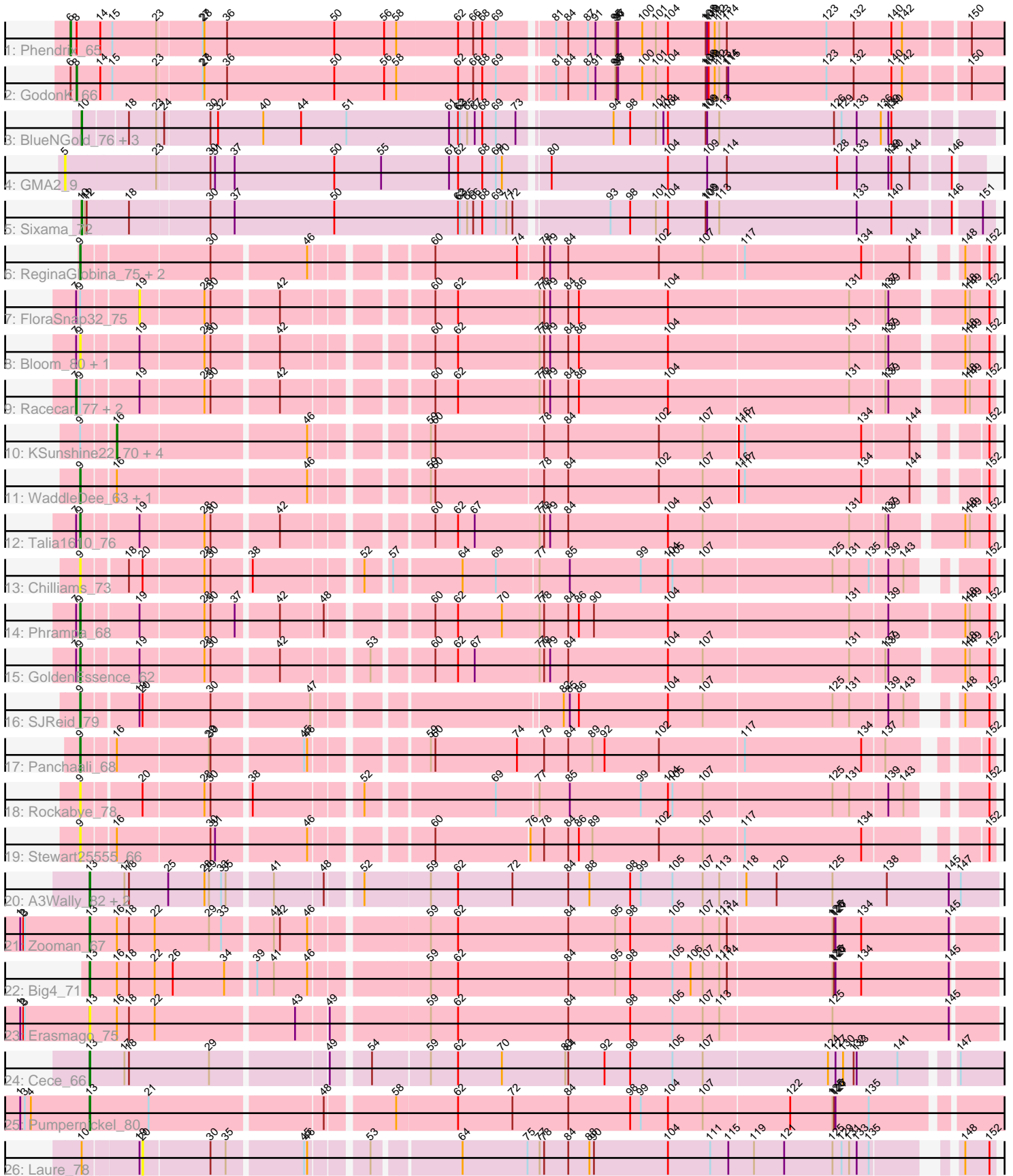


Pham 305133



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 305133 Report

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

Pham number 305133 has 41 members, 15 are drafts.

Phages represented in each track:

- Track 1 : Phendrix_65
- Track 2 : GodonK_66
- Track 3 : BlueNGold_76, Boopy_77, Forza_77, Mareelih_76
- Track 4 : GMA2_9
- Track 5 : Sixama_72
- Track 6 : ReginaGlobina_75, Atuin_70, LeoJr_75
- Track 7 : FloraSnap32_75
- Track 8 : Bloom_80, FrostedClock_79
- Track 9 : Racecar_77, Mimi_76, Patbob_74
- Track 10 : KSunshine22_70, Artu_68, BooTeria_72, Emmetator_68, Ellewin_64
- Track 11 : WaddleDee_63, DunneganBoMo_65
- Track 12 : Talia1610_76
- Track 13 : Chilliams_73
- Track 14 : Phrampa_68
- Track 15 : GoldenEssence_62
- Track 16 : SJReid_79
- Track 17 : Panchaali_68
- Track 18 : Rockabye_78
- Track 19 : Stewart25555_66
- Track 20 : A3Wally_82, Dodo_84, PauloDiaboli_82
- Track 21 : Zooman_67
- Track 22 : Big4_71
- Track 23 : Erasmago_75
- Track 24 : Cece_66
- Track 25 : Pumpernickel_80
- Track 26 : Laure_78

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

The start number called the most often in the published annotations is 9, it was called in 8 of the 26 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Atuin_70, Bloom_80, Chilliamps_73, DunneganBoMo_65, FrostedClock_79, GoldenEssence_62, LeoJr_75, Panchaali_68, Phrampa_68, ReginaGlobina_75, Rockabye_78, SJReid_79, Stewart25555_66, Talia1610_76, WaddleDee_63,

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

- Artu_68, BooTeria_72, Ellewin_64, Emmetator_68, FloraSnap32_75, KSunshine22_70, Mimi_76, Patbob_74, Racecar_77,

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

- A3Wally_82, Big4_71, BlueNGold_76, Boopy_77, Cece_66, Dodo_84, Erasmago_75, Forza_77, GMA2_9, GodonK_66, Laure_78, Mareelih_76, PauloDiaboli_82, Phendrix_65, Pumpernickel_80, Sixama_72, Zooman_67,

Summary by start number:

Start 5:

- Found in 1 of 41 (2.4%) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: GMA2_9 (DS),

Start 6:

- Found in 2 of 41 (4.9%) of genes in pham
- Manual Annotations of this start: 1 of 26
- Called 50.0% of time when present
- Phage (with cluster) where this start called: Phendrix_65 (DK),

Start 7:

- Found in 9 of 41 (22.0%) of genes in pham
- Manual Annotations of this start: 3 of 26
- Called 33.3% of time when present
- Phage (with cluster) where this start called: Mimi_76 (FC), Patbob_74 (FC), Racecar_77 (FC),

Start 8:

- Found in 2 of 41 (4.9%) of genes in pham
- Manual Annotations of this start: 1 of 26
- Called 50.0% of time when present
- Phage (with cluster) where this start called: GodonK_66 (DK),

Start 9:

- Found in 24 of 41 (58.5%) of genes in pham
- Manual Annotations of this start: 8 of 26
- Called 62.5% of time when present
- Phage (with cluster) where this start called: Atuin_70 (FC), Bloom_80 (FC), Chilliamps_73 (FC), DunneganBoMo_65 (FC), FrostedClock_79 (FC), GoldenEssence_62 (FC), LeoJr_75 (FC), Panchaali_68 (FC), Phrampa_68 (FC), ReginaGlobina_75 (FC), Rockabye_78 (FC), SJReid_79 (FC), Stewart25555_66 (FC), Talia1610_76 (FC), WaddleDee_63 (FC),

Start 10:

- Found in 6 of 41 (14.6%) of genes in pham
- Manual Annotations of this start: 5 of 26

- Called 83.3% of time when present
- Phage (with cluster) where this start called: BlueNGold_76 (DS), Boopy_77 (DS), Forza_77 (DS), Mareelih_76 (DS), Sixama_72 (DS),

Start 13:

- Found in 8 of 41 (19.5%) of genes in pham
- Manual Annotations of this start: 7 of 26
- Called 100.0% of time when present
- Phage (with cluster) where this start called: A3Wally_82 (GD1), Big4_71 (GD2), Cece_66 (GD3), Dodo_84 (GD1), Erasmago_75 (GD2), PauloDiaboli_82 (GD1), Pumpernickel_80 (GD4), Zooman_67 (GD2),

Start 16:

- Found in 12 of 41 (29.3%) of genes in pham
- Manual Annotations of this start: 1 of 26
- Called 41.7% of time when present
- Phage (with cluster) where this start called: Artu_68 (FC), BooTeria_72 (FC), Ellewin_64 (FC), Emmetator_68 (FC), KSunshine22_70 (FC),

Start 19:

- Found in 11 of 41 (26.8%) of genes in pham
- No Manual Annotations of this start.
- Called 9.1% of time when present
- Phage (with cluster) where this start called: FloraSnap32_75 (FC),

Start 20:

- Found in 4 of 41 (9.8%) of genes in pham
- No Manual Annotations of this start.
- Called 25.0% of time when present
- Phage (with cluster) where this start called: Laure_78 (UNK),

Summary by clusters:

There are 8 clusters represented in this pham: GD1, GD2, GD3, GD4, DK, FC, UNK, DS,

Info for manual annotations of cluster DK:

- Start number 6 was manually annotated 1 time for cluster DK.
- Start number 8 was manually annotated 1 time for cluster DK.

Info for manual annotations of cluster DS:

- Start number 10 was manually annotated 5 times for cluster DS.

Info for manual annotations of cluster FC:

- Start number 7 was manually annotated 3 times for cluster FC.
- Start number 9 was manually annotated 8 times for cluster FC.
- Start number 16 was manually annotated 1 time for cluster FC.

Info for manual annotations of cluster GD1:

- Start number 13 was manually annotated 3 times for cluster GD1.

Info for manual annotations of cluster GD2:

- Start number 13 was manually annotated 2 times for cluster GD2.

Info for manual annotations of cluster GD3:

- Start number 13 was manually annotated 1 time for cluster GD3.

Info for manual annotations of cluster GD4:

- Start number 13 was manually annotated 1 time for cluster GD4.

Gene Information:

Gene: A3Wally_82 Start: 29832, Stop: 31568, Start Num: 13

Candidate Starts for A3Wally_82:

(Start: 13 @29832 has 7 MA's), (17, 29895), (18, 29904), (25, 29982), (28, 30054), (29, 30063), (33, 30087), (35, 30096), (41, 30177), (48, 30270), (52, 30327), (59, 30450), (62, 30504), (72, 30612), (84, 30723), (88, 30765), (98, 30846), (99, 30867), (105, 30930), (107, 30990), (113, 31023), (118, 31071), (120, 31131), (125, 31242), (138, 31350), (145, 31470), (147, 31494),

Gene: Artu_68 Start: 28004, Stop: 29578, Start Num: 16

Candidate Starts for Artu_68:

(Start: 9 @27944 has 8 MA's), (Start: 16 @28004 has 1 MA's), (46, 28361), (59, 28550), (60, 28559), (78, 28763), (84, 28811), (102, 28991), (107, 29078), (116, 29144), (117, 29156), (134, 29387), (144, 29474), (152, 29567),

Gene: Atuin_70 Start: 31058, Stop: 32686, Start Num: 9

Candidate Starts for Atuin_70:

(Start: 9 @31058 has 8 MA's), (30, 31298), (46, 31475), (60, 31673), (74, 31835), (78, 31877), (79, 31889), (84, 31925), (102, 32105), (107, 32192), (117, 32270), (134, 32501), (144, 32588), (148, 32636), (152, 32675),

Gene: Big4_71 Start: 29132, Stop: 30859, Start Num: 13

Candidate Starts for Big4_71:

(Start: 13 @29132 has 7 MA's), (Start: 16 @29186 has 1 MA's), (18, 29210), (22, 29261), (26, 29297), (34, 29399), (39, 29450), (41, 29483), (46, 29549), (59, 29756), (62, 29810), (84, 30026), (95, 30119), (98, 30149), (105, 30233), (106, 30269), (107, 30293), (113, 30326), (114, 30341), (125, 30545), (126, 30548), (127, 30551), (134, 30602), (145, 30773),

Gene: Bloom_80 Start: 33695, Stop: 35374, Start Num: 9

Candidate Starts for Bloom_80:

(Start: 7 @33689 has 3 MA's), (Start: 9 @33695 has 8 MA's), (19, 33800), (28, 33923), (30, 33935), (42, 34058), (60, 34310), (62, 34355), (77, 34511), (78, 34520), (79, 34532), (84, 34568), (86, 34589), (104, 34766), (131, 35120), (137, 35186), (139, 35192), (148, 35318), (149, 35327), (152, 35363),

Gene: BlueNGold_76 Start: 31373, Stop: 33103, Start Num: 10

Candidate Starts for BlueNGold_76:

(Start: 10 @31373 has 5 MA's), (18, 31451), (23, 31505), (24, 31517), (30, 31604), (32, 31619), (40, 31709), (44, 31784), (51, 31874), (61, 32069), (62, 32087), (63, 32090), (65, 32105), (67, 32120), (68, 32135), (69, 32162), (73, 32201), (94, 32372), (98, 32405), (101, 32456), (103, 32471), (104, 32480), (108, 32555), (109, 32558), (113, 32582), (126, 32807), (129, 32822), (133, 32852), (136, 32900), (139, 32915), (140, 32921),

Gene: BooTeria_72 Start: 28459, Stop: 30033, Start Num: 16

Candidate Starts for BooTeria_72:

(Start: 9 @28399 has 8 MA's), (Start: 16 @28459 has 1 MA's), (46, 28816), (59, 29005), (60, 29014), (78, 29218), (84, 29266), (102, 29446), (107, 29533), (116, 29599), (117, 29611), (134, 29842), (144, 29929), (152, 30022),

Gene: Boopy_77 Start: 31385, Stop: 33115, Start Num: 10

Candidate Starts for Boopy_77:

(Start: 10 @31385 has 5 MA's), (18, 31463), (23, 31517), (24, 31529), (30, 31616), (32, 31631), (40, 31721), (44, 31796), (51, 31886), (61, 32081), (62, 32099), (63, 32102), (65, 32117), (67, 32132), (68, 32147), (69, 32174), (73, 32213), (94, 32384), (98, 32417), (101, 32468), (103, 32483), (104, 32492), (108, 32567), (109, 32570), (113, 32594), (126, 32819), (129, 32834), (133, 32864), (136, 32912), (139, 32927), (140, 32933),

Gene: Cece_66 Start: 27502, Stop: 29211, Start Num: 13

Candidate Starts for Cece_66:

(Start: 13 @27502 has 7 MA's), (17, 27565), (18, 27574), (29, 27733), (49, 27946), (54, 28012), (59, 28117), (62, 28171), (70, 28258), (83, 28384), (84, 28390), (92, 28462), (98, 28513), (105, 28597), (107, 28657), (124, 28900), (127, 28915), (130, 28930), (132, 28951), (133, 28957), (141, 29038), (147, 29125),

Gene: Chilliams_73 Start: 34081, Stop: 35706, Start Num: 9

Candidate Starts for Chilliams_73:

(Start: 9 @34081 has 8 MA's), (18, 34162), (20, 34189), (28, 34306), (30, 34318), (38, 34387), (52, 34579), (57, 34621), (64, 34747), (69, 34813), (77, 34888), (85, 34948), (99, 35089), (104, 35143), (105, 35152), (107, 35212), (125, 35464), (131, 35497), (135, 35536), (139, 35569), (143, 35596), (152, 35695),

Gene: Dodo_84 Start: 30154, Stop: 31890, Start Num: 13

Candidate Starts for Dodo_84:

(Start: 13 @30154 has 7 MA's), (17, 30217), (18, 30226), (25, 30304), (28, 30376), (29, 30385), (33, 30409), (35, 30418), (41, 30499), (48, 30592), (52, 30649), (59, 30772), (62, 30826), (72, 30934), (84, 31045), (88, 31087), (98, 31168), (99, 31189), (105, 31252), (107, 31312), (113, 31345), (118, 31393), (120, 31453), (125, 31564), (138, 31672), (145, 31792), (147, 31816),

Gene: DunneganBoMo_65 Start: 27824, Stop: 29458, Start Num: 9

Candidate Starts for DunneganBoMo_65:

(Start: 9 @27824 has 8 MA's), (Start: 16 @27884 has 1 MA's), (46, 28241), (59, 28430), (60, 28439), (78, 28643), (84, 28691), (102, 28871), (107, 28958), (116, 29024), (117, 29036), (134, 29267), (144, 29354), (152, 29447),

Gene: Ellewin_64 Start: 27611, Stop: 29185, Start Num: 16

Candidate Starts for Ellewin_64:

(Start: 9 @27551 has 8 MA's), (Start: 16 @27611 has 1 MA's), (46, 27968), (59, 28157), (60, 28166), (78, 28370), (84, 28418), (102, 28598), (107, 28685), (116, 28751), (117, 28763), (134, 28994), (144, 29081), (152, 29174),

Gene: Emmetator_68 Start: 28631, Stop: 30205, Start Num: 16

Candidate Starts for Emmetator_68:

(Start: 9 @28571 has 8 MA's), (Start: 16 @28631 has 1 MA's), (46, 28988), (59, 29177), (60, 29186), (78, 29390), (84, 29438), (102, 29618), (107, 29705), (116, 29771), (117, 29783), (134, 30014), (144, 30101), (152, 30194),

Gene: Erasmago_75 Start: 28819, Stop: 30543, Start Num: 13

Candidate Starts for Erasmago_75:

(1, 28681), (2, 28687), (3, 28690), (Start: 13 @28819 has 7 MA's), (Start: 16 @28873 has 1 MA's), (18, 28897), (22, 28948), (43, 29212), (49, 29269), (59, 29443), (62, 29497), (84, 29713), (98, 29836), (105, 29920), (107, 29980), (113, 30013), (125, 30232), (145, 30457),

Gene: FloraSnap32_75 Start: 32255, Stop: 33829, Start Num: 19

Candidate Starts for FloraSnap32_75:

(Start: 7 @32144 has 3 MA's), (Start: 9 @32150 has 8 MA's), (19, 32255), (28, 32378), (30, 32390), (42, 32513), (60, 32765), (62, 32810), (77, 32966), (78, 32975), (79, 32987), (84, 33023), (86, 33044), (104, 33221), (131, 33575), (137, 33641), (139, 33647), (148, 33773), (149, 33782), (152, 33818),

Gene: Forza_77 Start: 31301, Stop: 33031, Start Num: 10

Candidate Starts for Forza_77:

(Start: 10 @31301 has 5 MA's), (18, 31379), (23, 31433), (24, 31445), (30, 31532), (32, 31547), (40, 31637), (44, 31712), (51, 31802), (61, 31997), (62, 32015), (63, 32018), (65, 32033), (67, 32048), (68, 32063), (69, 32090), (73, 32129), (94, 32300), (98, 32333), (101, 32384), (103, 32399), (104, 32408), (108, 32483), (109, 32486), (113, 32510), (126, 32735), (129, 32750), (133, 32780), (136, 32828), (139, 32843), (140, 32849),

Gene: FrostedClock_79 Start: 33183, Stop: 34862, Start Num: 9

Candidate Starts for FrostedClock_79:

(Start: 7 @33177 has 3 MA's), (Start: 9 @33183 has 8 MA's), (19, 33288), (28, 33411), (30, 33423), (42, 33546), (60, 33798), (62, 33843), (77, 33999), (78, 34008), (79, 34020), (84, 34056), (86, 34077), (104, 34254), (131, 34608), (137, 34674), (139, 34680), (148, 34806), (149, 34815), (152, 34851),

Gene: GMA2_9 Start: 6225, Stop: 7979, Start Num: 5

Candidate Starts for GMA2_9:

(5, 6225), (23, 6396), (30, 6495), (31, 6504), (37, 6543), (50, 6741), (55, 6834), (61, 6963), (62, 6981), (68, 7029), (69, 7056), (70, 7068), (80, 7143), (104, 7374), (109, 7452), (114, 7491), (128, 7707), (133, 7746), (139, 7809), (140, 7815), (144, 7851), (146, 7926),

Gene: GodonK_66 Start: 24698, Stop: 26512, Start Num: 8

Candidate Starts for GodonK_66:

(Start: 6 @24686 has 1 MA's), (Start: 8 @24698 has 1 MA's), (14, 24743), (15, 24767), (23, 24854), (27, 24938), (28, 24941), (36, 24986), (50, 25199), (56, 25298), (58, 25322), (62, 25442), (66, 25472), (68, 25490), (69, 25517), (81, 25613), (84, 25637), (87, 25676), (91, 25691), (95, 25730), (96, 25733), (97, 25736), (100, 25784), (101, 25811), (104, 25835), (108, 25910), (109, 25913), (110, 25916), (112, 25928), (113, 25937), (114, 25952), (115, 25955), (123, 26150), (132, 26201), (140, 26276), (142, 26297), (150, 26414),

Gene: GoldenEssence_62 Start: 27488, Stop: 29167, Start Num: 9

Candidate Starts for GoldenEssence_62:

(Start: 7 @27482 has 3 MA's), (Start: 9 @27488 has 8 MA's), (19, 27593), (28, 27716), (30, 27728), (42, 27851), (53, 28001), (60, 28103), (62, 28148), (67, 28181), (77, 28304), (78, 28313), (79, 28325), (84, 28361), (104, 28559), (107, 28628), (131, 28913), (137, 28979), (139, 28985), (148, 29111), (149, 29120), (152, 29156),

Gene: KSunshine22_70 Start: 29151, Stop: 30725, Start Num: 16

Candidate Starts for KSunshine22_70:

(Start: 9 @29091 has 8 MA's), (Start: 16 @29151 has 1 MA's), (46, 29508), (59, 29697), (60, 29706), (78, 29910), (84, 29958), (102, 30138), (107, 30225), (116, 30291), (117, 30303), (134, 30534), (144, 30621), (152, 30714),

Gene: Laure_78 Start: 33903, Stop: 35429, Start Num: 20

Candidate Starts for Laure_78:

(Start: 10 @33795 has 5 MA's), (19, 33897), (20, 33903), (30, 34032), (35, 34062), (45, 34203), (46, 34209), (53, 34305), (64, 34461), (75, 34590), (77, 34608), (78, 34617), (84, 34665), (88, 34707), (90, 34716), (104, 34863), (111, 34947), (115, 34983), (119, 35031), (121, 35091), (125, 35187), (129, 35205), (131, 35220), (133, 35235), (135, 35259), (148, 35376), (152, 35418),

Gene: LeoJr_75 Start: 31198, Stop: 32826, Start Num: 9

Candidate Starts for LeoJr_75:

(Start: 9 @31198 has 8 MA's), (30, 31438), (46, 31615), (60, 31813), (74, 31975), (78, 32017), (79, 32029), (84, 32065), (102, 32245), (107, 32332), (117, 32410), (134, 32641), (144, 32728), (148, 32776), (152, 32815),

Gene: Mareelih_76 Start: 30803, Stop: 32533, Start Num: 10

Candidate Starts for Mareelih_76:

(Start: 10 @30803 has 5 MA's), (18, 30881), (23, 30935), (24, 30947), (30, 31034), (32, 31049), (40, 31139), (44, 31214), (51, 31304), (61, 31499), (62, 31517), (63, 31520), (65, 31535), (67, 31550), (68, 31565), (69, 31592), (73, 31631), (94, 31802), (98, 31835), (101, 31886), (103, 31901), (104, 31910), (108, 31985), (109, 31988), (113, 32012), (126, 32237), (129, 32252), (133, 32282), (136, 32330), (139, 32345), (140, 32351),

Gene: Mimi_76 Start: 33036, Stop: 34721, Start Num: 7

Candidate Starts for Mimi_76:

(Start: 7 @33036 has 3 MA's), (Start: 9 @33042 has 8 MA's), (19, 33147), (28, 33270), (30, 33282), (42, 33405), (60, 33657), (62, 33702), (77, 33858), (78, 33867), (79, 33879), (84, 33915), (86, 33936), (104, 34113), (131, 34467), (137, 34533), (139, 34539), (148, 34665), (149, 34674), (152, 34710),

Gene: Panchaali_68 Start: 28678, Stop: 30309, Start Num: 9

Candidate Starts for Panchaali_68:

(Start: 9 @28678 has 8 MA's), (Start: 16 @28738 has 1 MA's), (29, 28915), (30, 28918), (45, 29089), (46, 29095), (59, 29284), (60, 29293), (74, 29455), (78, 29500), (84, 29548), (89, 29596), (92, 29620), (102, 29728), (117, 29893), (134, 30124), (137, 30166), (152, 30298),

Gene: Patbob_74 Start: 33329, Stop: 35014, Start Num: 7

Candidate Starts for Patbob_74:

(Start: 7 @33329 has 3 MA's), (Start: 9 @33335 has 8 MA's), (19, 33440), (28, 33563), (30, 33575), (42, 33698), (60, 33950), (62, 33995), (77, 34151), (78, 34160), (79, 34172), (84, 34208), (86, 34229), (104, 34406), (131, 34760), (137, 34826), (139, 34832), (148, 34958), (149, 34967), (152, 35003),

Gene: PauloDiaboli_82 Start: 29189, Stop: 30925, Start Num: 13

Candidate Starts for PauloDiaboli_82:

(Start: 13 @29189 has 7 MA's), (17, 29252), (18, 29261), (25, 29339), (28, 29411), (29, 29420), (33, 29444), (35, 29453), (41, 29534), (48, 29627), (52, 29684), (59, 29807), (62, 29861), (72, 29969), (84, 30080), (88, 30122), (98, 30203), (99, 30224), (105, 30287), (107, 30347), (113, 30380), (118, 30428), (120, 30488), (125, 30599), (138, 30707), (145, 30827), (147, 30851),

Gene: Phendrix_65 Start: 24534, Stop: 26360, Start Num: 6

Candidate Starts for Phendrix_65:

(Start: 6 @24534 has 1 MA's), (Start: 8 @24546 has 1 MA's), (14, 24591), (15, 24615), (23, 24702), (27, 24786), (28, 24789), (36, 24834), (50, 25047), (56, 25146), (58, 25170), (62, 25290), (66, 25320), (68, 25338), (69, 25365), (81, 25461), (84, 25485), (87, 25524), (91, 25539), (95, 25578), (96, 25581), (97, 25584), (100, 25632), (101, 25659), (104, 25683), (108, 25758), (109, 25761), (110, 25764), (112, 25776), (113, 25785), (114, 25800), (123, 25998), (132, 26049), (140, 26124), (142, 26145), (150,

26262),

Gene: Phrampa_68 Start: 30361, Stop: 32055, Start Num: 9

Candidate Starts for Phrampa_68:

(Start: 7 @30355 has 3 MA's), (Start: 9 @30361 has 8 MA's), (19, 30463), (28, 30586), (30, 30598), (37, 30646), (42, 30721), (48, 30802), (60, 30973), (62, 31018), (70, 31105), (77, 31174), (78, 31183), (84, 31231), (86, 31252), (90, 31282), (104, 31429), (131, 31783), (139, 31855), (148, 31996), (149, 32005), (152, 32044),

Gene: Pumpernickel_80 Start: 31376, Stop: 33094, Start Num: 13

Candidate Starts for Pumpernickel_80:

(1, 31238), (3, 31247), (4, 31259), (Start: 13 @31376 has 7 MA's), (21, 31490), (48, 31817), (58, 31934), (62, 32051), (72, 32159), (84, 32267), (98, 32390), (99, 32411), (104, 32465), (107, 32534), (122, 32702), (125, 32786), (126, 32789), (127, 32792), (135, 32858),

Gene: Racecar_77 Start: 33689, Stop: 35374, Start Num: 7

Candidate Starts for Racecar_77:

(Start: 7 @33689 has 3 MA's), (Start: 9 @33695 has 8 MA's), (19, 33800), (28, 33923), (30, 33935), (42, 34058), (60, 34310), (62, 34355), (77, 34511), (78, 34520), (79, 34532), (84, 34568), (86, 34589), (104, 34766), (131, 35120), (137, 35186), (139, 35192), (148, 35318), (149, 35327), (152, 35363),

Gene: ReginaGlobina_75 Start: 31755, Stop: 33383, Start Num: 9

Candidate Starts for ReginaGlobina_75:

(Start: 9 @31755 has 8 MA's), (30, 31995), (46, 32172), (60, 32370), (74, 32532), (78, 32574), (79, 32586), (84, 32622), (102, 32802), (107, 32889), (117, 32967), (134, 33198), (144, 33285), (148, 33333), (152, 33372),

Gene: Rockabye_78 Start: 34436, Stop: 36061, Start Num: 9

Candidate Starts for Rockabye_78:

(Start: 9 @34436 has 8 MA's), (20, 34544), (28, 34661), (30, 34673), (38, 34742), (52, 34934), (69, 35168), (77, 35243), (85, 35303), (99, 35444), (104, 35498), (105, 35507), (107, 35567), (125, 35819), (131, 35852), (139, 35924), (143, 35951), (152, 36050),

Gene: SJReid_79 Start: 34914, Stop: 36533, Start Num: 9

Candidate Starts for SJReid_79:

(Start: 9 @34914 has 8 MA's), (19, 35016), (20, 35022), (30, 35151), (47, 35334), (82, 35763), (85, 35775), (86, 35793), (104, 35970), (107, 36039), (125, 36291), (131, 36324), (139, 36396), (143, 36423), (148, 36480), (152, 36522),

Gene: Sixama_72 Start: 30011, Stop: 31756, Start Num: 10

Candidate Starts for Sixama_72:

(Start: 10 @30011 has 5 MA's), (11, 30017), (12, 30020), (18, 30098), (30, 30251), (37, 30299), (50, 30497), (62, 30740), (63, 30743), (65, 30758), (66, 30770), (68, 30788), (69, 30815), (71, 30836), (72, 30848), (93, 31019), (98, 31058), (101, 31109), (104, 31133), (108, 31208), (109, 31211), (113, 31235), (133, 31505), (140, 31574), (146, 31685), (151, 31733),

Gene: Stewart25555_66 Start: 28084, Stop: 29715, Start Num: 9

Candidate Starts for Stewart25555_66:

(Start: 9 @28084 has 8 MA's), (Start: 16 @28144 has 1 MA's), (30, 28324), (31, 28333), (46, 28501), (60, 28699), (76, 28882), (78, 28903), (84, 28951), (86, 28972), (89, 28999), (102, 29131), (107, 29218), (117, 29296), (134, 29527), (152, 29704),

Gene: Talia1610_76 Start: 33060, Stop: 34739, Start Num: 9

Candidate Starts for Talia1610_76:

(Start: 7 @33054 has 3 MA's), (Start: 9 @33060 has 8 MA's), (19, 33165), (28, 33288), (30, 33300), (42, 33423), (60, 33675), (62, 33720), (67, 33753), (77, 33876), (78, 33885), (79, 33897), (84, 33933), (104, 34131), (107, 34200), (131, 34485), (137, 34551), (139, 34557), (148, 34683), (149, 34692), (152, 34728),

Gene: WaddleDee_63 Start: 27676, Stop: 29310, Start Num: 9

Candidate Starts for WaddleDee_63:

(Start: 9 @27676 has 8 MA's), (Start: 16 @27736 has 1 MA's), (46, 28093), (59, 28282), (60, 28291), (78, 28495), (84, 28543), (102, 28723), (107, 28810), (116, 28876), (117, 28888), (134, 29119), (144, 29206), (152, 29299),

Gene: Zooman_67 Start: 27800, Stop: 29527, Start Num: 13

Candidate Starts for Zooman_67:

(1, 27662), (2, 27668), (3, 27671), (Start: 13 @27800 has 7 MA's), (Start: 16 @27854 has 1 MA's), (18, 27878), (22, 27929), (29, 28037), (33, 28061), (41, 28151), (42, 28163), (46, 28217), (59, 28424), (62, 28478), (84, 28694), (95, 28787), (98, 28817), (105, 28901), (107, 28961), (113, 28994), (114, 29009), (125, 29213), (126, 29216), (127, 29219), (134, 29270), (145, 29441),