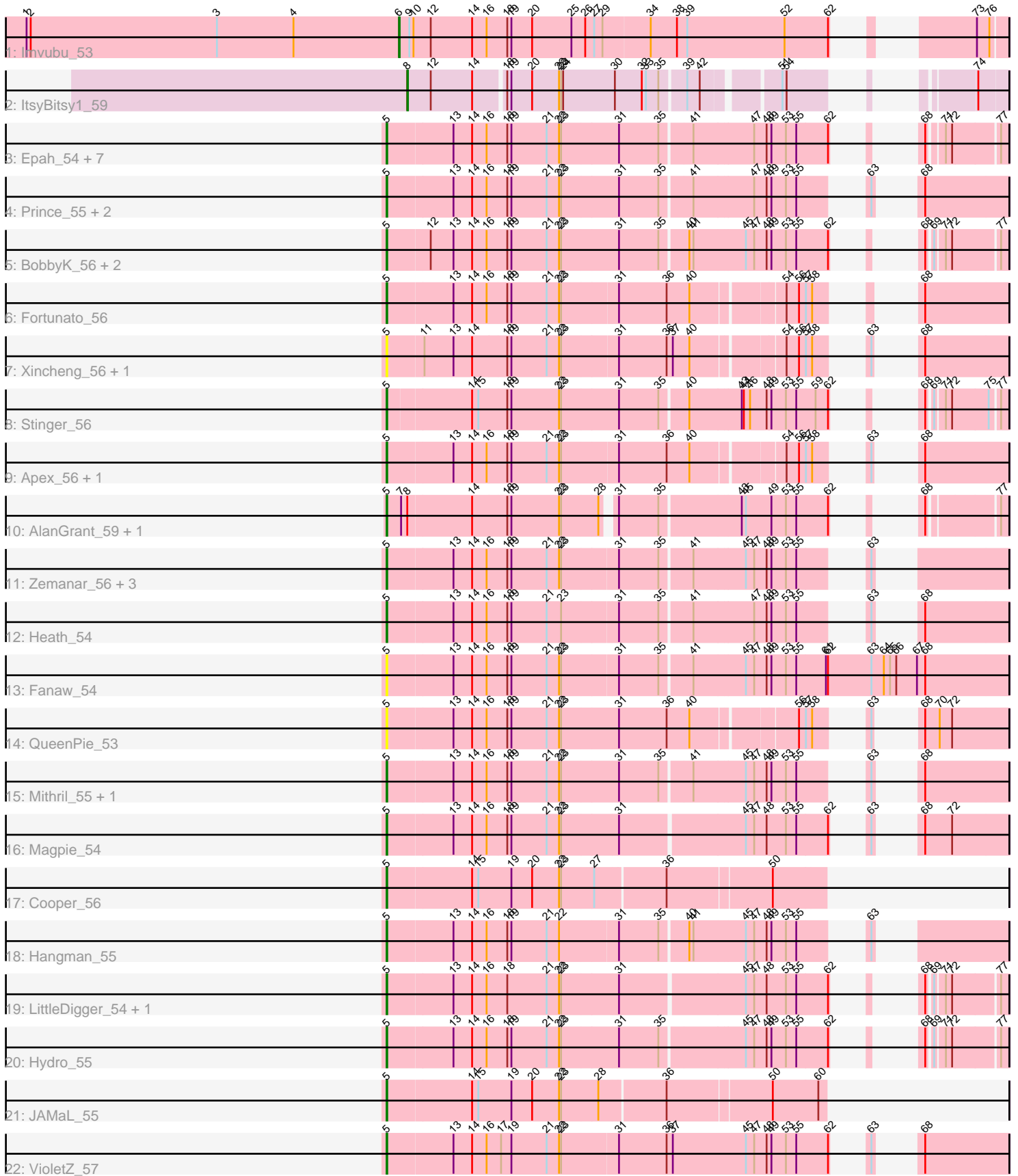


Pham 308865



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 308865 Report

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

Pham number 308865 has 41 members, 12 are drafts.

Phages represented in each track:

- Track 1 : Imvubu_53
- Track 2 : ItsyBitsy1_59
- Track 3 : Epah_54, Poster_54, GinPorsche_55, Hally898_54, Antihero_54, Ahwei_54, Nanao_54, Lambano_54
- Track 4 : Prince_55, ChrisnMich_55, Mudslide_55
- Track 5 : BobbyK_56, Frederick_56, Lolalove_56
- Track 6 : Fortunato_56
- Track 7 : Xincheng_56, JaguarMi_57
- Track 8 : Stinger_56
- Track 9 : Apex_56, Austelle_56
- Track 10 : AlanGrant_59, Vincenzo_58
- Track 11 : Zemanar_56, Waleliano_55, JoyceMaria_55, BrownCNA_57
- Track 12 : Heath_54
- Track 13 : Fanaw_54
- Track 14 : QueenPie_53
- Track 15 : Mithril_55, RawrgerThat_56
- Track 16 : Magpie_54
- Track 17 : Cooper_56
- Track 18 : Hangman_55
- Track 19 : LittleDigger_54, Renkei_54
- Track 20 : Hydro_55
- Track 21 : JAMaL_55
- Track 22 : VioletZ_57

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

The start number called the most often in the published annotations is 5, it was called in 27 of the 29 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Ahwei_54, AlanGrant_59, Antihero_54, Apex_56, Austelle_56, BobbyK_56, BrownCNA_57, ChrisnMich_55, Cooper_56, Epah_54, Fanaw_54, Fortunato_56, Frederick_56, GinPorsche_55, Hally898_54, Hangman_55, Heath_54, Hydro_55, JAMaL_55, JaguarMi_57, JoyceMaria_55, Lambano_54, LittleDigger_54,

Lolalove_56, Magpie_54, Mithril_55, Mudslide_55, Nanao_54, Poster_54, Prince_55, QueenPie_53, RawrgerThat_56, Renkei_54, Stinger_56, Vincenzo_58, VioletZ_57, Waleliano_55, Xincheng_56, Zemanar_56,

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

-

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

- Imvubu_53, ItsyBitsy1_59,

Summary by start number:

Start 5:

- Found in 39 of 41 (95.1%) of genes in pham
- Manual Annotations of this start: 27 of 29
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Ahwei_54 (B4), AlanGrant_59 (B4), Antihero_54 (B4), Apex_56 (B4), Austelle_56 (B4), BobbyK_56 (B4), BrownCNA_57 (B4), ChrisnMich_55 (B4), Cooper_56 (B4), Epah_54 (B4), Fanaw_54 (B4), Fortunato_56 (B4), Frederick_56 (B4), GinPorsche_55 (B4), Hally898_54 (B4), Hangman_55 (B4), Heath_54 (B4), Hydro_55 (B4), JAMaL_55 (B4), JaguarMi_57 (B4), JoyceMaria_55 (B4), Lambano_54 (B4), LittleDigger_54 (B4), Lolalove_56 (B4), Magpie_54 (B4), Mithril_55 (B4), Mudslide_55 (B4), Nanao_54 (B4), Poster_54 (B4), Prince_55 (B4), QueenPie_53 (B4), RawrgerThat_56 (B4), Renkei_54 (B4), Stinger_56 (B4), Vincenzo_58 (B4), VioletZ_57 (B4), Waleliano_55 (B4), Xincheng_56 (B4), Zemanar_56 (B4),

Start 6:

- Found in 1 of 41 (2.4%) of genes in pham
- Manual Annotations of this start: 1 of 29
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Imvubu_53 (B10),

Start 8:

- Found in 3 of 41 (7.3%) of genes in pham
- Manual Annotations of this start: 1 of 29
- Called 33.3% of time when present
- Phage (with cluster) where this start called: ItsyBitsy1_59 (B2),

Summary by clusters:

There are 3 clusters represented in this pham: B4, B2, B10,

Info for manual annotations of cluster B10:

- Start number 6 was manually annotated 1 time for cluster B10.

Info for manual annotations of cluster B2:

- Start number 8 was manually annotated 1 time for cluster B2.

Info for manual annotations of cluster B4:

- Start number 5 was manually annotated 27 times for cluster B4.

Gene Information:

Gene: Ahwei_54 Start: 54288, Stop: 53557, Start Num: 5

Candidate Starts for Ahwei_54:

(Start: 5 @54288 has 27 MA's), (13, 54195), (14, 54168), (16, 54147), (18, 54120), (19, 54114), (21, 54063), (22, 54045), (23, 54042), (31, 53964), (35, 53907), (41, 53865), (47, 53781), (48, 53763), (49, 53757), (53, 53736), (55, 53721), (62, 53676), (68, 53658), (71, 53640), (72, 53631), (77, 53568),

Gene: AlanGrant_59 Start: 56404, Stop: 55694, Start Num: 5

Candidate Starts for AlanGrant_59:

(Start: 5 @56404 has 27 MA's), (7, 56386), (Start: 8 @56380 has 1 MA's), (14, 56290), (18, 56242), (19, 56236), (22, 56167), (23, 56164), (28, 56113), (31, 56101), (35, 56044), (43, 55936), (45, 55930), (49, 55894), (53, 55873), (55, 55858), (62, 55813), (68, 55795), (77, 55705),

Gene: Antihero_54 Start: 54286, Stop: 53555, Start Num: 5

Candidate Starts for Antihero_54:

(Start: 5 @54286 has 27 MA's), (13, 54193), (14, 54166), (16, 54145), (18, 54118), (19, 54112), (21, 54061), (22, 54043), (23, 54040), (31, 53962), (35, 53905), (41, 53863), (47, 53779), (48, 53761), (49, 53755), (53, 53734), (55, 53719), (62, 53674), (68, 53656), (71, 53638), (72, 53629), (77, 53566),

Gene: Apex_56 Start: 55508, Stop: 54768, Start Num: 5

Candidate Starts for Apex_56:

(Start: 5 @55508 has 27 MA's), (13, 55415), (14, 55388), (16, 55367), (18, 55340), (19, 55334), (21, 55283), (22, 55265), (23, 55262), (31, 55187), (36, 55118), (40, 55085), (54, 54965), (56, 54947), (57, 54938), (58, 54929), (63, 54899), (68, 54887),

Gene: Austelle_56 Start: 55961, Stop: 55221, Start Num: 5

Candidate Starts for Austelle_56:

(Start: 5 @55961 has 27 MA's), (13, 55868), (14, 55841), (16, 55820), (18, 55793), (19, 55787), (21, 55736), (22, 55718), (23, 55715), (31, 55640), (36, 55571), (40, 55538), (54, 55418), (56, 55400), (57, 55391), (58, 55382), (63, 55352), (68, 55340),

Gene: BobbyK_56 Start: 55271, Stop: 54540, Start Num: 5

Candidate Starts for BobbyK_56:

(Start: 5 @55271 has 27 MA's), (12, 55211), (13, 55178), (14, 55151), (16, 55130), (18, 55103), (19, 55097), (21, 55046), (22, 55028), (23, 55025), (31, 54947), (35, 54890), (40, 54854), (41, 54848), (45, 54776), (47, 54764), (48, 54746), (49, 54740), (53, 54719), (55, 54704), (62, 54659), (68, 54641), (69, 54635), (71, 54623), (72, 54614), (77, 54551),

Gene: BrownCNA_57 Start: 55628, Stop: 54879, Start Num: 5

Candidate Starts for BrownCNA_57:

(Start: 5 @55628 has 27 MA's), (13, 55535), (14, 55508), (16, 55487), (18, 55460), (19, 55454), (21, 55403), (22, 55385), (23, 55382), (31, 55307), (35, 55250), (41, 55208), (45, 55136), (47, 55124), (48, 55106), (49, 55100), (53, 55079), (55, 55064), (63, 55013),

Gene: ChrisnMich_55 Start: 54300, Stop: 53548, Start Num: 5

Candidate Starts for ChrisnMich_55:

(Start: 5 @54300 has 27 MA's), (13, 54207), (14, 54180), (16, 54159), (18, 54132), (19, 54126), (21, 54075), (22, 54057), (23, 54054), (31, 53976), (35, 53919), (41, 53877), (47, 53793), (48, 53775), (49, 53769), (53, 53748), (55, 53733), (63, 53682), (68, 53667),

Gene: Cooper_56 Start: 54445, Stop: 53840, Start Num: 5

Candidate Starts for Cooper_56:

(Start: 5 @54445 has 27 MA's), (14, 54325), (15, 54316), (19, 54271), (20, 54241), (22, 54202), (23, 54199), (27, 54154), (36, 54058), (50, 53914),

Gene: Epah_54 Start: 54286, Stop: 53555, Start Num: 5

Candidate Starts for Epah_54:

(Start: 5 @54286 has 27 MA's), (13, 54193), (14, 54166), (16, 54145), (18, 54118), (19, 54112), (21, 54061), (22, 54043), (23, 54040), (31, 53962), (35, 53905), (41, 53863), (47, 53779), (48, 53761), (49, 53755), (53, 53734), (55, 53719), (62, 53674), (68, 53656), (71, 53638), (72, 53629), (77, 53566),

Gene: Fanaw_54 Start: 55177, Stop: 54308, Start Num: 5

Candidate Starts for Fanaw_54:

(Start: 5 @55177 has 27 MA's), (13, 55084), (14, 55057), (16, 55036), (18, 55009), (19, 55003), (21, 54952), (22, 54934), (23, 54931), (31, 54856), (35, 54799), (41, 54757), (45, 54685), (47, 54673), (48, 54655), (49, 54649), (53, 54628), (55, 54613), (61, 54571), (62, 54568), (63, 54505), (64, 54487), (65, 54478), (66, 54469), (67, 54439), (68, 54427),

Gene: Fortunato_56 Start: 55317, Stop: 54577, Start Num: 5

Candidate Starts for Fortunato_56:

(Start: 5 @55317 has 27 MA's), (13, 55224), (14, 55197), (16, 55176), (18, 55149), (19, 55143), (21, 55092), (22, 55074), (23, 55071), (31, 54996), (36, 54927), (40, 54894), (54, 54774), (56, 54756), (57, 54747), (58, 54738), (68, 54696),

Gene: Frederick_56 Start: 55214, Stop: 54483, Start Num: 5

Candidate Starts for Frederick_56:

(Start: 5 @55214 has 27 MA's), (12, 55154), (13, 55121), (14, 55094), (16, 55073), (18, 55046), (19, 55040), (21, 54989), (22, 54971), (23, 54968), (31, 54890), (35, 54833), (40, 54797), (41, 54791), (45, 54719), (47, 54707), (48, 54689), (49, 54683), (53, 54662), (55, 54647), (62, 54602), (68, 54584), (69, 54578), (71, 54566), (72, 54557), (77, 54494),

Gene: GinPorsche_55 Start: 54286, Stop: 53555, Start Num: 5

Candidate Starts for GinPorsche_55:

(Start: 5 @54286 has 27 MA's), (13, 54193), (14, 54166), (16, 54145), (18, 54118), (19, 54112), (21, 54061), (22, 54043), (23, 54040), (31, 53962), (35, 53905), (41, 53863), (47, 53779), (48, 53761), (49, 53755), (53, 53734), (55, 53719), (62, 53674), (68, 53656), (71, 53638), (72, 53629), (77, 53566),

Gene: Hally898_54 Start: 54301, Stop: 53570, Start Num: 5

Candidate Starts for Hally898_54:

(Start: 5 @54301 has 27 MA's), (13, 54208), (14, 54181), (16, 54160), (18, 54133), (19, 54127), (21, 54076), (22, 54058), (23, 54055), (31, 53977), (35, 53920), (41, 53878), (47, 53794), (48, 53776), (49, 53770), (53, 53749), (55, 53734), (62, 53689), (68, 53671), (71, 53653), (72, 53644), (77, 53581),

Gene: Hangman_55 Start: 55371, Stop: 54622, Start Num: 5

Candidate Starts for Hangman_55:

(Start: 5 @55371 has 27 MA's), (13, 55278), (14, 55251), (16, 55230), (18, 55203), (19, 55197), (21, 55146), (22, 55128), (31, 55050), (35, 54993), (40, 54957), (41, 54951), (45, 54879), (47, 54867), (48, 54849), (49, 54843), (53, 54822), (55, 54807), (63, 54756),

Gene: Heath_54 Start: 54997, Stop: 54248, Start Num: 5

Candidate Starts for Heath_54:

(Start: 5 @54997 has 27 MA's), (13, 54904), (14, 54877), (16, 54856), (18, 54829), (19, 54823), (21, 54772), (23, 54751), (31, 54676), (35, 54619), (41, 54577), (47, 54493), (48, 54475), (49, 54469), (53, 54448), (55, 54433), (63, 54382), (68, 54367),

Gene: Hydro_55 Start: 55348, Stop: 54617, Start Num: 5

Candidate Starts for Hydro_55:

(Start: 5 @55348 has 27 MA's), (13, 55255), (14, 55228), (16, 55207), (18, 55180), (19, 55174), (21, 55123), (22, 55105), (23, 55102), (31, 55024), (35, 54967), (45, 54853), (47, 54841), (48, 54823), (49, 54817), (53, 54796), (55, 54781), (62, 54736), (68, 54718), (69, 54712), (71, 54700), (72, 54691), (77, 54628),

Gene: Imvubu_53 Start: 52588, Stop: 51845, Start Num: 6

Candidate Starts for Imvubu_53:

(1, 53128), (2, 53122), (3, 52852), (4, 52741), (Start: 6 @52588 has 1 MA's), (9, 52573), (10, 52567), (12, 52543), (14, 52483), (16, 52462), (18, 52432), (19, 52426), (20, 52396), (25, 52339), (26, 52321), (27, 52309), (29, 52297), (34, 52234), (38, 52198), (39, 52183), (52, 52045), (62, 51982), (73, 51886), (76, 51868),

Gene: ItsyBitsy1_59 Start: 53616, Stop: 52942, Start Num: 8

Candidate Starts for ItsyBitsy1_59:

(Start: 8 @53616 has 1 MA's), (12, 53583), (14, 53523), (18, 53481), (19, 53478), (20, 53448), (22, 53409), (23, 53406), (24, 53403), (30, 53328), (32, 53289), (33, 53283), (35, 53265), (39, 53232), (42, 53214), (51, 53121), (54, 53115), (74, 52983),

Gene: JAMaL_55 Start: 55393, Stop: 54788, Start Num: 5

Candidate Starts for JAMaL_55:

(Start: 5 @55393 has 27 MA's), (14, 55273), (15, 55264), (19, 55219), (20, 55189), (22, 55150), (23, 55147), (28, 55096), (36, 55006), (50, 54862), (60, 54799),

Gene: JaguarMi_57 Start: 56412, Stop: 55672, Start Num: 5

Candidate Starts for JaguarMi_57:

(Start: 5 @56412 has 27 MA's), (11, 56361), (13, 56319), (14, 56292), (18, 56244), (19, 56238), (21, 56187), (22, 56169), (23, 56166), (31, 56091), (36, 56022), (37, 56013), (40, 55989), (54, 55869), (56, 55851), (57, 55842), (58, 55833), (63, 55803), (68, 55791),

Gene: JoyceMaria_55 Start: 55251, Stop: 54502, Start Num: 5

Candidate Starts for JoyceMaria_55:

(Start: 5 @55251 has 27 MA's), (13, 55158), (14, 55131), (16, 55110), (18, 55083), (19, 55077), (21, 55026), (22, 55008), (23, 55005), (31, 54930), (35, 54873), (41, 54831), (45, 54759), (47, 54747), (48, 54729), (49, 54723), (53, 54702), (55, 54687), (63, 54636),

Gene: Lambano_54 Start: 54301, Stop: 53570, Start Num: 5

Candidate Starts for Lambano_54:

(Start: 5 @54301 has 27 MA's), (13, 54208), (14, 54181), (16, 54160), (18, 54133), (19, 54127), (21, 54076), (22, 54058), (23, 54055), (31, 53977), (35, 53920), (41, 53878), (47, 53794), (48, 53776), (49, 53770), (53, 53749), (55, 53734), (62, 53689), (68, 53671), (71, 53653), (72, 53644), (77, 53581),

Gene: LittleDigger_54 Start: 54311, Stop: 53577, Start Num: 5

Candidate Starts for LittleDigger_54:

(Start: 5 @54311 has 27 MA's), (13, 54218), (14, 54191), (16, 54170), (18, 54143), (21, 54086), (22, 54068), (23, 54065), (31, 53987), (45, 53813), (47, 53801), (48, 53783), (53, 53756), (55, 53741), (62, 53696), (68, 53678), (69, 53672), (71, 53660), (72, 53651), (77, 53588),

Gene: Lolalove_56 Start: 55331, Stop: 54600, Start Num: 5

Candidate Starts for Lolalove_56:

(Start: 5 @55331 has 27 MA's), (12, 55271), (13, 55238), (14, 55211), (16, 55190), (18, 55163), (19, 55157), (21, 55106), (22, 55088), (23, 55085), (31, 55007), (35, 54950), (40, 54914), (41, 54908), (45,

54836), (47, 54824), (48, 54806), (49, 54800), (53, 54779), (55, 54764), (62, 54719), (68, 54701), (69, 54695), (71, 54683), (72, 54674), (77, 54611),

Gene: Magpie_54 Start: 55250, Stop: 54492, Start Num: 5

Candidate Starts for Magpie_54:

(Start: 5 @55250 has 27 MA's), (13, 55157), (14, 55130), (16, 55109), (18, 55082), (19, 55076), (21, 55025), (22, 55007), (23, 55004), (31, 54926), (45, 54752), (47, 54740), (48, 54722), (53, 54695), (55, 54680), (62, 54635), (63, 54626), (68, 54611), (72, 54572),

Gene: Mithril_55 Start: 55326, Stop: 54574, Start Num: 5

Candidate Starts for Mithril_55:

(Start: 5 @55326 has 27 MA's), (13, 55233), (14, 55206), (16, 55185), (18, 55158), (19, 55152), (21, 55101), (22, 55083), (23, 55080), (31, 55002), (35, 54945), (41, 54903), (45, 54831), (47, 54819), (48, 54801), (49, 54795), (53, 54774), (55, 54759), (63, 54708), (68, 54693),

Gene: Mudslide_55 Start: 55593, Stop: 54841, Start Num: 5

Candidate Starts for Mudslide_55:

(Start: 5 @55593 has 27 MA's), (13, 55500), (14, 55473), (16, 55452), (18, 55425), (19, 55419), (21, 55368), (22, 55350), (23, 55347), (31, 55269), (35, 55212), (41, 55170), (47, 55086), (48, 55068), (49, 55062), (53, 55041), (55, 55026), (63, 54975), (68, 54960),

Gene: Nanao_54 Start: 54291, Stop: 53560, Start Num: 5

Candidate Starts for Nanao_54:

(Start: 5 @54291 has 27 MA's), (13, 54198), (14, 54171), (16, 54150), (18, 54123), (19, 54117), (21, 54066), (22, 54048), (23, 54045), (31, 53967), (35, 53910), (41, 53868), (47, 53784), (48, 53766), (49, 53760), (53, 53739), (55, 53724), (62, 53679), (68, 53661), (71, 53643), (72, 53634), (77, 53571),

Gene: Poster_54 Start: 54292, Stop: 53561, Start Num: 5

Candidate Starts for Poster_54:

(Start: 5 @54292 has 27 MA's), (13, 54199), (14, 54172), (16, 54151), (18, 54124), (19, 54118), (21, 54067), (22, 54049), (23, 54046), (31, 53968), (35, 53911), (41, 53869), (47, 53785), (48, 53767), (49, 53761), (53, 53740), (55, 53725), (62, 53680), (68, 53662), (71, 53644), (72, 53635), (77, 53572),

Gene: Prince_55 Start: 55506, Stop: 54754, Start Num: 5

Candidate Starts for Prince_55:

(Start: 5 @55506 has 27 MA's), (13, 55413), (14, 55386), (16, 55365), (18, 55338), (19, 55332), (21, 55281), (22, 55263), (23, 55260), (31, 55182), (35, 55125), (41, 55083), (47, 54999), (48, 54981), (49, 54975), (53, 54954), (55, 54939), (63, 54888), (68, 54873),

Gene: QueenPie_53 Start: 55010, Stop: 54267, Start Num: 5

Candidate Starts for QueenPie_53:

(Start: 5 @55010 has 27 MA's), (13, 54917), (14, 54890), (16, 54869), (18, 54842), (19, 54836), (21, 54785), (22, 54767), (23, 54764), (31, 54686), (36, 54617), (40, 54584), (56, 54446), (57, 54437), (58, 54428), (63, 54398), (68, 54386), (70, 54365), (72, 54347),

Gene: RawrgerThat_56 Start: 55346, Stop: 54594, Start Num: 5

Candidate Starts for RawrgerThat_56:

(Start: 5 @55346 has 27 MA's), (13, 55253), (14, 55226), (16, 55205), (18, 55178), (19, 55172), (21, 55121), (22, 55103), (23, 55100), (31, 55022), (35, 54965), (41, 54923), (45, 54851), (47, 54839), (48, 54821), (49, 54815), (53, 54794), (55, 54779), (63, 54728), (68, 54713),

Gene: Renkei_54 Start: 54305, Stop: 53571, Start Num: 5

Candidate Starts for Renkei_54:

(Start: 5 @54305 has 27 MA's), (13, 54212), (14, 54185), (16, 54164), (18, 54137), (21, 54080), (22, 54062), (23, 54059), (31, 53981), (45, 53807), (47, 53795), (48, 53777), (53, 53750), (55, 53735), (62, 53690), (68, 53672), (69, 53666), (71, 53654), (72, 53645), (77, 53582),

Gene: Stinger_56 Start: 54216, Stop: 53488, Start Num: 5

Candidate Starts for Stinger_56:

(Start: 5 @54216 has 27 MA's), (14, 54099), (15, 54090), (18, 54051), (19, 54045), (22, 53976), (23, 53973), (31, 53895), (35, 53838), (40, 53802), (43, 53730), (44, 53727), (46, 53718), (48, 53694), (49, 53688), (53, 53667), (55, 53652), (59, 53625), (62, 53607), (68, 53589), (69, 53583), (71, 53571), (72, 53562), (75, 53511), (77, 53499),

Gene: Vincenzo_58 Start: 56434, Stop: 55724, Start Num: 5

Candidate Starts for Vincenzo_58:

(Start: 5 @56434 has 27 MA's), (7, 56416), (Start: 8 @56410 has 1 MA's), (14, 56320), (18, 56272), (19, 56266), (22, 56197), (23, 56194), (28, 56143), (31, 56131), (35, 56074), (43, 55966), (45, 55960), (49, 55924), (53, 55903), (55, 55888), (62, 55843), (68, 55825), (77, 55735),

Gene: VioletZ_57 Start: 55422, Stop: 54658, Start Num: 5

Candidate Starts for VioletZ_57:

(Start: 5 @55422 has 27 MA's), (13, 55329), (14, 55302), (16, 55281), (17, 55263), (19, 55248), (21, 55197), (22, 55179), (23, 55176), (31, 55101), (36, 55032), (37, 55023), (45, 54918), (47, 54906), (48, 54888), (49, 54882), (53, 54861), (55, 54846), (62, 54801), (63, 54792), (68, 54777),

Gene: Waleliano_55 Start: 55360, Stop: 54611, Start Num: 5

Candidate Starts for Waleliano_55:

(Start: 5 @55360 has 27 MA's), (13, 55267), (14, 55240), (16, 55219), (18, 55192), (19, 55186), (21, 55135), (22, 55117), (23, 55114), (31, 55039), (35, 54982), (41, 54940), (45, 54868), (47, 54856), (48, 54838), (49, 54832), (53, 54811), (55, 54796), (63, 54745),

Gene: Xincheng_56 Start: 56385, Stop: 55645, Start Num: 5

Candidate Starts for Xincheng_56:

(Start: 5 @56385 has 27 MA's), (11, 56334), (13, 56292), (14, 56265), (18, 56217), (19, 56211), (21, 56160), (22, 56142), (23, 56139), (31, 56064), (36, 55995), (37, 55986), (40, 55962), (54, 55842), (56, 55824), (57, 55815), (58, 55806), (63, 55776), (68, 55764),

Gene: Zemanar_56 Start: 55192, Stop: 54443, Start Num: 5

Candidate Starts for Zemanar_56:

(Start: 5 @55192 has 27 MA's), (13, 55099), (14, 55072), (16, 55051), (18, 55024), (19, 55018), (21, 54967), (22, 54949), (23, 54946), (31, 54871), (35, 54814), (41, 54772), (45, 54700), (47, 54688), (48, 54670), (49, 54664), (53, 54643), (55, 54628), (63, 54577),