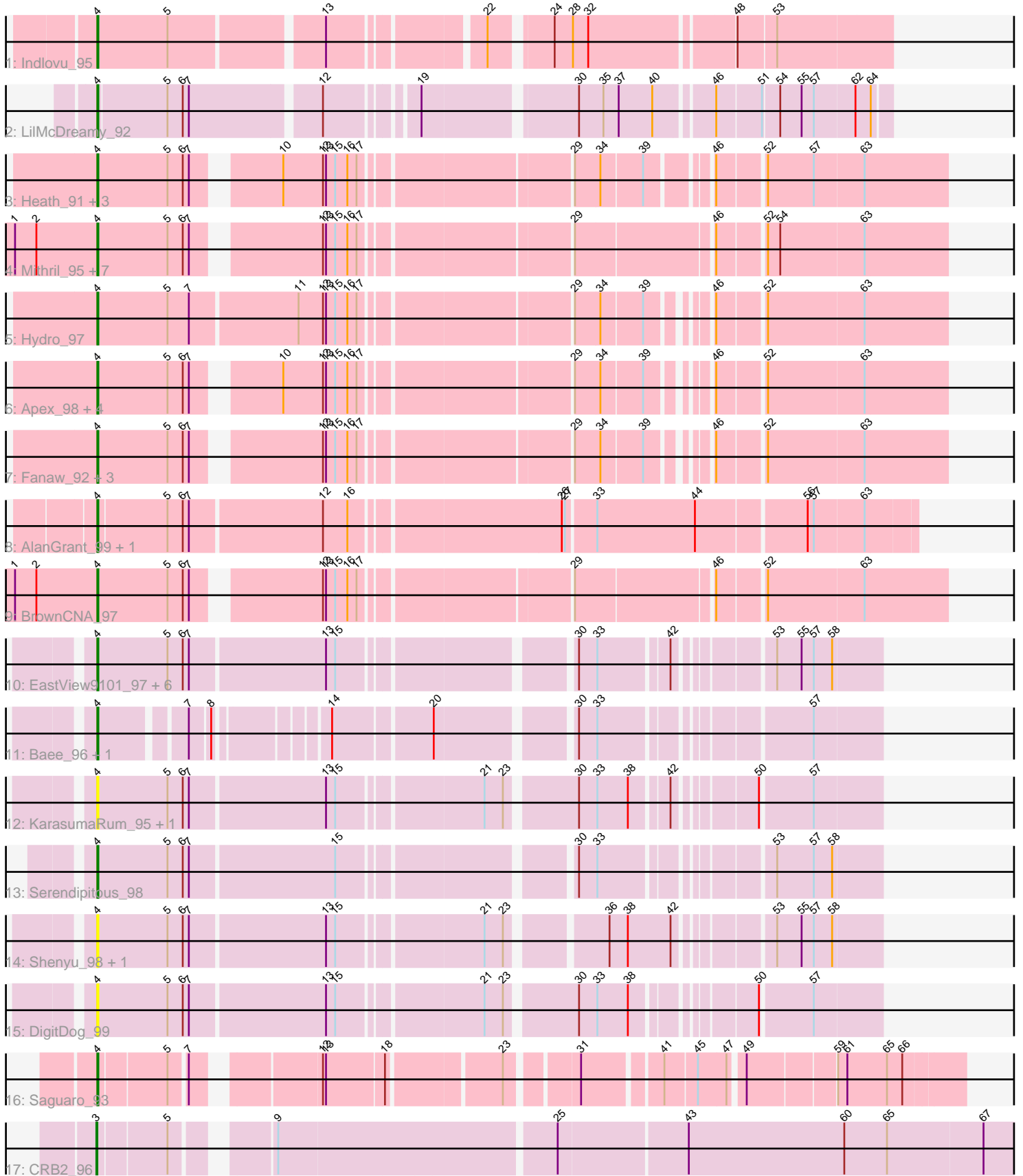


Pham 311752



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 311752 Report

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

Pham number 311752 has 44 members, 11 are drafts.

Phages represented in each track:

- Track 1 : Indlovu\_95
- Track 2 : LilMcDreamy\_92
- Track 3 : Heath\_91, Zemanar\_95, Frederick\_98, BobbyK\_97
- Track 4 : Mithril\_95, Waleliano\_96, Lolalove\_99, JoyceMaria\_96, Prince\_97, Austelle\_97, Mudslide\_98, Hangman\_97
- Track 5 : Hydro\_97
- Track 6 : Apex\_98, Magpie\_93, Xincheng\_88, JAMaL\_98, JaguarMi\_90
- Track 7 : Fanaw\_92, RawrgerThat\_94, Fortunato\_94, VioletZ\_99
- Track 8 : AlanGrant\_99, Vincenzo\_98
- Track 9 : BrownCNA\_97
- Track 10 : EastView9101\_97, Acadian\_97, SirJeffery\_95, Suigeneris\_98, Rita130\_96, Donny\_97, Reccee\_98
- Track 11 : Bae\_96, Rich\_95
- Track 12 : KarasumaRum\_95, StinkyVeggy\_95
- Track 13 : Serendipitous\_98
- Track 14 : Shenyu\_98, Nangang\_98
- Track 15 : DigitDog\_99
- Track 16 : Saguaro\_93
- Track 17 : CRB2\_96

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

The start number called the most often in the published annotations is 4, it was called in 32 of the 33 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Acadian\_97, AlanGrant\_99, Apex\_98, Austelle\_97, Bae\_96, BobbyK\_97, BrownCNA\_97, DigitDog\_99, Donny\_97, EastView9101\_97, Fanaw\_92, Fortunato\_94, Frederick\_98, Hangman\_97, Heath\_91, Hydro\_97, Indlovu\_95, JAMaL\_98, JaguarMi\_90, JoyceMaria\_96, KarasumaRum\_95, LilMcDreamy\_92, Lolalove\_99, Magpie\_93, Mithril\_95, Mudslide\_98, Nangang\_98, Prince\_97, RawrgerThat\_94, Reccee\_98, Rich\_95, Rita130\_96, Saguaro\_93, Serendipitous\_98, Shenyu\_98, SirJeffery\_95, StinkyVeggy\_95, Suigeneris\_98, Vincenzo\_98, VioletZ\_99, Waleliano\_96, Xincheng\_88, Zemanar\_95,

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

- 

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

- CRB2\_96,

### Summary by start number:

Start 3:

- Found in 1 of 44 ( 2.3% ) of genes in pham
- Manual Annotations of this start: 1 of 33
- Called 100.0% of time when present
- Phage (with cluster) where this start called: CRB2\_96 (B9),

Start 4:

- Found in 43 of 44 ( 97.7% ) of genes in pham
- Manual Annotations of this start: 32 of 33
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Acadian\_97 (B5), AlanGrant\_99 (B4), Apex\_98 (B4), Austelle\_97 (B4), Bae\_96 (B5), BobbyK\_97 (B4), BrownCNA\_97 (B4), DigitDog\_99 (B5), Donny\_97 (B5), EastView9101\_97 (B5), Fanaw\_92 (B4), Fortunato\_94 (B4), Frederick\_98 (B4), Hangman\_97 (B4), Heath\_91 (B4), Hydro\_97 (B4), Indlovu\_95 (B11), JAMaL\_98 (B4), JaguarMi\_90 (B4), JoyceMaria\_96 (B4), KarasumaRum\_95 (B5), LilMcDreamy\_92 (B12), Lolalove\_99 (B4), Magpie\_93 (B4), Mithril\_95 (B4), Mudslide\_98 (B4), Nangang\_98 (B5), Prince\_97 (B4), RawrgerThat\_94 (B4), Reccee\_98 (B5), Rich\_95 (B5), Rita130\_96 (B5), Saguaro\_93 (B7), Serendipitous\_98 (B5), Shenyu\_98 (B5), SirJeffery\_95 (B5), StinkyVeggy\_95 (B5), Suigeneris\_98 (B5), Vincenzo\_98 (B4), VioletZ\_99 (B4), Waleliano\_96 (B4), Xincheng\_88 (B4), Zemanar\_95 (B4),

### Summary by clusters:

There are 6 clusters represented in this pham: B4, B5, B7, B12, B11, B9,

Info for manual annotations of cluster B11:

- Start number 4 was manually annotated 1 time for cluster B11.

Info for manual annotations of cluster B12:

- Start number 4 was manually annotated 1 time for cluster B12.

Info for manual annotations of cluster B4:

- Start number 4 was manually annotated 21 times for cluster B4.

Info for manual annotations of cluster B5:

- Start number 4 was manually annotated 8 times for cluster B5.

Info for manual annotations of cluster B7:

- Start number 4 was manually annotated 1 time for cluster B7.

Info for manual annotations of cluster B9:

- Start number 3 was manually annotated 1 time for cluster B9.

**Gene Information:**

Gene: Acadian\_97 Start: 69755, Stop: 69066, Start Num: 4

Candidate Starts for Acadian\_97:

(Start: 4 @69755 has 32 MA's), (5, 69686), (6, 69671), (7, 69665), (13, 69536), (15, 69527), (30, 69326), (33, 69308), (42, 69245), (53, 69167), (55, 69143), (57, 69131), (58, 69113),

Gene: AlanGrant\_99 Start: 72005, Stop: 71247, Start Num: 4

Candidate Starts for AlanGrant\_99:

(Start: 4 @72005 has 32 MA's), (5, 71939), (6, 71924), (7, 71918), (12, 71792), (16, 71768), (26, 71576), (27, 71573), (33, 71546), (44, 71450), (56, 71348), (57, 71342), (63, 71294),

Gene: Apex\_98 Start: 71007, Stop: 70270, Start Num: 4

Candidate Starts for Apex\_98:

(Start: 4 @71007 has 32 MA's), (5, 70938), (6, 70923), (7, 70917), (10, 70848), (12, 70809), (13, 70806), (15, 70797), (16, 70785), (17, 70776), (29, 70590), (34, 70566), (39, 70527), (46, 70485), (52, 70443), (63, 70350),

Gene: Austelle\_97 Start: 71561, Stop: 70803, Start Num: 4

Candidate Starts for Austelle\_97:

(1, 71642), (2, 71621), (Start: 4 @71561 has 32 MA's), (5, 71492), (6, 71477), (7, 71471), (12, 71363), (13, 71360), (15, 71351), (16, 71339), (17, 71330), (29, 71144), (46, 71018), (52, 70976), (54, 70964), (63, 70883),

Gene: Bae\_96 Start: 70161, Stop: 69508, Start Num: 4

Candidate Starts for Bae\_96:

(Start: 4 @70161 has 32 MA's), (7, 70086), (8, 70068), (14, 69978), (20, 69888), (30, 69768), (33, 69750), (57, 69573),

Gene: BobbyK\_97 Start: 70650, Stop: 69904, Start Num: 4

Candidate Starts for BobbyK\_97:

(Start: 4 @70650 has 32 MA's), (5, 70581), (6, 70566), (7, 70560), (10, 70491), (12, 70452), (13, 70449), (15, 70440), (16, 70428), (17, 70419), (29, 70233), (34, 70209), (39, 70170), (46, 70119), (52, 70077), (57, 70032), (63, 69984),

Gene: BrownCNA\_97 Start: 70976, Stop: 70218, Start Num: 4

Candidate Starts for BrownCNA\_97:

(1, 71057), (2, 71036), (Start: 4 @70976 has 32 MA's), (5, 70907), (6, 70892), (7, 70886), (12, 70778), (13, 70775), (15, 70766), (16, 70754), (17, 70745), (29, 70559), (46, 70433), (52, 70391), (63, 70298),

Gene: CRB2\_96 Start: 71991, Stop: 71140, Start Num: 3

Candidate Starts for CRB2\_96:

(Start: 3 @71991 has 1 MA's), (5, 71928), (9, 71853), (25, 71592), (43, 71472), (60, 71319), (65, 71277), (67, 71184),

Gene: DigitDog\_99 Start: 70278, Stop: 69580, Start Num: 4

Candidate Starts for DigitDog\_99:

(Start: 4 @70278 has 32 MA's), (5, 70209), (6, 70194), (7, 70188), (13, 70059), (15, 70050), (21, 69921), (23, 69903), (30, 69840), (33, 69822), (38, 69792), (50, 69693), (57, 69645),

Gene: Donny\_97 Start: 69582, Stop: 68893, Start Num: 4

Candidate Starts for Donny\_97:

(Start: 4 @69582 has 32 MA's), (5, 69513), (6, 69498), (7, 69492), (13, 69363), (15, 69354), (30, 69153), (33, 69135), (42, 69072), (53, 68994), (55, 68970), (57, 68958), (58, 68940),

Gene: EastView9101\_97 Start: 69774, Stop: 69085, Start Num: 4

Candidate Starts for EastView9101\_97:

(Start: 4 @69774 has 32 MA's), (5, 69705), (6, 69690), (7, 69684), (13, 69555), (15, 69546), (30, 69345), (33, 69327), (42, 69264), (53, 69186), (55, 69162), (57, 69150), (58, 69132),

Gene: Fanaw\_92 Start: 70565, Stop: 69828, Start Num: 4

Candidate Starts for Fanaw\_92:

(Start: 4 @70565 has 32 MA's), (5, 70496), (6, 70481), (7, 70475), (12, 70367), (13, 70364), (15, 70355), (16, 70343), (17, 70334), (29, 70148), (34, 70124), (39, 70085), (46, 70043), (52, 70001), (63, 69908),

Gene: Fortunato\_94 Start: 70442, Stop: 69705, Start Num: 4

Candidate Starts for Fortunato\_94:

(Start: 4 @70442 has 32 MA's), (5, 70373), (6, 70358), (7, 70352), (12, 70244), (13, 70241), (15, 70232), (16, 70220), (17, 70211), (29, 70025), (34, 70001), (39, 69962), (46, 69920), (52, 69878), (63, 69785),

Gene: Frederick\_98 Start: 70947, Stop: 70210, Start Num: 4

Candidate Starts for Frederick\_98:

(Start: 4 @70947 has 32 MA's), (5, 70878), (6, 70863), (7, 70857), (10, 70788), (12, 70749), (13, 70746), (15, 70737), (16, 70725), (17, 70716), (29, 70530), (34, 70506), (39, 70467), (46, 70425), (52, 70383), (57, 70338), (63, 70290),

Gene: Hangman\_97 Start: 71138, Stop: 70380, Start Num: 4

Candidate Starts for Hangman\_97:

(1, 71219), (2, 71198), (Start: 4 @71138 has 32 MA's), (5, 71069), (6, 71054), (7, 71048), (12, 70940), (13, 70937), (15, 70928), (16, 70916), (17, 70907), (29, 70721), (46, 70595), (52, 70553), (54, 70541), (63, 70460),

Gene: Heath\_91 Start: 69021, Stop: 68275, Start Num: 4

Candidate Starts for Heath\_91:

(Start: 4 @69021 has 32 MA's), (5, 68952), (6, 68937), (7, 68931), (10, 68862), (12, 68823), (13, 68820), (15, 68811), (16, 68799), (17, 68790), (29, 68604), (34, 68580), (39, 68541), (46, 68490), (52, 68448), (57, 68403), (63, 68355),

Gene: Hydro\_97 Start: 70922, Stop: 70167, Start Num: 4

Candidate Starts for Hydro\_97:

(Start: 4 @70922 has 32 MA's), (5, 70853), (7, 70832), (11, 70730), (12, 70706), (13, 70703), (15, 70694), (16, 70682), (17, 70673), (29, 70487), (34, 70463), (39, 70424), (46, 70382), (52, 70340), (63, 70247),

Gene: Indlovu\_95 Start: 70812, Stop: 70111, Start Num: 4

Candidate Starts for Indlovu\_95:

(Start: 4 @70812 has 32 MA's), (5, 70743), (13, 70605), (22, 70473), (24, 70422), (28, 70404), (32, 70389), (48, 70257), (53, 70221),

Gene: JAMaL\_98 Start: 70604, Stop: 69867, Start Num: 4

Candidate Starts for JAMaL\_98:

(Start: 4 @70604 has 32 MA's), (5, 70535), (6, 70520), (7, 70514), (10, 70445), (12, 70406), (13, 70403), (15, 70394), (16, 70382), (17, 70373), (29, 70187), (34, 70163), (39, 70124), (46, 70082), (52, 70040), (63, 69947),

Gene: JaguarMi\_90 Start: 70729, Stop: 69992, Start Num: 4

Candidate Starts for JaguarMi\_90:

(Start: 4 @70729 has 32 MA's), (5, 70660), (6, 70645), (7, 70639), (10, 70570), (12, 70531), (13, 70528), (15, 70519), (16, 70507), (17, 70498), (29, 70312), (34, 70288), (39, 70249), (46, 70207), (52, 70165), (63, 70072),

Gene: JoyceMaria\_96 Start: 70970, Stop: 70212, Start Num: 4

Candidate Starts for JoyceMaria\_96:

(1, 71051), (2, 71030), (Start: 4 @70970 has 32 MA's), (5, 70901), (6, 70886), (7, 70880), (12, 70772), (13, 70769), (15, 70760), (16, 70748), (17, 70739), (29, 70553), (46, 70427), (52, 70385), (54, 70373), (63, 70292),

Gene: KarasumaRum\_95 Start: 69551, Stop: 68853, Start Num: 4

Candidate Starts for KarasumaRum\_95:

(Start: 4 @69551 has 32 MA's), (5, 69482), (6, 69467), (7, 69461), (13, 69332), (15, 69323), (21, 69194), (23, 69176), (30, 69113), (33, 69095), (38, 69065), (42, 69032), (50, 68966), (57, 68918),

Gene: LilMcDreamy\_92 Start: 69414, Stop: 68710, Start Num: 4

Candidate Starts for LilMcDreamy\_92:

(Start: 4 @69414 has 32 MA's), (5, 69348), (6, 69333), (7, 69327), (12, 69207), (19, 69132), (30, 68994), (35, 68970), (37, 68955), (40, 68922), (46, 68871), (51, 68829), (54, 68814), (55, 68793), (57, 68781), (62, 68742), (64, 68727),

Gene: Lolalove\_99 Start: 70873, Stop: 70115, Start Num: 4

Candidate Starts for Lolalove\_99:

(1, 70954), (2, 70933), (Start: 4 @70873 has 32 MA's), (5, 70804), (6, 70789), (7, 70783), (12, 70675), (13, 70672), (15, 70663), (16, 70651), (17, 70642), (29, 70456), (46, 70330), (52, 70288), (54, 70276), (63, 70195),

Gene: Magpie\_93 Start: 70777, Stop: 70040, Start Num: 4

Candidate Starts for Magpie\_93:

(Start: 4 @70777 has 32 MA's), (5, 70708), (6, 70693), (7, 70687), (10, 70618), (12, 70579), (13, 70576), (15, 70567), (16, 70555), (17, 70546), (29, 70360), (34, 70336), (39, 70297), (46, 70255), (52, 70213), (63, 70120),

Gene: Mithril\_95 Start: 70699, Stop: 69941, Start Num: 4

Candidate Starts for Mithril\_95:

(1, 70780), (2, 70759), (Start: 4 @70699 has 32 MA's), (5, 70630), (6, 70615), (7, 70609), (12, 70501), (13, 70498), (15, 70489), (16, 70477), (17, 70468), (29, 70282), (46, 70156), (52, 70114), (54, 70102), (63, 70021),

Gene: Mudslide\_98 Start: 71104, Stop: 70346, Start Num: 4

Candidate Starts for Mudslide\_98:

(1, 71185), (2, 71164), (Start: 4 @71104 has 32 MA's), (5, 71035), (6, 71020), (7, 71014), (12, 70906), (13, 70903), (15, 70894), (16, 70882), (17, 70873), (29, 70687), (46, 70561), (52, 70519), (54, 70507), (63, 70426),

Gene: Nangang\_98 Start: 70177, Stop: 69479, Start Num: 4

Candidate Starts for Nangang\_98:

(Start: 4 @70177 has 32 MA's), (5, 70108), (6, 70093), (7, 70087), (13, 69958), (15, 69949), (21, 69820), (23, 69802), (36, 69718), (38, 69700), (42, 69658), (53, 69580), (55, 69556), (57, 69544), (58, 69526),

Gene: Prince\_97 Start: 70971, Stop: 70213, Start Num: 4

Candidate Starts for Prince\_97:

(1, 71052), (2, 71031), (Start: 4 @70971 has 32 MA's), (5, 70902), (6, 70887), (7, 70881), (12, 70773), (13, 70770), (15, 70761), (16, 70749), (17, 70740), (29, 70554), (46, 70428), (52, 70386), (54, 70374), (63, 70293),

Gene: RawrgerThat\_94 Start: 70604, Stop: 69867, Start Num: 4

Candidate Starts for RawrgerThat\_94:

(Start: 4 @70604 has 32 MA's), (5, 70535), (6, 70520), (7, 70514), (12, 70406), (13, 70403), (15, 70394), (16, 70382), (17, 70373), (29, 70187), (34, 70163), (39, 70124), (46, 70082), (52, 70040), (63, 69947),

Gene: Reccee\_98 Start: 70025, Stop: 69336, Start Num: 4

Candidate Starts for Reccee\_98:

(Start: 4 @70025 has 32 MA's), (5, 69956), (6, 69941), (7, 69935), (13, 69806), (15, 69797), (30, 69596), (33, 69578), (42, 69515), (53, 69437), (55, 69413), (57, 69401), (58, 69383),

Gene: Rich\_95 Start: 69710, Stop: 69057, Start Num: 4

Candidate Starts for Rich\_95:

(Start: 4 @69710 has 32 MA's), (7, 69635), (8, 69617), (14, 69527), (20, 69437), (30, 69317), (33, 69299), (57, 69122),

Gene: Rita130\_96 Start: 69728, Stop: 69039, Start Num: 4

Candidate Starts for Rita130\_96:

(Start: 4 @69728 has 32 MA's), (5, 69659), (6, 69644), (7, 69638), (13, 69509), (15, 69500), (30, 69299), (33, 69281), (42, 69218), (53, 69140), (55, 69116), (57, 69104), (58, 69086),

Gene: Saguaro\_93 Start: 69289, Stop: 68552, Start Num: 4

Candidate Starts for Saguaro\_93:

(Start: 4 @69289 has 32 MA's), (5, 69226), (7, 69211), (12, 69109), (13, 69106), (18, 69052), (23, 68950), (31, 68890), (41, 68821), (45, 68791), (47, 68764), (49, 68752), (59, 68671), (61, 68662), (65, 68623), (66, 68608),

Gene: Serendipitous\_98 Start: 69758, Stop: 69069, Start Num: 4

Candidate Starts for Serendipitous\_98:

(Start: 4 @69758 has 32 MA's), (5, 69689), (6, 69674), (7, 69668), (15, 69530), (30, 69329), (33, 69311), (53, 69170), (57, 69134), (58, 69116),

Gene: Shenyu\_98 Start: 70172, Stop: 69474, Start Num: 4

Candidate Starts for Shenyu\_98:

(Start: 4 @70172 has 32 MA's), (5, 70103), (6, 70088), (7, 70082), (13, 69953), (15, 69944), (21, 69815), (23, 69797), (36, 69713), (38, 69695), (42, 69653), (53, 69575), (55, 69551), (57, 69539), (58, 69521),

Gene: SirJeffery\_95 Start: 69743, Stop: 69054, Start Num: 4

Candidate Starts for SirJeffery\_95:

(Start: 4 @69743 has 32 MA's), (5, 69674), (6, 69659), (7, 69653), (13, 69524), (15, 69515), (30, 69314), (33, 69296), (42, 69233), (53, 69155), (55, 69131), (57, 69119), (58, 69101),

Gene: StinkyVeggy\_95 Start: 69551, Stop: 68853, Start Num: 4

Candidate Starts for StinkyVeggy\_95:

(Start: 4 @69551 has 32 MA's), (5, 69482), (6, 69467), (7, 69461), (13, 69332), (15, 69323), (21, 69194), (23, 69176), (30, 69113), (33, 69095), (38, 69065), (42, 69032), (50, 68966), (57, 68918),

Gene: Suigeneris\_98 Start: 69970, Stop: 69281, Start Num: 4

Candidate Starts for Suigeneris\_98:

(Start: 4 @69970 has 32 MA's), (5, 69901), (6, 69886), (7, 69880), (13, 69751), (15, 69742), (30, 69541), (33, 69523), (42, 69460), (53, 69382), (55, 69358), (57, 69346), (58, 69328),

Gene: Vincenzo\_98 Start: 72035, Stop: 71277, Start Num: 4

Candidate Starts for Vincenzo\_98:

(Start: 4 @72035 has 32 MA's), (5, 71969), (6, 71954), (7, 71948), (12, 71822), (16, 71798), (26, 71606), (27, 71603), (33, 71576), (44, 71480), (56, 71378), (57, 71372), (63, 71324),

Gene: VioletZ\_99 Start: 71057, Stop: 70320, Start Num: 4

Candidate Starts for VioletZ\_99:

(Start: 4 @71057 has 32 MA's), (5, 70988), (6, 70973), (7, 70967), (12, 70859), (13, 70856), (15, 70847), (16, 70835), (17, 70826), (29, 70640), (34, 70616), (39, 70577), (46, 70535), (52, 70493), (63, 70400),

Gene: Waleliano\_96 Start: 70725, Stop: 69967, Start Num: 4

Candidate Starts for Waleliano\_96:

(1, 70806), (2, 70785), (Start: 4 @70725 has 32 MA's), (5, 70656), (6, 70641), (7, 70635), (12, 70527), (13, 70524), (15, 70515), (16, 70503), (17, 70494), (29, 70308), (46, 70182), (52, 70140), (54, 70128), (63, 70047),

Gene: Xincheng\_88 Start: 70671, Stop: 69934, Start Num: 4

Candidate Starts for Xincheng\_88:

(Start: 4 @70671 has 32 MA's), (5, 70602), (6, 70587), (7, 70581), (10, 70512), (12, 70473), (13, 70470), (15, 70461), (16, 70449), (17, 70440), (29, 70254), (34, 70230), (39, 70191), (46, 70149), (52, 70107), (63, 70014),

Gene: Zemanar\_95 Start: 70855, Stop: 70109, Start Num: 4

Candidate Starts for Zemanar\_95:

(Start: 4 @70855 has 32 MA's), (5, 70786), (6, 70771), (7, 70765), (10, 70696), (12, 70657), (13, 70654), (15, 70645), (16, 70633), (17, 70624), (29, 70438), (34, 70414), (39, 70375), (46, 70324), (52, 70282), (57, 70237), (63, 70189),