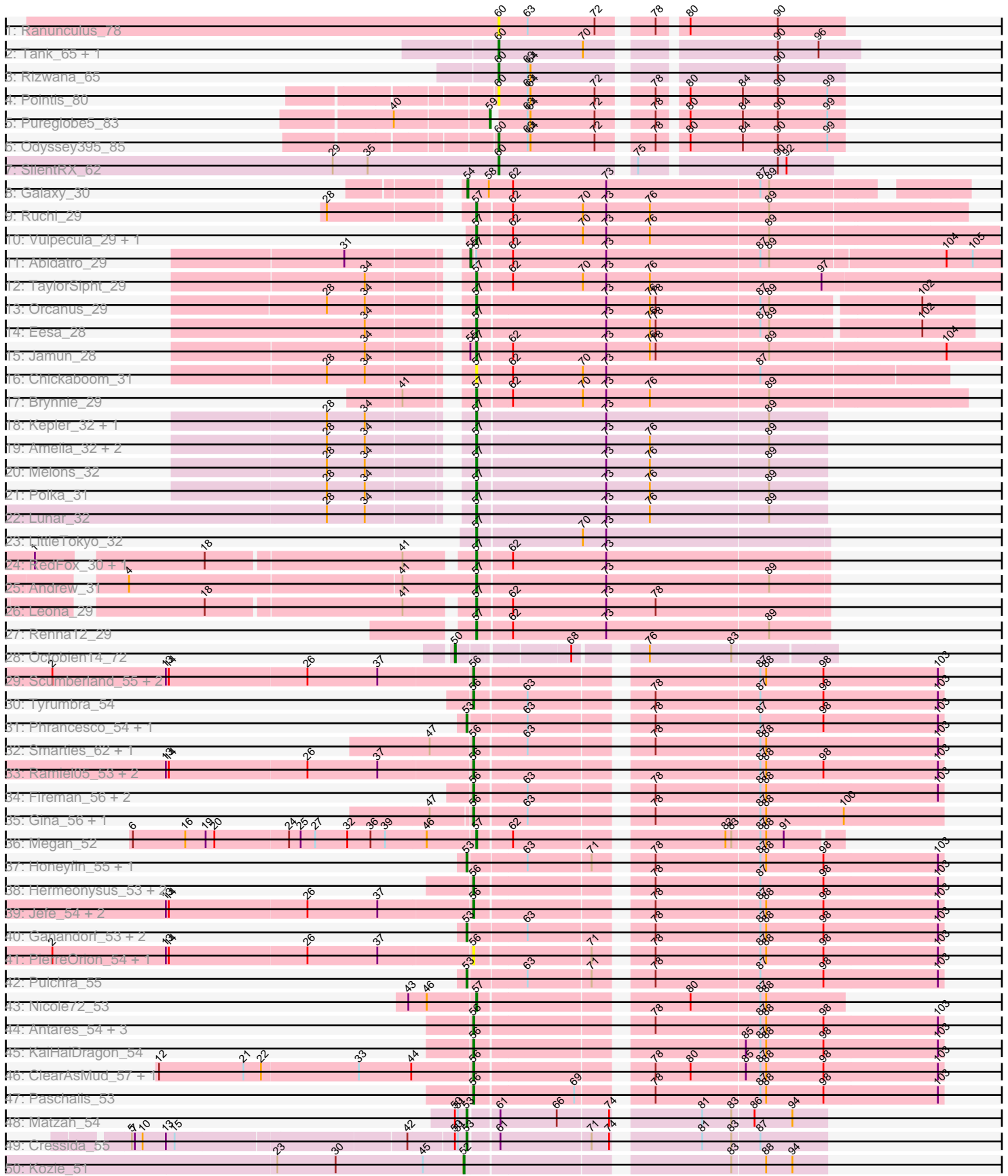
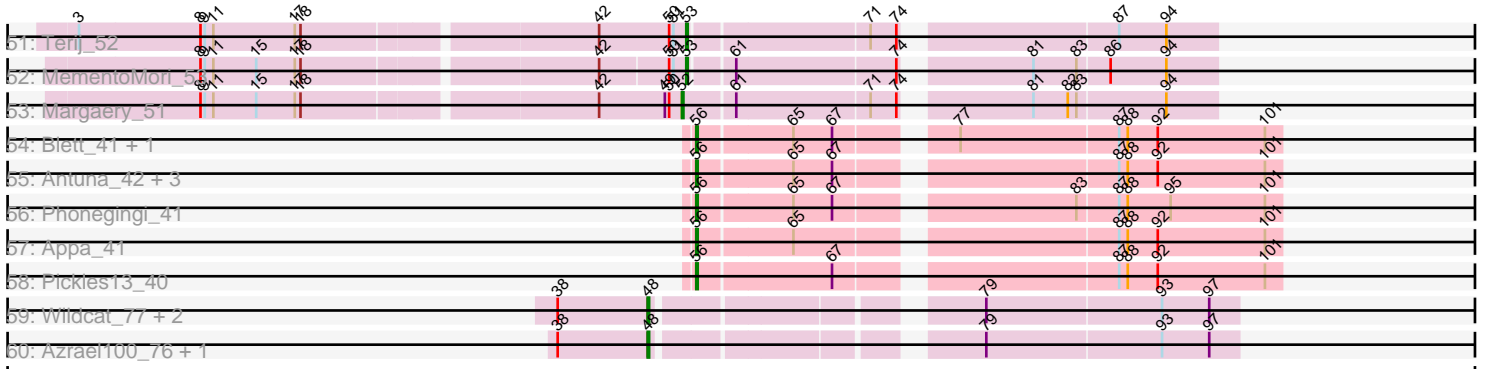


Pham 163506



Pham 163506



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 163506 Report

This analysis was run 04/28/24 on database version 559.

Pham number 163506 has 94 members, 10 are drafts.

Phages represented in each track:

- Track 1 : Ranunculus_78
- Track 2 : Tank_65, Wilde_67
- Track 3 : Rizwana_65
- Track 4 : Pointis_80
- Track 5 : Pureglobe5_83
- Track 6 : Odyssey395_85
- Track 7 : SilentRX_62
- Track 8 : Galaxy_30
- Track 9 : Ruchi_29
- Track 10 : Vulpecula_29, Basilisk_30
- Track 11 : Abidatro_29
- Track 12 : TaylorSipht_29
- Track 13 : Orcanus_29
- Track 14 : Eesa_28
- Track 15 : Jamun_28
- Track 16 : Chickaboom_31
- Track 17 : Brynnie_29
- Track 18 : Kepler_32, Daob_33
- Track 19 : Amelia_32, Cote_33, Coral_31
- Track 20 : Melons_32
- Track 21 : Polka_31
- Track 22 : Lunar_32
- Track 23 : LittleTokyo_32
- Track 24 : RedFox_30, Juno112_29
- Track 25 : Andrew_31
- Track 26 : Leona_29
- Track 27 : Renna12_29
- Track 28 : Octobien14_72
- Track 29 : Scumberland_55, Cranjis_55, LittleFortune_55
- Track 30 : Tyumbra_54
- Track 31 : Phrancesco_54, Busephilis_53
- Track 32 : Smarties_62, Ariadne_62
- Track 33 : Ramiel05_53, Kowalski_53, BrazzalePHS_53
- Track 34 : Fireman_56, RobsFeet_57, Metamorphoo_56
- Track 35 : Gina_56, Teamocil_56
- Track 36 : Megan_52
- Track 37 : Honeyfin_55, Yeti_54

- Track 38 : Hermeonysus_53, Onika_53, PiperSansNom_54
- Track 39 : Jefe_54, CrazyRich_53, Crisis_55
- Track 40 : Ganandorf_53, Piperis_54, Phorgeous_53
- Track 41 : PierreOrion_54, Jollipop_54
- Track 42 : Pulchra_55
- Track 43 : Nicole72_53
- Track 44 : Antares_54, Quhwah_57, Shotgun_53, Savannah_53
- Track 45 : KaiHaiDragon_54
- Track 46 : ClearAsMud_57, NoodlelyBoi_55
- Track 47 : Paschalis_53
- Track 48 : Matzah_54
- Track 49 : Cressida_55
- Track 50 : Kozie_51
- Track 51 : Terij_52
- Track 52 : MementoMori_53
- Track 53 : Margaery_51
- Track 54 : Blett_41, Bush_43
- Track 55 : Antuna_42, Warren_41, Dropshot_41, MenE_45
- Track 56 : Phonegingi_41
- Track 57 : Appa_41
- Track 58 : Pickles13_40
- Track 59 : Wildcat_77, EniyanLRS_168, MaryV_77
- Track 60 : Azrael100_76, Cosmo_77

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

The start number called the most often in the published annotations is 56, it was called in 34 of the 84 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Antares_54, Antuna_42, Appa_41, Ariadne_62, Blett_41, BrazzalePHS_53, Bush_43, ClearAsMud_57, Cranjis_55, CrazyRich_53, Crisis_55, Dropshot_41, Fireman_56, Gina_56, Hermeonysus_53, Jefe_54, Jollipop_54, KaiHaiDragon_54, Kowalski_53, LittleFortune_55, MenE_45, Metamorphoo_56, NoodlelyBoi_55, Onika_53, Paschalis_53, Phonegingi_41, Pickles13_40, PierreOrion_54, PiperSansNom_54, Quhwah_57, Ramiel05_53, RobsFeet_57, Savannah_53, Scumberland_55, Shotgun_53, Smarties_62, Teamocil_56, Tyrumbra_54, Warren_41,

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

-

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

- Abidatro_29, Amelia_32, Andrew_31, Azrael100_76, Basilisk_30, Brynnie_29, Busephilis_53, Chickaboom_31, Coral_31, Cosmo_77, Cote_33, Cressida_55, Daob_33, Eesa_28, EniyanLRS_168, Galaxy_30, Ganandorf_53, Honeyfin_55, Jamun_28, Juno112_29, Kepler_32, Kozie_51, Leona_29, LittleTokyo_32, Lunar_32, Margaery_51, MaryV_77, Matzah_54, Megan_52, Melons_32, MementoMori_53, Nicole72_53, Octobien14_72, Odyssey395_85, Orcanus_29, Phorgeous_53, Phrancesco_54, Piperis_54, Pointis_80, Polka_31, Pulchra_55, Pureglobe5_83,

Ranunculus_78, RedFox_30, Renna12_29, Rizwana_65, Ruchi_29, SilentRX_62, Tank_65, TaylorSipht_29, Terij_52, Vulpecula_29, Wildcat_77, Wilde_67, Yeti_54,

Summary by start number:

Start 48:

- Found in 5 of 94 (5.3%) of genes in pham
- Manual Annotations of this start: 5 of 84
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Azrael100_76 (V), Cosmo_77 (V), EniyanLRS_168 (V), MaryV_77 (V), Wildcat_77 (V),

Start 50:

- Found in 6 of 94 (6.4%) of genes in pham
- Manual Annotations of this start: 1 of 84
- Called 16.7% of time when present
- Phage (with cluster) where this start called: Octobien14_72 (DU1),

Start 52:

- Found in 2 of 94 (2.1%) of genes in pham
- Manual Annotations of this start: 2 of 84
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Kozie_51 (EI), Margaery_51 (EI),

Start 53:

- Found in 12 of 94 (12.8%) of genes in pham
- Manual Annotations of this start: 11 of 84
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Busephilis_53 (EC), Cressida_55 (EI), Ganandorf_53 (EC), Honeyfin_55 (EC), Matzah_54 (EI), MementoMori_53 (EI), Phorgeous_53 (EC), Phrancesco_54 (EC), Piperis_54 (EC), Pulchra_55 (EC), Terij_52 (EI), Yeti_54 (EC),

Start 54:

- Found in 1 of 94 (1.1%) of genes in pham
- Manual Annotations of this start: 1 of 84
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Galaxy_30 (AS1),

Start 55:

- Found in 2 of 94 (2.1%) of genes in pham
- Manual Annotations of this start: 1 of 84
- Called 50.0% of time when present
- Phage (with cluster) where this start called: Abidatro_29 (AS1),

Start 56:

- Found in 39 of 94 (41.5%) of genes in pham
- Manual Annotations of this start: 34 of 84
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Antares_54 (EC), Antuna_42 (GA), Appa_41 (GA), Ariadne_62 (EC), Blett_41 (GA), BrazzalePHS_53 (EC), Bush_43 (GA), ClearAsMud_57 (EC), Cranjis_55 (EC), CrazyRich_53 (EC), Crisis_55 (EC), Dropshot_41 (GA), Fireman_56 (EC), Gina_56 (EC), Hermeonysus_53 (EC), Jefe_54

(EC), Jollipop_54 (EC), KaiHaiDragon_54 (EC), Kowalski_53 (EC), LittleFortune_55 (EC), MenE_45 (GA), Metamorphoo_56 (EC), NoodlelyBoi_55 (EC), Onika_53 (EC), Paschalis_53 (EC), Phonegingi_41 (GA), Pickles13_40 (GA), PierreOrion_54 (EC), PiperSansNom_54 (EC), Quhwah_57 (EC), Ramiel05_53 (EC), RobsFeet_57 (EC), Savannah_53 (EC), Scumberland_55 (EC), Shotgun_53 (EC), Smarties_62 (EC), Teamocil_56 (EC), Tyumbra_54 (EC), Warren_41 (GA),

Start 57:

- Found in 26 of 94 (27.7%) of genes in pham
- Manual Annotations of this start: 23 of 84
- Called 96.2% of time when present
- Phage (with cluster) where this start called: Amelia_32 (AS2), Andrew_31 (AS3), Basilisk_30 (AS1), Brynnie_29 (AS1), Chickaboom_31 (AS1), Coral_31 (AS2), Cote_33 (AS2), Daob_33 (AS2), Eesa_28 (AS1), Jamun_28 (AS1), Juno112_29 (AS3), Kepler_32 (AS2), Leona_29 (AS3), LittleTokyo_32 (AS2), Lunar_32 (AS2), Megan_52 (EC), Melons_32 (AS2), Nicole72_53 (EC), Orcanus_29 (AS1), Polka_31 (AS2), RedFox_30 (AS3), Renna12_29 (AS3), Ruchi_29 (AS1), TaylorSipht_29 (AS1), Vulpecula_29 (AS1),

Start 59:

- Found in 1 of 94 (1.1%) of genes in pham
- Manual Annotations of this start: 1 of 84
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Pureglobe5_83 (AP2),

Start 60:

- Found in 7 of 94 (7.4%) of genes in pham
- Manual Annotations of this start: 5 of 84
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Odyssey395_85 (AP2), Pointis_80 (AP2), Ranunculus_78 (AP), Rizwana_65 (AP1), SilentRX_62 (AP4), Tank_65 (AP1), Wilde_67 (AP1),

Summary by clusters:

There are 12 clusters represented in this pham: AS3, AS2, AS1, EI, AP2, AP1, EC, AP, AP4, GA, V, DU1,

Info for manual annotations of cluster AP1:

- Start number 60 was manually annotated 3 times for cluster AP1.

Info for manual annotations of cluster AP2:

- Start number 59 was manually annotated 1 time for cluster AP2.
- Start number 60 was manually annotated 1 time for cluster AP2.

Info for manual annotations of cluster AP4:

- Start number 60 was manually annotated 1 time for cluster AP4.

Info for manual annotations of cluster AS1:

- Start number 54 was manually annotated 1 time for cluster AS1.
- Start number 55 was manually annotated 1 time for cluster AS1.
- Start number 57 was manually annotated 8 times for cluster AS1.

Info for manual annotations of cluster AS2:

- Start number 57 was manually annotated 9 times for cluster AS2.

Info for manual annotations of cluster AS3:

- Start number 57 was manually annotated 4 times for cluster AS3.

Info for manual annotations of cluster DU1:

- Start number 50 was manually annotated 1 time for cluster DU1.

Info for manual annotations of cluster EC:

- Start number 53 was manually annotated 7 times for cluster EC.
- Start number 56 was manually annotated 27 times for cluster EC.
- Start number 57 was manually annotated 2 times for cluster EC.

Info for manual annotations of cluster EI:

- Start number 52 was manually annotated 2 times for cluster EI.
- Start number 53 was manually annotated 4 times for cluster EI.

Info for manual annotations of cluster GA:

- Start number 56 was manually annotated 7 times for cluster GA.

Info for manual annotations of cluster V:

- Start number 48 was manually annotated 5 times for cluster V.

Gene Information:

Gene: Abidatro_29 Start: 21393, Stop: 20860, Start Num: 55

Candidate Starts for Abidatro_29:

(31, 21495), (Start: 55 @21393 has 1 MA's), (Start: 57 @21390 has 23 MA's), (62, 21357), (73, 21261), (87, 21105), (89, 21096), (104, 20922), (105, 20895),

Gene: Amelia_32 Start: 21518, Stop: 21165, Start Num: 57

Candidate Starts for Amelia_32:

(28, 21644), (34, 21605), (Start: 57 @21518 has 23 MA's), (73, 21389), (76, 21344), (89, 21224),

Gene: Andrew_31 Start: 20815, Stop: 20462, Start Num: 57

Candidate Starts for Andrew_31:

(4, 21166), (41, 20890), (Start: 57 @20815 has 23 MA's), (73, 20686), (89, 20521),

Gene: Antares_54 Start: 35918, Stop: 36367, Start Num: 56

Candidate Starts for Antares_54:

(Start: 56 @35918 has 34 MA's), (78, 36077), (87, 36182), (88, 36188), (98, 36245), (103, 36362),

Gene: Antuna_42 Start: 25698, Stop: 26075, Start Num: 56

Candidate Starts for Antuna_42:

(Start: 56 @25698 has 34 MA's), (65, 25761), (67, 25788), (87, 25962), (88, 25968), (92, 25989), (101, 26064),

Gene: Appa_41 Start: 25620, Stop: 25997, Start Num: 56

Candidate Starts for Appa_41:

(Start: 56 @25620 has 34 MA's), (65, 25683), (87, 25884), (88, 25890), (92, 25911), (101, 25986),

Gene: Ariadne_62 Start: 37502, Stop: 37951, Start Num: 56

Candidate Starts for Ariadne_62:

(47, 37460), (Start: 56 @37502 has 34 MA's), (63, 37553), (78, 37661), (87, 37766), (88, 37772), (103, 37946),

Gene: Azrael100_76 Start: 48787, Stop: 49152, Start Num: 48

Candidate Starts for Azrael100_76:

(38, 48724), (Start: 48 @48787 has 5 MA's), (79, 48979), (93, 49099), (97, 49132),

Gene: Basilisk_30 Start: 22338, Stop: 21847, Start Num: 57

Candidate Starts for Basilisk_30:

(Start: 57 @22338 has 23 MA's), (62, 22305), (70, 22233), (73, 22209), (76, 22164), (89, 22044),

Gene: Blett_41 Start: 25800, Stop: 26177, Start Num: 56

Candidate Starts for Blett_41:

(Start: 56 @25800 has 34 MA's), (65, 25863), (67, 25890), (77, 25956), (87, 26064), (88, 26070), (92, 26091), (101, 26166),

Gene: BrazzalePHS_53 Start: 35714, Stop: 36163, Start Num: 56

Candidate Starts for BrazzalePHS_53:

(13, 35405), (14, 35408), (26, 35549), (37, 35621), (Start: 56 @35714 has 34 MA's), (87, 35978), (88, 35984), (98, 36041), (103, 36158),

Gene: Brynnie_29 Start: 22216, Stop: 21725, Start Num: 57

Candidate Starts for Brynnie_29:

(41, 22267), (Start: 57 @22216 has 23 MA's), (62, 22183), (70, 22111), (73, 22087), (76, 22042), (89, 21922),

Gene: Busephilis_53 Start: 35622, Stop: 36074, Start Num: 53

Candidate Starts for Busephilis_53:

(Start: 53 @35622 has 11 MA's), (63, 35676), (78, 35784), (87, 35889), (98, 35952), (103, 36069),

Gene: Bush_43 Start: 25748, Stop: 26125, Start Num: 56

Candidate Starts for Bush_43:

(Start: 56 @25748 has 34 MA's), (65, 25811), (67, 25838), (77, 25904), (87, 26012), (88, 26018), (92, 26039), (101, 26114),

Gene: Chickaboom_31 Start: 21353, Stop: 20883, Start Num: 57

Candidate Starts for Chickaboom_31:

(28, 21479), (34, 21440), (Start: 57 @21353 has 23 MA's), (62, 21320), (70, 21248), (73, 21224), (87, 21068),

Gene: ClearAsMud_57 Start: 36175, Stop: 36624, Start Num: 56

Candidate Starts for ClearAsMud_57:

(12, 35857), (21, 35944), (22, 35962), (33, 36061), (44, 36115), (Start: 56 @36175 has 34 MA's), (78, 36334), (80, 36370), (85, 36424), (87, 36439), (88, 36445), (98, 36502), (103, 36619),

Gene: Coral_31 Start: 21357, Stop: 21004, Start Num: 57

Candidate Starts for Coral_31:

(28, 21483), (34, 21444), (Start: 57 @21357 has 23 MA's), (73, 21228), (76, 21183), (89, 21063),

Gene: Cosmo_77 Start: 48788, Stop: 49153, Start Num: 48

Candidate Starts for Cosmo_77:

(38, 48725), (Start: 48 @48788 has 5 MA's), (79, 48980), (93, 49100), (97, 49133),

Gene: Cote_33 Start: 21834, Stop: 21481, Start Num: 57

Candidate Starts for Cote_33:

(28, 21960), (34, 21921), (Start: 57 @21834 has 23 MA's), (73, 21705), (76, 21660), (89, 21540),

Gene: Cranjis_55 Start: 35873, Stop: 36322, Start Num: 56

Candidate Starts for Cranjis_55:

(2, 35447), (13, 35564), (14, 35567), (26, 35708), (37, 35780), (Start: 56 @35873 has 34 MA's), (87, 36137), (88, 36143), (98, 36200), (103, 36317),

Gene: CrazyRich_53 Start: 35682, Stop: 36131, Start Num: 56

Candidate Starts for CrazyRich_53:

(13, 35373), (14, 35376), (26, 35517), (37, 35589), (Start: 56 @35682 has 34 MA's), (78, 35841), (87, 35946), (88, 35952), (98, 36009), (103, 36126),

Gene: Cressida_55 Start: 36599, Stop: 36934, Start Num: 53

Candidate Starts for Cressida_55:

(5, 36272), (7, 36275), (10, 36281), (13, 36305), (15, 36314), (42, 36542), (Start: 50 @36587 has 1 MA's), (51, 36590), (Start: 53 @36599 has 11 MA's), (61, 36626), (71, 36716), (74, 36734), (81, 36809), (83, 36839), (87, 36866),

Gene: Crisis_55 Start: 35673, Stop: 36122, Start Num: 56

Candidate Starts for Crisis_55:

(13, 35364), (14, 35367), (26, 35508), (37, 35580), (Start: 56 @35673 has 34 MA's), (78, 35832), (87, 35937), (88, 35943), (98, 36000), (103, 36117),

Gene: Daob_33 Start: 21852, Stop: 21499, Start Num: 57

Candidate Starts for Daob_33:

(28, 21978), (34, 21939), (Start: 57 @21852 has 23 MA's), (73, 21723), (89, 21558),

Gene: Dropshot_41 Start: 25455, Stop: 25832, Start Num: 56

Candidate Starts for Dropshot_41:

(Start: 56 @25455 has 34 MA's), (65, 25518), (67, 25545), (87, 25719), (88, 25725), (92, 25746), (101, 25821),

Gene: Eesa_28 Start: 22106, Stop: 21612, Start Num: 57

Candidate Starts for Eesa_28:

(34, 22193), (Start: 57 @22106 has 23 MA's), (73, 21977), (76, 21932), (78, 21926), (87, 21821), (89, 21812), (102, 21665),

Gene: EniyanLRS_168 Start: 48527, Stop: 48892, Start Num: 48

Candidate Starts for EniyanLRS_168:

(38, 48464), (Start: 48 @48527 has 5 MA's), (79, 48719), (93, 48839), (97, 48872),

Gene: Fireman_56 Start: 37569, Stop: 38018, Start Num: 56

Candidate Starts for Fireman_56:

(Start: 56 @37569 has 34 MA's), (63, 37620), (78, 37728), (87, 37833), (88, 37839), (103, 38013),

Gene: Galaxy_30 Start: 21976, Stop: 21491, Start Num: 54

Candidate Starts for Galaxy_30:

(Start: 54 @21976 has 1 MA's), (58, 21955), (62, 21931), (73, 21835), (87, 21679), (89, 21670),

Gene: Ganandorf_53 Start: 35703, Stop: 36155, Start Num: 53

Candidate Starts for Ganandorf_53:

(Start: 53 @35703 has 11 MA's), (63, 35757), (78, 35865), (87, 35970), (88, 35976), (98, 36033), (103, 36150),

Gene: Gina_56 Start: 35677, Stop: 36126, Start Num: 56

Candidate Starts for Gina_56:

(47, 35638), (Start: 56 @35677 has 34 MA's), (63, 35728), (78, 35836), (87, 35941), (88, 35947), (100, 36025),

Gene: Hermeonysus_53 Start: 35602, Stop: 36051, Start Num: 56

Candidate Starts for Hermeonysus_53:

(Start: 56 @35602 has 34 MA's), (78, 35761), (87, 35866), (98, 35929), (103, 36046),

Gene: Honeyfin_55 Start: 35891, Stop: 36343, Start Num: 53

Candidate Starts for Honeyfin_55:

(Start: 53 @35891 has 11 MA's), (63, 35945), (71, 36008), (78, 36053), (87, 36158), (88, 36164), (98, 36221), (103, 36338),

Gene: Jamun_28 Start: 21237, Stop: 20692, Start Num: 57

Candidate Starts for Jamun_28:

(34, 21321), (Start: 55 @21240 has 1 MA's), (Start: 57 @21237 has 23 MA's), (62, 21204), (73, 21108), (76, 21063), (78, 21057), (89, 20943), (104, 20766),

Gene: Jefe_54 Start: 35660, Stop: 36109, Start Num: 56

Candidate Starts for Jefe_54:

(13, 35351), (14, 35354), (26, 35495), (37, 35567), (Start: 56 @35660 has 34 MA's), (78, 35819), (87, 35924), (88, 35930), (98, 35987), (103, 36104),

Gene: Jollipop_54 Start: 35999, Stop: 36448, Start Num: 56

Candidate Starts for Jollipop_54:

(2, 35573), (13, 35690), (14, 35693), (26, 35834), (37, 35906), (Start: 56 @35999 has 34 MA's), (71, 36113), (78, 36158), (87, 36263), (88, 36269), (98, 36326), (103, 36443),

Gene: Juno112_29 Start: 20872, Stop: 20519, Start Num: 57

Candidate Starts for Juno112_29:

(1, 21274), (18, 21124), (41, 20929), (Start: 57 @20872 has 23 MA's), (62, 20839), (73, 20743),

Gene: KaiHaiDragon_54 Start: 35596, Stop: 36045, Start Num: 56

Candidate Starts for KaiHaiDragon_54:

(Start: 56 @35596 has 34 MA's), (85, 35845), (87, 35860), (88, 35866), (98, 35923), (103, 36040),

Gene: Kepler_32 Start: 21801, Stop: 21448, Start Num: 57

Candidate Starts for Kepler_32:

(28, 21927), (34, 21888), (Start: 57 @21801 has 23 MA's), (73, 21672), (89, 21507),

Gene: Kowalski_53 Start: 35709, Stop: 36158, Start Num: 56

Candidate Starts for Kowalski_53:

(13, 35400), (14, 35403), (26, 35544), (37, 35616), (Start: 56 @35709 has 34 MA's), (87, 35973), (88, 35979), (98, 36036), (103, 36153),

Gene: Kozie_51 Start: 36191, Stop: 36532, Start Num: 52

Candidate Starts for Kozie_51:

(23, 35999), (30, 36059), (45, 36149), (Start: 52 @36191 has 2 MA's), (83, 36437), (88, 36470), (94, 36497),

Gene: Leona_29 Start: 20943, Stop: 20590, Start Num: 57

Candidate Starts for Leona_29:

(18, 21195), (41, 21000), (Start: 57 @20943 has 23 MA's), (62, 20910), (73, 20814), (78, 20763),

Gene: LittleFortune_55 Start: 35965, Stop: 36414, Start Num: 56

Candidate Starts for LittleFortune_55:

(2, 35539), (13, 35656), (14, 35659), (26, 35800), (37, 35872), (Start: 56 @35965 has 34 MA's), (87, 36229), (88, 36235), (98, 36292), (103, 36409),

Gene: LittleTokyo_32 Start: 21633, Stop: 21280, Start Num: 57

Candidate Starts for LittleTokyo_32:

(Start: 57 @21633 has 23 MA's), (70, 21528), (73, 21504),

Gene: Lunar_32 Start: 21502, Stop: 21149, Start Num: 57

Candidate Starts for Lunar_32:

(28, 21628), (34, 21589), (Start: 57 @21502 has 23 MA's), (73, 21373), (76, 21328), (89, 21208),

Gene: Margaery_51 Start: 36177, Stop: 36518, Start Num: 52

Candidate Starts for Margaery_51:

(8, 35859), (9, 35862), (11, 35868), (15, 35898), (17, 35925), (18, 35928), (42, 36120), (49, 36165), (Start: 50 @36168 has 1 MA's), (Start: 52 @36177 has 2 MA's), (61, 36210), (71, 36300), (74, 36318), (81, 36393), (82, 36417), (83, 36423), (94, 36483),

Gene: MaryV_77 Start: 48609, Stop: 48974, Start Num: 48

Candidate Starts for MaryV_77:

(38, 48546), (Start: 48 @48609 has 5 MA's), (79, 48801), (93, 48921), (97, 48954),

Gene: Matzah_54 Start: 37029, Stop: 37364, Start Num: 53

Candidate Starts for Matzah_54:

(Start: 50 @37017 has 1 MA's), (51, 37020), (Start: 53 @37029 has 11 MA's), (61, 37056), (66, 37113), (74, 37164), (81, 37239), (83, 37269), (86, 37290), (94, 37329),

Gene: Megan_52 Start: 39265, Stop: 39606, Start Num: 57

Candidate Starts for Megan_52:

(6, 38917), (16, 38971), (19, 38992), (20, 39001), (24, 39076), (25, 39088), (27, 39103), (32, 39136), (36, 39160), (39, 39175), (46, 39217), (Start: 57 @39265 has 23 MA's), (62, 39298), (82, 39493), (83, 39499), (87, 39526), (88, 39532), (91, 39550),

Gene: Melons_32 Start: 21502, Stop: 21149, Start Num: 57

Candidate Starts for Melons_32:

(28, 21628), (34, 21589), (Start: 57 @21502 has 23 MA's), (73, 21373), (76, 21328), (89, 21208),

Gene: MementoMori_53 Start: 36606, Stop: 36941, Start Num: 53

Candidate Starts for MementoMori_53:

(8, 36288), (9, 36291), (11, 36297), (15, 36327), (17, 36354), (18, 36357), (42, 36549), (Start: 50 @36594 has 1 MA's), (51, 36597), (Start: 53 @36606 has 11 MA's), (61, 36633), (74, 36741), (81, 36816), (83, 36846), (86, 36867), (94, 36906),

Gene: MenE_45 Start: 25720, Stop: 26097, Start Num: 56

Candidate Starts for MenE_45:

(Start: 56 @25720 has 34 MA's), (65, 25783), (67, 25810), (87, 25984), (88, 25990), (92, 26011), (101, 26086),

Gene: Metamorphoo_56 Start: 36831, Stop: 37280, Start Num: 56

Candidate Starts for Metamorphoo_56:

(Start: 56 @36831 has 34 MA's), (63, 36882), (78, 36990), (87, 37095), (88, 37101), (103, 37275),

Gene: Nicole72_53 Start: 39892, Stop: 40239, Start Num: 57

Candidate Starts for Nicole72_53:

(43, 39826), (46, 39844), (Start: 57 @39892 has 23 MA's), (80, 40084), (87, 40153), (88, 40159),

Gene: NoodlelyBoi_55 Start: 36387, Stop: 36836, Start Num: 56

Candidate Starts for NoodlelyBoi_55:

(12, 36069), (21, 36156), (22, 36174), (33, 36273), (44, 36327), (Start: 56 @36387 has 34 MA's), (78, 36546), (80, 36582), (85, 36636), (87, 36651), (88, 36657), (98, 36714), (103, 36831),

Gene: Octobien14_72 Start: 45181, Stop: 45522, Start Num: 50

Candidate Starts for Octobien14_72:

(Start: 50 @45181 has 1 MA's), (68, 45283), (76, 45337), (83, 45421),

Gene: Odyssey395_85 Start: 50318, Stop: 49992, Start Num: 60

Candidate Starts for Odyssey395_85:

(Start: 60 @50318 has 5 MA's), (63, 50288), (64, 50285), (72, 50219), (78, 50174), (80, 50150), (84, 50096), (90, 50060), (99, 50009),

Gene: Onika_53 Start: 35684, Stop: 36133, Start Num: 56

Candidate Starts for Onika_53:

(Start: 56 @35684 has 34 MA's), (78, 35843), (87, 35948), (98, 36011), (103, 36128),

Gene: Orcanus_29 Start: 21876, Stop: 21382, Start Num: 57

Candidate Starts for Orcanus_29:

(28, 22002), (34, 21963), (Start: 57 @21876 has 23 MA's), (73, 21747), (76, 21702), (78, 21696), (87, 21591), (89, 21582), (102, 21435),

Gene: Paschalis_53 Start: 35691, Stop: 36140, Start Num: 56

Candidate Starts for Paschalis_53:

(Start: 56 @35691 has 34 MA's), (69, 35790), (78, 35850), (87, 35955), (88, 35961), (98, 36018), (103, 36135),

Gene: Phonegingi_41 Start: 25666, Stop: 26043, Start Num: 56

Candidate Starts for Phonegingi_41:

(Start: 56 @25666 has 34 MA's), (65, 25729), (67, 25756), (83, 25903), (87, 25930), (88, 25936), (95, 25966), (101, 26032),

Gene: Phorgeous_53 Start: 35522, Stop: 35974, Start Num: 53

Candidate Starts for Phorgeous_53:

(Start: 53 @35522 has 11 MA's), (63, 35576), (78, 35684), (87, 35789), (88, 35795), (98, 35852), (103, 35969),

Gene: Phrancesco_54 Start: 35812, Stop: 36264, Start Num: 53

Candidate Starts for Phrancesco_54:

(Start: 53 @35812 has 11 MA's), (63, 35866), (78, 35974), (87, 36079), (98, 36142), (103, 36259),

Gene: Pickles13_40 Start: 25930, Stop: 26307, Start Num: 56

Candidate Starts for Pickles13_40:

(Start: 56 @25930 has 34 MA's), (67, 26020), (87, 26194), (88, 26200), (92, 26221), (101, 26296),

Gene: PierreOrion_54 Start: 35858, Stop: 36307, Start Num: 56

Candidate Starts for PierreOrion_54:

(2, 35432), (13, 35549), (14, 35552), (26, 35693), (37, 35765), (Start: 56 @35858 has 34 MA's), (71, 35972), (78, 36017), (87, 36122), (88, 36128), (98, 36185), (103, 36302),

Gene: PiperSansNom_54 Start: 35998, Stop: 36447, Start Num: 56

Candidate Starts for PiperSansNom_54:

(Start: 56 @35998 has 34 MA's), (78, 36157), (87, 36262), (98, 36325), (103, 36442),

Gene: Piperis_54 Start: 35645, Stop: 36097, Start Num: 53

Candidate Starts for Piperis_54:

(Start: 53 @35645 has 11 MA's), (63, 35699), (78, 35807), (87, 35912), (88, 35918), (98, 35975), (103, 36092),

Gene: Pointis_80 Start: 49894, Stop: 49568, Start Num: 60

Candidate Starts for Pointis_80:

(Start: 60 @49894 has 5 MA's), (63, 49864), (64, 49861), (72, 49795), (78, 49750), (80, 49726), (84, 49672), (90, 49636), (99, 49585),

Gene: Polka_31 Start: 21366, Stop: 21013, Start Num: 57

Candidate Starts for Polka_31:

(28, 21492), (34, 21453), (Start: 57 @21366 has 23 MA's), (73, 21237), (76, 21192), (89, 21072),

Gene: Pulchra_55 Start: 36042, Stop: 36494, Start Num: 53

Candidate Starts for Pulchra_55:

(Start: 53 @36042 has 11 MA's), (63, 36096), (71, 36159), (78, 36204), (87, 36309), (98, 36372), (103, 36489),

Gene: Pureglobe5_83 Start: 50341, Stop: 50015, Start Num: 59

Candidate Starts for Pureglobe5_83:

(40, 50434), (Start: 59 @50341 has 1 MA's), (63, 50311), (64, 50308), (72, 50242), (78, 50197), (80, 50173), (84, 50119), (90, 50083), (99, 50032),

Gene: Quhwah_57 Start: 36306, Stop: 36755, Start Num: 56

Candidate Starts for Quhwah_57:

(Start: 56 @36306 has 34 MA's), (78, 36465), (87, 36570), (88, 36576), (98, 36633), (103, 36750),

Gene: Ramiel05_53 Start: 35709, Stop: 36158, Start Num: 56

Candidate Starts for Ramiel05_53:

(13, 35400), (14, 35403), (26, 35544), (37, 35616), (Start: 56 @35709 has 34 MA's), (87, 35973), (88, 35979), (98, 36036), (103, 36153),

Gene: Ranunculus_78 Start: 52647, Stop: 52321, Start Num: 60

Candidate Starts for Ranunculus_78:

(Start: 60 @52647 has 5 MA's), (63, 52617), (72, 52548), (78, 52503), (80, 52479), (90, 52389),

Gene: RedFox_30 Start: 20869, Stop: 20516, Start Num: 57

Candidate Starts for RedFox_30:
(1, 21271), (18, 21121), (41, 20926), (Start: 57 @20869 has 23 MA's), (62, 20836), (73, 20740),

Gene: Renna12_29 Start: 20890, Stop: 20534, Start Num: 57
Candidate Starts for Renna12_29:
(Start: 57 @20890 has 23 MA's), (62, 20857), (73, 20761), (89, 20596),

Gene: Rizwana_65 Start: 46684, Stop: 46358, Start Num: 60
Candidate Starts for Rizwana_65:
(Start: 60 @46684 has 5 MA's), (63, 46654), (64, 46651), (90, 46426),

Gene: RobsFeet_57 Start: 37130, Stop: 37579, Start Num: 56
Candidate Starts for RobsFeet_57:
(Start: 56 @37130 has 34 MA's), (63, 37181), (78, 37289), (87, 37394), (88, 37400), (103, 37574),

Gene: Ruchi_29 Start: 22284, Stop: 21793, Start Num: 57
Candidate Starts for Ruchi_29:
(28, 22410), (Start: 57 @22284 has 23 MA's), (62, 22251), (70, 22179), (73, 22155), (76, 22110), (89, 21990),

Gene: Savannah_53 Start: 35736, Stop: 36185, Start Num: 56
Candidate Starts for Savannah_53:
(Start: 56 @35736 has 34 MA's), (78, 35895), (87, 36000), (88, 36006), (98, 36063), (103, 36180),

Gene: Scumberland_55 Start: 35931, Stop: 36380, Start Num: 56
Candidate Starts for Scumberland_55:
(2, 35505), (13, 35622), (14, 35625), (26, 35766), (37, 35838), (Start: 56 @35931 has 34 MA's), (87, 36195), (88, 36201), (98, 36258), (103, 36375),

Gene: Shotgun_53 Start: 35535, Stop: 35984, Start Num: 56
Candidate Starts for Shotgun_53:
(Start: 56 @35535 has 34 MA's), (78, 35694), (87, 35799), (88, 35805), (98, 35862), (103, 35979),

Gene: SilentRX_62 Start: 45416, Stop: 45102, Start Num: 60
Candidate Starts for SilentRX_62:
(29, 45581), (35, 45545), (Start: 60 @45416 has 5 MA's), (75, 45290), (90, 45158), (92, 45149),

Gene: Smarties_62 Start: 37502, Stop: 37951, Start Num: 56
Candidate Starts for Smarties_62:
(47, 37460), (Start: 56 @37502 has 34 MA's), (63, 37553), (78, 37661), (87, 37766), (88, 37772), (103, 37946),

Gene: Tank_65 Start: 46679, Stop: 46338, Start Num: 60
Candidate Starts for Tank_65:
(Start: 60 @46679 has 5 MA's), (70, 46592), (90, 46421), (96, 46379),

Gene: TaylorSipht_29 Start: 21289, Stop: 20720, Start Num: 57
Candidate Starts for TaylorSipht_29:
(34, 21373), (Start: 57 @21289 has 23 MA's), (62, 21256), (70, 21184), (73, 21160), (76, 21115), (97, 20941),

Gene: Teamocil_56 Start: 35776, Stop: 36225, Start Num: 56
Candidate Starts for Teamocil_56:

(47, 35737), (Start: 56 @35776 has 34 MA's), (63, 35827), (78, 35935), (87, 36040), (88, 36046), (100, 36124),

Gene: Terij_52 Start: 35668, Stop: 36003, Start Num: 53

Candidate Starts for Terij_52:

(3, 35263), (8, 35347), (9, 35350), (11, 35356), (17, 35413), (18, 35416), (42, 35608), (Start: 50 @35656 has 1 MA's), (51, 35659), (Start: 53 @35668 has 11 MA's), (71, 35785), (74, 35803), (87, 35935), (94, 35968),

Gene: Tyrumbra_54 Start: 36909, Stop: 37358, Start Num: 56

Candidate Starts for Tyrumbra_54:

(Start: 56 @36909 has 34 MA's), (63, 36960), (78, 37068), (87, 37173), (98, 37236), (103, 37353),

Gene: Vulpecula_29 Start: 21960, Stop: 21436, Start Num: 57

Candidate Starts for Vulpecula_29:

(Start: 57 @21960 has 23 MA's), (62, 21927), (70, 21855), (73, 21831), (76, 21786), (89, 21666),

Gene: Warren_41 Start: 25673, Stop: 26050, Start Num: 56

Candidate Starts for Warren_41:

(Start: 56 @25673 has 34 MA's), (65, 25736), (67, 25763), (87, 25937), (88, 25943), (92, 25964), (101, 26039),

Gene: Wildcat_77 Start: 48619, Stop: 48984, Start Num: 48

Candidate Starts for Wildcat_77:

(38, 48556), (Start: 48 @48619 has 5 MA's), (79, 48811), (93, 48931), (97, 48964),

Gene: Wilde_67 Start: 46978, Stop: 46637, Start Num: 60

Candidate Starts for Wilde_67:

(Start: 60 @46978 has 5 MA's), (70, 46891), (90, 46720), (96, 46678),

Gene: Yeti_54 Start: 35678, Stop: 36130, Start Num: 53

Candidate Starts for Yeti_54:

(Start: 53 @35678 has 11 MA's), (63, 35732), (71, 35795), (78, 35840), (87, 35945), (88, 35951), (98, 36008), (103, 36125),