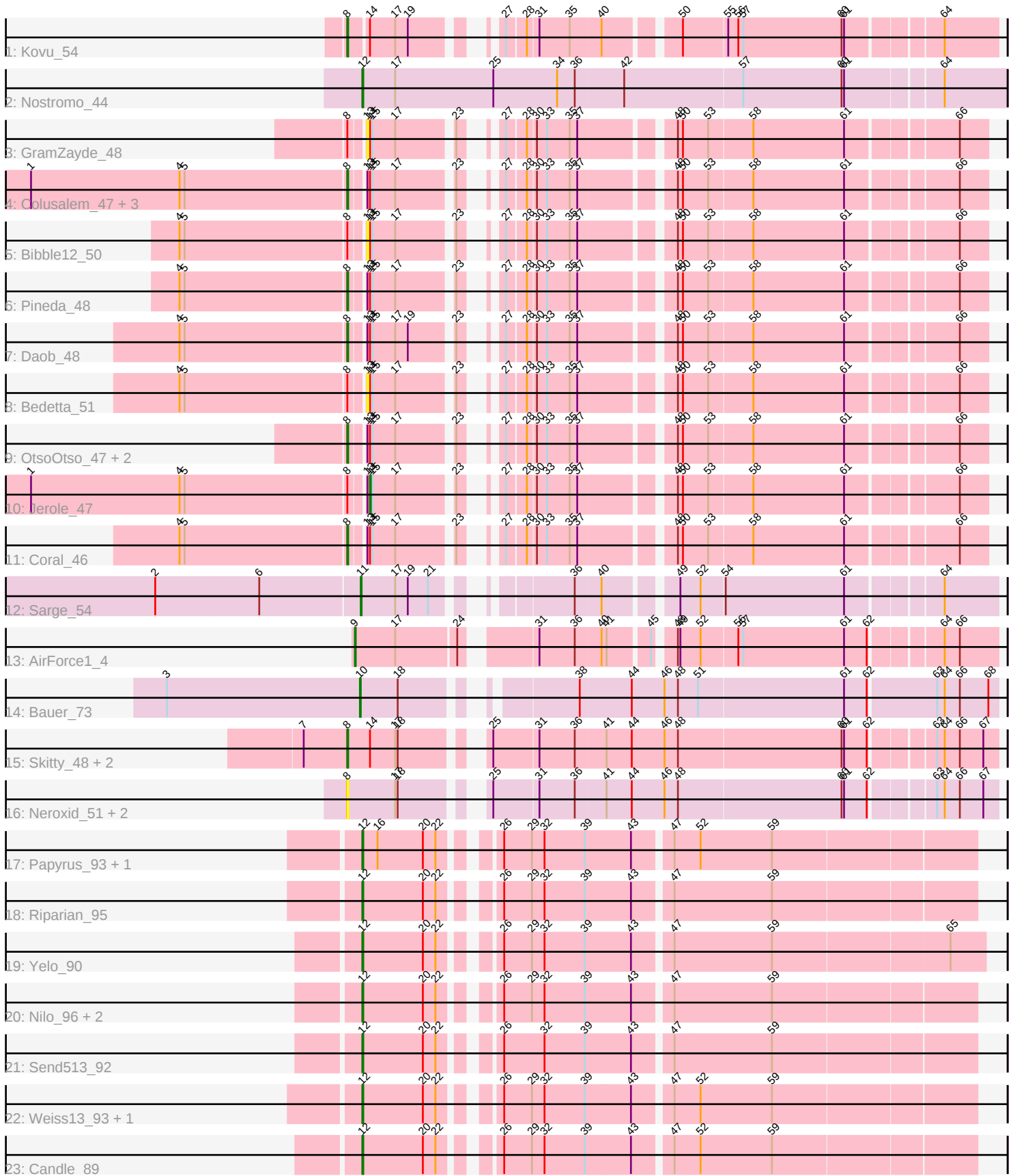


Pham 331048



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 331048 Report

This analysis was run 09/05/26 on database version 662.

Pham number 331048 has 36 members, 9 are drafts.

Phages represented in each track:

- Track 1 : Kovu_54
- Track 2 : Noströmo_44
- Track 3 : GramZayde_48
- Track 4 : Colusalem_47, Amelia_46, HannahPhantana_47, Damocles_50
- Track 5 : Bibble12_50
- Track 6 : Pineda_48
- Track 7 : Daob_48
- Track 8 : Bedetta_51
- Track 9 : OtsoOtso_47, Cote_48, Polka_46
- Track 10 : Jerole_47
- Track 11 : Coral_46
- Track 12 : Sarge_54
- Track 13 : AirForce1_4
- Track 14 : Bauer_73
- Track 15 : Skitty_48, Merpity_55, MrSmee_54
- Track 16 : Neroxid_51, Skyerus_46, Raya_51
- Track 17 : Papyrus_93, MontyDev_95
- Track 18 : Riparian_95
- Track 19 : Yelo_90
- Track 20 : Nilo_96, Gimesa_93, Zenon_95
- Track 21 : Send513_92
- Track 22 : Weiss13_93, Rope_92
- Track 23 : Candle_89

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

The start number called the most often in the published annotations is 8, it was called in 12 of the 27 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Amelia_46, Colusalem_47, Coral_46, Cote_48, Damocles_50, Daob_48, HannahPhantana_47, Kovu_54, Merpity_55, MrSmee_54, Neroxid_51, OtsoOtso_47, Pineda_48, Polka_46, Raya_51, Skitty_48, Skyerus_46,

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

- Bedetta_51, Bibble12_50, GramZayde_48, Jerole_47,

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

- AirForce1_4, Bauer_73, Candle_89, Gimesa_93, MontyDev_95, Nilo_96, Nostromo_44, Papyrus_93, Riparian_95, Rope_92, Sarge_54, Send513_92, Weiss13_93, Yelo_90, Zenon_95,

Summary by start number:

Start 8:

- Found in 21 of 36 (58.3%) of genes in pham
- Manual Annotations of this start: 12 of 27
- Called 81.0% of time when present
- Phage (with cluster) where this start called: Amelia_46 (AS2), Colusalem_47 (AS2), Coral_46 (AS2), Cote_48 (AS2), Damocles_50 (AS2), Daob_48 (AS2), HannahPhantana_47 (AS2), Kovu_54 (AL), Merpity_55 (FQ1), MrSmee_54 (FQ1), Neroxid_51 (FQ2), OtsoOtso_47 (AS2), Pineda_48 (AS2), Polka_46 (AS2), Raya_51 (FQ2), Skitty_48 (FQ1), Skyerus_46 (FQ2),

Start 9:

- Found in 1 of 36 (2.8%) of genes in pham
- Manual Annotations of this start: 1 of 27
- Called 100.0% of time when present
- Phage (with cluster) where this start called: AirForce1_4 (FL),

Start 10:

- Found in 1 of 36 (2.8%) of genes in pham
- Manual Annotations of this start: 1 of 27
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Bauer_73 (FN),

Start 11:

- Found in 1 of 36 (2.8%) of genes in pham
- Manual Annotations of this start: 1 of 27
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Sarge_54 (FB),

Start 12:

- Found in 12 of 36 (33.3%) of genes in pham
- Manual Annotations of this start: 11 of 27
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Candle_89 (R), Gimesa_93 (R), MontyDev_95 (R), Nilo_96 (R), Nostromo_44 (AO3), Papyrus_93 (R), Riparian_95 (R), Rope_92 (R), Send513_92 (R), Weiss13_93 (R), Yelo_90 (R), Zenon_95 (R),

Start 13:

- Found in 14 of 36 (38.9%) of genes in pham
- No Manual Annotations of this start.
- Called 21.4% of time when present
- Phage (with cluster) where this start called: Bedetta_51 (AS2), Bibble12_50 (AS2), GramZayde_48 (AS2),

Start 14:

- Found in 18 of 36 (50.0%) of genes in pham
- Manual Annotations of this start: 1 of 27
- Called 5.6% of time when present
- Phage (with cluster) where this start called: Jerole_47 (AS2),

Summary by clusters:

There are 9 clusters represented in this pham: AS2, AL, FB, R, AO3, FQ2, FQ1, FL, FN,

Info for manual annotations of cluster AL:

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

Info for manual annotations of cluster AO3:

- Start number 12 was manually annotated 1 time for cluster AO3.

Info for manual annotations of cluster AS2:

- Start number 8 was manually annotated 9 times for cluster AS2.
- Start number 14 was manually annotated 1 time for cluster AS2.

Info for manual annotations of cluster FB:

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

Info for manual annotations of cluster FL:

- Start number 9 was manually annotated 1 time for cluster FL.

Info for manual annotations of cluster FN:

- Start number 10 was manually annotated 1 time for cluster FN.

Info for manual annotations of cluster FQ1:

- Start number 8 was manually annotated 2 times for cluster FQ1.

Info for manual annotations of cluster R:

- Start number 12 was manually annotated 10 times for cluster R.

Gene Information:

Gene: AirForce1_4 Start: 2243, Stop: 2926, Start Num: 9

Candidate Starts for AirForce1_4:

(Start: 9 @2243 has 1 MA's), (17, 2291), (24, 2360), (31, 2426), (36, 2468), (40, 2498), (41, 2504), (45, 2549), (48, 2567), (49, 2570), (52, 2594), (56, 2636), (57, 2642), (61, 2762), (62, 2789), (64, 2864), (66, 2882),

Gene: Amelia_46 Start: 29931, Stop: 30581, Start Num: 8

Candidate Starts for Amelia_46:

(1, 29559), (4, 29736), (5, 29742), (Start: 8 @29931 has 12 MA's), (13, 29946), (Start: 14 @29949 has 1 MA's), (15, 29952), (17, 29979), (23, 30039), (27, 30060), (28, 30081), (30, 30090), (33, 30102), (35, 30129), (37, 30138), (48, 30234), (50, 30240), (53, 30270), (58, 30321), (61, 30429), (66, 30549),

Gene: Bauer_73 Start: 40976, Stop: 41665, Start Num: 10

Candidate Starts for Bauer_73:

(3, 40748), (Start: 10 @40976 has 1 MA's), (18, 41021), (38, 41180), (44, 41240), (46, 41279), (48, 41294), (51, 41318), (61, 41489), (62, 41516), (63, 41594), (64, 41603), (66, 41621), (68, 41654),

Gene: Bedetta_51 Start: 30113, Stop: 30748, Start Num: 13

Candidate Starts for Bedetta_51:

(4, 29903), (5, 29909), (Start: 8 @30098 has 12 MA's), (13, 30113), (Start: 14 @30116 has 1 MA's), (15, 30119), (17, 30146), (23, 30206), (27, 30227), (28, 30248), (30, 30257), (33, 30269), (35, 30296), (37, 30305), (48, 30401), (50, 30407), (53, 30437), (58, 30488), (61, 30596), (66, 30716),

Gene: Bibble12_50 Start: 29941, Stop: 30576, Start Num: 13

Candidate Starts for Bibble12_50:

(4, 29731), (5, 29737), (Start: 8 @29926 has 12 MA's), (13, 29941), (Start: 14 @29944 has 1 MA's), (15, 29947), (17, 29974), (23, 30034), (27, 30055), (28, 30076), (30, 30085), (33, 30097), (35, 30124), (37, 30133), (48, 30229), (50, 30235), (53, 30265), (58, 30316), (61, 30424), (66, 30544),

Gene: Candle_89 Start: 69025, Stop: 69693, Start Num: 12

Candidate Starts for Candle_89:

(Start: 12 @69025 has 11 MA's), (20, 69097), (22, 69112), (26, 69160), (29, 69193), (32, 69208), (39, 69256), (43, 69310), (47, 69349), (52, 69379), (59, 69463),

Gene: Colusalem_47 Start: 29908, Stop: 30558, Start Num: 8

Candidate Starts for Colusalem_47:

(1, 29536), (4, 29713), (5, 29719), (Start: 8 @29908 has 12 MA's), (13, 29923), (Start: 14 @29926 has 1 MA's), (15, 29929), (17, 29956), (23, 30016), (27, 30037), (28, 30058), (30, 30067), (33, 30079), (35, 30106), (37, 30115), (48, 30211), (50, 30217), (53, 30247), (58, 30298), (61, 30406), (66, 30526),

Gene: Coral_46 Start: 29799, Stop: 30449, Start Num: 8

Candidate Starts for Coral_46:

(4, 29604), (5, 29610), (Start: 8 @29799 has 12 MA's), (13, 29814), (Start: 14 @29817 has 1 MA's), (15, 29820), (17, 29847), (23, 29907), (27, 29928), (28, 29949), (30, 29958), (33, 29970), (35, 29997), (37, 30006), (48, 30102), (50, 30108), (53, 30138), (58, 30189), (61, 30297), (66, 30417),

Gene: Cote_48 Start: 30276, Stop: 30926, Start Num: 8

Candidate Starts for Cote_48:

(Start: 8 @30276 has 12 MA's), (13, 30291), (Start: 14 @30294 has 1 MA's), (15, 30297), (17, 30324), (23, 30384), (27, 30405), (28, 30426), (30, 30435), (33, 30447), (35, 30474), (37, 30483), (48, 30579), (50, 30585), (53, 30615), (58, 30666), (61, 30774), (66, 30894),

Gene: Damocles_50 Start: 30067, Stop: 30717, Start Num: 8

Candidate Starts for Damocles_50:

(1, 29695), (4, 29872), (5, 29878), (Start: 8 @30067 has 12 MA's), (13, 30082), (Start: 14 @30085 has 1 MA's), (15, 30088), (17, 30115), (23, 30175), (27, 30196), (28, 30217), (30, 30226), (33, 30238), (35, 30265), (37, 30274), (48, 30370), (50, 30376), (53, 30406), (58, 30457), (61, 30565), (66, 30685),

Gene: Daob_48 Start: 30284, Stop: 30934, Start Num: 8

Candidate Starts for Daob_48:

(4, 30089), (5, 30095), (Start: 8 @30284 has 12 MA's), (13, 30299), (Start: 14 @30302 has 1 MA's), (15, 30305), (17, 30332), (19, 30347), (23, 30392), (27, 30413), (28, 30434), (30, 30443), (33, 30455), (35, 30482), (37, 30491), (48, 30587), (50, 30593), (53, 30623), (58, 30674), (61, 30782), (66, 30902),

Gene: Gimesa_93 Start: 69200, Stop: 69868, Start Num: 12

Candidate Starts for Gimesa_93:

(Start: 12 @69200 has 11 MA's), (20, 69272), (22, 69287), (26, 69335), (29, 69368), (32, 69383), (39, 69431), (43, 69485), (47, 69524), (59, 69638),

Gene: GramZayde_48 Start: 30127, Stop: 30762, Start Num: 13

Candidate Starts for GramZayde_48:

(Start: 8 @30112 has 12 MA's), (13, 30127), (Start: 14 @30130 has 1 MA's), (15, 30133), (17, 30160), (23, 30220), (27, 30241), (28, 30262), (30, 30271), (33, 30283), (35, 30310), (37, 30319), (48, 30415), (50, 30421), (53, 30451), (58, 30502), (61, 30610), (66, 30730),

Gene: HannahPhantana_47 Start: 29926, Stop: 30576, Start Num: 8

Candidate Starts for HannahPhantana_47:

(1, 29554), (4, 29731), (5, 29737), (Start: 8 @29926 has 12 MA's), (13, 29941), (Start: 14 @29944 has 1 MA's), (15, 29947), (17, 29974), (23, 30034), (27, 30055), (28, 30076), (30, 30085), (33, 30097), (35, 30124), (37, 30133), (48, 30229), (50, 30235), (53, 30265), (58, 30316), (61, 30424), (66, 30544),

Gene: Jerole_47 Start: 30068, Stop: 30700, Start Num: 14

Candidate Starts for Jerole_47:

(1, 29678), (4, 29855), (5, 29861), (Start: 8 @30050 has 12 MA's), (13, 30065), (Start: 14 @30068 has 1 MA's), (15, 30071), (17, 30098), (23, 30158), (27, 30179), (28, 30200), (30, 30209), (33, 30221), (35, 30248), (37, 30257), (48, 30353), (50, 30359), (53, 30389), (58, 30440), (61, 30548), (66, 30668),

Gene: Kovu_54 Start: 31604, Stop: 32269, Start Num: 8

Candidate Starts for Kovu_54:

(Start: 8 @31604 has 12 MA's), (Start: 14 @31625 has 1 MA's), (17, 31655), (19, 31670), (27, 31736), (28, 31757), (31, 31769), (35, 31805), (40, 31841), (50, 31916), (55, 31967), (56, 31979), (57, 31985), (60, 32102), (61, 32105), (64, 32207),

Gene: Merpity_55 Start: 31657, Stop: 32364, Start Num: 8

Candidate Starts for Merpity_55:

(7, 31609), (Start: 8 @31657 has 12 MA's), (Start: 14 @31684 has 1 MA's), (17, 31714), (18, 31717), (25, 31792), (31, 31843), (36, 31885), (41, 31921), (44, 31951), (46, 31990), (48, 32005), (60, 32197), (61, 32200), (62, 32227), (63, 32293), (64, 32302), (66, 32320), (67, 32347),

Gene: MontyDev_95 Start: 68890, Stop: 69558, Start Num: 12

Candidate Starts for MontyDev_95:

(Start: 12 @68890 has 11 MA's), (16, 68908), (20, 68962), (22, 68977), (26, 69025), (29, 69058), (32, 69073), (39, 69121), (43, 69175), (47, 69214), (52, 69244), (59, 69328),

Gene: MrSmee_54 Start: 31631, Stop: 32338, Start Num: 8

Candidate Starts for MrSmee_54:

(7, 31583), (Start: 8 @31631 has 12 MA's), (Start: 14 @31658 has 1 MA's), (17, 31688), (18, 31691), (25, 31766), (31, 31817), (36, 31859), (41, 31895), (44, 31925), (46, 31964), (48, 31979), (60, 32171), (61, 32174), (62, 32201), (63, 32267), (64, 32276), (66, 32294), (67, 32321),

Gene: Neroxid_51 Start: 30393, Stop: 31100, Start Num: 8

Candidate Starts for Neroxid_51:

(Start: 8 @30393 has 12 MA's), (17, 30450), (18, 30453), (25, 30528), (31, 30579), (36, 30621), (41, 30657), (44, 30687), (46, 30726), (48, 30741), (60, 30933), (61, 30936), (62, 30963), (63, 31029), (64, 31038), (66, 31056), (67, 31083),

Gene: Nilo_96 Start: 69390, Stop: 70058, Start Num: 12

Candidate Starts for Nilo_96:

(Start: 12 @69390 has 11 MA's), (20, 69462), (22, 69477), (26, 69525), (29, 69558), (32, 69573), (39, 69621), (43, 69675), (47, 69714), (59, 69828),

Gene: Nostromo_44 Start: 33725, Stop: 34474, Start Num: 12

Candidate Starts for Nostromo_44:

(Start: 12 @33725 has 11 MA's), (17, 33764), (25, 33881), (34, 33956), (36, 33977), (42, 34034), (57, 34172), (60, 34289), (61, 34292), (64, 34400),

Gene: OtsoOtso_47 Start: 29780, Stop: 30430, Start Num: 8

Candidate Starts for OtsoOtso_47:

(Start: 8 @29780 has 12 MA's), (13, 29795), (Start: 14 @29798 has 1 MA's), (15, 29801), (17, 29828), (23, 29888), (27, 29909), (28, 29930), (30, 29939), (33, 29951), (35, 29978), (37, 29987), (48, 30083), (50, 30089), (53, 30119), (58, 30170), (61, 30278), (66, 30398),

Gene: Papyrus_93 Start: 68323, Stop: 68991, Start Num: 12

Candidate Starts for Papyrus_93:

(Start: 12 @68323 has 11 MA's), (16, 68341), (20, 68395), (22, 68410), (26, 68458), (29, 68491), (32, 68506), (39, 68554), (43, 68608), (47, 68647), (52, 68677), (59, 68761),

Gene: Pineda_48 Start: 30096, Stop: 30746, Start Num: 8

Candidate Starts for Pineda_48:

(4, 29901), (5, 29907), (Start: 8 @30096 has 12 MA's), (13, 30111), (Start: 14 @30114 has 1 MA's), (15, 30117), (17, 30144), (23, 30204), (27, 30225), (28, 30246), (30, 30255), (33, 30267), (35, 30294), (37, 30303), (48, 30399), (50, 30405), (53, 30435), (58, 30486), (61, 30594), (66, 30714),

Gene: Polka_46 Start: 29780, Stop: 30430, Start Num: 8

Candidate Starts for Polka_46:

(Start: 8 @29780 has 12 MA's), (13, 29795), (Start: 14 @29798 has 1 MA's), (15, 29801), (17, 29828), (23, 29888), (27, 29909), (28, 29930), (30, 29939), (33, 29951), (35, 29978), (37, 29987), (48, 30083), (50, 30089), (53, 30119), (58, 30170), (61, 30278), (66, 30398),

Gene: Raya_51 Start: 30393, Stop: 31100, Start Num: 8

Candidate Starts for Raya_51:

(Start: 8 @30393 has 12 MA's), (17, 30450), (18, 30453), (25, 30528), (31, 30579), (36, 30621), (41, 30657), (44, 30687), (46, 30726), (48, 30741), (60, 30933), (61, 30936), (62, 30963), (63, 31029), (64, 31038), (66, 31056), (67, 31083),

Gene: Riparian_95 Start: 68835, Stop: 69503, Start Num: 12

Candidate Starts for Riparian_95:

(Start: 12 @68835 has 11 MA's), (20, 68907), (22, 68922), (26, 68970), (29, 69003), (32, 69018), (39, 69066), (43, 69120), (47, 69159), (59, 69273),

Gene: Rope_92 Start: 68642, Stop: 69310, Start Num: 12

Candidate Starts for Rope_92:

(Start: 12 @68642 has 11 MA's), (20, 68714), (22, 68729), (26, 68777), (29, 68810), (32, 68825), (39, 68873), (43, 68927), (47, 68966), (52, 68996), (59, 69080),

Gene: Sarge_54 Start: 30991, Stop: 31644, Start Num: 11

Candidate Starts for Sarge_54:

(2, 30751), (6, 30874), (Start: 11 @30991 has 1 MA's), (17, 31030), (19, 31045), (21, 31069), (36, 31186), (40, 31216), (49, 31288), (52, 31312), (54, 31339), (61, 31480), (64, 31582),

Gene: Send513_92 Start: 69180, Stop: 69848, Start Num: 12

Candidate Starts for Send513_92:

(Start: 12 @69180 has 11 MA's), (20, 69252), (22, 69267), (26, 69315), (32, 69363), (39, 69411), (43, 69465), (47, 69504), (59, 69618),

Gene: Skitty_48 Start: 29473, Stop: 30180, Start Num: 8

Candidate Starts for Skitty_48:

(7, 29425), (Start: 8 @29473 has 12 MA's), (Start: 14 @29500 has 1 MA's), (17, 29530), (18, 29533), (25, 29608), (31, 29659), (36, 29701), (41, 29737), (44, 29767), (46, 29806), (48, 29821), (60, 30013), (61, 30016), (62, 30043), (63, 30109), (64, 30118), (66, 30136), (67, 30163),

Gene: Skyerus_46 Start: 28511, Stop: 29218, Start Num: 8

Candidate Starts for Skyerus_46:

(Start: 8 @28511 has 12 MA's), (17, 28568), (18, 28571), (25, 28646), (31, 28697), (36, 28739), (41, 28775), (44, 28805), (46, 28844), (48, 28859), (60, 29051), (61, 29054), (62, 29081), (63, 29147), (64, 29156), (66, 29174), (67, 29201),

Gene: Weiss13_93 Start: 69072, Stop: 69740, Start Num: 12

Candidate Starts for Weiss13_93:

(Start: 12 @69072 has 11 MA's), (20, 69144), (22, 69159), (26, 69207), (29, 69240), (32, 69255), (39, 69303), (43, 69357), (47, 69396), (52, 69426), (59, 69510),

Gene: Yelo_90 Start: 69071, Stop: 69751, Start Num: 12

Candidate Starts for Yelo_90:

(Start: 12 @69071 has 11 MA's), (20, 69143), (22, 69158), (26, 69206), (29, 69239), (32, 69254), (39, 69302), (43, 69356), (47, 69395), (59, 69509), (65, 69710),

Gene: Zenon_95 Start: 69366, Stop: 70034, Start Num: 12

Candidate Starts for Zenon_95:

(Start: 12 @69366 has 11 MA's), (20, 69438), (22, 69453), (26, 69501), (29, 69534), (32, 69549), (39, 69597), (43, 69651), (47, 69690), (59, 69804),