

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 168197 Report

This analysis was run 07/09/24 on database version 566.

Pham number 168197 has 74 members, 9 are drafts.

Phages represented in each track:

- Track 1 : Calm_58, Wamburggrxpress_57, OhShagHennessy_55, Zaria_58
- Track 2 : Acquire49_58, Appletree2_58, JoeDirt_56, Tyson_58, DirkDirk_55, CicholasNage_57, MÄckerman_56, UPIE_57, Enceladus_56, Wyatt2_59, LeBron_57, Rose5_58, Silverleaf_58, Halena_56, AvadaKedavra_58
- Track 3 : Lewan_61, Gabriela_57, Breezona_60, Crossroads_60, BobsGarage_60, BigCheese_60, Netyap_61, Itos_59, Faith1_60, Tourach_59, Wilder_61, Gardann_61, Kahlid_60, Loadrie_59, Miley16_60, Wigglewiggle_60, LilDestine_60, DrSeegs_60, GuuelaD_59, Rumpelstiltskin_59, Winky_60, Nicholasp3_60, Hafay_61
- Track 4 : ZhongYanYuan_58, Claus_60, Vetrix_60, Baoshan_58, Finemlucis_60, Zakai_61
- Track 5 : MkaliMitinis3_61
- Track 6 : Bazzle_60
- Track 7 : Archie_60
- Track 8 : Clautastrophe_59, Kingsolomon_59, Krypton555_61, DuncansLeg_60, Ellson_59, Jobypre_60, Whirlwind_60, Snenia_59, Finnry_60, MsGreen_60, Nicholas_59, Jubie_59, Lumos_61, Samty_60
- Track 9 : Moostard_59, Bellis_59
- Track 10 : Lolly9_59, MiniMac_63, MiniLon_63
- Track 11 : DyoEdafos_60
- Track 12 : Douge_58
- Track 13 : Chaser_56
- Track 14 : Bromden_59

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

The start number called the most often in the published annotations is 10, it was called in 46 of the 65 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Acquire49_58, Appletree2_58, AvadaKedavra_58, Baoshan_58, BigCheese_60, BobsGarage_60, Breezona_60, Bromden_59, Calm_58, Chaser_56, CicholasNage_57, Claus_60, Crossroads_60, DirkDirk_55, Douge_58, DrSeegs_60, Enceladus_56, Faith1_60, Finemlucis_60, Gabriela_57, Gardann_61, GuuelaD_59, Hafay_61, Halena_56, Itos_59, JoeDirt_56, Kahlid_60, LeBron_57, Lewan_61,

LilDestine_60, Loadrie_59, MAckerman_56, Miley16_60, MkaliMitinis3_61, Netyap_61, Nicholasp3_60, OhShagHennessy_55, Rose5_58, Rumpelstiltskin_59, Silverleaf_58, Tourach_59, Tyson_58, UPIE_57, Vetrix_60, Wamburggrxpress_57, Wigglewiggles_60, Wilder_61, Winky_60, Wyatt2_59, Zakai_61, Zaria_58, ZhongYanYuan_58,

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

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

- Archie_60, Bazzle_60, Bellis_59, Clautastrophe_59, DuncansLeg_60, DyoEdafos_60, Ellson_59, Finnry_60, Jobypre_60, Jubie_59, Kingsolomon_59, Krypton555_61, Lolly9_59, Lumos_61, MiniLon_63, MiniMac_63, Moostard_59, MsGreen_60, Nicholas_59, Samty_60, Snenia_59, Whirlwind_60,

Summary by start number:

Start 9:

- Found in 21 of 74 (28.4%) of genes in pham
- Manual Annotations of this start: 18 of 65
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Archie_60 (L2), Bazzle_60 (L2), Bellis_59 (L3), Clautastrophe_59 (L3), DuncansLeg_60 (L3), Ellson_59 (L3), Finnry_60 (L3), Jobypre_60 (L3), Jubie_59 (L3), Kingsolomon_59 (L3), Krypton555_61 (L3), Lolly9_59 (L3), Lumos_61 (L3), MiniLon_63 (L3), MiniMac_63 (L3), Moostard_59 (L3), MsGreen_60 (L3), Nicholas_59 (L3), Samty_60 (L3), Snenia_59 (L3), Whirlwind_60 (L3),

Start 10:

- Found in 52 of 74 (70.3%) of genes in pham
- Manual Annotations of this start: 46 of 65
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Acquire49_58 (L1), Appletree2_58 (L1), AvadaKedavra_58 (L1), Baoshan_58 (L2), BigCheese_60 (L2), BobsGarage_60 (L2), Breezona_60 (L2), Bromden_59 (L4), Calm_58 (L1), Chaser_56 (L4), CicholasNage_57 (L1), Claus_60 (L2), Crossroads_60 (L2), DirkDirk_55 (L1), Douge_58 (L4), DrSeegs_60 (L2), Enceladus_56 (L1), Faith1_60 (L2), Finemlucis_60 (L2), Gabriela_57 (L2), Gardann_61 (L2), GuuelaD_59 (L2), Hafay_61 (L2), Halena_56 (L1), Itos_59 (L2), JoeDirt_56 (L1), Kahlid_60 (L2), LeBron_57 (L1), Lewan_61 (L2), LilDestine_60 (L2), Loadrie_59 (L2), MAckerman_56 (L1), Miley16_60 (L2), MkaliMitinis3_61 (L2), Netyap_61 (L2), Nicholasp3_60 (L2), OhShagHennessy_55 (L1), Rose5_58 (L1), Rumpelstiltskin_59 (L2), Silverleaf_58 (L1), Tourach_59 (L2), Tyson_58 (L1), UPIE_57 (L1), Vetrix_60 (L2), Wamburggrxpress_57 (L1), Wigglewiggles_60 (L2), Wilder_61 (L2), Winky_60 (L2), Wyatt2_59 (L1), Zakai_61 (L2), Zaria_58 (L1), ZhongYanYuan_58 (L2),

Start 11:

- Found in 1 of 74 (1.4%) of genes in pham
- Manual Annotations of this start: 1 of 65
- Called 100.0% of time when present
- Phage (with cluster) where this start called: DyoEdafos_60 (L4),

Summary by clusters:

There are 4 clusters represented in this pham: L4, L2, L3, L1,

Info for manual annotations of cluster L1:

- Start number 10 was manually annotated 18 times for cluster L1.

Info for manual annotations of cluster L2:

- Start number 9 was manually annotated 2 times for cluster L2.
- Start number 10 was manually annotated 26 times for cluster L2.

Info for manual annotations of cluster L3:

- Start number 9 was manually annotated 16 times for cluster L3.

Info for manual annotations of cluster L4:

- Start number 10 was manually annotated 2 times for cluster L4.
- Start number 11 was manually annotated 1 time for cluster L4.

Gene Information:

Gene: Acquire49_58 Start: 41213, Stop: 41395, Start Num: 10

Candidate Starts for Acquire49_58:

(7, 41162), (Start: 10 @41213 has 46 MA's), (15, 41258), (17, 41270), (19, 41285), (20, 41288), (23, 41309), (27, 41360), (28, 41378),

Gene: Appletree2_58 Start: 41505, Stop: 41687, Start Num: 10

Candidate Starts for Appletree2_58:

(7, 41454), (Start: 10 @41505 has 46 MA's), (15, 41550), (17, 41562), (19, 41577), (20, 41580), (23, 41601), (27, 41652), (28, 41670),

Gene: Archie_60 Start: 43499, Stop: 43699, Start Num: 9

Candidate Starts for Archie_60:

(Start: 9 @43499 has 18 MA's), (19, 43577), (29, 43673),

Gene: AvadaKedavra_58 Start: 41286, Stop: 41468, Start Num: 10

Candidate Starts for AvadaKedavra_58:

(7, 41235), (Start: 10 @41286 has 46 MA's), (15, 41331), (17, 41343), (19, 41358), (20, 41361), (23, 41382), (27, 41433), (28, 41451),

Gene: Baoshan_58 Start: 43194, Stop: 43397, Start Num: 10

Candidate Starts for Baoshan_58:

(Start: 10 @43194 has 46 MA's), (18, 43269), (21, 43284), (25, 43329),

Gene: Bazzle_60 Start: 43569, Stop: 43769, Start Num: 9

Candidate Starts for Bazzle_60:

(Start: 9 @43569 has 18 MA's), (22, 43668), (24, 43674), (29, 43743),

Gene: Bellis_59 Start: 43586, Stop: 43777, Start Num: 9

Candidate Starts for Bellis_59:

(Start: 9 @43586 has 18 MA's), (12, 43613), (15, 43637), (18, 43658), (19, 43664), (20, 43667),

Gene: BigCheese_60 Start: 43251, Stop: 43454, Start Num: 10

Candidate Starts for BigCheese_60:
(Start: 10 @43251 has 46 MA's), (18, 43326), (25, 43386),

Gene: BobsGarage_60 Start: 43251, Stop: 43454, Start Num: 10
Candidate Starts for BobsGarage_60:
(Start: 10 @43251 has 46 MA's), (18, 43326), (25, 43386),

Gene: Breezona_60 Start: 43251, Stop: 43454, Start Num: 10
Candidate Starts for Breezona_60:
(Start: 10 @43251 has 46 MA's), (18, 43326), (25, 43386),

Gene: Bromden_59 Start: 42792, Stop: 42983, Start Num: 10
Candidate Starts for Bromden_59:
(1, 42666), (2, 42675), (8, 42747), (Start: 10 @42792 has 46 MA's), (13, 42816), (16, 42843), (17, 42852), (29, 42957),

Gene: Calm_58 Start: 41228, Stop: 41419, Start Num: 10
Candidate Starts for Calm_58:
(7, 41177), (Start: 10 @41228 has 46 MA's), (13, 41252), (22, 41321), (24, 41327),

Gene: Chaser_56 Start: 41889, Stop: 42092, Start Num: 10
Candidate Starts for Chaser_56:
(Start: 10 @41889 has 46 MA's), (18, 41964), (25, 42024),

Gene: CicholasNage_57 Start: 41249, Stop: 41431, Start Num: 10
Candidate Starts for CicholasNage_57:
(7, 41198), (Start: 10 @41249 has 46 MA's), (15, 41294), (17, 41306), (19, 41321), (20, 41324), (23, 41345), (27, 41396), (28, 41414),

Gene: Claus_60 Start: 43332, Stop: 43535, Start Num: 10
Candidate Starts for Claus_60:
(Start: 10 @43332 has 46 MA's), (18, 43407), (21, 43422), (25, 43467),

Gene: Clautastrophe_59 Start: 43583, Stop: 43774, Start Num: 9
Candidate Starts for Clautastrophe_59:
(Start: 9 @43583 has 18 MA's), (12, 43610), (18, 43655), (19, 43661), (20, 43664),

Gene: Crossroads_60 Start: 43329, Stop: 43532, Start Num: 10
Candidate Starts for Crossroads_60:
(Start: 10 @43329 has 46 MA's), (18, 43404), (25, 43464),

Gene: DirkDirk_55 Start: 41091, Stop: 41273, Start Num: 10
Candidate Starts for DirkDirk_55:
(7, 41040), (Start: 10 @41091 has 46 MA's), (15, 41136), (17, 41148), (19, 41163), (20, 41166), (23, 41187), (27, 41238), (28, 41256),

Gene: Douge_58 Start: 41883, Stop: 42098, Start Num: 10
Candidate Starts for Douge_58:
(Start: 10 @41883 has 46 MA's), (18, 41958), (25, 42018), (26, 42030),

Gene: DrSeegs_60 Start: 43251, Stop: 43454, Start Num: 10
Candidate Starts for DrSeegs_60:
(Start: 10 @43251 has 46 MA's), (18, 43326), (25, 43386),

Gene: DuncansLeg_60 Start: 43622, Stop: 43810, Start Num: 9

Candidate Starts for DuncansLeg_60:

(Start: 9 @43622 has 18 MA's), (12, 43646), (18, 43691), (19, 43697), (20, 43700),

Gene: DyoEdafos_60 Start: 42180, Stop: 42377, Start Num: 11

Candidate Starts for DyoEdafos_60:

(3, 42057), (4, 42072), (5, 42096), (6, 42108), (7, 42120), (Start: 11 @42180 has 1 MA's), (14, 42201), (22, 42264), (30, 42354),

Gene: Ellson_59 Start: 43647, Stop: 43838, Start Num: 9

Candidate Starts for Ellson_59:

(Start: 9 @43647 has 18 MA's), (12, 43674), (18, 43719), (19, 43725), (20, 43728),

Gene: Enceladus_56 Start: 41086, Stop: 41268, Start Num: 10

Candidate Starts for Enceladus_56:

(7, 41035), (Start: 10 @41086 has 46 MA's), (15, 41131), (17, 41143), (19, 41158), (20, 41161), (23, 41182), (27, 41233), (28, 41251),

Gene: Faith1_60 Start: 43251, Stop: 43454, Start Num: 10

Candidate Starts for Faith1_60:

(Start: 10 @43251 has 46 MA's), (18, 43326), (25, 43386),

Gene: Finemlucis_60 Start: 43572, Stop: 43775, Start Num: 10

Candidate Starts for Finemlucis_60:

(Start: 10 @43572 has 46 MA's), (18, 43647), (21, 43662), (25, 43707),

Gene: Finnry_60 Start: 43847, Stop: 44038, Start Num: 9

Candidate Starts for Finnry_60:

(Start: 9 @43847 has 18 MA's), (12, 43874), (18, 43919), (19, 43925), (20, 43928),

Gene: Gabriela_57 Start: 41701, Stop: 41904, Start Num: 10

Candidate Starts for Gabriela_57:

(Start: 10 @41701 has 46 MA's), (18, 41776), (25, 41836),

Gene: Gardann_61 Start: 43287, Stop: 43490, Start Num: 10

Candidate Starts for Gardann_61:

(Start: 10 @43287 has 46 MA's), (18, 43362), (25, 43422),

Gene: GuuelaD_59 Start: 43366, Stop: 43569, Start Num: 10

Candidate Starts for GuuelaD_59:

(Start: 10 @43366 has 46 MA's), (18, 43441), (25, 43501),

Gene: Hafay_61 Start: 43355, Stop: 43558, Start Num: 10

Candidate Starts for Hafay_61:

(Start: 10 @43355 has 46 MA's), (18, 43430), (25, 43490),

Gene: Halena_56 Start: 41128, Stop: 41310, Start Num: 10

Candidate Starts for Halena_56:

(7, 41077), (Start: 10 @41128 has 46 MA's), (15, 41173), (17, 41185), (19, 41200), (20, 41203), (23, 41224), (27, 41275), (28, 41293),

Gene: Itos_59 Start: 42157, Stop: 42360, Start Num: 10

Candidate Starts for Itos_59:

(Start: 10 @42157 has 46 MA's), (18, 42232), (25, 42292),

Gene: Jobypre_60 Start: 43583, Stop: 43774, Start Num: 9

Candidate Starts for Jobypre_60:

(Start: 9 @43583 has 18 MA's), (12, 43610), (18, 43655), (19, 43661), (20, 43664),

Gene: JoeDirt_56 Start: 41086, Stop: 41268, Start Num: 10

Candidate Starts for JoeDirt_56:

(7, 41035), (Start: 10 @41086 has 46 MA's), (15, 41131), (17, 41143), (19, 41158), (20, 41161), (23, 41182), (27, 41233), (28, 41251),

Gene: Jubie_59 Start: 43718, Stop: 43909, Start Num: 9

Candidate Starts for Jubie_59:

(Start: 9 @43718 has 18 MA's), (12, 43745), (18, 43790), (19, 43796), (20, 43799),

Gene: Kahlid_60 Start: 43257, Stop: 43460, Start Num: 10

Candidate Starts for Kahlid_60:

(Start: 10 @43257 has 46 MA's), (18, 43332), (25, 43392),

Gene: Kingsolomon_59 Start: 43590, Stop: 43781, Start Num: 9

Candidate Starts for Kingsolomon_59:

(Start: 9 @43590 has 18 MA's), (12, 43617), (18, 43662), (19, 43668), (20, 43671),

Gene: Krypton555_61 Start: 43815, Stop: 44006, Start Num: 9

Candidate Starts for Krypton555_61:

(Start: 9 @43815 has 18 MA's), (12, 43842), (18, 43887), (19, 43893), (20, 43896),

Gene: LeBron_57 Start: 41131, Stop: 41313, Start Num: 10

Candidate Starts for LeBron_57:

(7, 41080), (Start: 10 @41131 has 46 MA's), (15, 41176), (17, 41188), (19, 41203), (20, 41206), (23, 41227), (27, 41278), (28, 41296),

Gene: Lewan_61 Start: 43311, Stop: 43514, Start Num: 10

Candidate Starts for Lewan_61:

(Start: 10 @43311 has 46 MA's), (18, 43386), (25, 43446),

Gene: LilDestine_60 Start: 43284, Stop: 43487, Start Num: 10

Candidate Starts for LilDestine_60:

(Start: 10 @43284 has 46 MA's), (18, 43359), (25, 43419),

Gene: Loadrie_59 Start: 43339, Stop: 43542, Start Num: 10

Candidate Starts for Loadrie_59:

(Start: 10 @43339 has 46 MA's), (18, 43414), (25, 43474),

Gene: Lolly9_59 Start: 43408, Stop: 43599, Start Num: 9

Candidate Starts for Lolly9_59:

(Start: 9 @43408 has 18 MA's), (12, 43435), (15, 43459), (18, 43480), (20, 43489),

Gene: Lumos_61 Start: 43580, Stop: 43771, Start Num: 9

Candidate Starts for Lumos_61:

(Start: 9 @43580 has 18 MA's), (12, 43607), (18, 43652), (19, 43658), (20, 43661),

Gene: MAckerman_56 Start: 41121, Stop: 41303, Start Num: 10
Candidate Starts for MAckerman_56:
(7, 41070), (Start: 10 @41121 has 46 MA's), (15, 41166), (17, 41178), (19, 41193), (20, 41196), (23, 41217), (27, 41268), (28, 41286),

Gene: Miley16_60 Start: 43251, Stop: 43454, Start Num: 10
Candidate Starts for Miley16_60:
(Start: 10 @43251 has 46 MA's), (18, 43326), (25, 43386),

Gene: MiniLon_63 Start: 43409, Stop: 43600, Start Num: 9
Candidate Starts for MiniLon_63:
(Start: 9 @43409 has 18 MA's), (12, 43436), (15, 43460), (18, 43481), (20, 43490),

Gene: MiniMac_63 Start: 43407, Stop: 43598, Start Num: 9
Candidate Starts for MiniMac_63:
(Start: 9 @43407 has 18 MA's), (12, 43434), (15, 43458), (18, 43479), (20, 43488),

Gene: MkaliMitinis3_61 Start: 43323, Stop: 43526, Start Num: 10
Candidate Starts for MkaliMitinis3_61:
(Start: 10 @43323 has 46 MA's), (18, 43398), (21, 43413), (25, 43458),

Gene: Moostard_59 Start: 43586, Stop: 43777, Start Num: 9
Candidate Starts for Moostard_59:
(Start: 9 @43586 has 18 MA's), (12, 43613), (15, 43637), (18, 43658), (19, 43664), (20, 43667),

Gene: MsGreen_60 Start: 43583, Stop: 43774, Start Num: 9
Candidate Starts for MsGreen_60:
(Start: 9 @43583 has 18 MA's), (12, 43610), (18, 43655), (19, 43661), (20, 43664),

Gene: Netyap_61 Start: 43252, Stop: 43455, Start Num: 10
Candidate Starts for Netyap_61:
(Start: 10 @43252 has 46 MA's), (18, 43327), (25, 43387),

Gene: Nicholas_59 Start: 43590, Stop: 43781, Start Num: 9
Candidate Starts for Nicholas_59:
(Start: 9 @43590 has 18 MA's), (12, 43617), (18, 43662), (19, 43668), (20, 43671),

Gene: Nicholasp3_60 Start: 43287, Stop: 43490, Start Num: 10
Candidate Starts for Nicholasp3_60:
(Start: 10 @43287 has 46 MA's), (18, 43362), (25, 43422),

Gene: OhShagHennessy_55 Start: 40116, Stop: 40307, Start Num: 10
Candidate Starts for OhShagHennessy_55:
(7, 40065), (Start: 10 @40116 has 46 MA's), (13, 40140), (22, 40209), (24, 40215),

Gene: Rose5_58 Start: 41548, Stop: 41730, Start Num: 10
Candidate Starts for Rose5_58:
(7, 41497), (Start: 10 @41548 has 46 MA's), (15, 41593), (17, 41605), (19, 41620), (20, 41623), (23, 41644), (27, 41695), (28, 41713),

Gene: Rumpelstiltskin_59 Start: 42680, Stop: 42883, Start Num: 10
Candidate Starts for Rumpelstiltskin_59:
(Start: 10 @42680 has 46 MA's), (18, 42755), (25, 42815),

Gene: Samty_60 Start: 43591, Stop: 43782, Start Num: 9
Candidate Starts for Samty_60:
(Start: 9 @43591 has 18 MA's), (12, 43618), (18, 43663), (19, 43669), (20, 43672),

Gene: Silverleaf_58 Start: 41283, Stop: 41465, Start Num: 10
Candidate Starts for Silverleaf_58:
(7, 41232), (Start: 10 @41283 has 46 MA's), (15, 41328), (17, 41340), (19, 41355), (20, 41358), (23, 41379), (27, 41430), (28, 41448),

Gene: Snenia_59 Start: 43584, Stop: 43775, Start Num: 9
Candidate Starts for Snenia_59:
(Start: 9 @43584 has 18 MA's), (12, 43611), (18, 43656), (19, 43662), (20, 43665),

Gene: Tourach_59 Start: 43336, Stop: 43539, Start Num: 10
Candidate Starts for Tourach_59:
(Start: 10 @43336 has 46 MA's), (18, 43411), (25, 43471),

Gene: Tyson_58 Start: 41550, Stop: 41732, Start Num: 10
Candidate Starts for Tyson_58:
(7, 41499), (Start: 10 @41550 has 46 MA's), (15, 41595), (17, 41607), (19, 41622), (20, 41625), (23, 41646), (27, 41697), (28, 41715),

Gene: UPIE_57 Start: 41100, Stop: 41282, Start Num: 10
Candidate Starts for UPIE_57:
(7, 41049), (Start: 10 @41100 has 46 MA's), (15, 41145), (17, 41157), (19, 41172), (20, 41175), (23, 41196), (27, 41247), (28, 41265),

Gene: Vetrrix_60 Start: 43291, Stop: 43494, Start Num: 10
Candidate Starts for Vetrrix_60:
(Start: 10 @43291 has 46 MA's), (18, 43366), (21, 43381), (25, 43426),

Gene: Wamburgexpress_57 Start: 41116, Stop: 41307, Start Num: 10
Candidate Starts for Wamburgexpress_57:
(7, 41065), (Start: 10 @41116 has 46 MA's), (13, 41140), (22, 41209), (24, 41215),

Gene: Whirlwind_60 Start: 43401, Stop: 43592, Start Num: 9
Candidate Starts for Whirlwind_60:
(Start: 9 @43401 has 18 MA's), (12, 43428), (18, 43473), (19, 43479), (20, 43482),

Gene: Wigglewigggle_60 Start: 43311, Stop: 43514, Start Num: 10
Candidate Starts for Wigglewigggle_60:
(Start: 10 @43311 has 46 MA's), (18, 43386), (25, 43446),

Gene: Wilder_61 Start: 43257, Stop: 43460, Start Num: 10
Candidate Starts for Wilder_61:
(Start: 10 @43257 has 46 MA's), (18, 43332), (25, 43392),

Gene: Winky_60 Start: 43251, Stop: 43454, Start Num: 10
Candidate Starts for Winky_60:
(Start: 10 @43251 has 46 MA's), (18, 43326), (25, 43386),

Gene: Wyatt2_59 Start: 41548, Stop: 41730, Start Num: 10

Candidate Starts for Wyatt2_59:

(7, 41497), (Start: 10 @41548 has 46 MA's), (15, 41593), (17, 41605), (19, 41620), (20, 41623), (23, 41644), (27, 41695), (28, 41713),

Gene: Zakai_61 Start: 43577, Stop: 43780, Start Num: 10

Candidate Starts for Zakai_61:

(Start: 10 @43577 has 46 MA's), (18, 43652), (21, 43667), (25, 43712),

Gene: Zaria_58 Start: 41228, Stop: 41419, Start Num: 10

Candidate Starts for Zaria_58:

(7, 41177), (Start: 10 @41228 has 46 MA's), (13, 41252), (22, 41321), (24, 41327),

Gene: ZhongYanYuan_58 Start: 43146, Stop: 43349, Start Num: 10

Candidate Starts for ZhongYanYuan_58:

(Start: 10 @43146 has 46 MA's), (18, 43221), (21, 43236), (25, 43281),