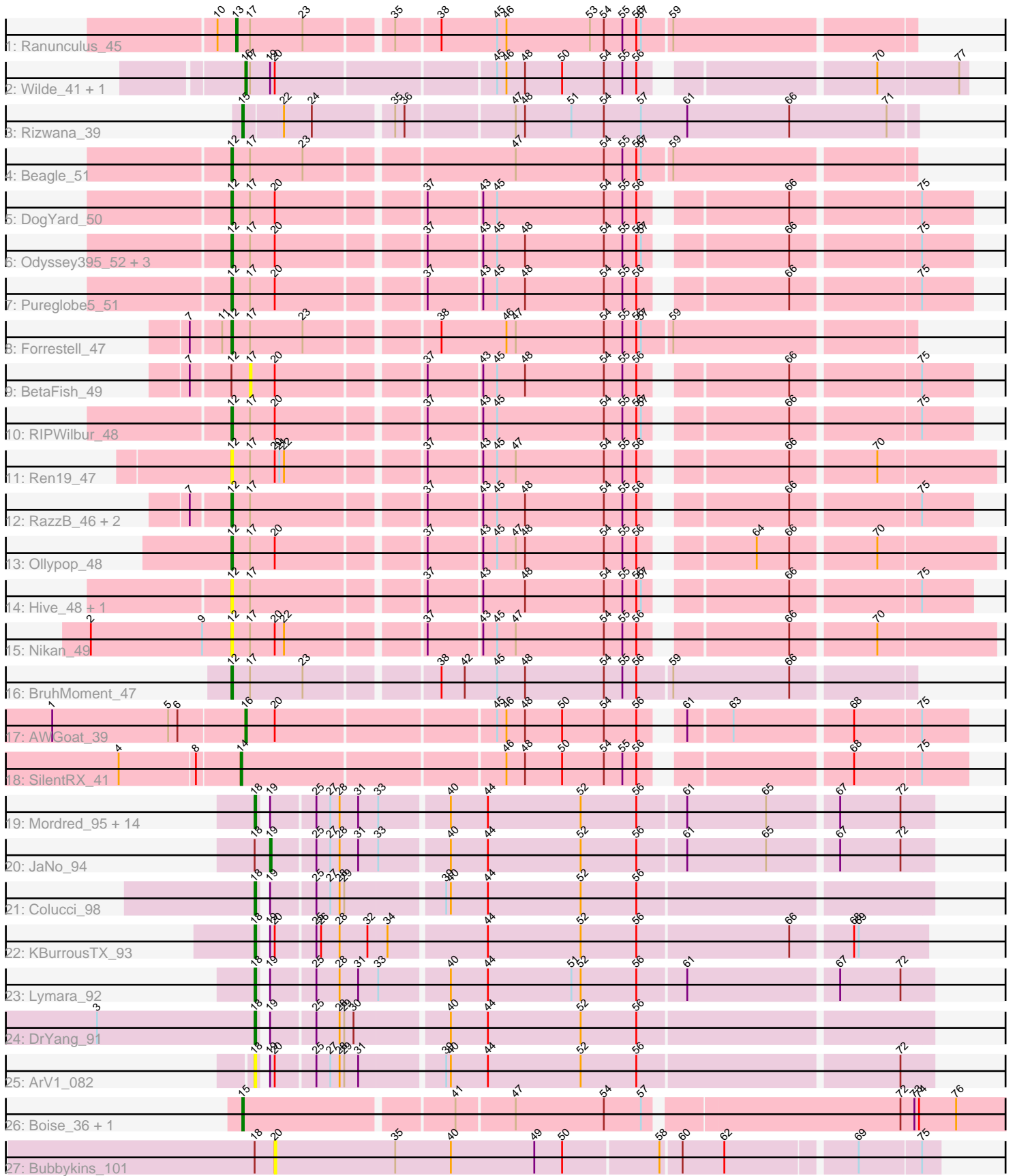


Pham 311702



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 311702 Report

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

Pham number 311702 has 49 members, 10 are drafts.

Phages represented in each track:

- Track 1 : Ranunculus_45
- Track 2 : Wilde_41, Tank_41
- Track 3 : Rizwana_39
- Track 4 : Beagle_51
- Track 5 : DogYard_50
- Track 6 : Odyssey395_52, PhuzzTulsa_48, Pointis_49, Kubulix_51
- Track 7 : Pureglobe5_51
- Track 8 : Forrestell_47
- Track 9 : BetaFish_49
- Track 10 : RIPWilbur_48
- Track 11 : Ren19_47
- Track 12 : RazzB_46, NyleyClemson_45, MellowYellow_47
- Track 13 : Ollypop_48
- Track 14 : Hive_48, Popstraw_47
- Track 15 : Nikan_49
- Track 16 : BruhMoment_47
- Track 17 : AWGoat_39
- Track 18 : SilentRX_41
- Track 19 : Mordred_95, HumptyDumpty_95, PrincessTrina_96, JayCookie_95, Chubster_95, EdgarPoe_94, RosiePosie_95, Conboy_93, Linus_95, Tophat_96, Chocolat_95, Kabreeze_95, Chipper1996_960, MoyaNatalis_94, Scavito_96
- Track 20 : JaNo_94
- Track 21 : Colucci_98
- Track 22 : KBurrousTX_93
- Track 23 : Lymara_92
- Track 24 : DrYang_91
- Track 25 : ArV1_082
- Track 26 : Boise_36, RomansRevenge_37
- Track 27 : Bubbykins_101

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

The start number called the most often in the published annotations is 18, it was called in 18 of the 39 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- ArV1_082, Chipper1996_960, Chocolat_95, Chubster_95, Colucci_98, Conboy_93, DrYang_91, EdgarPoe_94, HumptyDumpty_95, JayCookie_95, KBurrousTX_93, Kabreeze_95, Linus_95, Lymara_92, Mordred_95, MoyaNatalis_94, PrincessTrina_96, RosiePosie_95, Scavito_96, Tophat_96,

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

- Bubbykins_101, JaNo_94,

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

- AWGoat_39, Beagle_51, BetaFish_49, Boise_36, BruhMoment_47, DogYard_50, Forrestell_47, Hive_48, Kubulix_51, MellowYellow_47, Nikan_49, NyleyClemson_45, Odyssey395_52, Ollypop_48, PhuzzTulsa_48, Pointis_49, Popstraw_47, Pureglobe5_51, RIPWilbur_48, Ranunculus_45, RazzB_46, Ren19_47, Rizwana_39, RomansRevenge_37, SilentRX_41, Tank_41, Wilde_41,

Summary by start number:

Start 12:

- Found in 19 of 49 (38.8%) of genes in pham
- Manual Annotations of this start: 13 of 39
- Called 94.7% of time when present
- Phage (with cluster) where this start called: Beagle_51 (AP2), BruhMoment_47 (AP3), DogYard_50 (AP2), Forrestell_47 (AP2), Hive_48 (AP2), Kubulix_51 (AP2), MellowYellow_47 (AP2), Nikan_49 (AP2), NyleyClemson_45 (AP2), Odyssey395_52 (AP2), Ollypop_48 (AP2), PhuzzTulsa_48 (AP2), Pointis_49 (AP2), Popstraw_47 (AP2), Pureglobe5_51 (AP2), RIPWilbur_48 (AP2), RazzB_46 (AP2), Ren19_47 (AP2),

Start 13:

- Found in 1 of 49 (2.0%) of genes in pham
- Manual Annotations of this start: 1 of 39
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Ranunculus_45 (AP),

Start 14:

- Found in 1 of 49 (2.0%) of genes in pham
- Manual Annotations of this start: 1 of 39
- Called 100.0% of time when present
- Phage (with cluster) where this start called: SilentRX_41 (AP4),

Start 15:

- Found in 3 of 49 (6.1%) of genes in pham
- Manual Annotations of this start: 2 of 39
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Boise_36 (FT), Rizwana_39 (AP1), RomansRevenge_37 (FT),

Start 16:

- Found in 3 of 49 (6.1%) of genes in pham
- Manual Annotations of this start: 3 of 39
- Called 100.0% of time when present

- Phage (with cluster) where this start called: AWGoat_39 (AP4), Tank_41 (AP1), Wilde_41 (AP1),

Start 17:

- Found in 22 of 49 (44.9%) of genes in pham
- No Manual Annotations of this start.
- Called 4.5% of time when present
- Phage (with cluster) where this start called: BetaFish_49 (AP2),

Start 18:

- Found in 22 of 49 (44.9%) of genes in pham
- Manual Annotations of this start: 18 of 39
- Called 90.9% of time when present
- Phage (with cluster) where this start called: ArV1_082 (AR), Chipper1996_960 (AR), Chocolat_95 (AR), Chubster_95 (AR), Colucci_98 (AR), Conboy_93 (AR), DrYang_91 (AR), EdgarPoe_94 (AR), HumptyDumpty_95 (AR), JayCookie_95 (AR), KBurrousTX_93 (AR), Kabreeze_95 (AR), Linus_95 (AR), Lymara_92 (AR), Mordred_95 (AR), MoyaNatalis_94 (AR), PrincessTrina_96 (AR), RosiePosie_95 (AR), Scavito_96 (AR), Tophat_96 (AR),

Start 19:

- Found in 23 of 49 (46.9%) of genes in pham
- Manual Annotations of this start: 1 of 39
- Called 4.3% of time when present
- Phage (with cluster) where this start called: JaNo_94 (AR),

Start 20:

- Found in 17 of 49 (34.7%) of genes in pham
- No Manual Annotations of this start.
- Called 5.9% of time when present
- Phage (with cluster) where this start called: Bubbykins_101 (UNK),

Summary by clusters:

There are 8 clusters represented in this pham: FT, AP2, AP3, AP1, AP4, AP, AR, UNK,

Info for manual annotations of cluster AP:

- Start number 13 was manually annotated 1 time for cluster AP.

Info for manual annotations of cluster AP1:

- Start number 15 was manually annotated 1 time for cluster AP1.
- Start number 16 was manually annotated 2 times for cluster AP1.

Info for manual annotations of cluster AP2:

- Start number 12 was manually annotated 12 times for cluster AP2.

Info for manual annotations of cluster AP3:

- Start number 12 was manually annotated 1 time for cluster AP3.

Info for manual annotations of cluster AP4:

- Start number 14 was manually annotated 1 time for cluster AP4.
- Start number 16 was manually annotated 1 time for cluster AP4.

Info for manual annotations of cluster AR:

- Start number 18 was manually annotated 18 times for cluster AR.
- Start number 19 was manually annotated 1 time for cluster AR.

Info for manual annotations of cluster FT:

- Start number 15 was manually annotated 1 time for cluster FT.

Gene Information:

Gene: AWGoat_39 Start: 35301, Stop: 34870, Start Num: 16

Candidate Starts for AWGoat_39:

(1, 35424), (5, 35349), (6, 35343), (Start: 16 @35301 has 3 MA's), (20, 35283), (45, 35148), (46, 35142), (48, 35130), (50, 35106), (54, 35079), (56, 35058), (61, 35040), (63, 35013), (68, 34941), (75, 34899),

Gene: ArV1_082 Start: 60520, Stop: 60933, Start Num: 18

Candidate Starts for ArV1_082:

(Start: 18 @60520 has 18 MA's), (Start: 19 @60523 has 1 MA's), (20, 60526), (25, 60550), (27, 60559), (28, 60565), (29, 60568), (31, 60577), (39, 60628), (40, 60631), (44, 60655), (52, 60715), (56, 60751), (72, 60913),

Gene: Beagle_51 Start: 38228, Stop: 37809, Start Num: 12

Candidate Starts for Beagle_51:

(Start: 12 @38228 has 13 MA's), (17, 38216), (23, 38183), (47, 38057), (54, 38000), (55, 37988), (56, 37979), (57, 37976), (59, 37958),

Gene: BetaFish_49 Start: 38433, Stop: 38008, Start Num: 17

Candidate Starts for BetaFish_49:

(7, 38469), (Start: 12 @38445 has 13 MA's), (17, 38433), (20, 38418), (37, 38331), (43, 38298), (45, 38289), (48, 38271), (54, 38220), (55, 38208), (56, 38199), (66, 38118), (75, 38040),

Gene: Boise_36 Start: 34253, Stop: 33783, Start Num: 15

Candidate Starts for Boise_36:

(Start: 15 @34253 has 2 MA's), (41, 34124), (47, 34088), (54, 34031), (57, 34007), (72, 33851), (73, 33842), (74, 33839), (76, 33815),

Gene: BruhMoment_47 Start: 39339, Stop: 38920, Start Num: 12

Candidate Starts for BruhMoment_47:

(Start: 12 @39339 has 13 MA's), (17, 39327), (23, 39294), (38, 39216), (42, 39201), (45, 39180), (48, 39162), (54, 39111), (55, 39099), (56, 39090), (59, 39069), (66, 38994),

Gene: Bubbykins_101 Start: 60932, Stop: 61345, Start Num: 20

Candidate Starts for Bubbykins_101:

(Start: 18 @60920 has 18 MA's), (20, 60932), (35, 61010), (40, 61046), (49, 61100), (50, 61118), (58, 61178), (60, 61190), (62, 61217), (69, 61295), (75, 61334),

Gene: Chipper1996_960 Start: 62228, Stop: 62641, Start Num: 18

Candidate Starts for Chipper1996_960:

(Start: 18 @62228 has 18 MA's), (Start: 19 @62231 has 1 MA's), (25, 62258), (27, 62267), (28, 62273), (31, 62285), (33, 62297), (40, 62339), (44, 62363), (52, 62423), (56, 62459), (61, 62489), (65, 62540), (67, 62582), (72, 62621),

Gene: Chocolat_95 Start: 61935, Stop: 62348, Start Num: 18

Candidate Starts for Chocolat_95:

(Start: 18 @61935 has 18 MA's), (Start: 19 @61938 has 1 MA's), (25, 61965), (27, 61974), (28, 61980), (31, 61992), (33, 62004), (40, 62046), (44, 62070), (52, 62130), (56, 62166), (61, 62196), (65, 62247), (67, 62289), (72, 62328),

Gene: Chubster_95 Start: 62175, Stop: 62588, Start Num: 18

Candidate Starts for Chubster_95:

(Start: 18 @62175 has 18 MA's), (Start: 19 @62178 has 1 MA's), (25, 62205), (27, 62214), (28, 62220), (31, 62232), (33, 62244), (40, 62286), (44, 62310), (52, 62370), (56, 62406), (61, 62436), (65, 62487), (67, 62529), (72, 62568),

Gene: Colucci_98 Start: 62563, Stop: 62976, Start Num: 18

Candidate Starts for Colucci_98:

(Start: 18 @62563 has 18 MA's), (Start: 19 @62566 has 1 MA's), (25, 62593), (27, 62602), (28, 62608), (29, 62611), (39, 62671), (40, 62674), (44, 62698), (52, 62758), (56, 62794),

Gene: Conboy_93 Start: 61684, Stop: 62097, Start Num: 18

Candidate Starts for Conboy_93:

(Start: 18 @61684 has 18 MA's), (Start: 19 @61687 has 1 MA's), (25, 61714), (27, 61723), (28, 61729), (31, 61741), (33, 61753), (40, 61795), (44, 61819), (52, 61879), (56, 61915), (61, 61945), (65, 61996), (67, 62038), (72, 62077),

Gene: DogYard_50 Start: 38145, Stop: 37708, Start Num: 12

Candidate Starts for DogYard_50:

(Start: 12 @38145 has 13 MA's), (17, 38133), (20, 38118), (37, 38031), (43, 37998), (45, 37989), (54, 37920), (55, 37908), (56, 37899), (66, 37818), (75, 37740),

Gene: DrYang_91 Start: 61721, Stop: 62134, Start Num: 18

Candidate Starts for DrYang_91:

(3, 61619), (Start: 18 @61721 has 18 MA's), (Start: 19 @61724 has 1 MA's), (25, 61751), (28, 61766), (29, 61769), (30, 61775), (40, 61832), (44, 61856), (52, 61916), (56, 61952),

Gene: EdgarPoe_94 Start: 62092, Stop: 62505, Start Num: 18

Candidate Starts for EdgarPoe_94:

(Start: 18 @62092 has 18 MA's), (Start: 19 @62095 has 1 MA's), (25, 62122), (27, 62131), (28, 62137), (31, 62149), (33, 62161), (40, 62203), (44, 62227), (52, 62287), (56, 62323), (61, 62353), (65, 62404), (67, 62446), (72, 62485),

Gene: Forrestell_47 Start: 36597, Stop: 36178, Start Num: 12

Candidate Starts for Forrestell_47:

(7, 36621), (11, 36603), (Start: 12 @36597 has 13 MA's), (17, 36585), (23, 36552), (38, 36474), (46, 36432), (47, 36426), (54, 36369), (55, 36357), (56, 36348), (57, 36345), (59, 36327),

Gene: Hive_48 Start: 38326, Stop: 37889, Start Num: 12

Candidate Starts for Hive_48:

(Start: 12 @38326 has 13 MA's), (17, 38314), (37, 38212), (43, 38179), (48, 38152), (54, 38101), (55, 38089), (56, 38080), (57, 38077), (66, 37999), (75, 37921),

Gene: HumptyDumpty_95 Start: 61895, Stop: 62308, Start Num: 18

Candidate Starts for HumptyDumpty_95:

(Start: 18 @61895 has 18 MA's), (Start: 19 @61898 has 1 MA's), (25, 61925), (27, 61934), (28, 61940), (31, 61952), (33, 61964), (40, 62006), (44, 62030), (52, 62090), (56, 62126), (61, 62156), (65, 62207), (67, 62249), (72, 62288),

Gene: JaNo_94 Start: 61869, Stop: 62279, Start Num: 19

Candidate Starts for JaNo_94:

(Start: 18 @61866 has 18 MA's), (Start: 19 @61869 has 1 MA's), (25, 61896), (27, 61905), (28, 61911), (31, 61923), (33, 61935), (40, 61977), (44, 62001), (52, 62061), (56, 62097), (61, 62127), (65, 62178), (67, 62220), (72, 62259),

Gene: JayCookie_95 Start: 62428, Stop: 62841, Start Num: 18

Candidate Starts for JayCookie_95:

(Start: 18 @62428 has 18 MA's), (Start: 19 @62431 has 1 MA's), (25, 62458), (27, 62467), (28, 62473), (31, 62485), (33, 62497), (40, 62539), (44, 62563), (52, 62623), (56, 62659), (61, 62689), (65, 62740), (67, 62782), (72, 62821),

Gene: KBurrousTX_93 Start: 63304, Stop: 63714, Start Num: 18

Candidate Starts for KBurrousTX_93:

(Start: 18 @63304 has 18 MA's), (Start: 19 @63307 has 1 MA's), (20, 63310), (25, 63334), (26, 63337), (28, 63349), (32, 63367), (34, 63379), (44, 63439), (52, 63499), (56, 63535), (66, 63631), (68, 63667), (69, 63670),

Gene: Kabreeze_95 Start: 61952, Stop: 62365, Start Num: 18

Candidate Starts for Kabreeze_95:

(Start: 18 @61952 has 18 MA's), (Start: 19 @61955 has 1 MA's), (25, 61982), (27, 61991), (28, 61997), (31, 62009), (33, 62021), (40, 62063), (44, 62087), (52, 62147), (56, 62183), (61, 62213), (65, 62264), (67, 62306), (72, 62345),

Gene: Kubulix_51 Start: 38093, Stop: 37656, Start Num: 12

Candidate Starts for Kubulix_51:

(Start: 12 @38093 has 13 MA's), (17, 38081), (20, 38066), (37, 37979), (43, 37946), (45, 37937), (48, 37919), (54, 37868), (55, 37856), (56, 37847), (57, 37844), (66, 37766), (75, 37688),

Gene: Linus_95 Start: 62400, Stop: 62813, Start Num: 18

Candidate Starts for Linus_95:

(Start: 18 @62400 has 18 MA's), (Start: 19 @62403 has 1 MA's), (25, 62430), (27, 62439), (28, 62445), (31, 62457), (33, 62469), (40, 62511), (44, 62535), (52, 62595), (56, 62631), (61, 62661), (65, 62712), (67, 62754), (72, 62793),

Gene: Lymara_92 Start: 60859, Stop: 61272, Start Num: 18

Candidate Starts for Lymara_92:

(Start: 18 @60859 has 18 MA's), (Start: 19 @60862 has 1 MA's), (25, 60889), (28, 60904), (31, 60916), (33, 60928), (40, 60970), (44, 60994), (51, 61048), (52, 61054), (56, 61090), (61, 61120), (67, 61213), (72, 61252),

Gene: MellowYellow_47 Start: 36986, Stop: 36549, Start Num: 12

Candidate Starts for MellowYellow_47:

(7, 37010), (Start: 12 @36986 has 13 MA's), (17, 36974), (37, 36872), (43, 36839), (45, 36830), (48, 36812), (54, 36761), (55, 36749), (56, 36740), (66, 36659), (75, 36581),

Gene: Mordred_95 Start: 61991, Stop: 62404, Start Num: 18

Candidate Starts for Mordred_95:

(Start: 18 @61991 has 18 MA's), (Start: 19 @61994 has 1 MA's), (25, 62021), (27, 62030), (28, 62036), (31, 62048), (33, 62060), (40, 62102), (44, 62126), (52, 62186), (56, 62222), (61, 62252), (65, 62303), (67, 62345), (72, 62384),

Gene: MoyaNatalis_94 Start: 61874, Stop: 62287, Start Num: 18

Candidate Starts for MoyaNatalis_94:

(Start: 18 @61874 has 18 MA's), (Start: 19 @61877 has 1 MA's), (25, 61904), (27, 61913), (28, 61919), (31, 61931), (33, 61943), (40, 61985), (44, 62009), (52, 62069), (56, 62105), (61, 62135), (65, 62186), (67, 62228), (72, 62267),

Gene: Nikan_49 Start: 37352, Stop: 36900, Start Num: 12

Candidate Starts for Nikan_49:

(2, 37442), (9, 37370), (Start: 12 @37352 has 13 MA's), (17, 37340), (20, 37325), (22, 37319), (37, 37238), (43, 37205), (45, 37196), (47, 37184), (54, 37127), (55, 37115), (56, 37106), (66, 37025), (70, 36974),

Gene: NyleyClemson_45 Start: 36601, Stop: 36164, Start Num: 12

Candidate Starts for NyleyClemson_45:

(7, 36625), (Start: 12 @36601 has 13 MA's), (17, 36589), (37, 36487), (43, 36454), (45, 36445), (48, 36427), (54, 36376), (55, 36364), (56, 36355), (66, 36274), (75, 36196),

Gene: Odyssey395_52 Start: 38270, Stop: 37833, Start Num: 12

Candidate Starts for Odyssey395_52:

(Start: 12 @38270 has 13 MA's), (17, 38258), (20, 38243), (37, 38156), (43, 38123), (45, 38114), (48, 38096), (54, 38045), (55, 38033), (56, 38024), (57, 38021), (66, 37943), (75, 37865),

Gene: Ollypop_48 Start: 38043, Stop: 37591, Start Num: 12

Candidate Starts for Ollypop_48:

(Start: 12 @38043 has 13 MA's), (17, 38031), (20, 38016), (37, 37929), (43, 37896), (45, 37887), (47, 37875), (48, 37869), (54, 37818), (55, 37806), (56, 37797), (64, 37737), (66, 37716), (70, 37665),

Gene: PhuzzTulsa_48 Start: 38230, Stop: 37793, Start Num: 12

Candidate Starts for PhuzzTulsa_48:

(Start: 12 @38230 has 13 MA's), (17, 38218), (20, 38203), (37, 38116), (43, 38083), (45, 38074), (48, 38056), (54, 38005), (55, 37993), (56, 37984), (57, 37981), (66, 37903), (75, 37825),

Gene: Pointis_49 Start: 38268, Stop: 37831, Start Num: 12

Candidate Starts for Pointis_49:

(Start: 12 @38268 has 13 MA's), (17, 38256), (20, 38241), (37, 38154), (43, 38121), (45, 38112), (48, 38094), (54, 38043), (55, 38031), (56, 38022), (57, 38019), (66, 37941), (75, 37863),

Gene: Popstraw_47 Start: 38054, Stop: 37617, Start Num: 12

Candidate Starts for Popstraw_47:

(Start: 12 @38054 has 13 MA's), (17, 38042), (37, 37940), (43, 37907), (48, 37880), (54, 37829), (55, 37817), (56, 37808), (57, 37805), (66, 37727), (75, 37649),

Gene: PrincessTrina_96 Start: 62182, Stop: 62595, Start Num: 18

Candidate Starts for PrincessTrina_96:

(Start: 18 @62182 has 18 MA's), (Start: 19 @62185 has 1 MA's), (25, 62212), (27, 62221), (28, 62227), (31, 62239), (33, 62251), (40, 62293), (44, 62317), (52, 62377), (56, 62413), (61, 62443), (65, 62494), (67, 62536), (72, 62575),

Gene: Pureglobe5_51 Start: 38451, Stop: 38014, Start Num: 12

Candidate Starts for Pureglobe5_51:

(Start: 12 @38451 has 13 MA's), (17, 38439), (20, 38424), (37, 38337), (43, 38304), (45, 38295), (48, 38277), (54, 38226), (55, 38214), (56, 38205), (66, 38124), (75, 38046),

Gene: RIPWilbur_48 Start: 37584, Stop: 37147, Start Num: 12

Candidate Starts for RIPWilbur_48:

(Start: 12 @37584 has 13 MA's), (17, 37572), (20, 37557), (37, 37470), (43, 37437), (45, 37428), (54, 37359), (55, 37347), (56, 37338), (57, 37335), (66, 37257), (75, 37179),

Gene: Ranunculus_45 Start: 40272, Stop: 39856, Start Num: 13

Candidate Starts for Ranunculus_45:

(10, 40284), (Start: 13 @40272 has 1 MA's), (17, 40263), (23, 40230), (35, 40179), (38, 40152), (45, 40116), (46, 40110), (53, 40056), (54, 40047), (55, 40035), (56, 40026), (57, 40023), (59, 40005),

Gene: RazzB_46 Start: 36732, Stop: 36295, Start Num: 12

Candidate Starts for RazzB_46:

(7, 36756), (Start: 12 @36732 has 13 MA's), (17, 36720), (37, 36618), (43, 36585), (45, 36576), (48, 36558), (54, 36507), (55, 36495), (56, 36486), (66, 36405), (75, 36327),

Gene: Ren19_47 Start: 37352, Stop: 36900, Start Num: 12

Candidate Starts for Ren19_47:

(Start: 12 @37352 has 13 MA's), (17, 37340), (20, 37325), (21, 37322), (22, 37319), (37, 37238), (43, 37205), (45, 37196), (47, 37184), (54, 37127), (55, 37115), (56, 37106), (66, 37025), (70, 36974),

Gene: Rizwana_39 Start: 36865, Stop: 36446, Start Num: 15

Candidate Starts for Rizwana_39:

(Start: 15 @36865 has 2 MA's), (22, 36841), (24, 36823), (35, 36775), (36, 36769), (47, 36703), (48, 36697), (51, 36667), (54, 36646), (57, 36622), (61, 36592), (66, 36526), (71, 36463),

Gene: RomansRevenge_37 Start: 34253, Stop: 33783, Start Num: 15

Candidate Starts for RomansRevenge_37:

(Start: 15 @34253 has 2 MA's), (41, 34124), (47, 34088), (54, 34031), (57, 34007), (72, 33851), (73, 33842), (74, 33839), (76, 33815),

Gene: RosiePosie_95 Start: 62047, Stop: 62460, Start Num: 18

Candidate Starts for RosiePosie_95:

(Start: 18 @62047 has 18 MA's), (Start: 19 @62050 has 1 MA's), (25, 62077), (27, 62086), (28, 62092), (31, 62104), (33, 62116), (40, 62158), (44, 62182), (52, 62242), (56, 62278), (61, 62308), (65, 62359), (67, 62401), (72, 62440),

Gene: Scavito_96 Start: 62040, Stop: 62453, Start Num: 18

Candidate Starts for Scavito_96:

(Start: 18 @62040 has 18 MA's), (Start: 19 @62043 has 1 MA's), (25, 62070), (27, 62079), (28, 62085), (31, 62097), (33, 62109), (40, 62151), (44, 62175), (52, 62235), (56, 62271), (61, 62301), (65, 62352), (67, 62394), (72, 62433),

Gene: SilentRX_41 Start: 36325, Stop: 35891, Start Num: 14

Candidate Starts for SilentRX_41:

(4, 36400), (8, 36352), (Start: 14 @36325 has 1 MA's), (46, 36163), (48, 36151), (50, 36127), (54, 36100), (55, 36088), (56, 36079), (68, 35962), (75, 35920),

Gene: Tank_41 Start: 36839, Stop: 36408, Start Num: 16

Candidate Starts for Tank_41:

(Start: 16 @36839 has 3 MA's), (17, 36836), (Start: 19 @36824 has 1 MA's), (20, 36821), (45, 36686), (46, 36680), (48, 36668), (50, 36644), (54, 36617), (55, 36605), (56, 36596), (70, 36464), (77, 36413),

Gene: Tophat_96 Start: 62229, Stop: 62642, Start Num: 18

Candidate Starts for Tophat_96:

(Start: 18 @62229 has 18 MA's), (Start: 19 @62232 has 1 MA's), (25, 62259), (27, 62268), (28, 62274), (31, 62286), (33, 62298), (40, 62340), (44, 62364), (52, 62424), (56, 62460), (61, 62490), (65, 62541), (67, 62583), (72, 62622),

Gene: Wilde_41 Start: 36681, Stop: 36250, Start Num: 16

Candidate Starts for Wilde_41:

(Start: 16 @36681 has 3 MA's), (17, 36678), (Start: 19 @36666 has 1 MA's), (20, 36663), (45, 36528), (46, 36522), (48, 36510), (50, 36486), (54, 36459), (55, 36447), (56, 36438), (70, 36306), (77, 36255),