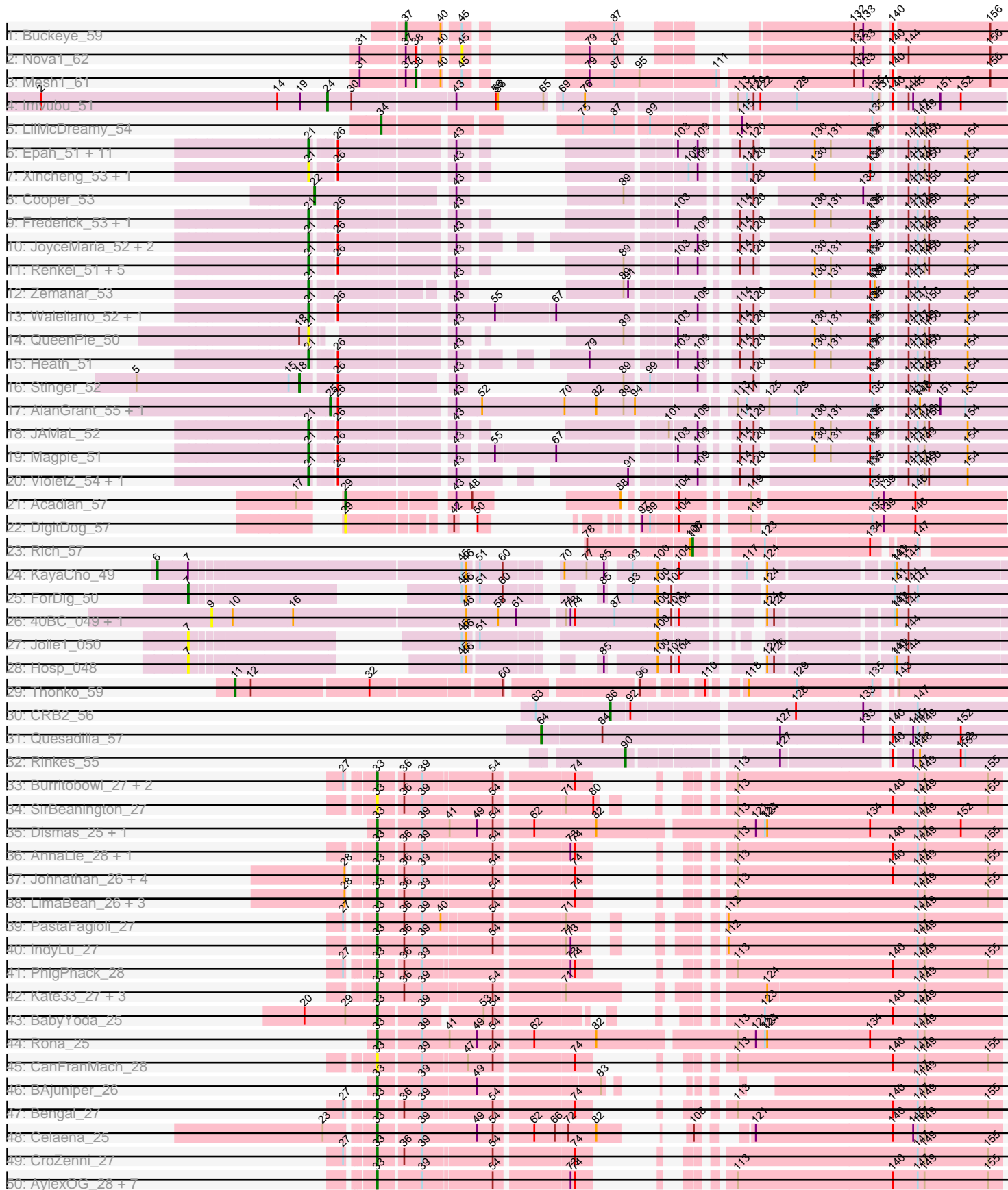
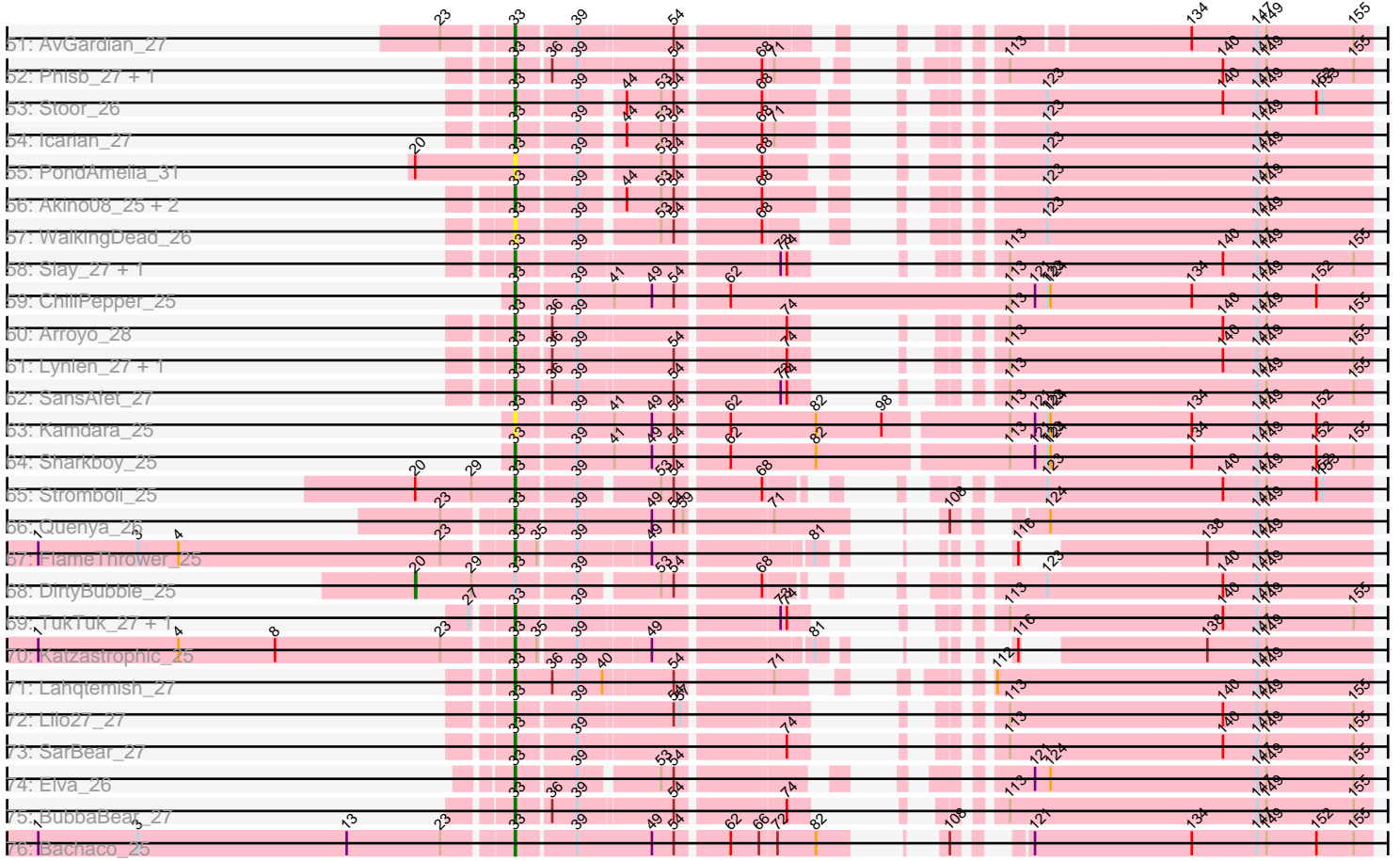


Pham 311366



Pham 311366



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 311366 Report

This analysis was run 06/27/26 on database version 652.

Pham number 311366 has 127 members, 25 are drafts.

Phages represented in each track:

- Track 1 : Buckeye_59
- Track 2 : Nova1_62
- Track 3 : Mesh1_61
- Track 4 : Imvubu_51
- Track 5 : LilMcDreamy_54
- Track 6 : Epah_51, Lambano_51, Hally898_51, Lolalove_53, GinPorsche_52, Ahwei_51, Nanao_51, Antihero_51, Poster_51, ChrisnMich_52, Fortunato_53, Hydro_52
- Track 7 : Xincheng_53, JaguarMi_54
- Track 8 : Cooper_53
- Track 9 : Frederick_53, RawrgerThat_53
- Track 10 : JoyceMaria_52, Hangman_52, BobbyK_53
- Track 11 : Renkei_51, Mudslide_52, LittleDigger_51, Prince_52, Apex_53, Austelle_53
- Track 12 : Zemanar_53
- Track 13 : Waleliano_52, BrownCNA_54
- Track 14 : QueenPie_50
- Track 15 : Heath_51
- Track 16 : Stinger_52
- Track 17 : AlanGrant_55, Vincenzo_54
- Track 18 : JAMaL_52
- Track 19 : Magpie_51
- Track 20 : VioletZ_54, Mithril_52
- Track 21 : Acadian_57
- Track 22 : DigitDog_57
- Track 23 : Rich_57
- Track 24 : KayaCho_49
- Track 25 : ForDig_50
- Track 26 : 40BC_049, 39HC_049
- Track 27 : Jolie1_050
- Track 28 : Hosp_048
- Track 29 : Thonko_59
- Track 30 : CRB2_56
- Track 31 : Quesadilla_57
- Track 32 : Rinkes_55
- Track 33 : Burritobowl_27, DickRichards_27, Softsoap_26
- Track 34 : SirBeanington_27

- Track 35 : Dismas_25, Kieran_25
- Track 36 : AnnaLie_28, BelmontSKP_28
- Track 37 : Johnathan_26, Avocadoman_26, Cashington_26, Milomuff_27, Solea_28
- Track 38 : LimaBean_26, Albright_26, Abigail_26, Doobus_26
- Track 39 : PastaFagioli_27
- Track 40 : IndyLu_27
- Track 41 : PhigPhack_28
- Track 42 : Kate33_27, Didgeeridoo_29, Finalfrontier_28, BabyDaisy_28
- Track 43 : BabyYoda_25
- Track 44 : Rona_25
- Track 45 : CanFranMach_28
- Track 46 : BAjuniper_26
- Track 47 : Bengal_27
- Track 48 : Celaena_25
- Track 49 : CroZenni_27
- Track 50 : AylexOG_28, Swervy_27, Jabb_27, MsUbiquitous_27, Eula_27, CupcakePrincess_27, Pecas_27, QMacho_28
- Track 51 : AvGardian_27
- Track 52 : Phisb_27, Albedo_27
- Track 53 : Stoor_26
- Track 54 : Icarian_27
- Track 55 : PondAmelia_31
- Track 56 : Akino08_25, Loviatar_26, SanaSana_27
- Track 57 : WalkingDead_26
- Track 58 : Slay_27, Nicky22_28
- Track 59 : ChiliPepper_25
- Track 60 : Arroyo_28
- Track 61 : Lynlen_27, Kenzers_27
- Track 62 : SansAfet_27
- Track 63 : Kamdara_25
- Track 64 : Sharkboy_25
- Track 65 : Stromboli_25
- Track 66 : Quenya_26
- Track 67 : FlameThrower_25
- Track 68 : DirtyBubble_25
- Track 69 : TukTuk_27, Jovita_27
- Track 70 : Katzastrophic_25
- Track 71 : Lahqtemish_27
- Track 72 : Lilo27_27
- Track 73 : SarBear_27
- Track 74 : Elva_26
- Track 75 : BubbaBear_27
- Track 76 : Bachaco_25

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

The start number called the most often in the published annotations is 33, it was called in 62 of the 102 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Abigail_26, Akino08_25, Albedo_27, Albright_26, AnnaLie_28, Arroyo_28, AvGardian_27, Avocadoman_26, AylexOG_28, BAjuniper_26, BabyDaisy_28, BabyYoda_25, Bachaco_25, BelmontSKP_28, Bengal_27, BubbaBear_27, Burritobowl_27, CanFranMach_28, Cashington_26, Celaena_25, ChiliPepper_25, CroZenni_27, CupcakePrincess_27, DickRichards_27, Didgeridoo_29, Dismas_25, Doobus_26, Elva_26, Eula_27, Finalfrontier_28, FlameThrower_25, Icarian_27, IndyLu_27, Jabb_27, Johnathan_26, Jovita_27, Kamdara_25, Kate33_27, Katzastrophic_25, Kenzers_27, Kieran_25, Lahqtemish_27, Lilo27_27, LimaBean_26, Loviatar_26, Lynlen_27, Milomuff_27, MsUbiquitous_27, Nicky22_28, PastaFagioli_27, Pecas_27, PhigPhack_28, Phisb_27, PondAmelia_31, QMacho_28, Quenya_26, Rona_25, SanaSana_27, SansAfet_27, SarBear_27, Sharkboy_25, SirBeanington_27, Slay_27, Softsoap_26, Solea_28, Stoor_26, Stromboli_25, Swervy_27, TukTuk_27, WalkingDead_26,

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

- DirtyBubble_25,

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

- 39HC_049, 40BC_049, Acadian_57, Ahwei_51, AlanGrant_55, Antihero_51, Apex_53, Austelle_53, BobbyK_53, BrownCNA_54, Buckeye_59, CRB2_56, ChrisnMich_52, Cooper_53, DigitDog_57, Epah_51, ForDig_50, Fortunato_53, Frederick_53, GinPorsche_52, Hally898_51, Hangman_52, Heath_51, Hosp_048, Hydro_52, Imvubu_51, JAMaL_52, JaguarMi_54, Jolie1_050, JoyceMaria_52, KayaCho_49, Lambano_51, LilMcDreamy_54, LittleDigger_51, Lolalove_53, Magpie_51, Mesh1_61, Mithril_52, Mudslide_52, Nanao_51, Nova1_62, Poster_51, Prince_52, QueenPie_50, Quesadilla_57, RawrgerThat_53, Renkei_51, Rich_57, Rinkes_55, Stinger_52, Thonko_59, Vincenzo_54, VioletZ_54, Waleliano_52, Xincheng_53, Zemanar_53,

Summary by start number:

Start 6:

- Found in 1 of 127 (0.8%) of genes in pham
- Manual Annotations of this start: 1 of 102
- Called 100.0% of time when present
- Phage (with cluster) where this start called: KayaCho_49 (B6),

Start 7:

- Found in 4 of 127 (3.1%) of genes in pham
- Manual Annotations of this start: 1 of 102
- Called 75.0% of time when present
- Phage (with cluster) where this start called: ForDig_50 (B6), Hosp_048 (B6), Jolie1_050 (B6),

Start 9:

- Found in 2 of 127 (1.6%) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: 39HC_049 (B6), 40BC_049 (B6),

Start 11:

- Found in 1 of 127 (0.8%) of genes in pham
- Manual Annotations of this start: 1 of 102

- Called 100.0% of time when present
- Phage (with cluster) where this start called: Thonko_59 (B8),

Start 18:

- Found in 2 of 127 (1.6%) of genes in pham
- Manual Annotations of this start: 1 of 102
- Called 50.0% of time when present
- Phage (with cluster) where this start called: Stinger_52 (B4),

Start 20:

- Found in 4 of 127 (3.1%) of genes in pham
- Manual Annotations of this start: 1 of 102
- Called 25.0% of time when present
- Phage (with cluster) where this start called: DirtyBubble_25 (EB),

Start 21:

- Found in 34 of 127 (26.8%) of genes in pham
- Manual Annotations of this start: 23 of 102
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Ahwei_51 (B4), Antihero_51 (B4), Apex_53 (B4), Austelle_53 (B4), BobbyK_53 (B4), BrownCNA_54 (B4), ChrisnMich_52 (B4), Epah_51 (B4), Fortunato_53 (B4), Frederick_53 (B4), GinPorsche_52 (B4), Hally898_51 (B4), Hangman_52 (B4), Heath_51 (B4), Hydro_52 (B4), JAMaL_52 (B4), JaguarMi_54 (B4), JoyceMaria_52 (B4), Lambano_51 (B4), LittleDigger_51 (B4), Lolalove_53 (B4), Magpie_51 (B4), Mithril_52 (B4), Mudslide_52 (B4), Nanao_51 (B4), Poster_51 (B4), Prince_52 (B4), QueenPie_50 (B4), RawrgerThat_53 (B4), Renkei_51 (B4), VioletZ_54 (B4), Waleliano_52 (B4), Xincheng_53 (B4), Zemanar_53 (B4),

Start 22:

- Found in 1 of 127 (0.8%) of genes in pham
- Manual Annotations of this start: 1 of 102
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Cooper_53 (B4),

Start 24:

- Found in 1 of 127 (0.8%) of genes in pham
- Manual Annotations of this start: 1 of 102
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Imvubu_51 (B10),

Start 25:

- Found in 2 of 127 (1.6%) of genes in pham
- Manual Annotations of this start: 2 of 102
- Called 100.0% of time when present
- Phage (with cluster) where this start called: AlanGrant_55 (B4), Vincenzo_54 (B4),

Start 29:

- Found in 5 of 127 (3.9%) of genes in pham
- Manual Annotations of this start: 1 of 102
- Called 40.0% of time when present
- Phage (with cluster) where this start called: Acadian_57 (B5), DigitDog_57 (B5),

Start 33:

- Found in 71 of 127 (55.9%) of genes in pham
- Manual Annotations of this start: 62 of 102
- Called 98.6% of time when present
- Phage (with cluster) where this start called: Abigail_26 (EB), Akino08_25 (EB), Albedo_27 (EB), Albright_26 (EB), AnnaLie_28 (EB), Arroyo_28 (EB), AvGardian_27 (EB), Avocadoman_26 (EB), AylexOG_28 (EB), BAjuniper_26 (EB), BabyDaisy_28 (EB), BabyYoda_25 (EB), Bachaco_25 (EB), BelmontSKP_28 (EB), Bengal_27 (EB), BubbaBear_27 (EB), Burritobowl_27 (EB), CanFranMach_28 (EB), Cashington_26 (EB), Celaena_25 (EB), ChiliPepper_25 (EB), CroZenni_27 (EB), CupcakePrincess_27 (EB), DickRichards_27 (EB), Didgeridoo_29 (EB), Dismas_25 (EB), Doobus_26 (EB), Elva_26 (EB), Eula_27 (EB), Finalfrontier_28 (EB), FlameThrower_25 (EB), Icarian_27 (EB), IndyLu_27 (EB), Jabb_27 (EB), Johnathan_26 (EB), Jovita_27 (EB), Kamdara_25 (EB), Kate33_27 (EB), Katzastrophic_25 (EB), Kenzers_27 (EB), Kieran_25 (EB), Lahqtemish_27 (EB), Lilo27_27 (EB), LimaBean_26 (EB), Loviatar_26 (EB), Lynlen_27 (EB), Milomuff_27 (EB), MsUbiquitous_27 (EB), Nicky22_28 (EB), PastaFagioli_27 (EB), Pecas_27 (EB), PhigPhack_28 (EB), Phisb_27 (EB), PondAmelia_31 (EB), QMacho_28 (EB), Quenya_26 (EB), Rona_25 (EB), SanaSana_27 (EB), SansAfet_27 (EB), SarBear_27 (EB), Sharkboy_25 (EB), SirBeanington_27 (EB), Slay_27 (EB), Softsoap_26 (EB), Solea_28 (EB), Stoor_26 (EB), Stromboli_25 (EB), Swervy_27 (EB), TukTuk_27 (EB), WalkingDead_26 (EB),

Start 34:

- Found in 1 of 127 (0.8%) of genes in pham
- Manual Annotations of this start: 1 of 102
- Called 100.0% of time when present
- Phage (with cluster) where this start called: LilMcDreamy_54 (B12),

Start 37:

- Found in 3 of 127 (2.4%) of genes in pham
- Manual Annotations of this start: 1 of 102
- Called 33.3% of time when present
- Phage (with cluster) where this start called: Buckeye_59 (B1),

Start 38:

- Found in 2 of 127 (1.6%) of genes in pham
- Manual Annotations of this start: 1 of 102
- Called 50.0% of time when present
- Phage (with cluster) where this start called: Mesh1_61 (B1),

Start 45:

- Found in 7 of 127 (5.5%) of genes in pham
- No Manual Annotations of this start.
- Called 14.3% of time when present
- Phage (with cluster) where this start called: Nova1_62 (B1),

Start 64:

- Found in 1 of 127 (0.8%) of genes in pham
- Manual Annotations of this start: 1 of 102
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Quesadilla_57 (B9),

Start 86:

- Found in 1 of 127 (0.8%) of genes in pham
- Manual Annotations of this start: 1 of 102
- Called 100.0% of time when present
- Phage (with cluster) where this start called: CRB2_56 (B9),

Start 90:

- Found in 1 of 127 (0.8%) of genes in pham
- Manual Annotations of this start: 1 of 102
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Rinkes_55 (B9),

Start 107:

- Found in 1 of 127 (0.8%) of genes in pham
- Manual Annotations of this start: 1 of 102
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Rich_57 (B5),

Summary by clusters:

There are 9 clusters represented in this pham: EB, B4, B5, B6, B12, B1, B10, B8, B9,

Info for manual annotations of cluster B1:

- Start number 37 was manually annotated 1 time for cluster B1.
- Start number 38 was manually annotated 1 time for cluster B1.

Info for manual annotations of cluster B10:

- Start number 24 was manually annotated 1 time for cluster B10.

Info for manual annotations of cluster B12:

- Start number 34 was manually annotated 1 time for cluster B12.

Info for manual annotations of cluster B4:

- Start number 18 was manually annotated 1 time for cluster B4.
- Start number 21 was manually annotated 23 times for cluster B4.
- Start number 22 was manually annotated 1 time for cluster B4.
- Start number 25 was manually annotated 2 times for cluster B4.

Info for manual annotations of cluster B5:

- Start number 29 was manually annotated 1 time for cluster B5.
- Start number 107 was manually annotated 1 time for cluster B5.

Info for manual annotations of cluster B6:

- Start number 6 was manually annotated 1 time for cluster B6.
- Start number 7 was manually annotated 1 time for cluster B6.

Info for manual annotations of cluster B8:

- Start number 11 was manually annotated 1 time for cluster B8.

Info for manual annotations of cluster B9:

- Start number 64 was manually annotated 1 time for cluster B9.
- Start number 86 was manually annotated 1 time for cluster B9.
- Start number 90 was manually annotated 1 time for cluster B9.

Info for manual annotations of cluster EB:

- Start number 20 was manually annotated 1 time for cluster EB.
- Start number 33 was manually annotated 62 times for cluster EB.

Gene Information:

Gene: 39HC_049 Start: 49995, Stop: 49036, Start Num: 9

Candidate Starts for 39HC_049:

(9, 49995), (10, 49968), (16, 49890), (46, 49668), (58, 49626), (61, 49602), (71, 49548), (73, 49542), (74, 49536), (87, 49485), (100, 49431), (102, 49413), (104, 49407), (124, 49335), (126, 49326), (141, 49191), (142, 49188), (144, 49173),

Gene: 40BC_049 Start: 49995, Stop: 49036, Start Num: 9

Candidate Starts for 40BC_049:

(9, 49995), (10, 49968), (16, 49890), (46, 49668), (58, 49626), (61, 49602), (71, 49548), (73, 49542), (74, 49536), (87, 49485), (100, 49431), (102, 49413), (104, 49407), (124, 49335), (126, 49326), (141, 49191), (142, 49188), (144, 49173),

Gene: Abigail_26 Start: 20228, Stop: 20884, Start Num: 33

Candidate Starts for Abigail_26:

(28, 20198), (Start: 33 @20228 has 62 MA's), (36, 20258), (39, 20282), (54, 20369), (74, 20465), (113, 20537), (147, 20774), (149, 20783), (155, 20867),

Gene: Acadian_57 Start: 52639, Stop: 51956, Start Num: 29

Candidate Starts for Acadian_57:

(17, 52663), (Start: 29 @52639 has 1 MA's), (43, 52519), (48, 52498), (88, 52399), (104, 52351), (119, 52279), (135, 52132), (139, 52117), (146, 52075),

Gene: Ahwei_51 Start: 51165, Stop: 50473, Start Num: 21

Candidate Starts for Ahwei_51:

(Start: 21 @51165 has 23 MA's), (26, 51141), (43, 51006), (103, 50847), (109, 50823), (114, 50796), (120, 50778), (130, 50712), (131, 50691), (134, 50640), (135, 50637), (144, 50607), (147, 50595), (149, 50586), (150, 50580), (154, 50529),

Gene: Akino08_25 Start: 21321, Stop: 22001, Start Num: 33

Candidate Starts for Akino08_25:

(Start: 33 @21321 has 62 MA's), (39, 21375), (44, 21411), (53, 21444), (54, 21456), (68, 21531), (123, 21690), (147, 21891), (149, 21900),

Gene: AlanGrant_55 Start: 53102, Stop: 52275, Start Num: 25

Candidate Starts for AlanGrant_55:

(Start: 25 @53102 has 2 MA's), (26, 53096), (43, 52961), (52, 52928), (70, 52820), (82, 52778), (89, 52742), (94, 52727), (113, 52616), (117, 52604), (125, 52574), (129, 52538), (135, 52439), (144, 52409), (147, 52397), (148, 52394), (151, 52367), (153, 52334),

Gene: Albedo_27 Start: 20666, Stop: 21349, Start Num: 33

Candidate Starts for Albedo_27:

(Start: 33 @20666 has 62 MA's), (36, 20696), (39, 20720), (54, 20810), (68, 20885), (71, 20894), (113, 21002), (140, 21206), (147, 21239), (149, 21248), (155, 21332),

Gene: Albright_26 Start: 19986, Stop: 20642, Start Num: 33

Candidate Starts for Albright_26:

(28, 19956), (Start: 33 @19986 has 62 MA's), (36, 20016), (39, 20040), (54, 20127), (74, 20223), (113, 20295), (147, 20532), (149, 20541), (155, 20625),

Gene: AnnaLie_28 Start: 20976, Stop: 21632, Start Num: 33

Candidate Starts for AnnaLie_28:

(Start: 33 @20976 has 62 MA's), (36, 21006), (39, 21030), (54, 21117), (73, 21207), (74, 21213), (113, 21285), (140, 21489), (147, 21522), (149, 21531), (155, 21615),

Gene: Antihero_51 Start: 51163, Stop: 50471, Start Num: 21

Candidate Starts for Antihero_51:

(Start: 21 @51163 has 23 MA's), (26, 51139), (43, 51004), (103, 50845), (109, 50821), (114, 50794), (120, 50776), (130, 50710), (131, 50689), (134, 50638), (135, 50635), (144, 50605), (147, 50593), (149, 50584), (150, 50578), (154, 50527),

Gene: Apex_53 Start: 52379, Stop: 51633, Start Num: 21

Candidate Starts for Apex_53:

(Start: 21 @52379 has 23 MA's), (26, 52355), (43, 52220), (89, 52058), (103, 52007), (109, 51983), (114, 51956), (120, 51938), (130, 51872), (131, 51851), (134, 51800), (135, 51797), (144, 51767), (147, 51755), (149, 51746), (150, 51740), (154, 51689),

Gene: Arroyo_28 Start: 21175, Stop: 21831, Start Num: 33

Candidate Starts for Arroyo_28:

(Start: 33 @21175 has 62 MA's), (36, 21205), (39, 21229), (74, 21412), (113, 21484), (140, 21688), (147, 21721), (149, 21730), (155, 21814),

Gene: Austelle_53 Start: 52832, Stop: 52086, Start Num: 21

Candidate Starts for Austelle_53:

(Start: 21 @52832 has 23 MA's), (26, 52808), (43, 52673), (89, 52511), (103, 52460), (109, 52436), (114, 52409), (120, 52391), (130, 52325), (131, 52304), (134, 52253), (135, 52250), (144, 52220), (147, 52208), (149, 52199), (150, 52193), (154, 52142),

Gene: AvGardian_27 Start: 20903, Stop: 21559, Start Num: 33

Candidate Starts for AvGardian_27:

(23, 20846), (Start: 33 @20903 has 62 MA's), (39, 20957), (54, 21044), (134, 21386), (147, 21449), (149, 21458), (155, 21542),

Gene: Avocadoman_26 Start: 20170, Stop: 20826, Start Num: 33

Candidate Starts for Avocadoman_26:

(28, 20140), (Start: 33 @20170 has 62 MA's), (36, 20200), (39, 20224), (54, 20311), (74, 20407), (113, 20479), (140, 20683), (147, 20716), (149, 20725), (155, 20809),

Gene: AylexOG_28 Start: 21004, Stop: 21660, Start Num: 33

Candidate Starts for AylexOG_28:

(Start: 33 @21004 has 62 MA's), (39, 21058), (54, 21145), (73, 21235), (74, 21241), (113, 21313), (140, 21517), (147, 21550), (149, 21559), (155, 21643),

Gene: BAjuniper_26 Start: 21519, Stop: 22130, Start Num: 33

Candidate Starts for BAjuniper_26:

(Start: 33 @21519 has 62 MA's), (39, 21573), (49, 21639), (83, 21786), (147, 22020), (149, 22029),

Gene: BabyDaisy_28 Start: 20806, Stop: 21519, Start Num: 33

Candidate Starts for BabyDaisy_28:

(Start: 33 @20806 has 62 MA's), (36, 20842), (39, 20866), (54, 20953), (71, 21037), (124, 21214), (147, 21409), (149, 21418),

Gene: BabyYoda_25 Start: 20833, Stop: 21492, Start Num: 33

Candidate Starts for BabyYoda_25:

(Start: 20 @20737 has 1 MA's), (Start: 29 @20791 has 1 MA's), (Start: 33 @20833 has 62 MA's), (39, 20887), (53, 20956), (54, 20968), (123, 21181), (140, 21349), (147, 21382), (149, 21391),

Gene: Bachaco_25 Start: 21471, Stop: 22142, Start Num: 33

Candidate Starts for Bachaco_25:

(1, 21024), (3, 21120), (13, 21321), (23, 21411), (Start: 33 @21471 has 62 MA's), (39, 21525), (49, 21597), (54, 21618), (62, 21663), (66, 21690), (72, 21705), (82, 21741), (108, 21783), (121, 21819), (134, 21969), (147, 22032), (149, 22041), (152, 22089), (155, 22125),

Gene: BelmontSKP_28 Start: 20976, Stop: 21632, Start Num: 33

Candidate Starts for BelmontSKP_28:

(Start: 33 @20976 has 62 MA's), (36, 21006), (39, 21030), (54, 21117), (73, 21207), (74, 21213), (113, 21285), (140, 21489), (147, 21522), (149, 21531), (155, 21615),

Gene: Bengal_27 Start: 20562, Stop: 21218, Start Num: 33

Candidate Starts for Bengal_27:

(27, 20532), (Start: 33 @20562 has 62 MA's), (36, 20592), (39, 20616), (54, 20703), (74, 20799), (113, 20871), (140, 21075), (147, 21108), (149, 21117), (155, 21201),

Gene: BobbyK_53 Start: 52148, Stop: 51396, Start Num: 21

Candidate Starts for BobbyK_53:

(Start: 21 @52148 has 23 MA's), (26, 52124), (43, 51983), (109, 51746), (114, 51719), (120, 51701), (134, 51563), (135, 51560), (144, 51530), (147, 51518), (149, 51509), (150, 51503), (154, 51452),

Gene: BrownCNA_54 Start: 52490, Stop: 51693, Start Num: 21

Candidate Starts for BrownCNA_54:

(Start: 21 @52490 has 23 MA's), (26, 52466), (43, 52331), (55, 52280), (67, 52205), (109, 52043), (114, 52016), (120, 51998), (134, 51860), (135, 51857), (144, 51827), (147, 51815), (150, 51800), (154, 51749),

Gene: BubbaBear_27 Start: 20665, Stop: 21321, Start Num: 33

Candidate Starts for BubbaBear_27:

(Start: 33 @20665 has 62 MA's), (36, 20695), (39, 20719), (54, 20806), (74, 20902), (113, 20974), (147, 21211), (149, 21220), (155, 21304),

Gene: Buckeye_59 Start: 52463, Stop: 51936, Start Num: 37

Candidate Starts for Buckeye_59:

(Start: 37 @52463 has 1 MA's), (40, 52418), (45, 52400), (87, 52313), (132, 52127), (133, 52115), (140, 52088), (156, 51965),

Gene: Burritobowl_27 Start: 20732, Stop: 21388, Start Num: 33

Candidate Starts for Burritobowl_27:

(27, 20702), (Start: 33 @20732 has 62 MA's), (36, 20762), (39, 20786), (54, 20873), (74, 20969), (113, 21041), (147, 21278), (149, 21287), (155, 21371),

Gene: CRB2_56 Start: 53718, Stop: 53233, Start Num: 86

Candidate Starts for CRB2_56:

(63, 53814), (Start: 86 @53718 has 1 MA's), (92, 53694), (128, 53499), (133, 53412), (147, 53355),

Gene: CanFranMach_28 Start: 20676, Stop: 21332, Start Num: 33

Candidate Starts for CanFranMach_28:

(Start: 33 @20676 has 62 MA's), (39, 20730), (47, 20784), (54, 20817), (74, 20913), (113, 20985), (140, 21189), (147, 21222), (149, 21231), (155, 21315),

Gene: Cashington_26 Start: 20020, Stop: 20676, Start Num: 33

Candidate Starts for Cashington_26:

(28, 19990), (Start: 33 @20020 has 62 MA's), (36, 20050), (39, 20074), (54, 20161), (74, 20257), (113, 20329), (140, 20533), (147, 20566), (149, 20575), (155, 20659),

Gene: Celaena_25 Start: 21446, Stop: 22117, Start Num: 33

Candidate Starts for Celaena_25:

(23, 21386), (Start: 33 @21446 has 62 MA's), (39, 21500), (49, 21572), (54, 21593), (62, 21638), (66, 21665), (72, 21680), (82, 21716), (108, 21758), (121, 21794), (140, 21974), (145, 22001), (147, 22007), (149, 22016),

Gene: ChiliPepper_25 Start: 20950, Stop: 21756, Start Num: 33

Candidate Starts for ChiliPepper_25:

(Start: 33 @20950 has 62 MA's), (39, 21004), (41, 21040), (49, 21076), (54, 21097), (62, 21142), (113, 21409), (121, 21433), (123, 21445), (124, 21448), (134, 21583), (147, 21646), (149, 21655), (152, 21703),

Gene: ChrisnMich_52 Start: 51144, Stop: 50398, Start Num: 21

Candidate Starts for ChrisnMich_52:

(Start: 21 @51144 has 23 MA's), (26, 51120), (43, 50985), (103, 50772), (109, 50748), (114, 50721), (120, 50703), (130, 50637), (131, 50616), (134, 50565), (135, 50562), (144, 50532), (147, 50520), (149, 50511), (150, 50505), (154, 50454),

Gene: Cooper_53 Start: 51371, Stop: 50706, Start Num: 22

Candidate Starts for Cooper_53:

(Start: 22 @51371 has 1 MA's), (43, 51209), (89, 51119), (120, 50999), (133, 50885), (144, 50840), (147, 50828), (150, 50813), (154, 50762),

Gene: CroZenni_27 Start: 20570, Stop: 21226, Start Num: 33

Candidate Starts for CroZenni_27:

(27, 20540), (Start: 33 @20570 has 62 MA's), (36, 20600), (39, 20624), (54, 20711), (74, 20807), (147, 21116), (149, 21125), (155, 21209),

Gene: CupcakePrincess_27 Start: 20691, Stop: 21347, Start Num: 33

Candidate Starts for CupcakePrincess_27:

(Start: 33 @20691 has 62 MA's), (39, 20745), (54, 20832), (73, 20922), (74, 20928), (113, 21000), (140, 21204), (147, 21237), (149, 21246), (155, 21330),

Gene: DickRichards_27 Start: 21061, Stop: 21717, Start Num: 33

Candidate Starts for DickRichards_27:

(27, 21031), (Start: 33 @21061 has 62 MA's), (36, 21091), (39, 21115), (54, 21202), (74, 21298), (113, 21370), (147, 21607), (149, 21616), (155, 21700),

Gene: Didgeridoo_29 Start: 20811, Stop: 21524, Start Num: 33

Candidate Starts for Didgeridoo_29:

(Start: 33 @20811 has 62 MA's), (36, 20847), (39, 20871), (54, 20958), (71, 21042), (124, 21219), (147, 21414), (149, 21423),

Gene: DigitDog_57 Start: 52573, Stop: 51959, Start Num: 29

Candidate Starts for DigitDog_57:

(Start: 29 @52573 has 1 MA's), (42, 52462), (50, 52456), (97, 52393), (99, 52384), (104, 52354), (119, 52282), (135, 52135), (139, 52120), (146, 52078),

Gene: DirtyBubble_25 Start: 20693, Stop: 21448, Start Num: 20

Candidate Starts for DirtyBubble_25:

(Start: 20 @20693 has 1 MA's), (Start: 29 @20747 has 1 MA's), (Start: 33 @20789 has 62 MA's), (39, 20843), (53, 20912), (54, 20924), (68, 20999), (123, 21137), (140, 21305), (147, 21338), (149, 21347),

Gene: Dismas_25 Start: 20950, Stop: 21744, Start Num: 33

Candidate Starts for Dismas_25:

(Start: 33 @20950 has 62 MA's), (39, 21004), (41, 21040), (49, 21076), (54, 21097), (62, 21142), (82, 21223), (113, 21397), (121, 21421), (123, 21433), (124, 21436), (134, 21571), (147, 21634), (149, 21643), (152, 21691),

Gene: Doobus_26 Start: 20337, Stop: 20993, Start Num: 33

Candidate Starts for Doobus_26:

(28, 20307), (Start: 33 @20337 has 62 MA's), (36, 20367), (39, 20391), (54, 20478), (74, 20574), (113, 20646), (147, 20883), (149, 20892), (155, 20976),

Gene: Elva_26 Start: 20763, Stop: 21440, Start Num: 33

Candidate Starts for Elva_26:

(Start: 33 @20763 has 62 MA's), (39, 20817), (53, 20886), (54, 20898), (121, 21117), (124, 21132), (147, 21330), (149, 21339), (155, 21423),

Gene: Epah_51 Start: 51163, Stop: 50471, Start Num: 21

Candidate Starts for Epah_51:

(Start: 21 @51163 has 23 MA's), (26, 51139), (43, 51004), (103, 50845), (109, 50821), (114, 50794), (120, 50776), (130, 50710), (131, 50689), (134, 50638), (135, 50635), (144, 50605), (147, 50593), (149, 50584), (150, 50578), (154, 50527),

Gene: Eula_27 Start: 20652, Stop: 21308, Start Num: 33

Candidate Starts for Eula_27:

(Start: 33 @20652 has 62 MA's), (39, 20706), (54, 20793), (73, 20883), (74, 20889), (113, 20961), (140, 21165), (147, 21198), (149, 21207), (155, 21291),

Gene: Finalfrontier_28 Start: 21175, Stop: 21888, Start Num: 33

Candidate Starts for Finalfrontier_28:

(Start: 33 @21175 has 62 MA's), (36, 21211), (39, 21235), (54, 21322), (71, 21406), (124, 21583), (147, 21778), (149, 21787),

Gene: FlameThrower_25 Start: 20959, Stop: 21558, Start Num: 33

Candidate Starts for FlameThrower_25:

(1, 20512), (3, 20608), (4, 20647), (23, 20899), (Start: 33 @20959 has 62 MA's), (35, 20980), (39, 21013), (49, 21079), (81, 21214), (116, 21259), (138, 21400), (147, 21448), (149, 21457),

Gene: ForDig_50 Start: 50079, Stop: 49225, Start Num: 7

Candidate Starts for ForDig_50:

(Start: 7 @50079 has 1 MA's), (45, 49830), (46, 49824), (51, 49812), (60, 49782), (85, 49710), (93, 49686), (100, 49656), (102, 49638), (124, 49551), (141, 49383), (144, 49365), (147, 49353),

Gene: Fortunato_53 Start: 52173, Stop: 51481, Start Num: 21

Candidate Starts for Fortunato_53:

(Start: 21 @52173 has 23 MA's), (26, 52149), (43, 52014), (103, 51855), (109, 51831), (114, 51804), (120, 51786), (130, 51720), (131, 51699), (134, 51648), (135, 51645), (144, 51615), (147, 51603), (149, 51594), (150, 51588), (154, 51537),

Gene: Frederick_53 Start: 52088, Stop: 51396, Start Num: 21

Candidate Starts for Frederick_53:

(Start: 21 @52088 has 23 MA's), (26, 52064), (43, 51929), (103, 51770), (114, 51719), (120, 51701), (130, 51635), (131, 51614), (134, 51563), (135, 51560), (144, 51530), (147, 51518), (149, 51509), (150, 51503), (154, 51452),

Gene: GinPorsche_52 Start: 51163, Stop: 50471, Start Num: 21

Candidate Starts for GinPorsche_52:

(Start: 21 @51163 has 23 MA's), (26, 51139), (43, 51004), (103, 50845), (109, 50821), (114, 50794), (120, 50776), (130, 50710), (131, 50689), (134, 50638), (135, 50635), (144, 50605), (147, 50593), (149, 50584), (150, 50578), (154, 50527),

Gene: Hally898_51 Start: 51178, Stop: 50486, Start Num: 21

Candidate Starts for Hally898_51:

(Start: 21 @51178 has 23 MA's), (26, 51154), (43, 51019), (103, 50860), (109, 50836), (114, 50809), (120, 50791), (130, 50725), (131, 50704), (134, 50653), (135, 50650), (144, 50620), (147, 50608), (149, 50599), (150, 50593), (154, 50542),

Gene: Hangman_52 Start: 52233, Stop: 51475, Start Num: 21

Candidate Starts for Hangman_52:

(Start: 21 @52233 has 23 MA's), (26, 52209), (43, 52062), (109, 51825), (114, 51798), (120, 51780), (134, 51642), (135, 51639), (144, 51609), (147, 51597), (149, 51588), (150, 51582), (154, 51531),

Gene: Heath_51 Start: 51844, Stop: 51098, Start Num: 21

Candidate Starts for Heath_51:

(Start: 21 @51844 has 23 MA's), (26, 51820), (43, 51685), (79, 51568), (103, 51472), (109, 51448), (114, 51421), (120, 51403), (130, 51337), (131, 51316), (134, 51265), (135, 51262), (144, 51232), (147, 51220), (149, 51211), (150, 51205), (154, 51154),

Gene: Hosp_048 Start: 48278, Stop: 47463, Start Num: 7

Candidate Starts for Hosp_048:

(Start: 7 @48278 has 1 MA's), (45, 48032), (46, 48026), (85, 47912), (100, 47858), (102, 47840), (104, 47834), (124, 47762), (126, 47753), (141, 47618), (142, 47615), (144, 47600),

Gene: Hydro_52 Start: 52225, Stop: 51479, Start Num: 21

Candidate Starts for Hydro_52:

(Start: 21 @52225 has 23 MA's), (26, 52201), (43, 52066), (103, 51853), (109, 51829), (114, 51802), (120, 51784), (130, 51718), (131, 51697), (134, 51646), (135, 51643), (144, 51613), (147, 51601), (149, 51592), (150, 51586), (154, 51535),

Gene: Icarian_27 Start: 21241, Stop: 21921, Start Num: 33

Candidate Starts for Icarian_27:

(Start: 33 @21241 has 62 MA's), (39, 21295), (44, 21331), (53, 21364), (54, 21376), (68, 21451), (71, 21460), (123, 21610), (147, 21811), (149, 21820),

Gene: Imvubu_51 Start: 49870, Stop: 49058, Start Num: 24

Candidate Starts for Imvubu_51:

(2, 50248), (14, 49936), (19, 49906), (Start: 24 @49870 has 1 MA's), (30, 49840), (43, 49711), (56, 49660), (58, 49657), (65, 49597), (69, 49585), (76, 49558), (113, 49390), (117, 49378), (120, 49369), (122, 49360), (129, 49312), (135, 49213), (137, 49204), (140, 49198), (144, 49183), (145, 49177), (151, 49141), (152, 49114),

Gene: IndyLu_27 Start: 20621, Stop: 21310, Start Num: 33

Candidate Starts for IndyLu_27:

(Start: 33 @20621 has 62 MA's), (36, 20657), (39, 20681), (54, 20768), (71, 20852), (73, 20858), (112, 20951), (147, 21200), (149, 21209),

Gene: JAMaL_52 Start: 52342, Stop: 51650, Start Num: 21

Candidate Starts for JAMaL_52:

(Start: 21 @52342 has 23 MA's), (26, 52318), (43, 52183), (101, 52030), (109, 52000), (114, 51973), (120, 51955), (130, 51889), (131, 51868), (134, 51817), (135, 51814), (144, 51784), (147, 51772), (149, 51763), (150, 51757), (154, 51706),

Gene: Jabb_27 Start: 20691, Stop: 21347, Start Num: 33

Candidate Starts for Jabb_27:

(Start: 33 @20691 has 62 MA's), (39, 20745), (54, 20832), (73, 20922), (74, 20928), (113, 21000), (140, 21204), (147, 21237), (149, 21246), (155, 21330),

Gene: JaguarMi_54 Start: 53280, Stop: 52573, Start Num: 21

Candidate Starts for JaguarMi_54:

(Start: 21 @53280 has 23 MA's), (26, 53256), (43, 53121), (105, 52950), (109, 52938), (117, 52902), (120, 52893), (130, 52812), (134, 52740), (135, 52737), (144, 52707), (147, 52695), (149, 52686), (150, 52680), (154, 52629),

Gene: Johnathan_26 Start: 20110, Stop: 20766, Start Num: 33

Candidate Starts for Johnathan_26:

(28, 20080), (Start: 33 @20110 has 62 MA's), (36, 20140), (39, 20164), (54, 20251), (74, 20347), (113, 20419), (140, 20623), (147, 20656), (149, 20665), (155, 20749),

Gene: Jolie1_050 Start: 50185, Stop: 49319, Start Num: 7

Candidate Starts for Jolie1_050:

(Start: 7 @50185 has 1 MA's), (45, 49930), (46, 49924), (51, 49912), (100, 49714), (144, 49468),

Gene: Jovita_27 Start: 20756, Stop: 21412, Start Num: 33

Candidate Starts for Jovita_27:

(27, 20726), (Start: 33 @20756 has 62 MA's), (39, 20810), (73, 20987), (74, 20993), (113, 21065), (140, 21269), (147, 21302), (149, 21311), (155, 21395),

Gene: JoyceMaria_52 Start: 52113, Stop: 51367, Start Num: 21

Candidate Starts for JoyceMaria_52:

(Start: 21 @52113 has 23 MA's), (26, 52089), (43, 51954), (109, 51717), (114, 51690), (120, 51672), (134, 51534), (135, 51531), (144, 51501), (147, 51489), (149, 51480), (150, 51474), (154, 51423),

Gene: Kamdara_25 Start: 20949, Stop: 21743, Start Num: 33

Candidate Starts for Kamdara_25:

(Start: 33 @20949 has 62 MA's), (39, 21003), (41, 21039), (49, 21075), (54, 21096), (62, 21141), (82, 21222), (98, 21285), (113, 21396), (121, 21420), (123, 21432), (124, 21435), (134, 21570), (147,

21633), (149, 21642), (152, 21690),

Gene: Kate33_27 Start: 20629, Stop: 21342, Start Num: 33

Candidate Starts for Kate33_27:

(Start: 33 @20629 has 62 MA's), (36, 20665), (39, 20689), (54, 20776), (71, 20860), (124, 21037), (147, 21232), (149, 21241),

Gene: Katzastrophic_25 Start: 21077, Stop: 21676, Start Num: 33

Candidate Starts for Katzastrophic_25:

(1, 20630), (4, 20765), (8, 20858), (23, 21017), (Start: 33 @21077 has 62 MA's), (35, 21098), (39, 21131), (49, 21197), (81, 21332), (116, 21377), (138, 21518), (147, 21566), (149, 21575),

Gene: KayaCho_49 Start: 50035, Stop: 49061, Start Num: 6

Candidate Starts for KayaCho_49:

(Start: 6 @50035 has 1 MA's), (Start: 7 @49996 has 1 MA's), (45, 49657), (46, 49651), (51, 49639), (60, 49609), (70, 49558), (77, 49531), (85, 49510), (93, 49486), (100, 49456), (104, 49432), (117, 49369), (124, 49360), (141, 49216), (142, 49213), (144, 49198),

Gene: Kenzers_27 Start: 20640, Stop: 21299, Start Num: 33

Candidate Starts for Kenzers_27:

(Start: 33 @20640 has 62 MA's), (36, 20670), (39, 20694), (54, 20784), (74, 20880), (113, 20952), (140, 21156), (147, 21189), (149, 21198), (155, 21282),

Gene: Kieran_25 Start: 20953, Stop: 21747, Start Num: 33

Candidate Starts for Kieran_25:

(Start: 33 @20953 has 62 MA's), (39, 21007), (41, 21043), (49, 21079), (54, 21100), (62, 21145), (82, 21226), (113, 21400), (121, 21424), (123, 21436), (124, 21439), (134, 21574), (147, 21637), (149, 21646), (152, 21694),

Gene: Lahqtemish_27 Start: 20672, Stop: 21361, Start Num: 33

Candidate Starts for Lahqtemish_27:

(Start: 33 @20672 has 62 MA's), (36, 20708), (39, 20732), (40, 20756), (54, 20819), (71, 20903), (112, 21002), (147, 21251), (149, 21260),

Gene: Lambano_51 Start: 51178, Stop: 50486, Start Num: 21

Candidate Starts for Lambano_51:

(Start: 21 @51178 has 23 MA's), (26, 51154), (43, 51019), (103, 50860), (109, 50836), (114, 50809), (120, 50791), (130, 50725), (131, 50704), (134, 50653), (135, 50650), (144, 50620), (147, 50608), (149, 50599), (150, 50593), (154, 50542),

Gene: LilMcDreamy_54 Start: 51860, Stop: 51186, Start Num: 34

Candidate Starts for LilMcDreamy_54:

(Start: 34 @51860 has 1 MA's), (75, 51695), (87, 51653), (99, 51614), (115, 51524), (135, 51359), (147, 51317), (149, 51308),

Gene: Lilo27_27 Start: 20626, Stop: 21282, Start Num: 33

Candidate Starts for Lilo27_27:

(Start: 33 @20626 has 62 MA's), (39, 20680), (54, 20767), (57, 20773), (113, 20935), (140, 21139), (147, 21172), (149, 21181), (155, 21265),

Gene: LimaBean_26 Start: 20106, Stop: 20762, Start Num: 33

Candidate Starts for LimaBean_26:

(28, 20076), (Start: 33 @20106 has 62 MA's), (36, 20136), (39, 20160), (54, 20247), (74, 20343), (113, 20415), (147, 20652), (149, 20661), (155, 20745),

Gene: LittleDigger_51 Start: 51191, Stop: 50499, Start Num: 21

Candidate Starts for LittleDigger_51:

(Start: 21 @51191 has 23 MA's), (26, 51167), (43, 51032), (89, 50924), (103, 50873), (109, 50849), (114, 50822), (120, 50804), (130, 50738), (131, 50717), (134, 50666), (135, 50663), (144, 50633), (147, 50621), (149, 50612), (150, 50606), (154, 50555),

Gene: Lolalove_53 Start: 52193, Stop: 51447, Start Num: 21

Candidate Starts for Lolalove_53:

(Start: 21 @52193 has 23 MA's), (26, 52169), (43, 52034), (103, 51821), (109, 51797), (114, 51770), (120, 51752), (130, 51686), (131, 51665), (134, 51614), (135, 51611), (144, 51581), (147, 51569), (149, 51560), (150, 51554), (154, 51503),

Gene: Loviatar_26 Start: 21336, Stop: 22016, Start Num: 33

Candidate Starts for Loviatar_26:

(Start: 33 @21336 has 62 MA's), (39, 21390), (44, 21426), (53, 21459), (54, 21471), (68, 21546), (123, 21705), (147, 21906), (149, 21915),

Gene: Lynlen_27 Start: 20640, Stop: 21299, Start Num: 33

Candidate Starts for Lynlen_27:

(Start: 33 @20640 has 62 MA's), (36, 20670), (39, 20694), (54, 20784), (74, 20880), (113, 20952), (140, 21156), (147, 21189), (149, 21198), (155, 21282),

Gene: Magpie_51 Start: 52088, Stop: 51300, Start Num: 21

Candidate Starts for Magpie_51:

(Start: 21 @52088 has 23 MA's), (26, 52064), (43, 51929), (55, 51890), (67, 51812), (103, 51674), (109, 51650), (114, 51623), (120, 51605), (130, 51539), (131, 51518), (134, 51467), (135, 51464), (144, 51434), (147, 51422), (149, 51413), (154, 51356),

Gene: Mesh1_61 Start: 52743, Stop: 52129, Start Num: 38

Candidate Starts for Mesh1_61:

(31, 52809), (Start: 37 @52755 has 1 MA's), (Start: 38 @52743 has 1 MA's), (40, 52716), (45, 52698), (79, 52644), (87, 52611), (95, 52578), (111, 52485), (132, 52323), (133, 52311), (140, 52284), (156, 52161),

Gene: Milomuff_27 Start: 20471, Stop: 21127, Start Num: 33

Candidate Starts for Milomuff_27:

(28, 20441), (Start: 33 @20471 has 62 MA's), (36, 20501), (39, 20525), (54, 20612), (74, 20708), (113, 20780), (140, 20984), (147, 21017), (149, 21026), (155, 21110),

Gene: Mithril_52 Start: 52185, Stop: 51439, Start Num: 21

Candidate Starts for Mithril_52:

(Start: 21 @52185 has 23 MA's), (26, 52161), (43, 52026), (91, 51858), (109, 51789), (114, 51762), (120, 51744), (134, 51606), (135, 51603), (144, 51573), (147, 51561), (149, 51552), (150, 51546), (154, 51495),

Gene: MsUbiquitous_27 Start: 20691, Stop: 21347, Start Num: 33

Candidate Starts for MsUbiquitous_27:

(Start: 33 @20691 has 62 MA's), (39, 20745), (54, 20832), (73, 20922), (74, 20928), (113, 21000), (140, 21204), (147, 21237), (149, 21246), (155, 21330),

Gene: Mudslide_52 Start: 52443, Stop: 51697, Start Num: 21

Candidate Starts for Mudslide_52:

(Start: 21 @52443 has 23 MA's), (26, 52419), (43, 52284), (89, 52122), (103, 52071), (109, 52047), (114, 52020), (120, 52002), (130, 51936), (131, 51915), (134, 51864), (135, 51861), (144, 51831), (147, 51819), (149, 51810), (150, 51804), (154, 51753),

Gene: Nanao_51 Start: 51168, Stop: 50476, Start Num: 21

Candidate Starts for Nanao_51:

(Start: 21 @51168 has 23 MA's), (26, 51144), (43, 51009), (103, 50850), (109, 50826), (114, 50799), (120, 50781), (130, 50715), (131, 50694), (134, 50643), (135, 50640), (144, 50610), (147, 50598), (149, 50589), (150, 50583), (154, 50532),

Gene: Nicky22_28 Start: 21102, Stop: 21758, Start Num: 33

Candidate Starts for Nicky22_28:

(Start: 33 @21102 has 62 MA's), (39, 21156), (73, 21333), (74, 21339), (113, 21411), (140, 21615), (147, 21648), (149, 21657), (155, 21741),

Gene: Nova1_62 Start: 52465, Stop: 52001, Start Num: 45

Candidate Starts for Nova1_62:

(31, 52576), (Start: 37 @52522 has 1 MA's), (Start: 38 @52510 has 1 MA's), (40, 52483), (45, 52465), (79, 52411), (87, 52378), (132, 52192), (133, 52180), (140, 52153), (144, 52138), (156, 52030),

Gene: PastaFagioli_27 Start: 20657, Stop: 21346, Start Num: 33

Candidate Starts for PastaFagioli_27:

(27, 20627), (Start: 33 @20657 has 62 MA's), (36, 20693), (39, 20717), (40, 20741), (54, 20804), (71, 20888), (112, 20987), (147, 21236), (149, 21245),

Gene: Pecas_27 Start: 20652, Stop: 21308, Start Num: 33

Candidate Starts for Pecas_27:

(Start: 33 @20652 has 62 MA's), (39, 20706), (54, 20793), (73, 20883), (74, 20889), (113, 20961), (140, 21165), (147, 21198), (149, 21207), (155, 21291),

Gene: PhigPhack_28 Start: 20643, Stop: 21299, Start Num: 33

Candidate Starts for PhigPhack_28:

(27, 20613), (Start: 33 @20643 has 62 MA's), (36, 20673), (39, 20697), (73, 20874), (74, 20880), (113, 20952), (140, 21156), (147, 21189), (149, 21198), (155, 21282),

Gene: Phisb_27 Start: 20666, Stop: 21364, Start Num: 33

Candidate Starts for Phisb_27:

(Start: 33 @20666 has 62 MA's), (36, 20696), (39, 20720), (54, 20810), (68, 20885), (71, 20894), (113, 21017), (140, 21221), (147, 21254), (149, 21263), (155, 21347),

Gene: PondAmelia_31 Start: 20810, Stop: 21487, Start Num: 33

Candidate Starts for PondAmelia_31:

(Start: 20 @20714 has 1 MA's), (Start: 33 @20810 has 62 MA's), (39, 20864), (53, 20933), (54, 20945), (68, 21020), (123, 21176), (147, 21377), (149, 21386),

Gene: Poster_51 Start: 51169, Stop: 50477, Start Num: 21

Candidate Starts for Poster_51:

(Start: 21 @51169 has 23 MA's), (26, 51145), (43, 51010), (103, 50851), (109, 50827), (114, 50800), (120, 50782), (130, 50716), (131, 50695), (134, 50644), (135, 50641), (144, 50611), (147, 50599), (149, 50590), (150, 50584), (154, 50533),

Gene: Prince_52 Start: 52350, Stop: 51604, Start Num: 21

Candidate Starts for Prince_52:

(Start: 21 @52350 has 23 MA's), (26, 52326), (43, 52191), (89, 52029), (103, 51978), (109, 51954), (114, 51927), (120, 51909), (130, 51843), (131, 51822), (134, 51771), (135, 51768), (144, 51738), (147, 51726), (149, 51717), (150, 51711), (154, 51660),

Gene: QMacho_28 Start: 21135, Stop: 21791, Start Num: 33

Candidate Starts for QMacho_28:

(Start: 33 @21135 has 62 MA's), (39, 21189), (54, 21276), (73, 21366), (74, 21372), (113, 21444), (140, 21648), (147, 21681), (149, 21690), (155, 21774),

Gene: QueenPie_50 Start: 51863, Stop: 51195, Start Num: 21

Candidate Starts for QueenPie_50:

(Start: 18 @51875 has 1 MA's), (Start: 21 @51863 has 23 MA's), (43, 51719), (89, 51620), (103, 51569), (114, 51518), (120, 51500), (130, 51434), (131, 51413), (134, 51362), (135, 51359), (144, 51329), (147, 51317), (149, 51308), (150, 51302), (154, 51251),

Gene: Quenya_26 Start: 20943, Stop: 21614, Start Num: 33

Candidate Starts for Quenya_26:

(23, 20883), (Start: 33 @20943 has 62 MA's), (39, 20997), (49, 21069), (54, 21090), (59, 21099), (71, 21174), (108, 21255), (124, 21306), (147, 21504), (149, 21513),

Gene: Quesadilla_57 Start: 53051, Stop: 52476, Start Num: 64

Candidate Starts for Quesadilla_57:

(Start: 64 @53051 has 1 MA's), (84, 52973), (127, 52760), (133, 52652), (140, 52625), (145, 52604), (147, 52598), (149, 52589), (152, 52541),

Gene: RawrgerThat_53 Start: 52205, Stop: 51513, Start Num: 21

Candidate Starts for RawrgerThat_53:

(Start: 21 @52205 has 23 MA's), (26, 52181), (43, 52046), (103, 51887), (114, 51836), (120, 51818), (130, 51752), (131, 51731), (134, 51680), (135, 51677), (144, 51647), (147, 51635), (149, 51626), (150, 51620), (154, 51569),

Gene: Renkei_51 Start: 51185, Stop: 50493, Start Num: 21

Candidate Starts for Renkei_51:

(Start: 21 @51185 has 23 MA's), (26, 51161), (43, 51026), (89, 50918), (103, 50867), (109, 50843), (114, 50816), (120, 50798), (130, 50732), (131, 50711), (134, 50660), (135, 50657), (144, 50627), (147, 50615), (149, 50606), (150, 50600), (154, 50549),

Gene: Rich_57 Start: 53862, Stop: 53494, Start Num: 107

Candidate Starts for Rich_57:

(78, 53979), (106, 53865), (Start: 107 @53862 has 1 MA's), (123, 53793), (134, 53658), (147, 53613),

Gene: Rinkes_55 Start: 52581, Stop: 52141, Start Num: 90

Candidate Starts for Rinkes_55:

(Start: 90 @52581 has 1 MA's), (127, 52422), (140, 52290), (145, 52269), (148, 52260), (152, 52206), (153, 52200),

Gene: Rona_25 Start: 20950, Stop: 21744, Start Num: 33

Candidate Starts for Rona_25:

(Start: 33 @20950 has 62 MA's), (39, 21004), (41, 21040), (49, 21076), (54, 21097), (62, 21142), (82, 21223), (113, 21397), (121, 21421), (123, 21433), (124, 21436), (134, 21571), (147, 21634), (149, 21643),

Gene: SanaSana_27 Start: 21275, Stop: 21955, Start Num: 33

Candidate Starts for SanaSana_27:

(Start: 33 @21275 has 62 MA's), (39, 21329), (44, 21365), (53, 21398), (54, 21410), (68, 21485), (123, 21644), (147, 21845), (149, 21854),

Gene: SansAfet_27 Start: 20578, Stop: 21234, Start Num: 33

Candidate Starts for SansAfet_27:

(Start: 33 @20578 has 62 MA's), (36, 20608), (39, 20632), (54, 20719), (73, 20809), (74, 20815), (113, 20887), (147, 21124), (149, 21133), (155, 21217),

Gene: SarBear_27 Start: 20632, Stop: 21288, Start Num: 33

Candidate Starts for SarBear_27:

(Start: 33 @20632 has 62 MA's), (39, 20686), (74, 20869), (113, 20941), (140, 21145), (147, 21178), (149, 21187), (155, 21271),

Gene: Sharkboy_25 Start: 20937, Stop: 21731, Start Num: 33

Candidate Starts for Sharkboy_25:

(Start: 33 @20937 has 62 MA's), (39, 20991), (41, 21027), (49, 21063), (54, 21084), (62, 21129), (82, 21210), (113, 21384), (121, 21408), (123, 21420), (124, 21423), (134, 21558), (147, 21621), (149, 21630), (152, 21678), (155, 21714),

Gene: SirBeanington_27 Start: 20674, Stop: 21357, Start Num: 33

Candidate Starts for SirBeanington_27:

(Start: 33 @20674 has 62 MA's), (36, 20704), (39, 20728), (54, 20818), (71, 20902), (80, 20938), (113, 21010), (140, 21214), (147, 21247), (149, 21256), (155, 21340),

Gene: Slay_27 Start: 21175, Stop: 21831, Start Num: 33

Candidate Starts for Slay_27:

(Start: 33 @21175 has 62 MA's), (39, 21229), (73, 21406), (74, 21412), (113, 21484), (140, 21688), (147, 21721), (149, 21730), (155, 21814),

Gene: Softsoap_26 Start: 20401, Stop: 21057, Start Num: 33

Candidate Starts for Softsoap_26:

(27, 20371), (Start: 33 @20401 has 62 MA's), (36, 20431), (39, 20455), (54, 20542), (74, 20638), (113, 20710), (147, 20947), (149, 20956), (155, 21040),

Gene: Solea_28 Start: 20471, Stop: 21127, Start Num: 33

Candidate Starts for Solea_28:

(28, 20441), (Start: 33 @20471 has 62 MA's), (36, 20501), (39, 20525), (54, 20612), (74, 20708), (113, 20780), (140, 20984), (147, 21017), (149, 21026), (155, 21110),

Gene: Stinger_52 Start: 50893, Stop: 50213, Start Num: 18

Candidate Starts for Stinger_52:

(5, 51100), (15, 50905), (Start: 18 @50893 has 1 MA's), (26, 50854), (43, 50725), (89, 50638), (99, 50614), (109, 50563), (120, 50518), (134, 50380), (135, 50377), (144, 50347), (147, 50335), (149, 50326), (150, 50320), (154, 50269),

Gene: Stoor_26 Start: 21272, Stop: 21952, Start Num: 33

Candidate Starts for Stoor_26:

(Start: 33 @21272 has 62 MA's), (39, 21326), (44, 21362), (53, 21395), (54, 21407), (68, 21482), (123, 21641), (140, 21809), (147, 21842), (149, 21851), (152, 21899), (153, 21905),

Gene: Stromboli_25 Start: 20830, Stop: 21489, Start Num: 33

Candidate Starts for Stromboli_25:

(Start: 20 @20734 has 1 MA's), (Start: 29 @20788 has 1 MA's), (Start: 33 @20830 has 62 MA's), (39, 20884), (53, 20953), (54, 20965), (68, 21040), (123, 21178), (140, 21346), (147, 21379), (149, 21388), (152, 21436), (153, 21442),

Gene: Swervy_27 Start: 20632, Stop: 21288, Start Num: 33

Candidate Starts for Swervy_27:

(Start: 33 @20632 has 62 MA's), (39, 20686), (54, 20773), (73, 20863), (74, 20869), (113, 20941), (140, 21145), (147, 21178), (149, 21187), (155, 21271),

Gene: Thonko_59 Start: 51327, Stop: 50443, Start Num: 11

Candidate Starts for Thonko_59:

(Start: 11 @51327 has 1 MA's), (12, 51306), (32, 51159), (60, 51000), (96, 50853), (110, 50793), (118, 50763), (129, 50700), (135, 50601), (143, 50583),

Gene: TukTuk_27 Start: 20691, Stop: 21347, Start Num: 33

Candidate Starts for TukTuk_27:

(27, 20661), (Start: 33 @20691 has 62 MA's), (39, 20745), (73, 20922), (74, 20928), (113, 21000), (140, 21204), (147, 21237), (149, 21246), (155, 21330),

Gene: Vincenzo_54 Start: 53132, Stop: 52305, Start Num: 25

Candidate Starts for Vincenzo_54:

(Start: 25 @53132 has 2 MA's), (26, 53126), (43, 52991), (52, 52958), (70, 52850), (82, 52808), (89, 52772), (94, 52757), (113, 52646), (117, 52634), (125, 52604), (129, 52568), (135, 52469), (144, 52439), (147, 52427), (148, 52424), (151, 52397), (153, 52364),

Gene: VioletZ_54 Start: 52269, Stop: 51523, Start Num: 21

Candidate Starts for VioletZ_54:

(Start: 21 @52269 has 23 MA's), (26, 52245), (43, 52110), (91, 51942), (109, 51873), (114, 51846), (120, 51828), (134, 51690), (135, 51687), (144, 51657), (147, 51645), (149, 51636), (150, 51630), (154, 51579),

Gene: Waleliano_52 Start: 52222, Stop: 51425, Start Num: 21

Candidate Starts for Waleliano_52:

(Start: 21 @52222 has 23 MA's), (26, 52198), (43, 52063), (55, 52012), (67, 51937), (109, 51775), (114, 51748), (120, 51730), (134, 51592), (135, 51589), (144, 51559), (147, 51547), (150, 51532), (154, 51481),

Gene: WalkingDead_26 Start: 21396, Stop: 22058, Start Num: 33

Candidate Starts for WalkingDead_26:

(Start: 33 @21396 has 62 MA's), (39, 21450), (53, 21519), (54, 21531), (68, 21606), (123, 21747), (147, 21948), (149, 21957),

Gene: Xincheng_53 Start: 53256, Stop: 52549, Start Num: 21

Candidate Starts for Xincheng_53:

(Start: 21 @53256 has 23 MA's), (26, 53232), (43, 53097), (105, 52926), (109, 52914), (117, 52878), (120, 52869), (130, 52788), (134, 52716), (135, 52713), (144, 52683), (147, 52671), (149, 52662), (150, 52656), (154, 52605),

Gene: Zemanar_53 Start: 52057, Stop: 51395, Start Num: 21

Candidate Starts for Zemanar_53:

(Start: 21 @52057 has 23 MA's), (43, 51910), (89, 51820), (91, 51814), (130, 51634), (131, 51613), (134, 51562), (135, 51559), (136, 51556), (144, 51529), (147, 51517), (154, 51451),