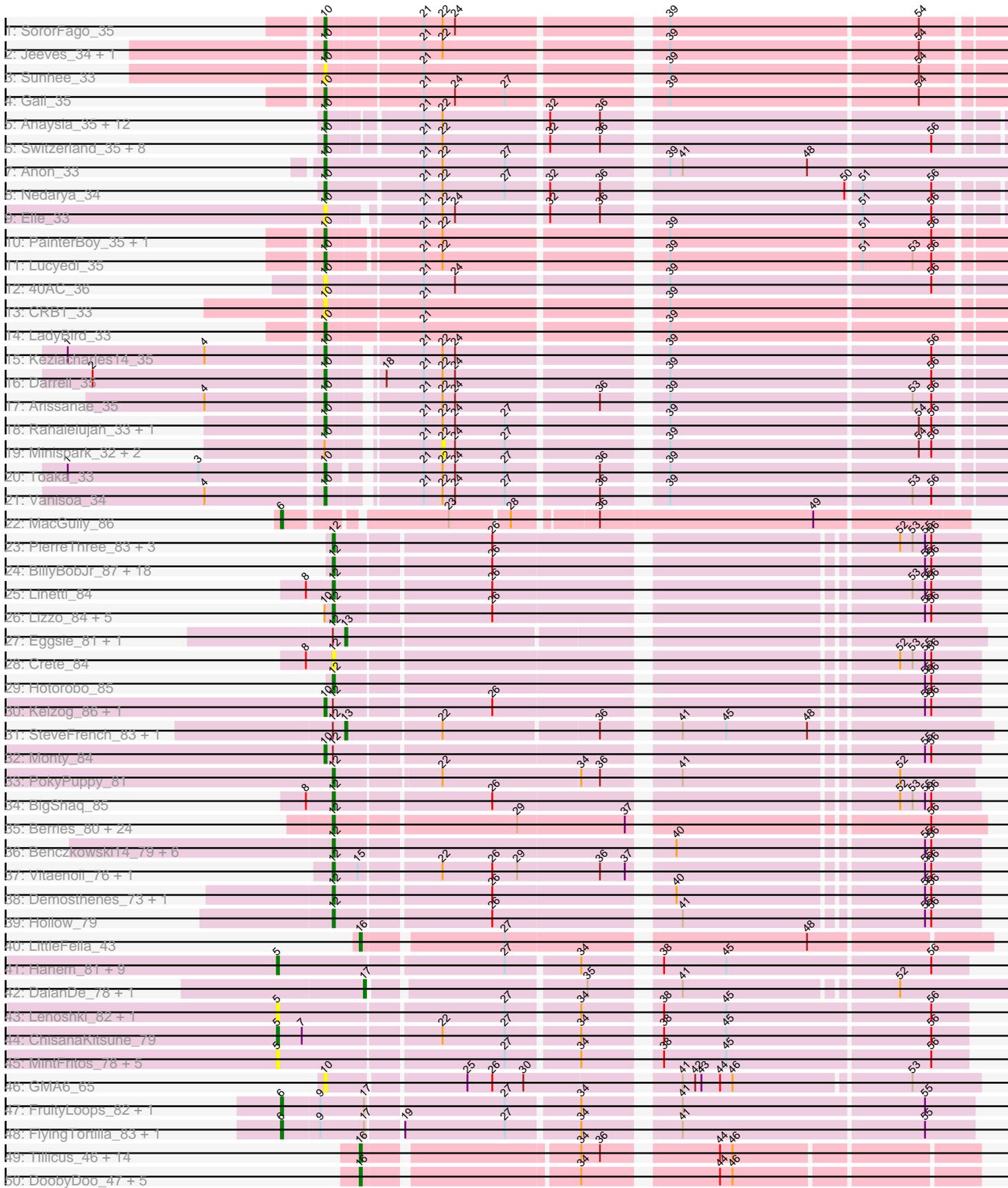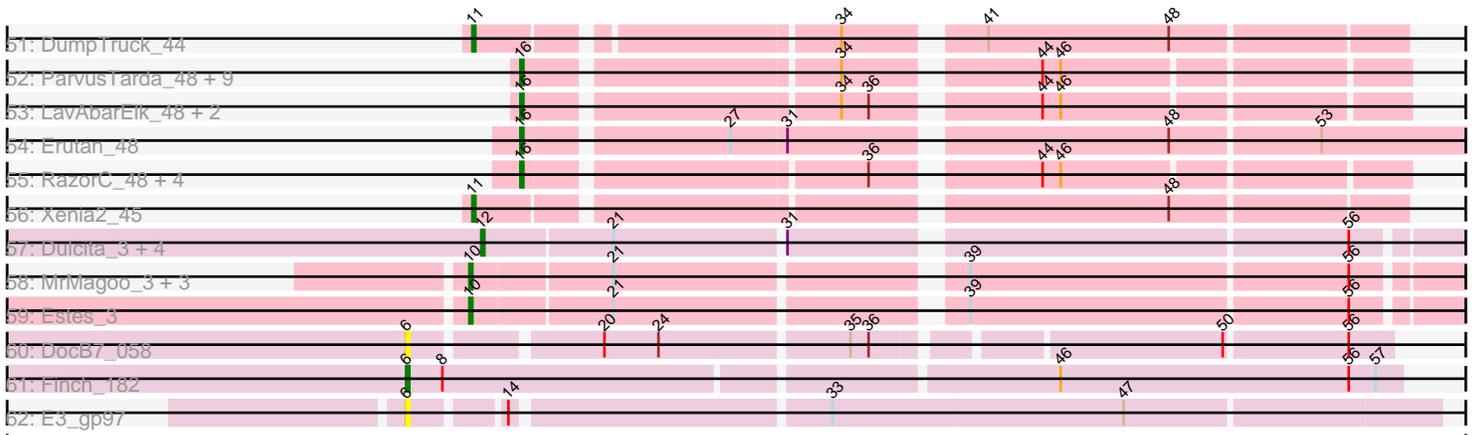
Note: Tracks are now grouped by subcluster and scaled. Switching in subcluster is indicated by changes in track color. Track scale is now set by default to display the region 30 bp upstream of start 1 to 30 bp downstream of the last possible start. If this default region is judged to be packed too tightly 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 283492 Report

This analysis was run 02/23/26 on database version 636.

Pham number 283492 has 207 members, 37 are drafts.

Phages represented in each track:
• Track 1 : SororFago_35
• Track 2 : Jeeves_34, Luchador_37
• Track 3 : Sunhee_33
• Track 4 : Gail_35
• Track 5 : Anaysia_35, Ravana_36, LastResort_35, Boohoo_35, KatherineG_35, Epsocamisio_35, DekHockey33_35, Rosalind_35, Nebulosus_35, MinecraftSteve_36, ReMo_35, JSwag_35, ShayRa_36
• Track 6 : Switzerland_35, Soups_35, Warrior24_35, Waits_35, Remus_35, Strosahl_35, Oofda_35, Looper_36, Battleship_36
• Track 7 : Anon_33
• Track 8 : Nedarya_34
• Track 9 : Elle_33
• Track 10 : PainterBoy_35, EagleEye_36
• Track 11 : Lucyedi_35
• Track 12 : 40AC_36
• Track 13 : CRB1_33
• Track 14 : LadyBird_33
• Track 15 : Keziacharles14_35
• Track 16 : Darrell_35
• Track 17 : Arissanae_35
• Track 18 : Rahalelujah_33, Bellris_32
• Track 19 : Minispark_32, CogOmlette_32, WorldCup_32
• Track 20 : Toaka_33
• Track 21 : Vanisoa_34
• Track 22 : MacGully_86
• Track 23 : PierreThree_83, Chelms_84, Dakiti_85, BenoitCattle_85
• Track 24 : BillyBobJr_87, Ekhein_85, Gorko_83, Poland_87, CinnamonToast_87, BirksAndSocks_87, FelixAlejandro_87, Exiguo_82, RemRem_86, Sam12_82, Sombrero_84, Beaver_86, Adgers_86, Jellybones_84, Msay19_87, Butterball_85, Flakey_84, Worcestershire_82, Boneham_86
• Track 25 : Linetti_84
• Track 26 : Lizzo_84, Breezic_85, Squibbles_84, CathyBurgh_84, GourdThymes_84, Barbochs_81
• Track 27 : Eggsie_81, Diabla_89
• Track 28 : Crete_84
• Track 29 : Hotorobo_85
• Track 30 : Kelzog_86, John316_87

- Track 31 : SteveFrench_83, RoyalG_84
- Track 32 : Monty_84
- Track 33 : PokyPuppy_81
- Track 34 : BigShaq_85
- Track 35 : Berries_80, GalacticEye_80, Hello_79, Luker_81, Guillaume_79, Charianelly_80, Newt_81, Damp_80, Minos_81, MrWormie_80, Nimi13_79, Kaseim_80, Bianmat_80, Lidong_80, Jormungandr_79, Teal_79, Jams_80, Woes_79, Sticker17_80, Anamika_79, Hail2Pitt_78, Lahirium_80, Neoevie_79, Shelley_80, Harambe_79
- Track 36 : Benczkowski14_79, Kvothe_78, Niagara_78, Tredge_78, Katyusha_77, Teatealatte_79, Teech_79
- Track 37 : Vitaenoii_76, Philon9_76
- Track 38 : Demosthenes_73, ASerpRocky_73
- Track 39 : Hollow_79
- Track 40 : LittleFella_43
- Track 41 : Hanem_81, Aloki_77, Chidiebere_82, Kabocha_83, Pakusa_78, Gray_82, Twin_77, Mikronejon_78, Schomber_80, EmoNemo_77
- Track 42 : DalanDe_78, Thales_76
- Track 43 : Lenoshki_82, Beted_82
- Track 44 : ChisanaKitsune_79
- Track 45 : MintFritos_78, Farrylious_79, Toneprano_79, Oogie_81, Amoonguss_79, Argena_79
- Track 46 : GMA6_65
- Track 47 : FruityLoops_82, UBSmoodge_85
- Track 48 : FlyingTortilla_83, ScarletRaider_82
- Track 49 : Tillicus_46, Apeppi_45, Avian_47, Zany_47, Wojtek_47, Sampudon_49, Jalebi_48, MoiGyank_52, Mima20_48, Astralis_48, Charminar_48, Gibbin_50, Stormer_50, Rumi_49, LuckyLeo_47
- Track 50 : DoobyDoo_47, Rota_47, Yikes_50, Rukungu_51, Lila22_49, DaviePasture_49
- Track 51 : DumpTruck_44
- Track 52 : ParvusTarda_48, BirthdayBoy_51, GOATification_49, OtterstedtS21_48, Fulcrum_49, Alephilan_47, GretelLyn_48, Lambo_48, Sadboi_49, Ranch_50
- Track 53 : LavAbarElk_48, NorManre_51, Patos_51
- Track 54 : Erutan_48
- Track 55 : RazorC_48, NovaSharks_50, Jamemuya19_48, Alyssamiracle_51, Genamy16_51
- Track 56 : Xenia2_45
- Track 57 : Dulcita_3, Izel_3, FreakyGoo_3, Diminimus_3, Glaske16_3
- Track 58 : MrMagoo_3, Aziz_3, GenevaB15_3, GardenSalsa_3
- Track 59 : Estes_3
- Track 60 : DocB7_058
- Track 61 : Finch_182
- Track 62 : E3_gp97

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

The start number called the most often in the published annotations is 12, it was called in 72 of the 170 non-draft genes in the pham.

Genes that call this "Most Annotated" start:
• ASerpRocky_73, Adgers_86, Anamika_79, Barbochs_81, Beaver_86, Benczkowski14_79, BenoitCattle_85, Berries_80, Bianmat_80, BigShaq_85, BillyBobJr_87, BirksAndSocks_87, Boneham_86, Breezic_85, Butterball_85, CathyBurgh_84, Charianelly_80, Chelms_84, CinnamonToast_87, Crete_84, Dakiti_85, Damp_80, Demosthenes_73, Diminimus_3, Dulcita_3, Ekhein_85, Exiguo_82, FelixAlejandro_87, Flakey_84, FreakyGoo_3, GalacticEye_80, Glaske16_3, Gorko_83, GourdThymes_84, Guillaume_79, Hail2Pitt_78, Harambe_79, Hello_79, Hollow_79, Hotorobo_85, Izel_3, Jams_80, Jellybones_84, Jormungandr_79, Kaseim_80, Katyusha_77, Kvothe_78, Lahirium_80, Lidong_80, Linetti_84, Lizzo_84, Luker_81, Minos_81, MrWormie_80, Msay19_87, Neoevie_79, Newt_81, Niagara_78, Nimi13_79, Philon9_76, PierreThree_83, PokyPuppy_81, Poland_87, RemRem_86, Sam12_82, Shelley_80, Sombrero_84, Squibbles_84, Sticker17_80, Teal_79, Teatealatte_79, Teech_79, Tredge_78, Vitaenoii_76, Woes_79, Worcestershire_82,

Genes that have the "Most Annotated" start but do not call it:
• Diabla_89, Eggsie_81, John316_87, Kelzog_86, Monty_84, RoyalG_84, SteveFrench_83,

Genes that do not have the "Most Annotated" start:
• 40AC_36, Alephilan_47, Aloki_77, Alyssamiracle_51, Amoonguss_79, Anaysia_35, Anon_33, Apeppi_45, Argena_79, Arissanae_35, Astralis_48, Avian_47, Aziz_3, Battleship_36, Bellris_32, Beted_82, BirthdayBoy_51, Boohoo_35, CRB1_33, Charminar_48, Chidiebere_82, ChisanaKitsune_79, CogOmlette_32, DalanDe_78, Darrell_35, DaviePasture_49, DekHockey33_35, DocB7_058, DoobyDoo_47, DumpTruck_44, E3_gp97, EagleEye_36, Elle_33, EmoNemo_77, Epsocamisio_35, Erutan_48, Estes_3, Farrylious_79, Finch_182, FlyingTortilla_83, FruityLoops_82, Fulcrum_49, GMA6_65, GOATification_49, Gail_35, GardenSalsa_3, Genamy16_51, GenevaB15_3, Gibbin_50, Gray_82, GretelLyn_48, Hanem_81, JSwag_35, Jalebi_48, Jamemuya19_48, Jeeves_34, Kabocha_83, KatherineG_35, Keziacharles14_35, LadyBird_33, Lambo_48, LastResort_35, LavAbarElk_48, Lenoshki_82, Lila22_49, LittleFella_43, Looper_36, Luchador_37, LuckyLeo_47, Lucyedi_35, MacGully_86, Mikronejon_78, Mima20_48, MinecraftSteve_36, Minispark_32, MintFritos_78, MoiGyank_52, MrMagoo_3, Nebulosus_35, Nedarya_34, NorManre_51, NovaSharks_50, Oofda_35, Oogie_81, OtterstedtS21_48, PainterBoy_35, Pakusa_78, ParvusTarda_48, Patos_51, Rahalelujah_33, Ranch_50, Ravana_36, RazorC_48, ReMo_35, Remus_35, Rosalind_35, Rota_47, Rukungu_51, Rumi_49, Sadboi_49, Sampudon_49, ScarletRaider_82, Schomber_80, ShayRa_36, SororFago_35, Soups_35, Stormer_50, Strosahl_35, Sunhee_33, Switzerland_35, Thales_76, Tillicus_46, Toaka_33, Toneprano_79, Twin_77, UBSmoodge_85, Vanisoa_34, Waits_35, Warrior24_35, Wojtek_47, WorldCup_32, Xenia2_45, Yikes_50, Zany_47,

Summary by start number:

Start 5:
• Found in 19 of 207 (9.2%) of genes in pham
• Manual Annotations of this start: 6 of 170
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Aloki_77 (DQ), Amoonguss_79 (DQ), Argena_79 (DQ), Beted_82 (DQ), Chidiebere_82 (DQ), ChisanaKitsune_79 (DQ), EmoNemo_77 (DQ), Farrylious_79 (DQ), Gray_82 (DQ), Hanem_81 (DQ),

Kabocha_83 (DQ), Lenoshki_82 (DQ), Mikronejon_78 (DQ), MintFritos_78 (DQ), Oogie_81 (DQ), Pakusa_78 (DQ), Schomber_80 (DQ), Toneprano_79 (DQ), Twin_77 (DQ),

Start 6:
• Found in 8 of 207 (3.9%) of genes in pham
• Manual Annotations of this start: 5 of 170
• Called 100.0% of time when present
• Phage (with cluster) where this start called: DocB7_058 (singleton), E3_gp97 (singleton), Finch_182 (singleton), FlyingTortilla_83 (DQ), FruityLoops_82 (DQ), MacGully_86 (CR7), ScarletRaider_82 (DQ), UBSmoodge_85 (DQ),

Start 10:
• Found in 61 of 207 (29.5%) of genes in pham
• Manual Annotations of this start: 44 of 170
• Called 85.2% of time when present
• Phage (with cluster) where this start called: 40AC_36 (A17), Anaysia_35 (A15), Anon_33 (A15), Arissanae_35 (A9), Aziz_3 (M2), Battleship_36 (A15), Bellris_32 (A9), Boohoo_35 (A15), CRB1_33 (A2), Darrell_35 (A9), DekHockey33_35 (A15), EagleEye_36 (A16), Elle_33 (A15), Epsocamisio_35 (A15), Estes_3 (M2), GMA6_65 (DQ), Gail_35 (A14), GardenSalsa_3 (M2), GenevaB15_3 (M2), JSwag_35 (A15), Jeeves_34 (A14), John316_87 (CS2), KatherineG_35 (A15), Kelzog_86 (CS2), Keziacharles14_35 (A9), LadyBird_33 (A2), LastResort_35 (A15), Looper_36 (A15), Luchador_37 (A14), Lucyedi_35 (A16), MinecraftSteve_36 (A15), Monty_84 (CS2), MrMagoo_3 (M2), Nebulosus_35 (A15), Nedarya_34 (A15), Oofda_35 (A15), PainterBoy_35 (A16), Rahalelujah_33 (A9), Ravana_36 (A15), ReMo_35 (A15), Remus_35 (A15), Rosalind_35 (A15), ShayRa_36 (A15), SororFago_35 (A14), Soups_35 (A15), Strosahl_35 (A15), Sunhee_33 (A14), Switzerland_35 (A15), Toaka_33 (A9), Vanisoa_34 (A9), Waits_35 (A15), Warrior24_35 (A15),

Start 11:
• Found in 2 of 207 (1.0%) of genes in pham
• Manual Annotations of this start: 2 of 170
• Called 100.0% of time when present
• Phage (with cluster) where this start called: DumpTruck_44 (DV), Xenia2_45 (DV),

Start 12:
• Found in 83 of 207 (40.1%) of genes in pham
• Manual Annotations of this start: 72 of 170
• Called 91.6% of time when present
• Phage (with cluster) where this start called: ASerpRocky_73 (CS4), Adgers_86 (CS2), Anamika_79 (CS3), Barbochs_81 (CS2), Beaver_86 (CS2), Benczkowski14_79 (CS4), BenoitCattle_85 (CS2), Berries_80 (CS3), Bianmat_80 (CS3), BigShaq_85 (CS2), BillyBobJr_87 (CS2), BirksAndSocks_87 (CS2), Boneham_86 (CS2), Breezic_85 (CS2), Butterball_85 (CS2), CathyBurgh_84 (CS2), Charianelly_80 (CS3), Chelms_84 (CS2), CinnamonToast_87 (CS2), Crete_84 (CS2), Dakiti_85 (CS2), Damp_80 (CS3), Demosthenes_73 (CS4), Diminimus_3 (M1), Dulcita_3 (M1), Ekhein_85 (CS2), Exiguo_82 (CS2), FelixAlejandro_87 (CS2), Flakey_84 (CS2), FreakyGoo_3 (M1), GalacticEye_80 (CS3), Glaske16_3 (M1), Gorko_83 (CS2), GourdThymes_84 (CS2), Guillaume_79 (CS3), Hail2Pitt_78 (CS3), Harambe_79 (CS3), Hello_79 (CS3), Hollow_79 (CS4), Hotorobo_85 (CS2), Izel_3 (M1), Jams_80 (CS3), Jellybones_84 (CS2), Jormungandr_79 (CS3), Kaseim_80 (CS3), Katyusha_77 (CS4), Kvothe_78 (CS4), Lahirium_80 (CS3), Lidong_80 (CS3),

Linetti_84 (CS2), Lizzo_84 (CS2), Luker_81 (CS3), Minos_81 (CS3), MrWormie_80 (CS3), Msay19_87 (CS2), Neoevie_79 (CS3), Newt_81 (CS3), Niagara_78 (CS4), Nimi13_79 (CS3), Philon9_76 (CS4), PierreThree_83 (CS2), PokyPuppy_81 (CS2), Poland_87 (CS2), RemRem_86 (CS2), Sam12_82 (CS2), Shelley_80 (CS3), Sombrero_84 (CS2), Squibbles_84 (CS2), Sticker17_80 (CS3), Teal_79 (CS3), Teatealatte_79 (CS4), Teech_79 (CS4), Tredge_78 (CS4), Vitaenoii_76 (CS4), Woes_79 (CS3), Worcestershire_82 (CS2),

Start 13:
• Found in 4 of 207 (1.9%) of genes in pham
• Manual Annotations of this start: 4 of 170
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Diabla_89 (CS2), Eggsie_81 (CS2), RoyalG_84 (CS2), SteveFrench_83 (CS2),

Start 16:
• Found in 41 of 207 (19.8%) of genes in pham
• Manual Annotations of this start: 36 of 170
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Alephilan_47 (DV), Alyssamiracle_51 (DV), Apeppi_45 (DV), Astralis_48 (DV), Avian_47 (DV), BirthdayBoy_51 (DV), Charminar_48 (DV), DaviePasture_49 (DV), DoobyDoo_47 (DV), Erutan_48 (DV), Fulcrum_49 (DV), GOATification_49 (DV), Genamy16_51 (DV), Gibbin_50 (DV), GretelLyn_48 (DV), Jalebi_48 (DV), Jamemuya19_48 (DV), Lambo_48 (DV), LavAbarElk_48 (DV), Lila22_49 (DV), LittleFella_43 (DG2), LuckyLeo_47 (DV), Mima20_48 (DV), MoiGyank_52 (DV), NorManre_51 (DV), NovaSharks_50 (DV), OtterstedtS21_48 (DV), ParvusTarda_48 (DV), Patos_51 (DV), Ranch_50 (DV), RazorC_48 (DV), Rota_47 (DV), Rukungu_51 (DV), Rumi_49 (DV), Sadboi_49 (DV), Sampudon_49 (DV), Stormer_50 (DV), Tillicus_46 (DV), Wojtek_47 (DV), Yikes_50 (DV), Zany_47 (DV),

Start 17:
• Found in 6 of 207 (2.9%) of genes in pham
• Manual Annotations of this start: 1 of 170
• Called 33.3% of time when present
• Phage (with cluster) where this start called: DalanDe_78 (DQ), Thales_76 (DQ),

Start 22:
• Found in 47 of 207 (22.7%) of genes in pham
• No Manual Annotations of this start.
• Called 6.4% of time when present
• Phage (with cluster) where this start called: CogOmlette_32 (A9), Minispark_32 (A9), WorldCup_32 (A9),

Summary by clusters:

There are 16 clusters represented in this pham: A15, A14, singleton, A16, CR7, A17, DG2, A9, A2, M1, M2, DV, CS4, DQ, CS3, CS2,

Info for manual annotations of cluster A14:
•Start number 10 was manually annotated 4 times for cluster A14.

Info for manual annotations of cluster A15:

•Start number 10 was manually annotated 23 times for cluster A15.

Info for manual annotations of cluster A16:
•Start number 10 was manually annotated 3 times for cluster A16.

Info for manual annotations of cluster A2:
•Start number 10 was manually annotated 1 time for cluster A2.

Info for manual annotations of cluster A9:
•Start number 10 was manually annotated 6 times for cluster A9.

Info for manual annotations of cluster CR7:
•Start number 6 was manually annotated 1 time for cluster CR7.

Info for manual annotations of cluster CS2:
•Start number 10 was manually annotated 2 times for cluster CS2.
•Start number 12 was manually annotated 30 times for cluster CS2.
•Start number 13 was manually annotated 4 times for cluster CS2.

Info for manual annotations of cluster CS3:
•Start number 12 was manually annotated 25 times for cluster CS3.

Info for manual annotations of cluster CS4:
•Start number 12 was manually annotated 12 times for cluster CS4.

Info for manual annotations of cluster DG2:
•Start number 16 was manually annotated 1 time for cluster DG2.

Info for manual annotations of cluster DQ:
•Start number 5 was manually annotated 6 times for cluster DQ.
•Start number 6 was manually annotated 3 times for cluster DQ.
•Start number 17 was manually annotated 1 time for cluster DQ.

Info for manual annotations of cluster DV:
•Start number 11 was manually annotated 2 times for cluster DV.
•Start number 16 was manually annotated 35 times for cluster DV.

Info for manual annotations of cluster M1:
•Start number 12 was manually annotated 5 times for cluster M1.

Info for manual annotations of cluster M2:
•Start number 10 was manually annotated 5 times for cluster M2.

Gene Information:

Gene: 40AC_36 Start: 27174, Stop: 27485, Start Num: 10
Candidate Starts for 40AC_36:
(Start: 10 @27174 has 44 MA's), (21, 27219), (24, 27234), (39, 27324), (56, 27447),

Gene: ASerpRocky_73 Start: 61945, Stop: 61658, Start Num: 12

Candidate Starts for ASerpRocky_73:
(Start: 12 @61945 has 72 MA's), (26, 61873), (40, 61795), (55, 61684), (56, 61681),

Gene: Adgers_86 Start: 63065, Stop: 62778, Start Num: 12
Candidate Starts for Adgers_86:
(Start: 12 @63065 has 72 MA's), (26, 62993), (55, 62804), (56, 62801),

Gene: Alephilan_47 Start: 36436, Stop: 36702, Start Num: 16
Candidate Starts for Alephilan_47:
(Start: 16 @36436 has 36 MA's), (34, 36532), (44, 36589), (46, 36595),

Gene: Aloki_77 Start: 63427, Stop: 63738, Start Num: 5
Candidate Starts for Aloki_77:
(Start: 5 @63427 has 6 MA's), (27, 63532), (34, 63565), (38, 63595), (45, 63625), (56, 63721),

Gene: Alyssamiracle_51 Start: 35762, Stop: 36028, Start Num: 16
Candidate Starts for Alyssamiracle_51:
(Start: 16 @35762 has 36 MA's), (36, 35867), (44, 35915), (46, 35921),

Gene: Amoonguss_79 Start: 63382, Stop: 63693, Start Num: 5
Candidate Starts for Amoonguss_79:
(Start: 5 @63382 has 6 MA's), (27, 63487), (34, 63520), (38, 63550), (45, 63580), (56, 63676),

Gene: Anamika_79 Start: 62898, Stop: 62608, Start Num: 12
Candidate Starts for Anamika_79:
(Start: 12 @62898 has 72 MA's), (29, 62814), (37, 62763), (56, 62634),

Gene: Anaysia_35 Start: 23891, Stop: 24199, Start Num: 10
Candidate Starts for Anaysia_35:
(Start: 10 @23891 has 44 MA's), (21, 23933), (22, 23942), (32, 23990), (36, 24014),

Gene: Anon_33 Start: 23831, Stop: 24154, Start Num: 10
Candidate Starts for Anon_33:
(Start: 10 @23831 has 44 MA's), (21, 23879), (22, 23888), (27, 23918), (39, 23984), (41, 23990), (48, 24050),

Gene: Apeppi_45 Start: 35938, Stop: 36207, Start Num: 16
Candidate Starts for Apeppi_45:
(Start: 16 @35938 has 36 MA's), (34, 36034), (36, 36043), (44, 36091), (46, 36097),

Gene: Argena_79 Start: 63394, Stop: 63705, Start Num: 5
Candidate Starts for Argena_79:
(Start: 5 @63394 has 6 MA's), (27, 63499), (34, 63532), (38, 63562), (45, 63592), (56, 63688),

Gene: Arissanae_35 Start: 26851, Stop: 27159, Start Num: 10
Candidate Starts for Arissanae_35:
(4, 26797), (Start: 10 @26851 has 44 MA's), (21, 26890), (22, 26899), (24, 26905), (36, 26971), (39, 26995), (53, 27109), (56, 27118),

Gene: Astralis_48 Start: 35340, Stop: 35606, Start Num: 16
Candidate Starts for Astralis_48:
(Start: 16 @35340 has 36 MA's), (34, 35436), (36, 35445), (44, 35493), (46, 35499),

Gene: Avian_47 Start: 35490, Stop: 35756, Start Num: 16
Candidate Starts for Avian_47:
(Start: 16 @35490 has 36 MA's), (34, 35586), (36, 35595), (44, 35643), (46, 35649),

Gene: Aziz_3 Start: 1517, Stop: 1203, Start Num: 10
Candidate Starts for Aziz_3:
(Start: 10 @1517 has 44 MA's), (21, 1472), (39, 1367), (56, 1244),

Gene: Barbochs_81 Start: 62589, Stop: 62302, Start Num: 12
Candidate Starts for Barbochs_81:
(Start: 10 @62592 has 44 MA's), (Start: 12 @62589 has 72 MA's), (26, 62517), (55, 62328), (56, 62325),

Gene: Battleship_36 Start: 24003, Stop: 24311, Start Num: 10
Candidate Starts for Battleship_36:
(Start: 10 @24003 has 44 MA's), (21, 24045), (22, 24054), (32, 24102), (36, 24126), (56, 24273),

Gene: Beaver_86 Start: 64337, Stop: 64050, Start Num: 12
Candidate Starts for Beaver_86:
(Start: 12 @64337 has 72 MA's), (26, 64265), (55, 64076), (56, 64073),

Gene: Bellris_32 Start: 25038, Stop: 25346, Start Num: 10
Candidate Starts for Bellris_32:
(Start: 10 @25038 has 44 MA's), (21, 25077), (22, 25086), (24, 25092), (27, 25116), (39, 25182), (54, 25299), (56, 25305),

Gene: Benczkowski14_79 Start: 63193, Stop: 62906, Start Num: 12
Candidate Starts for Benczkowski14_79:
(Start: 12 @63193 has 72 MA's), (40, 63043), (55, 62932), (56, 62929),

Gene: BenoitCattle_85 Start: 63784, Stop: 63497, Start Num: 12
Candidate Starts for BenoitCattle_85:
(Start: 12 @63784 has 72 MA's), (26, 63712), (52, 63535), (53, 63529), (55, 63523), (56, 63520),

Gene: Berries_80 Start: 62870, Stop: 62580, Start Num: 12
Candidate Starts for Berries_80:
(Start: 12 @62870 has 72 MA's), (29, 62786), (37, 62735), (56, 62606),

Gene: Beted_82 Start: 65533, Stop: 65844, Start Num: 5
Candidate Starts for Beted_82:
(Start: 5 @65533 has 6 MA's), (27, 65638), (34, 65671), (38, 65701), (45, 65731), (56, 65827),

Gene: Bianmat_80 Start: 62910, Stop: 62620, Start Num: 12
Candidate Starts for Bianmat_80:
(Start: 12 @62910 has 72 MA's), (29, 62826), (37, 62775), (56, 62646),

Gene: BigShaq_85 Start: 63741, Stop: 63454, Start Num: 12
Candidate Starts for BigShaq_85:
(8, 63753), (Start: 12 @63741 has 72 MA's), (26, 63669), (52, 63492), (53, 63486), (55, 63480), (56, 63477),

Gene: BillyBobJr_87 Start: 64513, Stop: 64226, Start Num: 12
Candidate Starts for BillyBobJr_87:

(Start: 12 @64513 has 72 MA's), (26, 64441), (55, 64252), (56, 64249),

Gene: BirksAndSocks_87 Start: 64508, Stop: 64221, Start Num: 12
Candidate Starts for BirksAndSocks_87:
(Start: 12 @64508 has 72 MA's), (26, 64436), (55, 64247), (56, 64244),

Gene: BirthdayBoy_51 Start: 37139, Stop: 37405, Start Num: 16
Candidate Starts for BirthdayBoy_51:
(Start: 16 @37139 has 36 MA's), (34, 37235), (44, 37292), (46, 37298),

Gene: Boneham_86 Start: 64433, Stop: 64146, Start Num: 12
Candidate Starts for Boneham_86:
(Start: 12 @64433 has 72 MA's), (26, 64361), (55, 64172), (56, 64169),

Gene: Boohoo_35 Start: 23891, Stop: 24199, Start Num: 10
Candidate Starts for Boohoo_35:
(Start: 10 @23891 has 44 MA's), (21, 23933), (22, 23942), (32, 23990), (36, 24014),

Gene: Breezic_85 Start: 63287, Stop: 63000, Start Num: 12
Candidate Starts for Breezic_85:
(Start: 10 @63290 has 44 MA's), (Start: 12 @63287 has 72 MA's), (26, 63215), (55, 63026), (56, 63023),

Gene: Butterball_85 Start: 64438, Stop: 64151, Start Num: 12
Candidate Starts for Butterball_85:
(Start: 12 @64438 has 72 MA's), (26, 64366), (55, 64177), (56, 64174),

Gene: CRB1_33 Start: 25366, Stop: 25680, Start Num: 10
Candidate Starts for CRB1_33:
(Start: 10 @25366 has 44 MA's), (21, 25411), (39, 25516),

Gene: CathyBurgh_84 Start: 63320, Stop: 63033, Start Num: 12
Candidate Starts for CathyBurgh_84:
(Start: 10 @63323 has 44 MA's), (Start: 12 @63320 has 72 MA's), (26, 63248), (55, 63059), (56, 63056),

Gene: Charianelly_80 Start: 62620, Stop: 62330, Start Num: 12
Candidate Starts for Charianelly_80:
(Start: 12 @62620 has 72 MA's), (29, 62536), (37, 62485), (56, 62356),

Gene: Charminar_48 Start: 35108, Stop: 35374, Start Num: 16
Candidate Starts for Charminar_48:
(Start: 16 @35108 has 36 MA's), (34, 35204), (36, 35213), (44, 35261), (46, 35267),

Gene: Chelms_84 Start: 63631, Stop: 63344, Start Num: 12
Candidate Starts for Chelms_84:
(Start: 12 @63631 has 72 MA's), (26, 63559), (52, 63382), (53, 63376), (55, 63370), (56, 63367),

Gene: Chidiebere_82 Start: 63960, Stop: 64271, Start Num: 5
Candidate Starts for Chidiebere_82:
(Start: 5 @63960 has 6 MA's), (27, 64065), (34, 64098), (38, 64128), (45, 64158), (56, 64254),

Gene: ChisanaKitsune_79 Start: 63137, Stop: 63448, Start Num: 5

Candidate Starts for ChisanaKitsune_79:
(Start: 5 @63137 has 6 MA's), (7, 63149), (22, 63212), (27, 63242), (34, 63275), (38, 63305), (45, 63335), (56, 63431),

Gene: CinnamonToast_87 Start: 64513, Stop: 64226, Start Num: 12
Candidate Starts for CinnamonToast_87:
(Start: 12 @64513 has 72 MA's), (26, 64441), (55, 64252), (56, 64249),

Gene: CogOmlette_32 Start: 25086, Stop: 25346, Start Num: 22
Candidate Starts for CogOmlette_32:
(Start: 10 @25038 has 44 MA's), (21, 25077), (22, 25086), (24, 25092), (27, 25116), (39, 25182), (54, 25299), (56, 25305),

Gene: Crete_84 Start: 63558, Stop: 63271, Start Num: 12
Candidate Starts for Crete_84:
(8, 63570), (Start: 12 @63558 has 72 MA's), (52, 63309), (53, 63303), (55, 63297), (56, 63294),

Gene: Dakiti_85 Start: 64428, Stop: 64141, Start Num: 12
Candidate Starts for Dakiti_85:
(Start: 12 @64428 has 72 MA's), (26, 64356), (52, 64179), (53, 64173), (55, 64167), (56, 64164),

Gene: DalanDe_78 Start: 66553, Stop: 66846, Start Num: 17
Candidate Starts for DalanDe_78:
(Start: 17 @66553 has 1 MA's), (35, 66649), (41, 66685), (52, 66781),

Gene: Damp_80 Start: 61784, Stop: 61494, Start Num: 12
Candidate Starts for Damp_80:
(Start: 12 @61784 has 72 MA's), (29, 61700), (37, 61649), (56, 61520),

Gene: Darrell_35 Start: 26565, Stop: 26867, Start Num: 10
Candidate Starts for Darrell_35:
(2, 26457), (Start: 10 @26565 has 44 MA's), (18, 26586), (21, 26604), (22, 26613), (24, 26619), (39, 26709), (56, 26832),

Gene: DaviePasture_49 Start: 36780, Stop: 37049, Start Num: 16
Candidate Starts for DaviePasture_49:
(Start: 16 @36780 has 36 MA's), (34, 36876), (44, 36933), (46, 36939),

Gene: DekHockey33_35 Start: 24010, Stop: 24318, Start Num: 10
Candidate Starts for DekHockey33_35:
(Start: 10 @24010 has 44 MA's), (21, 24052), (22, 24061), (32, 24109), (36, 24133),

Gene: Demosthenes_73 Start: 61967, Stop: 61680, Start Num: 12
Candidate Starts for Demosthenes_73:
(Start: 12 @61967 has 72 MA's), (26, 61895), (40, 61817), (55, 61706), (56, 61703),

Gene: Diabla_89 Start: 64671, Stop: 64387, Start Num: 13
Candidate Starts for Diabla_89:
(Start: 12 @64677 has 72 MA's), (Start: 13 @64671 has 4 MA's),

Gene: Diminimus_3 Start: 1498, Stop: 1187, Start Num: 12
Candidate Starts for Diminimus_3:
(Start: 12 @1498 has 72 MA's), (21, 1456), (31, 1402), (56, 1228),

Gene: DocB7_058 Start: 48463, Stop: 48164, Start Num: 6
Candidate Starts for DocB7_058:
(Start: 6 @48463 has 5 MA's), (20, 48406), (24, 48388), (35, 48328), (36, 48322), (50, 48217), (56, 48178),

Gene: DoobyDoo_47 Start: 35594, Stop: 35863, Start Num: 16
Candidate Starts for DoobyDoo_47:
(Start: 16 @35594 has 36 MA's), (34, 35690), (44, 35747), (46, 35753),

Gene: Dulcita_3 Start: 1498, Stop: 1187, Start Num: 12
Candidate Starts for Dulcita_3:
(Start: 12 @1498 has 72 MA's), (21, 1456), (31, 1402), (56, 1228),

Gene: DumpTruck_44 Start: 34585, Stop: 34866, Start Num: 11
Candidate Starts for DumpTruck_44:
(Start: 11 @34585 has 2 MA's), (34, 34693), (41, 34732), (48, 34792),

Gene: E3_gp97 Start: 55687, Stop: 56010, Start Num: 6
Candidate Starts for E3_gp97:
(Start: 6 @55687 has 5 MA's), (14, 55714), (33, 55813), (47, 55909),

Gene: EagleEye_36 Start: 25599, Stop: 25907, Start Num: 10
Candidate Starts for EagleEye_36:
(Start: 10 @25599 has 44 MA's), (21, 25641), (22, 25650), (39, 25746), (51, 25836), (56, 25869),

Gene: Eggsie_81 Start: 62114, Stop: 61830, Start Num: 13
Candidate Starts for Eggsie_81:
(Start: 12 @62120 has 72 MA's), (Start: 13 @62114 has 4 MA's),

Gene: Ekhein_85 Start: 62977, Stop: 62690, Start Num: 12
Candidate Starts for Ekhein_85:
(Start: 12 @62977 has 72 MA's), (26, 62905), (55, 62716), (56, 62713),

Gene: Elle_33 Start: 23157, Stop: 23462, Start Num: 10
Candidate Starts for Elle_33:
(Start: 10 @23157 has 44 MA's), (21, 23196), (22, 23205), (24, 23211), (32, 23253), (36, 23277), (51, 23391), (56, 23424),

Gene: EmoNemo_77 Start: 63427, Stop: 63738, Start Num: 5
Candidate Starts for EmoNemo_77:
(Start: 5 @63427 has 6 MA's), (27, 63532), (34, 63565), (38, 63595), (45, 63625), (56, 63721),

Gene: Epsocamisio_35 Start: 23888, Stop: 24196, Start Num: 10
Candidate Starts for Epsocamisio_35:
(Start: 10 @23888 has 44 MA's), (21, 23930), (22, 23939), (32, 23987), (36, 24011),

Gene: Erutan_48 Start: 36178, Stop: 36477, Start Num: 16
Candidate Starts for Erutan_48:
(Start: 16 @36178 has 36 MA's), (27, 36241), (31, 36259), (48, 36376), (53, 36424),

Gene: Estes_3 Start: 1528, Stop: 1214, Start Num: 10
Candidate Starts for Estes_3:

(Start: 10 @1528 has 44 MA's), (21, 1483), (39, 1378), (56, 1255),

Gene: Exiguo_82 Start: 62405, Stop: 62118, Start Num: 12
Candidate Starts for Exiguo_82:
(Start: 12 @62405 has 72 MA's), (26, 62333), (55, 62144), (56, 62141),

Gene: Farrylious_79 Start: 63158, Stop: 63469, Start Num: 5
Candidate Starts for Farrylious_79:
(Start: 5 @63158 has 6 MA's), (27, 63263), (34, 63296), (38, 63326), (45, 63356), (56, 63452),

Gene: FelixAlejandro_87 Start: 64954, Stop: 64667, Start Num: 12
Candidate Starts for FelixAlejandro_87:
(Start: 12 @64954 has 72 MA's), (26, 64882), (55, 64693), (56, 64690),

Gene: Finch_182 Start: 109888, Stop: 110208, Start Num: 6
Candidate Starts for Finch_182:
(Start: 6 @109888 has 5 MA's), (8, 109900), (46, 110095), (56, 110191), (57, 110200),

Gene: Flakey_84 Start: 63880, Stop: 63593, Start Num: 12
Candidate Starts for Flakey_84:
(Start: 12 @63880 has 72 MA's), (26, 63808), (55, 63619), (56, 63616),

Gene: FlyingTortilla_83 Start: 67605, Stop: 67916, Start Num: 6
Candidate Starts for FlyingTortilla_83:
(Start: 6 @67605 has 5 MA's), (9, 67623), (Start: 17 @67644 has 1 MA's), (19, 67659), (27, 67707), (34, 67740), (41, 67779), (55, 67893),

Gene: FreakyGoo_3 Start: 1499, Stop: 1188, Start Num: 12
Candidate Starts for FreakyGoo_3:
(Start: 12 @1499 has 72 MA's), (21, 1457), (31, 1403), (56, 1229),

Gene: FruityLoops_82 Start: 66906, Stop: 67217, Start Num: 6
Candidate Starts for FruityLoops_82:
(Start: 6 @66906 has 5 MA's), (9, 66924), (Start: 17 @66945 has 1 MA's), (27, 67008), (34, 67041), (41, 67080), (55, 67194),

Gene: Fulcrum_49 Start: 36433, Stop: 36699, Start Num: 16
Candidate Starts for Fulcrum_49:
(Start: 16 @36433 has 36 MA's), (34, 36529), (44, 36586), (46, 36592),

Gene: GMA6_65 Start: 54263, Stop: 54556, Start Num: 10
Candidate Starts for GMA6_65:
(Start: 10 @54263 has 44 MA's), (25, 54326), (26, 54338), (30, 54353), (41, 54419), (42, 54425), (43, 54428), (44, 54437), (46, 54443), (53, 54524),

Gene: GOATification_49 Start: 36433, Stop: 36699, Start Num: 16
Candidate Starts for GOATification_49:
(Start: 16 @36433 has 36 MA's), (34, 36529), (44, 36586), (46, 36592),

Gene: Gail_35 Start: 26258, Stop: 26569, Start Num: 10
Candidate Starts for Gail_35:
(Start: 10 @26258 has 44 MA's), (21, 26303), (24, 26318), (27, 26342), (39, 26408), (54, 26525),

Gene: GalacticEye_80 Start: 62581, Stop: 62291, Start Num: 12
Candidate Starts for GalacticEye_80:
(Start: 12 @62581 has 72 MA's), (29, 62497), (37, 62446), (56, 62317),

Gene: GardenSalsa_3 Start: 1528, Stop: 1214, Start Num: 10
Candidate Starts for GardenSalsa_3:
(Start: 10 @1528 has 44 MA's), (21, 1483), (39, 1378), (56, 1255),

Gene: Genamy16_51 Start: 35748, Stop: 36014, Start Num: 16
Candidate Starts for Genamy16_51:
(Start: 16 @35748 has 36 MA's), (36, 35853), (44, 35901), (46, 35907),

Gene: GenevaB15_3 Start: 1517, Stop: 1203, Start Num: 10
Candidate Starts for GenevaB15_3:
(Start: 10 @1517 has 44 MA's), (21, 1472), (39, 1367), (56, 1244),

Gene: Gibbin_50 Start: 37089, Stop: 37355, Start Num: 16
Candidate Starts for Gibbin_50:
(Start: 16 @37089 has 36 MA's), (34, 37185), (36, 37194), (44, 37242), (46, 37248),

Gene: Glaske16_3 Start: 1498, Stop: 1187, Start Num: 12
Candidate Starts for Glaske16_3:
(Start: 12 @1498 has 72 MA's), (21, 1456), (31, 1402), (56, 1228),

Gene: Gorko_83 Start: 62407, Stop: 62120, Start Num: 12
Candidate Starts for Gorko_83:
(Start: 12 @62407 has 72 MA's), (26, 62335), (55, 62146), (56, 62143),

Gene: GourdThymes_84 Start: 63347, Stop: 63060, Start Num: 12
Candidate Starts for GourdThymes_84:
(Start: 10 @63350 has 44 MA's), (Start: 12 @63347 has 72 MA's), (26, 63275), (55, 63086), (56, 63083),

Gene: Gray_82 Start: 63891, Stop: 64202, Start Num: 5
Candidate Starts for Gray_82:
(Start: 5 @63891 has 6 MA's), (27, 63996), (34, 64029), (38, 64059), (45, 64089), (56, 64185),

Gene: GretelLyn_48 Start: 37163, Stop: 37429, Start Num: 16
Candidate Starts for GretelLyn_48:
(Start: 16 @37163 has 36 MA's), (34, 37259), (44, 37316), (46, 37322),

Gene: Guillaume_79 Start: 62631, Stop: 62341, Start Num: 12
Candidate Starts for Guillaume_79:
(Start: 12 @62631 has 72 MA's), (29, 62547), (37, 62496), (56, 62367),

Gene: Hail2Pitt_78 Start: 63107, Stop: 62817, Start Num: 12
Candidate Starts for Hail2Pitt_78:
(Start: 12 @63107 has 72 MA's), (29, 63023), (37, 62972), (56, 62843),

Gene: Hanem_81 Start: 63427, Stop: 63738, Start Num: 5
Candidate Starts for Hanem_81:
(Start: 5 @63427 has 6 MA's), (27, 63532), (34, 63565), (38, 63595), (45, 63625), (56, 63721),

Gene: Harambe_79 Start: 62898, Stop: 62608, Start Num: 12
Candidate Starts for Harambe_79:
(Start: 12 @62898 has 72 MA's), (29, 62814), (37, 62763), (56, 62634),

Gene: Hello_79 Start: 62860, Stop: 62570, Start Num: 12
Candidate Starts for Hello_79:
(Start: 12 @62860 has 72 MA's), (29, 62776), (37, 62725), (56, 62596),

Gene: Hollow_79 Start: 63362, Stop: 63075, Start Num: 12
Candidate Starts for Hollow_79:
(Start: 12 @63362 has 72 MA's), (26, 63290), (41, 63209), (55, 63101), (56, 63098),

Gene: Hotorobo_85 Start: 63857, Stop: 63570, Start Num: 12
Candidate Starts for Hotorobo_85:
(Start: 12 @63857 has 72 MA's), (55, 63596), (56, 63593),

Gene: Izel_3 Start: 1498, Stop: 1187, Start Num: 12
Candidate Starts for Izel_3:
(Start: 12 @1498 has 72 MA's), (21, 1456), (31, 1402), (56, 1228),

Gene: JSwag_35 Start: 23874, Stop: 24182, Start Num: 10
Candidate Starts for JSwag_35:
(Start: 10 @23874 has 44 MA's), (21, 23916), (22, 23925), (32, 23973), (36, 23997),

Gene: Jalebi_48 Start: 37508, Stop: 37777, Start Num: 16
Candidate Starts for Jalebi_48:
(Start: 16 @37508 has 36 MA's), (34, 37604), (36, 37613), (44, 37661), (46, 37667),

Gene: Jamemuya19_48 Start: 35353, Stop: 35619, Start Num: 16
Candidate Starts for Jamemuya19_48:
(Start: 16 @35353 has 36 MA's), (36, 35458), (44, 35506), (46, 35512),

Gene: Jams_80 Start: 62070, Stop: 61780, Start Num: 12
Candidate Starts for Jams_80:
(Start: 12 @62070 has 72 MA's), (29, 61986), (37, 61935), (56, 61806),

Gene: Jeeves_34 Start: 24950, Stop: 25261, Start Num: 10
Candidate Starts for Jeeves_34:
(Start: 10 @24950 has 44 MA's), (21, 24995), (22, 25004), (39, 25100), (54, 25217),

Gene: Jellybones_84 Start: 64148, Stop: 63861, Start Num: 12
Candidate Starts for Jellybones_84:
(Start: 12 @64148 has 72 MA's), (26, 64076), (55, 63887), (56, 63884),

Gene: John316_87 Start: 64461, Stop: 64171, Start Num: 10
Candidate Starts for John316_87:
(Start: 10 @64461 has 44 MA's), (Start: 12 @64458 has 72 MA's), (26, 64386), (55, 64197), (56, 64194),

Gene: Jormungandr_79 Start: 62613, Stop: 62323, Start Num: 12
Candidate Starts for Jormungandr_79:
(Start: 12 @62613 has 72 MA's), (29, 62529), (37, 62478), (56, 62349),

Gene: Kabocha_83 Start: 64773, Stop: 65084, Start Num: 5
Candidate Starts for Kabocha_83:
(Start: 5 @64773 has 6 MA's), (27, 64878), (34, 64911), (38, 64941), (45, 64971), (56, 65067),

Gene: Kaseim_80 Start: 62055, Stop: 61765, Start Num: 12
Candidate Starts for Kaseim_80:
(Start: 12 @62055 has 72 MA's), (29, 61971), (37, 61920), (56, 61791),

Gene: KatherineG_35 Start: 24010, Stop: 24318, Start Num: 10
Candidate Starts for KatherineG_35:
(Start: 10 @24010 has 44 MA's), (21, 24052), (22, 24061), (32, 24109), (36, 24133),

Gene: Katyusha_77 Start: 63193, Stop: 62906, Start Num: 12
Candidate Starts for Katyusha_77:
(Start: 12 @63193 has 72 MA's), (40, 63043), (55, 62932), (56, 62929),

Gene: Kelzog_86 Start: 63737, Stop: 63447, Start Num: 10
Candidate Starts for Kelzog_86:
(Start: 10 @63737 has 44 MA's), (Start: 12 @63734 has 72 MA's), (26, 63662), (55, 63473), (56, 63470),

Gene: Keziacharles14_35 Start: 26920, Stop: 27228, Start Num: 10
Candidate Starts for Keziacharles14_35:
(1, 26800), (4, 26866), (Start: 10 @26920 has 44 MA's), (21, 26959), (22, 26968), (24, 26974), (39, 27064), (56, 27187),

Gene: Kvothe_78 Start: 63202, Stop: 62915, Start Num: 12
Candidate Starts for Kvothe_78:
(Start: 12 @63202 has 72 MA's), (40, 63052), (55, 62941), (56, 62938),

Gene: LadyBird_33 Start: 25560, Stop: 25874, Start Num: 10
Candidate Starts for LadyBird_33:
(Start: 10 @25560 has 44 MA's), (21, 25605), (39, 25710),

Gene: Lahirium_80 Start: 63649, Stop: 63359, Start Num: 12
Candidate Starts for Lahirium_80:
(Start: 12 @63649 has 72 MA's), (29, 63565), (37, 63514), (56, 63385),

Gene: Lambo_48 Start: 36534, Stop: 36803, Start Num: 16
Candidate Starts for Lambo_48:
(Start: 16 @36534 has 36 MA's), (34, 36630), (44, 36687), (46, 36693),

Gene: LastResort_35 Start: 23891, Stop: 24199, Start Num: 10
Candidate Starts for LastResort_35:
(Start: 10 @23891 has 44 MA's), (21, 23933), (22, 23942), (32, 23990), (36, 24014),

Gene: LavAbarElk_48 Start: 35649, Stop: 35915, Start Num: 16
Candidate Starts for LavAbarElk_48:
(Start: 16 @35649 has 36 MA's), (34, 35745), (36, 35754), (44, 35802), (46, 35808),

Gene: Lenoshki_82 Start: 65533, Stop: 65844, Start Num: 5
Candidate Starts for Lenoshki_82:
(Start: 5 @65533 has 6 MA's), (27, 65638), (34, 65671), (38, 65701), (45, 65731), (56, 65827),

Gene: Lidong_80 Start: 62870, Stop: 62580, Start Num: 12
Candidate Starts for Lidong_80:
(Start: 12 @62870 has 72 MA's), (29, 62786), (37, 62735), (56, 62606),

Gene: Lila22_49 Start: 37131, Stop: 37397, Start Num: 16
Candidate Starts for Lila22_49:
(Start: 16 @37131 has 36 MA's), (34, 37227), (44, 37284), (46, 37290),

Gene: Linetti_84 Start: 64741, Stop: 64454, Start Num: 12
Candidate Starts for Linetti_84:
(8, 64753), (Start: 12 @64741 has 72 MA's), (26, 64669), (53, 64486), (55, 64480), (56, 64477),

Gene: LittleFella_43 Start: 34111, Stop: 34392, Start Num: 16
Candidate Starts for LittleFella_43:
(Start: 16 @34111 has 36 MA's), (27, 34174), (48, 34309),

Gene: Lizzo_84 Start: 63320, Stop: 63033, Start Num: 12
Candidate Starts for Lizzo_84:
(Start: 10 @63323 has 44 MA's), (Start: 12 @63320 has 72 MA's), (26, 63248), (55, 63059), (56, 63056),

Gene: Looper_36 Start: 23888, Stop: 24196, Start Num: 10
Candidate Starts for Looper_36:
(Start: 10 @23888 has 44 MA's), (21, 23930), (22, 23939), (32, 23987), (36, 24011), (56, 24158),

Gene: Luchador_37 Start: 27458, Stop: 27769, Start Num: 10
Candidate Starts for Luchador_37:
(Start: 10 @27458 has 44 MA's), (21, 27503), (22, 27512), (39, 27608), (54, 27725),

Gene: LuckyLeo_47 Start: 35938, Stop: 36207, Start Num: 16
Candidate Starts for LuckyLeo_47:
(Start: 16 @35938 has 36 MA's), (34, 36034), (36, 36043), (44, 36091), (46, 36097),

Gene: Lucyedi_35 Start: 25600, Stop: 25908, Start Num: 10
Candidate Starts for Lucyedi_35:
(Start: 10 @25600 has 44 MA's), (21, 25642), (22, 25651), (39, 25747), (51, 25837), (53, 25861), (56, 25870),

Gene: Luker_81 Start: 63088, Stop: 62798, Start Num: 12
Candidate Starts for Luker_81:
(Start: 12 @63088 has 72 MA's), (29, 63004), (37, 62953), (56, 62824),

Gene: MacGully_86 Start: 58582, Stop: 58277, Start Num: 6
Candidate Starts for MacGully_86:
(Start: 6 @58582 has 5 MA's), (23, 58513), (28, 58486), (36, 58450), (49, 58348),

Gene: Mikronejon_78 Start: 63427, Stop: 63738, Start Num: 5
Candidate Starts for Mikronejon_78:
(Start: 5 @63427 has 6 MA's), (27, 63532), (34, 63565), (38, 63595), (45, 63625), (56, 63721),

Gene: Mima20_48 Start: 36680, Stop: 36946, Start Num: 16
Candidate Starts for Mima20_48:

(Start: 16 @36680 has 36 MA's), (34, 36776), (36, 36785), (44, 36833), (46, 36839),

Gene: MinecraftSteve_36 Start: 24010, Stop: 24318, Start Num: 10
Candidate Starts for MinecraftSteve_36:
(Start: 10 @24010 has 44 MA's), (21, 24052), (22, 24061), (32, 24109), (36, 24133),

Gene: Minispark_32 Start: 25086, Stop: 25346, Start Num: 22
Candidate Starts for Minispark_32:
(Start: 10 @25038 has 44 MA's), (21, 25077), (22, 25086), (24, 25092), (27, 25116), (39, 25182), (54, 25299), (56, 25305),

Gene: Minos_81 Start: 62612, Stop: 62322, Start Num: 12
Candidate Starts for Minos_81:
(Start: 12 @62612 has 72 MA's), (29, 62528), (37, 62477), (56, 62348),

Gene: MintFritos_78 Start: 63398, Stop: 63709, Start Num: 5
Candidate Starts for MintFritos_78:
(Start: 5 @63398 has 6 MA's), (27, 63503), (34, 63536), (38, 63566), (45, 63596), (56, 63692),

Gene: MoiGyank_52 Start: 37577, Stop: 37846, Start Num: 16
Candidate Starts for MoiGyank_52:
(Start: 16 @37577 has 36 MA's), (34, 37673), (36, 37682), (44, 37730), (46, 37736),

Gene: Monty_84 Start: 63023, Stop: 62733, Start Num: 10
Candidate Starts for Monty_84:
(Start: 10 @63023 has 44 MA's), (Start: 12 @63020 has 72 MA's), (55, 62759), (56, 62756),

Gene: MrMagoo_3 Start: 1528, Stop: 1214, Start Num: 10
Candidate Starts for MrMagoo_3:
(Start: 10 @1528 has 44 MA's), (21, 1483), (39, 1378), (56, 1255),

Gene: MrWormie_80 Start: 61773, Stop: 61483, Start Num: 12
Candidate Starts for MrWormie_80:
(Start: 12 @61773 has 72 MA's), (29, 61689), (37, 61638), (56, 61509),

Gene: Msay19_87 Start: 64749, Stop: 64462, Start Num: 12
Candidate Starts for Msay19_87:
(Start: 12 @64749 has 72 MA's), (26, 64677), (55, 64488), (56, 64485),

Gene: Nebulosus_35 Start: 23888, Stop: 24196, Start Num: 10
Candidate Starts for Nebulosus_35:
(Start: 10 @23888 has 44 MA's), (21, 23930), (22, 23939), (32, 23987), (36, 24011),

Gene: Nedarya_34 Start: 24504, Stop: 24815, Start Num: 10
Candidate Starts for Nedarya_34:
(Start: 10 @24504 has 44 MA's), (21, 24549), (22, 24558), (27, 24588), (32, 24606), (36, 24630), (50, 24738), (51, 24744), (56, 24777),

Gene: Neoevie_79 Start: 62874, Stop: 62584, Start Num: 12
Candidate Starts for Neoevie_79:
(Start: 12 @62874 has 72 MA's), (29, 62790), (37, 62739), (56, 62610),

Gene: Newt_81 Start: 63102, Stop: 62812, Start Num: 12

Candidate Starts for Newt_81:
(Start: 12 @63102 has 72 MA's), (29, 63018), (37, 62967), (56, 62838),

Gene: Niagara_78 Start: 63126, Stop: 62839, Start Num: 12
Candidate Starts for Niagara_78:
(Start: 12 @63126 has 72 MA's), (40, 62976), (55, 62865), (56, 62862),

Gene: Nimi13_79 Start: 62621, Stop: 62331, Start Num: 12
Candidate Starts for Nimi13_79:
(Start: 12 @62621 has 72 MA's), (29, 62537), (37, 62486), (56, 62357),

Gene: NorManre_51 Start: 36789, Stop: 37055, Start Num: 16
Candidate Starts for NorManre_51:
(Start: 16 @36789 has 36 MA's), (34, 36885), (36, 36894), (44, 36942), (46, 36948),

Gene: NovaSharks_50 Start: 35339, Stop: 35605, Start Num: 16
Candidate Starts for NovaSharks_50:
(Start: 16 @35339 has 36 MA's), (36, 35444), (44, 35492), (46, 35498),

Gene: Oofda_35 Start: 23862, Stop: 24170, Start Num: 10
Candidate Starts for Oofda_35:
(Start: 10 @23862 has 44 MA's), (21, 23904), (22, 23913), (32, 23961), (36, 23985), (56, 24132),

Gene: Oogie_81 Start: 65586, Stop: 65897, Start Num: 5
Candidate Starts for Oogie_81:
(Start: 5 @65586 has 6 MA's), (27, 65691), (34, 65724), (38, 65754), (45, 65784), (56, 65880),

Gene: OtterstedtS21_48 Start: 36449, Stop: 36715, Start Num: 16
Candidate Starts for OtterstedtS21_48:
(Start: 16 @36449 has 36 MA's), (34, 36545), (44, 36602), (46, 36608),

Gene: PainterBoy_35 Start: 25536, Stop: 25844, Start Num: 10
Candidate Starts for PainterBoy_35:
(Start: 10 @25536 has 44 MA's), (21, 25578), (22, 25587), (39, 25683), (51, 25773), (56, 25806),

Gene: Pakusa_78 Start: 63153, Stop: 63464, Start Num: 5
Candidate Starts for Pakusa_78:
(Start: 5 @63153 has 6 MA's), (27, 63258), (34, 63291), (38, 63321), (45, 63351), (56, 63447),

Gene: ParvusTarda_48 Start: 35951, Stop: 36217, Start Num: 16
Candidate Starts for ParvusTarda_48:
(Start: 16 @35951 has 36 MA's), (34, 36047), (44, 36104), (46, 36110),

Gene: Patos_51 Start: 36788, Stop: 37054, Start Num: 16
Candidate Starts for Patos_51:
(Start: 16 @36788 has 36 MA's), (34, 36884), (36, 36893), (44, 36941), (46, 36947),

Gene: Philon9_76 Start: 63265, Stop: 62978, Start Num: 12
Candidate Starts for Philon9_76:
(Start: 12 @63265 has 72 MA's), (15, 63253), (22, 63217), (26, 63193), (29, 63181), (36, 63142), (37, 63130), (55, 63004), (56, 63001),

Gene: PierreThree_83 Start: 64059, Stop: 63772, Start Num: 12

Candidate Starts for PierreThree_83:
(Start: 12 @64059 has 72 MA's), (26, 63987), (52, 63810), (53, 63804), (55, 63798), (56, 63795),

Gene: PokyPuppy_81 Start: 63325, Stop: 63041, Start Num: 12
Candidate Starts for PokyPuppy_81:
(Start: 12 @63325 has 72 MA's), (22, 63277), (34, 63211), (36, 63202), (41, 63172), (52, 63076),

Gene: Poland_87 Start: 64728, Stop: 64441, Start Num: 12
Candidate Starts for Poland_87:
(Start: 12 @64728 has 72 MA's), (26, 64656), (55, 64467), (56, 64464),

Gene: Rahalelujah_33 Start: 25038, Stop: 25346, Start Num: 10
Candidate Starts for Rahalelujah_33:
(Start: 10 @25038 has 44 MA's), (21, 25077), (22, 25086), (24, 25092), (27, 25116), (39, 25182), (54, 25299), (56, 25305),

Gene: Ranch_50 Start: 35621, Stop: 35887, Start Num: 16
Candidate Starts for Ranch_50:
(Start: 16 @35621 has 36 MA's), (34, 35717), (44, 35774), (46, 35780),

Gene: Ravana_36 Start: 23852, Stop: 24160, Start Num: 10
Candidate Starts for Ravana_36:
(Start: 10 @23852 has 44 MA's), (21, 23894), (22, 23903), (32, 23951), (36, 23975),

Gene: RazorC_48 Start: 35492, Stop: 35758, Start Num: 16
Candidate Starts for RazorC_48:
(Start: 16 @35492 has 36 MA's), (36, 35597), (44, 35645), (46, 35651),

Gene: ReMo_35 Start: 23888, Stop: 24196, Start Num: 10
Candidate Starts for ReMo_35:
(Start: 10 @23888 has 44 MA's), (21, 23930), (22, 23939), (32, 23987), (36, 24011),

Gene: RemRem_86 Start: 62960, Stop: 62673, Start Num: 12
Candidate Starts for RemRem_86:
(Start: 12 @62960 has 72 MA's), (26, 62888), (55, 62699), (56, 62696),

Gene: Remus_35 Start: 23852, Stop: 24160, Start Num: 10
Candidate Starts for Remus_35:
(Start: 10 @23852 has 44 MA's), (21, 23894), (22, 23903), (32, 23951), (36, 23975), (56, 24122),

Gene: Rosalind_35 Start: 24010, Stop: 24318, Start Num: 10
Candidate Starts for Rosalind_35:
(Start: 10 @24010 has 44 MA's), (21, 24052), (22, 24061), (32, 24109), (36, 24133),

Gene: Rota_47 Start: 36098, Stop: 36364, Start Num: 16
Candidate Starts for Rota_47:
(Start: 16 @36098 has 36 MA's), (34, 36194), (44, 36251), (46, 36257),

Gene: RoyalG_84 Start: 63422, Stop: 63135, Start Num: 13
Candidate Starts for RoyalG_84:
(Start: 12 @63428 has 72 MA's), (Start: 13 @63422 has 4 MA's), (22, 63377), (36, 63305), (41, 63275), (45, 63254), (48, 63215),

Gene: Rukungu_51 Start: 37361, Stop: 37627, Start Num: 16
Candidate Starts for Rukungu_51:
(Start: 16 @37361 has 36 MA's), (34, 37457), (44, 37514), (46, 37520),

Gene: Rumi_49 Start: 35036, Stop: 35302, Start Num: 16
Candidate Starts for Rumi_49:
(Start: 16 @35036 has 36 MA's), (34, 35132), (36, 35141), (44, 35189), (46, 35195),

Gene: Sadboi_49 Start: 37164, Stop: 37430, Start Num: 16
Candidate Starts for Sadboi_49:
(Start: 16 @37164 has 36 MA's), (34, 37260), (44, 37317), (46, 37323),

Gene: Sam12_82 Start: 62405, Stop: 62118, Start Num: 12
Candidate Starts for Sam12_82:
(Start: 12 @62405 has 72 MA's), (26, 62333), (55, 62144), (56, 62141),

Gene: Sampudon_49 Start: 37508, Stop: 37777, Start Num: 16
Candidate Starts for Sampudon_49:
(Start: 16 @37508 has 36 MA's), (34, 37604), (36, 37613), (44, 37661), (46, 37667),

Gene: ScarletRaider_82 Start: 66870, Stop: 67181, Start Num: 6
Candidate Starts for ScarletRaider_82:
(Start: 6 @66870 has 5 MA's), (9, 66888), (Start: 17 @66909 has 1 MA's), (19, 66924), (27, 66972),
(34, 67005), (41, 67044), (55, 67158),

Gene: Schomber_80 Start: 63161, Stop: 63472, Start Num: 5
Candidate Starts for Schomber_80:
(Start: 5 @63161 has 6 MA's), (27, 63266), (34, 63299), (38, 63329), (45, 63359), (56, 63455),

Gene: ShayRa_36 Start: 24010, Stop: 24318, Start Num: 10
Candidate Starts for ShayRa_36:
(Start: 10 @24010 has 44 MA's), (21, 24052), (22, 24061), (32, 24109), (36, 24133),

Gene: Shelley_80 Start: 62097, Stop: 61807, Start Num: 12
Candidate Starts for Shelley_80:
(Start: 12 @62097 has 72 MA's), (29, 62013), (37, 61962), (56, 61833),

Gene: Sombrero_84 Start: 63030, Stop: 62743, Start Num: 12
Candidate Starts for Sombrero_84:
(Start: 12 @63030 has 72 MA's), (26, 62958), (55, 62769), (56, 62766),

Gene: SororFago_35 Start: 26230, Stop: 26541, Start Num: 10
Candidate Starts for SororFago_35:
(Start: 10 @26230 has 44 MA's), (21, 26275), (22, 26284), (24, 26290), (39, 26380), (54, 26497),

Gene: Soups_35 Start: 24010, Stop: 24318, Start Num: 10
Candidate Starts for Soups_35:
(Start: 10 @24010 has 44 MA's), (21, 24052), (22, 24061), (32, 24109), (36, 24133), (56, 24280),

Gene: Squibbles_84 Start: 63837, Stop: 63550, Start Num: 12
Candidate Starts for Squibbles_84:
(Start: 10 @63840 has 44 MA's), (Start: 12 @63837 has 72 MA's), (26, 63765), (55, 63576), (56, 63573),

Gene: SteveFrench_83 Start: 63662, Stop: 63375, Start Num: 13
Candidate Starts for SteveFrench_83:
(Start: 12 @63668 has 72 MA's), (Start: 13 @63662 has 4 MA's), (22, 63617), (36, 63545), (41, 63515),
(45, 63494), (48, 63455),

Gene: Sticker17_80 Start: 62585, Stop: 62295, Start Num: 12
Candidate Starts for Sticker17_80:
(Start: 12 @62585 has 72 MA's), (29, 62501), (37, 62450), (56, 62321),

Gene: Stormer_50 Start: 35040, Stop: 35306, Start Num: 16
Candidate Starts for Stormer_50:
(Start: 16 @35040 has 36 MA's), (34, 35136), (36, 35145), (44, 35193), (46, 35199),

Gene: Strosahl_35 Start: 23852, Stop: 24160, Start Num: 10
Candidate Starts for Strosahl_35:
(Start: 10 @23852 has 44 MA's), (21, 23894), (22, 23903), (32, 23951), (36, 23975), (56, 24122),

Gene: Sunhee_33 Start: 25057, Stop: 25368, Start Num: 10
Candidate Starts for Sunhee_33:
(Start: 10 @25057 has 44 MA's), (21, 25102), (39, 25207), (54, 25324),

Gene: Switzerland_35 Start: 24004, Stop: 24312, Start Num: 10
Candidate Starts for Switzerland_35:
(Start: 10 @24004 has 44 MA's), (21, 24046), (22, 24055), (32, 24103), (36, 24127), (56, 24274),

Gene: Teal_79 Start: 63079, Stop: 62789, Start Num: 12
Candidate Starts for Teal_79:
(Start: 12 @63079 has 72 MA's), (29, 62995), (37, 62944), (56, 62815),

Gene: Teatealatte_79 Start: 63023, Stop: 62736, Start Num: 12
Candidate Starts for Teatealatte_79:
(Start: 12 @63023 has 72 MA's), (40, 62873), (55, 62762), (56, 62759),

Gene: Teech_79 Start: 62839, Stop: 62552, Start Num: 12
Candidate Starts for Teech_79:
(Start: 12 @62839 has 72 MA's), (40, 62689), (55, 62578), (56, 62575),

Gene: Thales_76 Start: 65080, Stop: 65373, Start Num: 17
Candidate Starts for Thales_76:
(Start: 17 @65080 has 1 MA's), (35, 65176), (41, 65212), (52, 65308),

Gene: Tillicus_46 Start: 35870, Stop: 36139, Start Num: 16
Candidate Starts for Tillicus_46:
(Start: 16 @35870 has 36 MA's), (34, 35966), (36, 35975), (44, 36023), (46, 36029),

Gene: Toaka_33 Start: 25436, Stop: 25741, Start Num: 10
Candidate Starts for Toaka_33:
(1, 25316), (3, 25379), (Start: 10 @25436 has 44 MA's), (21, 25472), (22, 25481), (24, 25487), (27,
25511), (36, 25553), (39, 25577),

Gene: Toneprano_79 Start: 63396, Stop: 63707, Start Num: 5
Candidate Starts for Toneprano_79:

(Start: 5 @63396 has 6 MA's), (27, 63501), (34, 63534), (38, 63564), (45, 63594), (56, 63690),

Gene: Tredge_78 Start: 63023, Stop: 62736, Start Num: 12
Candidate Starts for Tredge_78:
(Start: 12 @63023 has 72 MA's), (40, 62873), (55, 62762), (56, 62759),

Gene: Twin_77 Start: 63426, Stop: 63737, Start Num: 5
Candidate Starts for Twin_77:
(Start: 5 @63426 has 6 MA's), (27, 63531), (34, 63564), (38, 63594), (45, 63624), (56, 63720),

Gene: UBSmoodge_85 Start: 67310, Stop: 67621, Start Num: 6
Candidate Starts for UBSmoodge_85:
(Start: 6 @67310 has 5 MA's), (9, 67328), (Start: 17 @67349 has 1 MA's), (27, 67412), (34, 67445), (41, 67484), (55, 67598),

Gene: Vanisoa_34 Start: 26675, Stop: 26983, Start Num: 10
Candidate Starts for Vanisoa_34:
(4, 26621), (Start: 10 @26675 has 44 MA's), (21, 26714), (22, 26723), (24, 26729), (27, 26753), (36, 26795), (39, 26819), (53, 26933), (56, 26942),

Gene: Vitaenoii_76 Start: 63249, Stop: 62962, Start Num: 12
Candidate Starts for Vitaenoii_76:
(Start: 12 @63249 has 72 MA's), (15, 63237), (22, 63201), (26, 63177), (29, 63165), (36, 63126), (37, 63114), (55, 62988), (56, 62985),

Gene: Waits_35 Start: 23858, Stop: 24166, Start Num: 10
Candidate Starts for Waits_35:
(Start: 10 @23858 has 44 MA's), (21, 23900), (22, 23909), (32, 23957), (36, 23981), (56, 24128),

Gene: Warrior24_35 Start: 23862, Stop: 24170, Start Num: 10
Candidate Starts for Warrior24_35:
(Start: 10 @23862 has 44 MA's), (21, 23904), (22, 23913), (32, 23961), (36, 23985), (56, 24132),

Gene: Woes_79 Start: 63130, Stop: 62840, Start Num: 12
Candidate Starts for Woes_79:
(Start: 12 @63130 has 72 MA's), (29, 63046), (37, 62995), (56, 62866),

Gene: Wojtek_47 Start: 35962, Stop: 36231, Start Num: 16
Candidate Starts for Wojtek_47:
(Start: 16 @35962 has 36 MA's), (34, 36058), (36, 36067), (44, 36115), (46, 36121),

Gene: Worcestershire_82 Start: 62385, Stop: 62098, Start Num: 12
Candidate Starts for Worcestershire_82:
(Start: 12 @62385 has 72 MA's), (26, 62313), (55, 62124), (56, 62121),

Gene: WorldCup_32 Start: 25086, Stop: 25346, Start Num: 22
Candidate Starts for WorldCup_32:
(Start: 10 @25038 has 44 MA's), (21, 25077), (22, 25086), (24, 25092), (27, 25116), (39, 25182), (54, 25299), (56, 25305),

Gene: Xenia2_45 Start: 34630, Stop: 34914, Start Num: 11
Candidate Starts for Xenia2_45:
(Start: 11 @34630 has 2 MA's), (48, 34840),

Gene: Yikes_50 Start: 37575, Stop: 37841, Start Num: 16
Candidate Starts for Yikes_50:
(Start: 16 @37575 has 36 MA's), (34, 37671), (44, 37728), (46, 37734),

Gene: Zany_47 Start: 36574, Stop: 36843, Start Num: 16
Candidate Starts for Zany_47:
(Start: 16 @36574 has 36 MA's), (34, 36670), (36, 36679), (44, 36727), (46, 36733),