

Pham 304954



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 304954 Report

This analysis was run 06/08/26 on database version 649.

Pham number 304954 has 79 members, 16 are drafts.

Phages represented in each track:

- Track 1 : DirkDirk_90, Poochiewood_91
- Track 2 : JoeDirt_94, OhShagHennessy_89, Appletree2_92
- Track 3 : MAckerman_91, Rose5_94, Enceladus_90, Calm_94, AvadaKedavra_93, Tyson_94, Zaria_93, Silverleaf_92, Acquire49_93, Wamburgxpress_92, Halena_90, Wyatt2_94, LeBron_92
- Track 4 : UPIE_92, CicholasNage_90
- Track 5 : Wilder_98, Sarshaun_98, Gabriela_97, Breezona_97, DrSeegs_96, BobsGarage_96, OverPar_99, Zakai_98, Wigglewiggles_97, LilDestine_95, Netyap_96, Itos_97, MkaliMitinis3_99, Vetrix_95, Faith1_97, SoJulia_99, BigCheese_97, Crossroads_97, Miley16_97, Lynnae_98, GuuelaD_94, Loadrie_96, Winky_97, Soap141_97
- Track 6 : Archie_94
- Track 7 : DHan_100, ZhongYanYuan_94
- Track 8 : Rossetti_97
- Track 9 : Hafay_98, Claus_96
- Track 10 : Lewan_98
- Track 11 : Bazzle_94
- Track 12 : DuncansLeg_94, KirDoubleO7_92, BourbonZero_95, Kingsolomon_92, MiniMac_98, MiniLon_98, Ellson_93, LiyuLake_93, Lolly9_93, Nicholas_92
- Track 13 : Clautastrophe_92, Snenia_93, Bellis_94, Jobypre_94, Samty_93, Jubie_93, Krypton555_96, Red305_95, Moostard_91, Lumos_94, Finnry_94, MsGreen_94, Whirlwind_95
- Track 14 : TriFive_95
- Track 15 : Chaser_97
- Track 16 : Bromden_98
- Track 17 : Sheng711_99

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

The start number called the most often in the published annotations is 6, it was called in 61 of the 63 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Acquire49_93, Appletree2_92, Archie_94, AvadaKedavra_93, Bazzle_94, Bellis_94, BigCheese_97, BobsGarage_96, BourbonZero_95, Breezona_97, Bromden_98, Calm_94, Chaser_97, CicholasNage_90, Claus_96, Clautastrophe_92, Crossroads_97, DHan_100, DirkDirk_90, DrSeegs_96, DuncansLeg_94, Ellson_93, Enceladus_90, Faith1_97, Finnry_94, Gabriela_97, GuuelaD_94, Hafay_98, Halena_90, Itos_97, Jobypre_94, JoeDirt_94, Jubie_93, Kingsolomon_92, KirDoubleO7_92, Krypton555_96, LeBron_92, LilDestine_95, LiyuLake_93, Loadrie_96, Lolly9_93, Lumos_94, Lynnae_98, MAckerman_91, Miley16_97, MiniLon_98, MiniMac_98, MkaliMitinis3_99, Moostard_91, MsGreen_94, Netyap_96, Nicholas_92, OhShagHennessy_89, OverPar_99, Poochiewood_91, Red305_95, Rose5_94, Rossetti_97, Samty_93, Sarshaun_98, Silverleaf_92, Snenia_93, SoJulia_99, Soap141_97, Tyson_94, UPIE_92, Vetrix_95, Wamburggrxpress_92, Whirlwind_95, Wigglewiggle_97, Wilder_98, Winky_97, Wyatt2_94, Zakai_98, Zaria_93, ZhongYanYuan_94,

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

- Lewan_98, Sheng711_99, TriFive_95,

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

-

Summary by start number:

Start 3:

- Found in 53 of 79 (67.1%) of genes in pham
- Manual Annotations of this start: 1 of 63
- Called 1.9% of time when present
- Phage (with cluster) where this start called: TriFive_95 (L3),

Start 4:

- Found in 3 of 79 (3.8%) of genes in pham
- No Manual Annotations of this start.
- Called 33.3% of time when present
- Phage (with cluster) where this start called: Sheng711_99 (L4),

Start 6:

- Found in 79 of 79 (100.0%) of genes in pham
- Manual Annotations of this start: 61 of 63
- Called 96.2% of time when present
- Phage (with cluster) where this start called: Acquire49_93 (L1), Appletree2_92 (L1), Archie_94 (L2), AvadaKedavra_93 (L1), Bazzle_94 (L2), Bellis_94 (L3), BigCheese_97 (L2), BobsGarage_96 (L2), BourbonZero_95 (L3), Breezona_97 (L2), Bromden_98 (L4), Calm_94 (L1), Chaser_97 (L4), CicholasNage_90 (L1), Claus_96 (L2), Clautastrophe_92 (L3), Crossroads_97 (L2), DHan_100 (L2), DirkDirk_90 (L1), DrSeegs_96 (L2), DuncansLeg_94 (L3), Ellson_93 (L3), Enceladus_90 (L1), Faith1_97 (L2), Finnry_94 (L3), Gabriela_97 (L2), GuuelaD_94 (L2), Hafay_98 (L2), Halena_90 (L1), Itos_97 (L2), Jobypre_94 (L3), JoeDirt_94 (L1), Jubie_93 (L3), Kingsolomon_92 (L3), KirDoubleO7_92 (L3), Krypton555_96 (L3), LeBron_92 (L1), LilDestine_95 (L2), LiyuLake_93 (L3), Loadrie_96 (L2), Lolly9_93 (L3), Lumos_94 (L3), Lynnae_98 (L2), MAckerman_91 (L1), Miley16_97 (L2), MiniLon_98 (L3), MiniMac_98 (L3), MkaliMitinis3_99 (L2), Moostard_91 (L3), MsGreen_94 (L3), Netyap_96 (L2), Nicholas_92 (L3), OhShagHennessy_89 (L1), OverPar_99 (L2), Poochiewood_91 (L1), Red305_95 (L3), Rose5_94 (L1), Rossetti_97 (L2), Samty_93

(L3), Sarshaun_98 (L2), Silverleaf_92 (L1), Snenia_93 (L3), SoJulia_99 (L2), Soap141_97 (L2), Tyson_94 (L1), UPIE_92 (L1), Vetrix_95 (L2), Wamburgxpress_92 (L1), Whirlwind_95 (L3), Wigglewiggles_97 (L2), Wilder_98 (L2), Winky_97 (L2), Wyatt2_94 (L1), Zakai_98 (L2), Zaria_93 (L1), ZhongYanYuan_94 (L2),

Start 7:

- Found in 30 of 79 (38.0%) of genes in pham
- Manual Annotations of this start: 1 of 63
- Called 3.3% of time when present
- Phage (with cluster) where this start called: Lewan_98 (L2),

Summary by clusters:

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

Info for manual annotations of cluster L1:

- Start number 6 was manually annotated 19 times for cluster L1.

Info for manual annotations of cluster L2:

- Start number 6 was manually annotated 22 times for cluster L2.
- Start number 7 was manually annotated 1 time for cluster L2.

Info for manual annotations of cluster L3:

- Start number 3 was manually annotated 1 time for cluster L3.
- Start number 6 was manually annotated 18 times for cluster L3.

Info for manual annotations of cluster L4:

- Start number 6 was manually annotated 2 times for cluster L4.

Gene Information:

Gene: Acquire49_93 Start: 58116, Stop: 58478, Start Num: 6

Candidate Starts for Acquire49_93:

(Start: 6 @58116 has 61 MA's), (8, 58200), (9, 58224), (19, 58422), (21, 58428),

Gene: Appletree2_92 Start: 57876, Stop: 58238, Start Num: 6

Candidate Starts for Appletree2_92:

(Start: 6 @57876 has 61 MA's), (8, 57960), (10, 58011), (17, 58173),

Gene: Archie_94 Start: 59796, Stop: 60203, Start Num: 6

Candidate Starts for Archie_94:

(2, 59727), (5, 59784), (Start: 6 @59796 has 61 MA's), (Start: 7 @59814 has 1 MA's), (8, 59934), (9, 59958), (11, 60036), (14, 60111), (16, 60132), (22, 60159), (23, 60162),

Gene: AvadaKedavra_93 Start: 58228, Stop: 58590, Start Num: 6

Candidate Starts for AvadaKedavra_93:

(Start: 6 @58228 has 61 MA's), (8, 58312), (9, 58336), (19, 58534), (21, 58540),

Gene: Bazzle_94 Start: 60352, Stop: 60759, Start Num: 6

Candidate Starts for Bazzle_94:

(2, 60283), (Start: 3 @60301 has 1 MA's), (5, 60340), (Start: 6 @60352 has 61 MA's), (Start: 7 @60370 has 1 MA's), (8, 60490), (9, 60514), (11, 60592), (14, 60667), (16, 60688), (22, 60715), (23, 60718),

Gene: Bellis_94 Start: 59981, Stop: 60322, Start Num: 6

Candidate Starts for Bellis_94:

(1, 59900), (Start: 3 @59927 has 1 MA's), (Start: 6 @59981 has 61 MA's), (8, 60065), (12, 60164), (20, 60269), (25, 60302),

Gene: BigCheese_97 Start: 60561, Stop: 60977, Start Num: 6

Candidate Starts for BigCheese_97:

(2, 60492), (Start: 3 @60510 has 1 MA's), (5, 60549), (Start: 6 @60561 has 61 MA's), (Start: 7 @60579 has 1 MA's), (8, 60699), (9, 60723), (13, 60861), (22, 60933), (24, 60942),

Gene: BobsGarage_96 Start: 60561, Stop: 60977, Start Num: 6

Candidate Starts for BobsGarage_96:

(2, 60492), (Start: 3 @60510 has 1 MA's), (5, 60549), (Start: 6 @60561 has 61 MA's), (Start: 7 @60579 has 1 MA's), (8, 60699), (9, 60723), (13, 60861), (22, 60933), (24, 60942),

Gene: BourbonZero_95 Start: 60007, Stop: 60348, Start Num: 6

Candidate Starts for BourbonZero_95:

(1, 59926), (Start: 3 @59953 has 1 MA's), (Start: 6 @60007 has 61 MA's), (12, 60190), (20, 60295), (25, 60328),

Gene: Breezona_97 Start: 60567, Stop: 60983, Start Num: 6

Candidate Starts for Breezona_97:

(2, 60498), (Start: 3 @60516 has 1 MA's), (5, 60555), (Start: 6 @60567 has 61 MA's), (Start: 7 @60585 has 1 MA's), (8, 60705), (9, 60729), (13, 60867), (22, 60939), (24, 60948),

Gene: Bromden_98 Start: 61150, Stop: 61488, Start Num: 6

Candidate Starts for Bromden_98:

(4, 61123), (Start: 6 @61150 has 61 MA's), (15, 61405), (22, 61444), (24, 61453),

Gene: Calm_94 Start: 58127, Stop: 58489, Start Num: 6

Candidate Starts for Calm_94:

(Start: 6 @58127 has 61 MA's), (8, 58211), (9, 58235), (19, 58433), (21, 58439),

Gene: Chaser_97 Start: 59573, Stop: 59935, Start Num: 6

Candidate Starts for Chaser_97:

(4, 59546), (Start: 6 @59573 has 61 MA's), (8, 59657), (9, 59681), (22, 59891), (24, 59900),

Gene: CicholasNage_90 Start: 57780, Stop: 58142, Start Num: 6

Candidate Starts for CicholasNage_90:

(Start: 6 @57780 has 61 MA's), (8, 57864), (9, 57888), (19, 58086), (21, 58092), (26, 58131),

Gene: Claus_96 Start: 60276, Stop: 60638, Start Num: 6

Candidate Starts for Claus_96:

(Start: 6 @60276 has 61 MA's), (8, 60360), (9, 60384), (22, 60594), (24, 60603),

Gene: Clautastrophe_92 Start: 59976, Stop: 60317, Start Num: 6

Candidate Starts for Clautastrophe_92:

(1, 59895), (Start: 3 @59922 has 1 MA's), (Start: 6 @59976 has 61 MA's), (8, 60060), (12, 60159), (20, 60264), (25, 60297),

Gene: Crossroads_97 Start: 60279, Stop: 60695, Start Num: 6

Candidate Starts for Crossroads_97:

(2, 60210), (Start: 3 @60228 has 1 MA's), (5, 60267), (Start: 6 @60279 has 61 MA's), (Start: 7 @60297 has 1 MA's), (8, 60417), (9, 60441), (13, 60579), (22, 60651), (24, 60660),

Gene: DHan_100 Start: 60498, Stop: 60914, Start Num: 6

Candidate Starts for DHan_100:

(2, 60429), (Start: 3 @60447 has 1 MA's), (5, 60486), (Start: 6 @60498 has 61 MA's), (Start: 7 @60516 has 1 MA's), (8, 60636), (9, 60660), (22, 60870), (24, 60879),

Gene: DirkDirk_90 Start: 57456, Stop: 57818, Start Num: 6

Candidate Starts for DirkDirk_90:

(Start: 6 @57456 has 61 MA's), (8, 57540), (9, 57564), (10, 57591), (17, 57753),

Gene: DrSeegs_96 Start: 60567, Stop: 60983, Start Num: 6

Candidate Starts for DrSeegs_96:

(2, 60498), (Start: 3 @60516 has 1 MA's), (5, 60555), (Start: 6 @60567 has 61 MA's), (Start: 7 @60585 has 1 MA's), (8, 60705), (9, 60729), (13, 60867), (22, 60939), (24, 60948),

Gene: DuncansLeg_94 Start: 59995, Stop: 60336, Start Num: 6

Candidate Starts for DuncansLeg_94:

(1, 59914), (Start: 3 @59941 has 1 MA's), (Start: 6 @59995 has 61 MA's), (12, 60178), (20, 60283), (25, 60316),

Gene: Ellson_93 Start: 60310, Stop: 60651, Start Num: 6

Candidate Starts for Ellson_93:

(1, 60229), (Start: 3 @60256 has 1 MA's), (Start: 6 @60310 has 61 MA's), (12, 60493), (20, 60598), (25, 60631),

Gene: Enceladus_90 Start: 58157, Stop: 58519, Start Num: 6

Candidate Starts for Enceladus_90:

(Start: 6 @58157 has 61 MA's), (8, 58241), (9, 58265), (19, 58463), (21, 58469),

Gene: Faith1_97 Start: 60204, Stop: 60620, Start Num: 6

Candidate Starts for Faith1_97:

(2, 60135), (Start: 3 @60153 has 1 MA's), (5, 60192), (Start: 6 @60204 has 61 MA's), (Start: 7 @60222 has 1 MA's), (8, 60342), (9, 60366), (13, 60504), (22, 60576), (24, 60585),

Gene: Finnry_94 Start: 60329, Stop: 60670, Start Num: 6

Candidate Starts for Finnry_94:

(1, 60248), (Start: 3 @60275 has 1 MA's), (Start: 6 @60329 has 61 MA's), (8, 60413), (12, 60512), (20, 60617), (25, 60650),

Gene: Gabriela_97 Start: 59550, Stop: 59966, Start Num: 6

Candidate Starts for Gabriela_97:

(2, 59481), (Start: 3 @59499 has 1 MA's), (5, 59538), (Start: 6 @59550 has 61 MA's), (Start: 7 @59568 has 1 MA's), (8, 59688), (9, 59712), (13, 59850), (22, 59922), (24, 59931),

Gene: GuuelaD_94 Start: 60163, Stop: 60579, Start Num: 6

Candidate Starts for GuuelaD_94:

(2, 60094), (Start: 3 @60112 has 1 MA's), (5, 60151), (Start: 6 @60163 has 61 MA's), (Start: 7 @60181 has 1 MA's), (8, 60301), (9, 60325), (13, 60463), (22, 60535), (24, 60544),

Gene: Hafay_98 Start: 60271, Stop: 60633, Start Num: 6
Candidate Starts for Hafay_98:
(Start: 6 @60271 has 61 MA's), (8, 60355), (9, 60379), (22, 60589), (24, 60598),

Gene: Halena_90 Start: 57043, Stop: 57405, Start Num: 6
Candidate Starts for Halena_90:
(Start: 6 @57043 has 61 MA's), (8, 57127), (9, 57151), (19, 57349), (21, 57355),

Gene: Itos_97 Start: 59110, Stop: 59526, Start Num: 6
Candidate Starts for Itos_97:
(2, 59041), (Start: 3 @59059 has 1 MA's), (5, 59098), (Start: 6 @59110 has 61 MA's), (Start: 7 @59128 has 1 MA's), (8, 59248), (9, 59272), (13, 59410), (22, 59482), (24, 59491),

Gene: Jobypre_94 Start: 59976, Stop: 60317, Start Num: 6
Candidate Starts for Jobypre_94:
(1, 59895), (Start: 3 @59922 has 1 MA's), (Start: 6 @59976 has 61 MA's), (8, 60060), (12, 60159), (20, 60264), (25, 60297),

Gene: JoeDirt_94 Start: 58718, Stop: 59080, Start Num: 6
Candidate Starts for JoeDirt_94:
(Start: 6 @58718 has 61 MA's), (8, 58802), (10, 58853), (17, 59015),

Gene: Jubie_93 Start: 60111, Stop: 60452, Start Num: 6
Candidate Starts for Jubie_93:
(1, 60030), (Start: 3 @60057 has 1 MA's), (Start: 6 @60111 has 61 MA's), (8, 60195), (12, 60294), (20, 60399), (25, 60432),

Gene: Kingsolomon_92 Start: 60085, Stop: 60426, Start Num: 6
Candidate Starts for Kingsolomon_92:
(1, 60004), (Start: 3 @60031 has 1 MA's), (Start: 6 @60085 has 61 MA's), (12, 60268), (20, 60373), (25, 60406),

Gene: KirDoubleO7_92 Start: 59997, Stop: 60338, Start Num: 6
Candidate Starts for KirDoubleO7_92:
(1, 59916), (Start: 3 @59943 has 1 MA's), (Start: 6 @59997 has 61 MA's), (12, 60180), (20, 60285), (25, 60318),

Gene: Krypton555_96 Start: 60488, Stop: 60829, Start Num: 6
Candidate Starts for Krypton555_96:
(1, 60407), (Start: 3 @60434 has 1 MA's), (Start: 6 @60488 has 61 MA's), (8, 60572), (12, 60671), (20, 60776), (25, 60809),

Gene: LeBron_92 Start: 57350, Stop: 57712, Start Num: 6
Candidate Starts for LeBron_92:
(Start: 6 @57350 has 61 MA's), (8, 57434), (9, 57458), (19, 57656), (21, 57662),

Gene: Lewan_98 Start: 60221, Stop: 60619, Start Num: 7
Candidate Starts for Lewan_98:
(2, 60134), (Start: 3 @60152 has 1 MA's), (5, 60191), (Start: 6 @60203 has 61 MA's), (Start: 7 @60221 has 1 MA's), (8, 60341), (9, 60365), (13, 60503), (22, 60575), (24, 60584),

Gene: LilDestine_95 Start: 59874, Stop: 60290, Start Num: 6
Candidate Starts for LilDestine_95:

(2, 59805), (Start: 3 @59823 has 1 MA's), (5, 59862), (Start: 6 @59874 has 61 MA's), (Start: 7 @59892 has 1 MA's), (8, 60012), (9, 60036), (13, 60174), (22, 60246), (24, 60255),

Gene: LiyuLake_93 Start: 60070, Stop: 60411, Start Num: 6

Candidate Starts for LiyuLake_93:

(1, 59989), (Start: 3 @60016 has 1 MA's), (Start: 6 @60070 has 61 MA's), (12, 60253), (20, 60358), (25, 60391),

Gene: Loadrie_96 Start: 60365, Stop: 60781, Start Num: 6

Candidate Starts for Loadrie_96:

(2, 60296), (Start: 3 @60314 has 1 MA's), (5, 60353), (Start: 6 @60365 has 61 MA's), (Start: 7 @60383 has 1 MA's), (8, 60503), (9, 60527), (13, 60665), (22, 60737), (24, 60746),

Gene: Lolly9_93 Start: 60161, Stop: 60502, Start Num: 6

Candidate Starts for Lolly9_93:

(1, 60080), (Start: 3 @60107 has 1 MA's), (Start: 6 @60161 has 61 MA's), (12, 60344), (20, 60449), (25, 60482),

Gene: Lumos_94 Start: 59973, Stop: 60314, Start Num: 6

Candidate Starts for Lumos_94:

(1, 59892), (Start: 3 @59919 has 1 MA's), (Start: 6 @59973 has 61 MA's), (8, 60057), (12, 60156), (20, 60261), (25, 60294),

Gene: Lynnae_98 Start: 59975, Stop: 60391, Start Num: 6

Candidate Starts for Lynnae_98:

(2, 59906), (Start: 3 @59924 has 1 MA's), (5, 59963), (Start: 6 @59975 has 61 MA's), (Start: 7 @59993 has 1 MA's), (8, 60113), (9, 60137), (13, 60275), (22, 60347), (24, 60356),

Gene: MAckerman_91 Start: 57036, Stop: 57398, Start Num: 6

Candidate Starts for MAckerman_91:

(Start: 6 @57036 has 61 MA's), (8, 57120), (9, 57144), (19, 57342), (21, 57348),

Gene: Miley16_97 Start: 60567, Stop: 60983, Start Num: 6

Candidate Starts for Miley16_97:

(2, 60498), (Start: 3 @60516 has 1 MA's), (5, 60555), (Start: 6 @60567 has 61 MA's), (Start: 7 @60585 has 1 MA's), (8, 60705), (9, 60729), (13, 60867), (22, 60939), (24, 60948),

Gene: MiniLon_98 Start: 60162, Stop: 60503, Start Num: 6

Candidate Starts for MiniLon_98:

(1, 60081), (Start: 3 @60108 has 1 MA's), (Start: 6 @60162 has 61 MA's), (12, 60345), (20, 60450), (25, 60483),

Gene: MiniMac_98 Start: 60157, Stop: 60498, Start Num: 6

Candidate Starts for MiniMac_98:

(1, 60076), (Start: 3 @60103 has 1 MA's), (Start: 6 @60157 has 61 MA's), (12, 60340), (20, 60445), (25, 60478),

Gene: MkaliMitinis3_99 Start: 60329, Stop: 60745, Start Num: 6

Candidate Starts for MkaliMitinis3_99:

(2, 60260), (Start: 3 @60278 has 1 MA's), (5, 60317), (Start: 6 @60329 has 61 MA's), (Start: 7 @60347 has 1 MA's), (8, 60467), (9, 60491), (13, 60629), (22, 60701), (24, 60710),

Gene: Moostard_91 Start: 60080, Stop: 60421, Start Num: 6

Candidate Starts for Moostard_91:

(1, 59999), (Start: 3 @60026 has 1 MA's), (Start: 6 @60080 has 61 MA's), (8, 60164), (12, 60263), (20, 60368), (25, 60401),

Gene: MsGreen_94 Start: 59975, Stop: 60316, Start Num: 6

Candidate Starts for MsGreen_94:

(1, 59894), (Start: 3 @59921 has 1 MA's), (Start: 6 @59975 has 61 MA's), (8, 60059), (12, 60158), (20, 60263), (25, 60296),

Gene: Netyap_96 Start: 60205, Stop: 60621, Start Num: 6

Candidate Starts for Netyap_96:

(2, 60136), (Start: 3 @60154 has 1 MA's), (5, 60193), (Start: 6 @60205 has 61 MA's), (Start: 7 @60223 has 1 MA's), (8, 60343), (9, 60367), (13, 60505), (22, 60577), (24, 60586),

Gene: Nicholas_92 Start: 60085, Stop: 60426, Start Num: 6

Candidate Starts for Nicholas_92:

(1, 60004), (Start: 3 @60031 has 1 MA's), (Start: 6 @60085 has 61 MA's), (12, 60268), (20, 60373), (25, 60406),

Gene: OhShagHennessy_89 Start: 57293, Stop: 57655, Start Num: 6

Candidate Starts for OhShagHennessy_89:

(Start: 6 @57293 has 61 MA's), (8, 57377), (10, 57428), (17, 57590),

Gene: OverPar_99 Start: 60365, Stop: 60781, Start Num: 6

Candidate Starts for OverPar_99:

(2, 60296), (Start: 3 @60314 has 1 MA's), (5, 60353), (Start: 6 @60365 has 61 MA's), (Start: 7 @60383 has 1 MA's), (8, 60503), (9, 60527), (13, 60665), (22, 60737), (24, 60746),

Gene: Poochiewood_91 Start: 58690, Stop: 59052, Start Num: 6

Candidate Starts for Poochiewood_91:

(Start: 6 @58690 has 61 MA's), (8, 58774), (9, 58798), (10, 58825), (17, 58987),

Gene: Red305_95 Start: 59976, Stop: 60317, Start Num: 6

Candidate Starts for Red305_95:

(1, 59895), (Start: 3 @59922 has 1 MA's), (Start: 6 @59976 has 61 MA's), (8, 60060), (12, 60159), (20, 60264), (25, 60297),

Gene: Rose5_94 Start: 58560, Stop: 58922, Start Num: 6

Candidate Starts for Rose5_94:

(Start: 6 @58560 has 61 MA's), (8, 58644), (9, 58668), (19, 58866), (21, 58872),

Gene: Rossetti_97 Start: 60365, Stop: 60781, Start Num: 6

Candidate Starts for Rossetti_97:

(Start: 3 @60314 has 1 MA's), (5, 60353), (Start: 6 @60365 has 61 MA's), (Start: 7 @60383 has 1 MA's), (8, 60503), (9, 60527), (22, 60737), (24, 60746),

Gene: Samty_93 Start: 60073, Stop: 60414, Start Num: 6

Candidate Starts for Samty_93:

(1, 59992), (Start: 3 @60019 has 1 MA's), (Start: 6 @60073 has 61 MA's), (8, 60157), (12, 60256), (20, 60361), (25, 60394),

Gene: Sarshaun_98 Start: 60956, Stop: 61372, Start Num: 6

Candidate Starts for Sarshaun_98:

(2, 60887), (Start: 3 @60905 has 1 MA's), (5, 60944), (Start: 6 @60956 has 61 MA's), (Start: 7 @60974 has 1 MA's), (8, 61094), (9, 61118), (13, 61256), (22, 61328), (24, 61337),

Gene: Sheng711_99 Start: 59973, Stop: 60362, Start Num: 4

Candidate Starts for Sheng711_99:

(4, 59973), (Start: 6 @60000 has 61 MA's), (8, 60084), (9, 60108), (18, 60300), (22, 60318), (24, 60327),

Gene: Silverleaf_92 Start: 58056, Stop: 58418, Start Num: 6

Candidate Starts for Silverleaf_92:

(Start: 6 @58056 has 61 MA's), (8, 58140), (9, 58164), (19, 58362), (21, 58368),

Gene: Snenia_93 Start: 59977, Stop: 60318, Start Num: 6

Candidate Starts for Snenia_93:

(1, 59896), (Start: 3 @59923 has 1 MA's), (Start: 6 @59977 has 61 MA's), (8, 60061), (12, 60160), (20, 60265), (25, 60298),

Gene: SoJulia_99 Start: 61721, Stop: 62137, Start Num: 6

Candidate Starts for SoJulia_99:

(2, 61652), (Start: 3 @61670 has 1 MA's), (5, 61709), (Start: 6 @61721 has 61 MA's), (Start: 7 @61739 has 1 MA's), (8, 61859), (9, 61883), (13, 62021), (22, 62093), (24, 62102),

Gene: Soap141_97 Start: 60956, Stop: 61372, Start Num: 6

Candidate Starts for Soap141_97:

(2, 60887), (Start: 3 @60905 has 1 MA's), (5, 60944), (Start: 6 @60956 has 61 MA's), (Start: 7 @60974 has 1 MA's), (8, 61094), (9, 61118), (13, 61256), (22, 61328), (24, 61337),

Gene: TriFive_95 Start: 60035, Stop: 60430, Start Num: 3

Candidate Starts for TriFive_95:

(1, 60008), (Start: 3 @60035 has 1 MA's), (Start: 6 @60089 has 61 MA's), (8, 60173), (12, 60272), (20, 60377), (25, 60410),

Gene: Tyson_94 Start: 58453, Stop: 58815, Start Num: 6

Candidate Starts for Tyson_94:

(Start: 6 @58453 has 61 MA's), (8, 58537), (9, 58561), (19, 58759), (21, 58765),

Gene: UPIE_92 Start: 58049, Stop: 58411, Start Num: 6

Candidate Starts for UPIE_92:

(Start: 6 @58049 has 61 MA's), (8, 58133), (9, 58157), (19, 58355), (21, 58361), (26, 58400),

Gene: Vetrix_95 Start: 59819, Stop: 60235, Start Num: 6

Candidate Starts for Vetrix_95:

(2, 59750), (Start: 3 @59768 has 1 MA's), (5, 59807), (Start: 6 @59819 has 61 MA's), (Start: 7 @59837 has 1 MA's), (8, 59957), (9, 59981), (13, 60119), (22, 60191), (24, 60200),

Gene: Wamburgexpress_92 Start: 58177, Stop: 58539, Start Num: 6

Candidate Starts for Wamburgexpress_92:

(Start: 6 @58177 has 61 MA's), (8, 58261), (9, 58285), (19, 58483), (21, 58489),

Gene: Whirlwind_95 Start: 60316, Stop: 60657, Start Num: 6

Candidate Starts for Whirlwind_95:

(1, 60235), (Start: 3 @60262 has 1 MA's), (Start: 6 @60316 has 61 MA's), (8, 60400), (12, 60499), (20, 60604), (25, 60637),

Gene: Wigglewigggle_97 Start: 60127, Stop: 60543, Start Num: 6

Candidate Starts for Wigglewigggle_97:

(2, 60058), (Start: 3 @60076 has 1 MA's), (5, 60115), (Start: 6 @60127 has 61 MA's), (Start: 7 @60145 has 1 MA's), (8, 60265), (9, 60289), (13, 60427), (22, 60499), (24, 60508),

Gene: Wilder_98 Start: 59963, Stop: 60379, Start Num: 6

Candidate Starts for Wilder_98:

(2, 59894), (Start: 3 @59912 has 1 MA's), (5, 59951), (Start: 6 @59963 has 61 MA's), (Start: 7 @59981 has 1 MA's), (8, 60101), (9, 60125), (13, 60263), (22, 60335), (24, 60344),

Gene: Winky_97 Start: 60567, Stop: 60983, Start Num: 6

Candidate Starts for Winky_97:

(2, 60498), (Start: 3 @60516 has 1 MA's), (5, 60555), (Start: 6 @60567 has 61 MA's), (Start: 7 @60585 has 1 MA's), (8, 60705), (9, 60729), (13, 60867), (22, 60939), (24, 60948),

Gene: Wyatt2_94 Start: 58484, Stop: 58846, Start Num: 6

Candidate Starts for Wyatt2_94:

(Start: 6 @58484 has 61 MA's), (8, 58568), (9, 58592), (19, 58790), (21, 58796),

Gene: Zakai_98 Start: 60606, Stop: 61022, Start Num: 6

Candidate Starts for Zakai_98:

(2, 60537), (Start: 3 @60555 has 1 MA's), (5, 60594), (Start: 6 @60606 has 61 MA's), (Start: 7 @60624 has 1 MA's), (8, 60744), (9, 60768), (13, 60906), (22, 60978), (24, 60987),

Gene: Zaria_93 Start: 57592, Stop: 57954, Start Num: 6

Candidate Starts for Zaria_93:

(Start: 6 @57592 has 61 MA's), (8, 57676), (9, 57700), (19, 57898), (21, 57904),

Gene: ZhongYanYuan_94 Start: 60018, Stop: 60434, Start Num: 6

Candidate Starts for ZhongYanYuan_94:

(2, 59949), (Start: 3 @59967 has 1 MA's), (5, 60006), (Start: 6 @60018 has 61 MA's), (Start: 7 @60036 has 1 MA's), (8, 60156), (9, 60180), (22, 60390), (24, 60399),