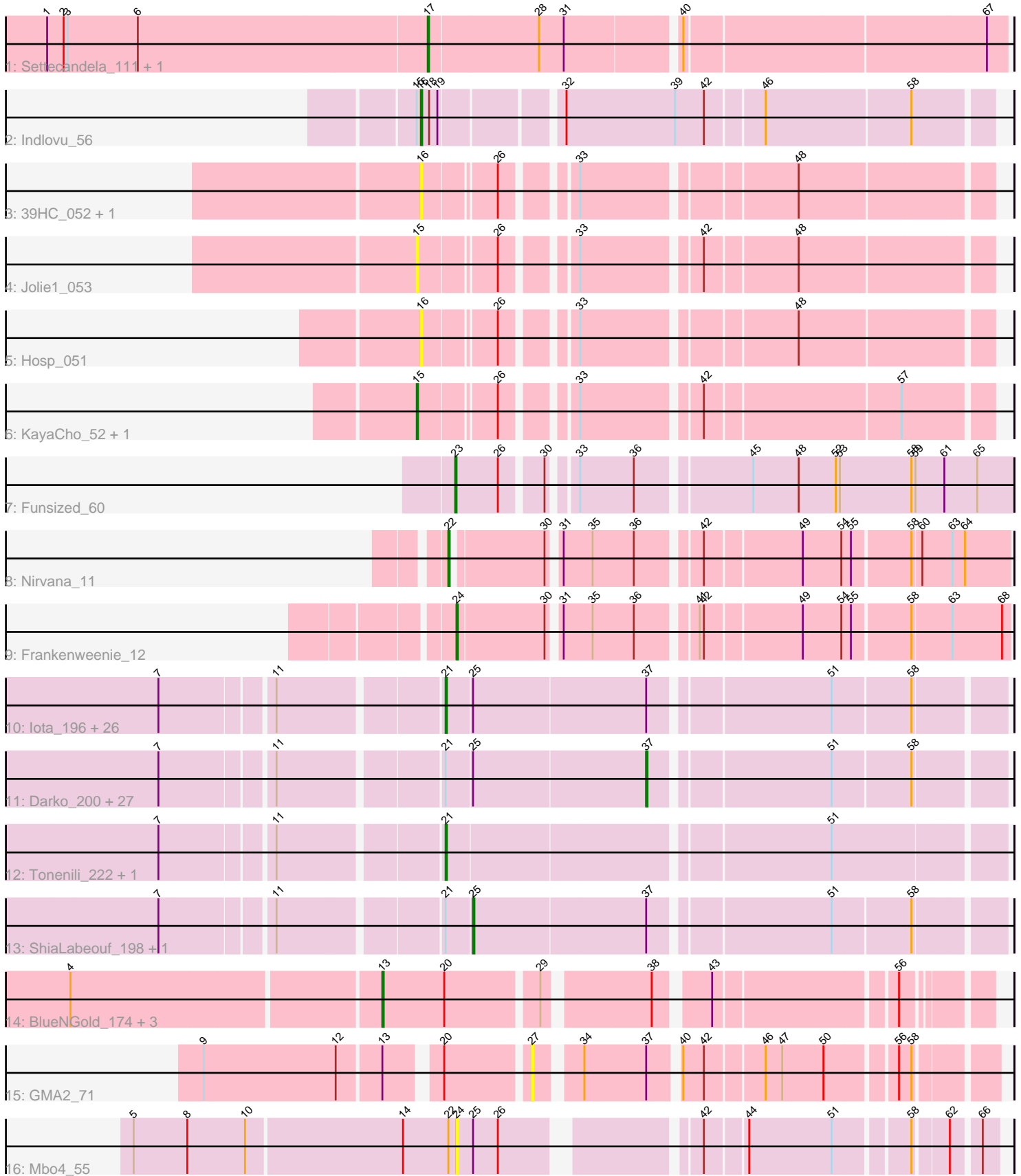


Pham 311522



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 311522 Report

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

Pham number 311522 has 77 members, 24 are drafts.

Phages represented in each track:

- Track 1 : Settecandela_111, Phrappuccino_111
- Track 2 : Indlovu_56
- Track 3 : 39HC_052, 40BC_052
- Track 4 : Jolie1_053
- Track 5 : Hosp_051
- Track 6 : KayaCho_52, ForDig_53
- Track 7 : Funsized_60
- Track 8 : Nirvana_11
- Track 9 : Frankenweenie_12
- Track 10 : Iota_196, DTDevon_203, Rahel_202, Derek_198, ArcherS7_201, BananaFence_198, I3_211, Breeniome_200, Adlitam_200, Tyke_199, SmallFry_201, EmmaElysia_204, Bxz1_191, SVoro_197, Jedediah_201, JPickles_197, Drazdys_199, CindyLou_202, Shnickers_199, Salacia_201, LifeSavor_200, Littleton_204, Sauce_197, Jaygup_197, LolaVinca_199, Essence_198, Astraea_195
- Track 11 : Darko_200, EggyFarm_210, Halldule_194, Guwapp_196, Domi_195, LookingGlass_200, BigCity_210, JigglyPuff_208, Fongie_202, Demodog_207, Grasshills_209, InterFolia_204, Specks_205, Teardrop_198, Dessert_199, Tortoise16_199, Concombre_206, Melpomini_196, Primadonna_196, Blackdragon_196, Fixie_201, Bezza_190, Norm_201, Patter_202, Pivoine_202, QBert_193, Substance289_198, Spec_196
- Track 12 : Tonenili_222, Vortrix_220
- Track 13 : ShiaLabeouf_198, Bangla1971_201
- Track 14 : BlueNGold_174, Boopy_177, Mareelih_175, Forza_178
- Track 15 : GMA2_71
- Track 16 : Mbo4_55

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

The start number called the most often in the published annotations is 21, it was called in 28 of the 53 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Adlitam_200, ArcherS7_201, Astraea_195, BananaFence_198, Breeniome_200, Bxz1_191, CindyLou_202, DTDevon_203, Derek_198, Drazdys_199,

EmmaElysia_204, Essence_198, I3_211, Iota_196, JPickles_197, Jaygup_197, Jedediah_201, LifeSavor_200, Littleton_204, LolaVinca_199, Rahel_202, SVoro_197, Salacia_201, Sauce_197, Shnickers_199, SmallFry_201, Tonenili_222, Tyke_199, Vortrix_220,

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

- Bangla1971_201, Bezza_190, BigCity_210, Blackdragon_196, Concombre_206, Darko_200, Demodog_207, Dessert_199, Domi_195, EggyFarm_210, Fixie_201, Fongie_202, Grasshills_209, Guwapp_196, Halldule_194, InterFolia_204, JigglyPuff_208, LookingGlass_200, Melpomini_196, Norm_201, Patter_202, Pivoine_202, Primadonna_196, QBert_193, ShiaLabeouf_198, Spec_196, Specks_205, Substance289_198, Teardrop_198, Tortoise16_199,

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

- 39HC_052, 40BC_052, BlueNGold_174, Boopy_177, ForDig_53, Forza_178, Frankenweenie_12, Funsized_60, GMA2_71, Hosp_051, Indlovu_56, Jolie1_053, KayaCho_52, Mareelih_175, Mbo4_55, Nirvana_11, Phrappuccino_111, Settecandela_111,

Summary by start number:

Start 13:

- Found in 5 of 77 (6.5%) of genes in pham
- Manual Annotations of this start: 4 of 53
- Called 80.0% of time when present
- Phage (with cluster) where this start called: BlueNGold_174 (DS), Boopy_177 (DS), Forza_178 (DS), Mareelih_175 (DS),

Start 15:

- Found in 4 of 77 (5.2%) of genes in pham
- Manual Annotations of this start: 2 of 53
- Called 75.0% of time when present
- Phage (with cluster) where this start called: ForDig_53 (B6), Jolie1_053 (B6), KayaCho_52 (B6),

Start 16:

- Found in 4 of 77 (5.2%) of genes in pham
- Manual Annotations of this start: 1 of 53
- Called 100.0% of time when present
- Phage (with cluster) where this start called: 39HC_052 (B6), 40BC_052 (B6), Hosp_051 (B6), Indlovu_56 (B11),

Start 17:

- Found in 2 of 77 (2.6%) of genes in pham
- Manual Annotations of this start: 2 of 53
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Phrappuccino_111 (AA), Settecandela_111 (AA),

Start 21:

- Found in 59 of 77 (76.6%) of genes in pham
- Manual Annotations of this start: 28 of 53
- Called 49.2% of time when present

- Phage (with cluster) where this start called: Adlitam_200 (C1), ArcherS7_201 (C1), Astraea_195 (C1), BananaFence_198 (C1), Breeniome_200 (C1), Bxz1_191 (C1), CindyLou_202 (C1), DTDevon_203 (C1), Derek_198 (C1), Drazdys_199 (C1), EmmaElysia_204 (C1), Essence_198 (C1), I3_211 (C1), Iota_196 (C1), JPickles_197 (C1), Jaygup_197 (C1), Jedediah_201 (C1), LifeSavor_200 (C1), Littleton_204 (C1), LolaVinca_199 (C1), Rahel_202 (C1), SVoro_197 (C1), Salacia_201 (C1), Sauce_197 (C1), Shnickers_199 (C1), SmallFry_201 (C1), Tonenili_222 (C1), Tyke_199 (C1), Vortrix_220 (C1),

Start 22:

- Found in 2 of 77 (2.6%) of genes in pham
- Manual Annotations of this start: 1 of 53
- Called 50.0% of time when present
- Phage (with cluster) where this start called: Nirvana_11 (BM),

Start 23:

- Found in 1 of 77 (1.3%) of genes in pham
- Manual Annotations of this start: 1 of 53
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Funsized_60 (B9),

Start 24:

- Found in 2 of 77 (2.6%) of genes in pham
- Manual Annotations of this start: 1 of 53
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Frankenweenie_12 (BM), Mbo4_55 (singleton),

Start 25:

- Found in 58 of 77 (75.3%) of genes in pham
- Manual Annotations of this start: 2 of 53
- Called 3.4% of time when present
- Phage (with cluster) where this start called: Bangla1971_201 (C1), ShiaLabeouf_198 (C1),

Start 27:

- Found in 1 of 77 (1.3%) 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_71 (DS),

Start 37:

- Found in 58 of 77 (75.3%) of genes in pham
- Manual Annotations of this start: 11 of 53
- Called 48.3% of time when present
- Phage (with cluster) where this start called: Bezza_190 (C1), BigCity_210 (C1), Blackdragon_196 (C1), Concombre_206 (C1), Darko_200 (C1), Demodog_207 (C1), Dessert_199 (C1), Domi_195 (C1), EggyFarm_210 (C1), Fixie_201 (C1), Fongie_202 (C1), Grasshills_209 (C1), Guwapp_196 (C1), Halldule_194 (C1), InterFolia_204 (C1), JigglyPuff_208 (C1), LookingGlass_200 (C1), Melpomini_196 (C1), Norm_201 (C1), Patter_202 (C1), Pivoine_202 (C1), Primadonna_196 (C1), QBert_193 (C1), Spec_196 (C1), Specks_205 (C1), Substance289_198 (C1), Teardrop_198 (C1), Tortoise16_199 (C1),

Summary by clusters:

There are 8 clusters represented in this pham: AA, singleton, BM, B9, B6, B11, C1, DS,

Info for manual annotations of cluster AA:

- Start number 17 was manually annotated 2 times for cluster AA.

Info for manual annotations of cluster B11:

- Start number 16 was manually annotated 1 time for cluster B11.

Info for manual annotations of cluster B6:

- Start number 15 was manually annotated 2 times for cluster B6.

Info for manual annotations of cluster B9:

- Start number 23 was manually annotated 1 time for cluster B9.

Info for manual annotations of cluster BM:

- Start number 22 was manually annotated 1 time for cluster BM.
- Start number 24 was manually annotated 1 time for cluster BM.

Info for manual annotations of cluster C1:

- Start number 21 was manually annotated 28 times for cluster C1.
- Start number 25 was manually annotated 2 times for cluster C1.
- Start number 37 was manually annotated 11 times for cluster C1.

Info for manual annotations of cluster DS:

- Start number 13 was manually annotated 4 times for cluster DS.

Gene Information:

Gene: 39HC_052 Start: 52647, Stop: 52285, Start Num: 16

Candidate Starts for 39HC_052:

(Start: 16 @52647 has 1 MA's), (26, 52599), (33, 52557), (48, 52416),

Gene: 40BC_052 Start: 52647, Stop: 52285, Start Num: 16

Candidate Starts for 40BC_052:

(Start: 16 @52647 has 1 MA's), (26, 52599), (33, 52557), (48, 52416),

Gene: Adlitam_200 Start: 106642, Stop: 107016, Start Num: 21

Candidate Starts for Adlitam_200:

(7, 106459), (11, 106534), (Start: 21 @106642 has 28 MA's), (Start: 25 @106660 has 2 MA's), (Start: 37 @106783 has 11 MA's), (51, 106903), (58, 106957),

Gene: ArcherS7_201 Start: 107496, Stop: 107870, Start Num: 21

Candidate Starts for ArcherS7_201:

(7, 107313), (11, 107388), (Start: 21 @107496 has 28 MA's), (Start: 25 @107514 has 2 MA's), (Start: 37 @107637 has 11 MA's), (51, 107757), (58, 107811),

Gene: Astraea_195 Start: 106058, Stop: 106432, Start Num: 21

Candidate Starts for Astraea_195:

(7, 105875), (11, 105950), (Start: 21 @106058 has 28 MA's), (Start: 25 @106076 has 2 MA's), (Start: 37 @106199 has 11 MA's), (51, 106319), (58, 106373),

Gene: BananaFence_198 Start: 106687, Stop: 107061, Start Num: 21

Candidate Starts for BananaFence_198:

(7, 106504), (11, 106579), (Start: 21 @106687 has 28 MA's), (Start: 25 @106705 has 2 MA's), (Start: 37 @106828 has 11 MA's), (51, 106948), (58, 107002),

Gene: Bangla1971_201 Start: 106478, Stop: 106834, Start Num: 25

Candidate Starts for Bangla1971_201:

(7, 106277), (11, 106352), (Start: 21 @106460 has 28 MA's), (Start: 25 @106478 has 2 MA's), (Start: 37 @106601 has 11 MA's), (51, 106721), (58, 106775),

Gene: Bezza_190 Start: 107145, Stop: 107378, Start Num: 37

Candidate Starts for Bezza_190:

(7, 106821), (11, 106896), (Start: 21 @107004 has 28 MA's), (Start: 25 @107022 has 2 MA's), (Start: 37 @107145 has 11 MA's), (51, 107265), (58, 107319),

Gene: BigCity_210 Start: 110204, Stop: 110437, Start Num: 37

Candidate Starts for BigCity_210:

(7, 109880), (11, 109955), (Start: 21 @110063 has 28 MA's), (Start: 25 @110081 has 2 MA's), (Start: 37 @110204 has 11 MA's), (51, 110324), (58, 110378),

Gene: Blackdragon_196 Start: 106931, Stop: 107164, Start Num: 37

Candidate Starts for Blackdragon_196:

(7, 106607), (11, 106682), (Start: 21 @106790 has 28 MA's), (Start: 25 @106808 has 2 MA's), (Start: 37 @106931 has 11 MA's), (51, 107051), (58, 107105),

Gene: BlueNGold_174 Start: 102444, Stop: 102061, Start Num: 13

Candidate Starts for BlueNGold_174:

(4, 102660), (Start: 13 @102444 has 4 MA's), (20, 102399), (29, 102336), (38, 102267), (43, 102234), (56, 102114),

Gene: Boopy_177 Start: 102455, Stop: 102072, Start Num: 13

Candidate Starts for Boopy_177:

(4, 102671), (Start: 13 @102455 has 4 MA's), (20, 102410), (29, 102347), (38, 102278), (43, 102245), (56, 102125),

Gene: Breeniome_200 Start: 106011, Stop: 106385, Start Num: 21

Candidate Starts for Breeniome_200:

(7, 105828), (11, 105903), (Start: 21 @106011 has 28 MA's), (Start: 25 @106029 has 2 MA's), (Start: 37 @106152 has 11 MA's), (51, 106272), (58, 106326),

Gene: Bxz1_191 Start: 109526, Stop: 109900, Start Num: 21

Candidate Starts for Bxz1_191:

(7, 109343), (11, 109418), (Start: 21 @109526 has 28 MA's), (Start: 25 @109544 has 2 MA's), (Start: 37 @109667 has 11 MA's), (51, 109787), (58, 109841),

Gene: CindyLou_202 Start: 108003, Stop: 108377, Start Num: 21

Candidate Starts for CindyLou_202:

(7, 107820), (11, 107895), (Start: 21 @108003 has 28 MA's), (Start: 25 @108021 has 2 MA's), (Start: 37 @108144 has 11 MA's), (51, 108264), (58, 108318),

Gene: Concombres_206 Start: 109747, Stop: 109980, Start Num: 37

Candidate Starts for Concombres_206:

(7, 109423), (11, 109498), (Start: 21 @109606 has 28 MA's), (Start: 25 @109624 has 2 MA's), (Start: 37 @109747 has 11 MA's), (51, 109867), (58, 109921),

Gene: DTDevon_203 Start: 108492, Stop: 108866, Start Num: 21

Candidate Starts for DTDevon_203:

(7, 108309), (11, 108384), (Start: 21 @108492 has 28 MA's), (Start: 25 @108510 has 2 MA's), (Start: 37 @108633 has 11 MA's), (51, 108753), (58, 108807),

Gene: Darko_200 Start: 106832, Stop: 107065, Start Num: 37

Candidate Starts for Darko_200:

(7, 106508), (11, 106583), (Start: 21 @106691 has 28 MA's), (Start: 25 @106709 has 2 MA's), (Start: 37 @106832 has 11 MA's), (51, 106952), (58, 107006),

Gene: Demodog_207 Start: 109757, Stop: 109990, Start Num: 37

Candidate Starts for Demodog_207:

(7, 109433), (11, 109508), (Start: 21 @109616 has 28 MA's), (Start: 25 @109634 has 2 MA's), (Start: 37 @109757 has 11 MA's), (51, 109877), (58, 109931),

Gene: Derek_198 Start: 107020, Stop: 107394, Start Num: 21

Candidate Starts for Derek_198:

(7, 106837), (11, 106912), (Start: 21 @107020 has 28 MA's), (Start: 25 @107038 has 2 MA's), (Start: 37 @107161 has 11 MA's), (51, 107281), (58, 107335),

Gene: Dessert_199 Start: 106161, Stop: 106394, Start Num: 37

Candidate Starts for Dessert_199:

(7, 105837), (11, 105912), (Start: 21 @106020 has 28 MA's), (Start: 25 @106038 has 2 MA's), (Start: 37 @106161 has 11 MA's), (51, 106281), (58, 106335),

Gene: Domi_195 Start: 107188, Stop: 107421, Start Num: 37

Candidate Starts for Domi_195:

(7, 106864), (11, 106939), (Start: 21 @107047 has 28 MA's), (Start: 25 @107065 has 2 MA's), (Start: 37 @107188 has 11 MA's), (51, 107308), (58, 107362),

Gene: Drazdys_199 Start: 107137, Stop: 107511, Start Num: 21

Candidate Starts for Drazdys_199:

(7, 106954), (11, 107029), (Start: 21 @107137 has 28 MA's), (Start: 25 @107155 has 2 MA's), (Start: 37 @107278 has 11 MA's), (51, 107398), (58, 107452),

Gene: EggyFarm_210 Start: 110205, Stop: 110438, Start Num: 37

Candidate Starts for EggyFarm_210:

(7, 109881), (11, 109956), (Start: 21 @110064 has 28 MA's), (Start: 25 @110082 has 2 MA's), (Start: 37 @110205 has 11 MA's), (51, 110325), (58, 110379),

Gene: EmmaElysia_204 Start: 107627, Stop: 108001, Start Num: 21

Candidate Starts for EmmaElysia_204:

(7, 107444), (11, 107519), (Start: 21 @107627 has 28 MA's), (Start: 25 @107645 has 2 MA's), (Start: 37 @107768 has 11 MA's), (51, 107888), (58, 107942),

Gene: Essence_198 Start: 106349, Stop: 106723, Start Num: 21

Candidate Starts for Essence_198:

(7, 106166), (11, 106241), (Start: 21 @106349 has 28 MA's), (Start: 25 @106367 has 2 MA's), (Start: 37 @106490 has 11 MA's), (51, 106610), (58, 106664),

Gene: Fixie_201 Start: 107270, Stop: 107503, Start Num: 37

Candidate Starts for Fixie_201:

(7, 106946), (11, 107021), (Start: 21 @107129 has 28 MA's), (Start: 25 @107147 has 2 MA's), (Start: 37 @107270 has 11 MA's), (51, 107390), (58, 107444),

Gene: Fongie_202 Start: 107649, Stop: 107882, Start Num: 37

Candidate Starts for Fongie_202:

(7, 107325), (11, 107400), (Start: 21 @107508 has 28 MA's), (Start: 25 @107526 has 2 MA's), (Start: 37 @107649 has 11 MA's), (51, 107769), (58, 107823),

Gene: ForDig_53 Start: 52846, Stop: 52481, Start Num: 15

Candidate Starts for ForDig_53:

(Start: 15 @52846 has 2 MA's), (26, 52795), (33, 52753), (42, 52675), (57, 52540),

Gene: Forza_178 Start: 102372, Stop: 101989, Start Num: 13

Candidate Starts for Forza_178:

(4, 102588), (Start: 13 @102372 has 4 MA's), (20, 102327), (29, 102264), (38, 102195), (43, 102162), (56, 102042),

Gene: Frankenweenie_12 Start: 5822, Stop: 5460, Start Num: 24

Candidate Starts for Frankenweenie_12:

(Start: 24 @5822 has 1 MA's), (30, 5762), (31, 5756), (35, 5735), (36, 5705), (41, 5669), (42, 5666), (49, 5600), (54, 5573), (55, 5567), (58, 5528), (63, 5501), (68, 5465),

Gene: Funsized_60 Start: 56571, Stop: 56197, Start Num: 23

Candidate Starts for Funsized_60:

(Start: 23 @56571 has 1 MA's), (26, 56541), (30, 56514), (33, 56499), (36, 56460), (45, 56385), (48, 56352), (52, 56325), (53, 56322), (58, 56271), (59, 56268), (61, 56247), (65, 56223),

Gene: GMA2_71 Start: 73629, Stop: 73339, Start Num: 27

Candidate Starts for GMA2_71:

(9, 73845), (12, 73749), (Start: 13 @73719 has 4 MA's), (20, 73686), (27, 73629), (34, 73602), (Start: 37 @73557 has 11 MA's), (40, 73539), (42, 73524), (46, 73485), (47, 73473), (50, 73443), (56, 73398), (58, 73389),

Gene: Grasshills_209 Start: 110204, Stop: 110437, Start Num: 37

Candidate Starts for Grasshills_209:

(7, 109880), (11, 109955), (Start: 21 @110063 has 28 MA's), (Start: 25 @110081 has 2 MA's), (Start: 37 @110204 has 11 MA's), (51, 110324), (58, 110378),

Gene: Guwapp_196 Start: 105340, Stop: 105573, Start Num: 37

Candidate Starts for Guwapp_196:

(7, 105016), (11, 105091), (Start: 21 @105199 has 28 MA's), (Start: 25 @105217 has 2 MA's), (Start: 37 @105340 has 11 MA's), (51, 105460), (58, 105514),

Gene: Halldule_194 Start: 105725, Stop: 105958, Start Num: 37

Candidate Starts for Halldule_194:

(7, 105401), (11, 105476), (Start: 21 @105584 has 28 MA's), (Start: 25 @105602 has 2 MA's), (Start: 37 @105725 has 11 MA's), (51, 105845), (58, 105899),

Gene: Hosp_051 Start: 51040, Stop: 50678, Start Num: 16
Candidate Starts for Hosp_051:
(Start: 16 @51040 has 1 MA's), (26, 50992), (33, 50950), (48, 50809),

Gene: I3_211 Start: 109444, Stop: 109818, Start Num: 21
Candidate Starts for I3_211:
(7, 109261), (11, 109336), (Start: 21 @109444 has 28 MA's), (Start: 25 @109462 has 2 MA's), (Start: 37 @109585 has 11 MA's), (51, 109705), (58, 109759),

Gene: Indlovu_56 Start: 54580, Stop: 54197, Start Num: 16
Candidate Starts for Indlovu_56:
(Start: 15 @54583 has 2 MA's), (Start: 16 @54580 has 1 MA's), (18, 54574), (19, 54568), (32, 54490), (39, 54412), (42, 54391), (46, 54352), (58, 54250),

Gene: InterFolia_204 Start: 108957, Stop: 109190, Start Num: 37
Candidate Starts for InterFolia_204:
(7, 108633), (11, 108708), (Start: 21 @108816 has 28 MA's), (Start: 25 @108834 has 2 MA's), (Start: 37 @108957 has 11 MA's), (51, 109077), (58, 109131),

Gene: Iota_196 Start: 106803, Stop: 107177, Start Num: 21
Candidate Starts for Iota_196:
(7, 106620), (11, 106695), (Start: 21 @106803 has 28 MA's), (Start: 25 @106821 has 2 MA's), (Start: 37 @106944 has 11 MA's), (51, 107064), (58, 107118),

Gene: JPickles_197 Start: 105103, Stop: 105477, Start Num: 21
Candidate Starts for JPickles_197:
(7, 104920), (11, 104995), (Start: 21 @105103 has 28 MA's), (Start: 25 @105121 has 2 MA's), (Start: 37 @105244 has 11 MA's), (51, 105364), (58, 105418),

Gene: Jaygup_197 Start: 106164, Stop: 106538, Start Num: 21
Candidate Starts for Jaygup_197:
(7, 105981), (11, 106056), (Start: 21 @106164 has 28 MA's), (Start: 25 @106182 has 2 MA's), (Start: 37 @106305 has 11 MA's), (51, 106425), (58, 106479),

Gene: Jedediah_201 Start: 107217, Stop: 107591, Start Num: 21
Candidate Starts for Jedediah_201:
(7, 107034), (11, 107109), (Start: 21 @107217 has 28 MA's), (Start: 25 @107235 has 2 MA's), (Start: 37 @107358 has 11 MA's), (51, 107478), (58, 107532),

Gene: JigglyPuff_208 Start: 109755, Stop: 109988, Start Num: 37
Candidate Starts for JigglyPuff_208:
(7, 109431), (11, 109506), (Start: 21 @109614 has 28 MA's), (Start: 25 @109632 has 2 MA's), (Start: 37 @109755 has 11 MA's), (51, 109875), (58, 109929),

Gene: Jolie1_053 Start: 52943, Stop: 52578, Start Num: 15
Candidate Starts for Jolie1_053:
(Start: 15 @52943 has 2 MA's), (26, 52892), (33, 52850), (42, 52772), (48, 52709),

Gene: KayaCho_52 Start: 52748, Stop: 52383, Start Num: 15
Candidate Starts for KayaCho_52:
(Start: 15 @52748 has 2 MA's), (26, 52697), (33, 52655), (42, 52577), (57, 52442),

Gene: LifeSavor_200 Start: 106979, Stop: 107353, Start Num: 21

Candidate Starts for LifeSavor_200:

(7, 106796), (11, 106871), (Start: 21 @106979 has 28 MA's), (Start: 25 @106997 has 2 MA's), (Start: 37 @107120 has 11 MA's), (51, 107240), (58, 107294),

Gene: Littleton_204 Start: 107691, Stop: 108065, Start Num: 21

Candidate Starts for Littleton_204:

(7, 107508), (11, 107583), (Start: 21 @107691 has 28 MA's), (Start: 25 @107709 has 2 MA's), (Start: 37 @107832 has 11 MA's), (51, 107952), (58, 108006),

Gene: LolaVinca_199 Start: 108246, Stop: 108620, Start Num: 21

Candidate Starts for LolaVinca_199:

(7, 108063), (11, 108138), (Start: 21 @108246 has 28 MA's), (Start: 25 @108264 has 2 MA's), (Start: 37 @108387 has 11 MA's), (51, 108507), (58, 108561),

Gene: LookingGlass_200 Start: 107349, Stop: 107582, Start Num: 37

Candidate Starts for LookingGlass_200:

(7, 107025), (11, 107100), (Start: 21 @107208 has 28 MA's), (Start: 25 @107226 has 2 MA's), (Start: 37 @107349 has 11 MA's), (51, 107469), (58, 107523),

Gene: Mareelih_175 Start: 101890, Stop: 101507, Start Num: 13

Candidate Starts for Mareelih_175:

(4, 102106), (Start: 13 @101890 has 4 MA's), (20, 101845), (29, 101782), (38, 101713), (43, 101680), (56, 101560),

Gene: Mbo4_55 Start: 40403, Stop: 40738, Start Num: 24

Candidate Starts for Mbo4_55:

(5, 40172), (8, 40211), (10, 40253), (14, 40364), (Start: 22 @40397 has 1 MA's), (Start: 24 @40403 has 1 MA's), (Start: 25 @40415 has 2 MA's), (26, 40433), (42, 40553), (44, 40580), (51, 40640), (58, 40688), (62, 40709), (66, 40727),

Gene: Melpomini_196 Start: 106129, Stop: 106362, Start Num: 37

Candidate Starts for Melpomini_196:

(7, 105805), (11, 105880), (Start: 21 @105988 has 28 MA's), (Start: 25 @106006 has 2 MA's), (Start: 37 @106129 has 11 MA's), (51, 106249), (58, 106303),

Gene: Nirvana_11 Start: 5644, Stop: 5282, Start Num: 22

Candidate Starts for Nirvana_11:

(Start: 22 @5644 has 1 MA's), (30, 5584), (31, 5578), (35, 5557), (36, 5527), (42, 5488), (49, 5422), (54, 5395), (55, 5389), (58, 5350), (60, 5344), (63, 5323), (64, 5314),

Gene: Norm_201 Start: 108033, Stop: 108266, Start Num: 37

Candidate Starts for Norm_201:

(7, 107709), (11, 107784), (Start: 21 @107892 has 28 MA's), (Start: 25 @107910 has 2 MA's), (Start: 37 @108033 has 11 MA's), (51, 108153), (58, 108207),

Gene: Patter_202 Start: 106609, Stop: 106842, Start Num: 37

Candidate Starts for Patter_202:

(7, 106285), (11, 106360), (Start: 21 @106468 has 28 MA's), (Start: 25 @106486 has 2 MA's), (Start: 37 @106609 has 11 MA's), (51, 106729), (58, 106783),

Gene: Phrappuccino_111 Start: 80442, Stop: 80837, Start Num: 17

Candidate Starts for Phrappuccino_111:

(1, 80169), (2, 80181), (3, 80184), (6, 80235), (Start: 17 @80442 has 2 MA's), (28, 80520), (31, 80538), (40, 80613), (67, 80823),

Gene: Pivoine_202 Start: 107298, Stop: 107531, Start Num: 37

Candidate Starts for Pivoine_202:

(7, 106974), (11, 107049), (Start: 21 @107157 has 28 MA's), (Start: 25 @107175 has 2 MA's), (Start: 37 @107298 has 11 MA's), (51, 107418), (58, 107472),

Gene: Primadonna_196 Start: 106959, Stop: 107192, Start Num: 37

Candidate Starts for Primadonna_196:

(7, 106635), (11, 106710), (Start: 21 @106818 has 28 MA's), (Start: 25 @106836 has 2 MA's), (Start: 37 @106959 has 11 MA's), (51, 107079), (58, 107133),

Gene: QBert_193 Start: 106654, Stop: 106887, Start Num: 37

Candidate Starts for QBert_193:

(7, 106330), (11, 106405), (Start: 21 @106513 has 28 MA's), (Start: 25 @106531 has 2 MA's), (Start: 37 @106654 has 11 MA's), (51, 106774), (58, 106828),

Gene: Rahel_202 Start: 106892, Stop: 107266, Start Num: 21

Candidate Starts for Rahel_202:

(7, 106709), (11, 106784), (Start: 21 @106892 has 28 MA's), (Start: 25 @106910 has 2 MA's), (Start: 37 @107033 has 11 MA's), (51, 107153), (58, 107207),

Gene: SVoro_197 Start: 107504, Stop: 107878, Start Num: 21

Candidate Starts for SVoro_197:

(7, 107321), (11, 107396), (Start: 21 @107504 has 28 MA's), (Start: 25 @107522 has 2 MA's), (Start: 37 @107645 has 11 MA's), (51, 107765), (58, 107819),

Gene: Salacia_201 Start: 107295, Stop: 107669, Start Num: 21

Candidate Starts for Salacia_201:

(7, 107112), (11, 107187), (Start: 21 @107295 has 28 MA's), (Start: 25 @107313 has 2 MA's), (Start: 37 @107436 has 11 MA's), (51, 107556), (58, 107610),

Gene: Sauce_197 Start: 106109, Stop: 106483, Start Num: 21

Candidate Starts for Sauce_197:

(7, 105926), (11, 106001), (Start: 21 @106109 has 28 MA's), (Start: 25 @106127 has 2 MA's), (Start: 37 @106250 has 11 MA's), (51, 106370), (58, 106424),

Gene: Settecandela_111 Start: 80442, Stop: 80837, Start Num: 17

Candidate Starts for Settecandela_111:

(1, 80169), (2, 80181), (3, 80184), (6, 80235), (Start: 17 @80442 has 2 MA's), (28, 80520), (31, 80538), (40, 80613), (67, 80823),

Gene: ShiaLabeouf_198 Start: 106118, Stop: 106474, Start Num: 25

Candidate Starts for ShiaLabeouf_198:

(7, 105917), (11, 105992), (Start: 21 @106100 has 28 MA's), (Start: 25 @106118 has 2 MA's), (Start: 37 @106241 has 11 MA's), (51, 106361), (58, 106415),

Gene: Shnickers_199 Start: 106164, Stop: 106538, Start Num: 21

Candidate Starts for Shnickers_199:

(7, 105981), (11, 106056), (Start: 21 @106164 has 28 MA's), (Start: 25 @106182 has 2 MA's), (Start: 37 @106305 has 11 MA's), (51, 106425), (58, 106479),

Gene: SmallFry_201 Start: 106258, Stop: 106632, Start Num: 21

Candidate Starts for SmallFry_201:

(7, 106075), (11, 106150), (Start: 21 @106258 has 28 MA's), (Start: 25 @106276 has 2 MA's), (Start: 37 @106399 has 11 MA's), (51, 106519), (58, 106573),

Gene: Spec_196 Start: 106590, Stop: 106823, Start Num: 37

Candidate Starts for Spec_196:

(7, 106266), (11, 106341), (Start: 21 @106449 has 28 MA's), (Start: 25 @106467 has 2 MA's), (Start: 37 @106590 has 11 MA's), (51, 106710), (58, 106764),

Gene: Specks_205 Start: 108706, Stop: 108939, Start Num: 37

Candidate Starts for Specks_205:

(7, 108382), (11, 108457), (Start: 21 @108565 has 28 MA's), (Start: 25 @108583 has 2 MA's), (Start: 37 @108706 has 11 MA's), (51, 108826), (58, 108880),

Gene: Substance289_198 Start: 106447, Stop: 106680, Start Num: 37

Candidate Starts for Substance289_198:

(7, 106123), (11, 106198), (Start: 21 @106306 has 28 MA's), (Start: 25 @106324 has 2 MA's), (Start: 37 @106447 has 11 MA's), (51, 106567), (58, 106621),

Gene: Teardrop_198 Start: 105901, Stop: 106134, Start Num: 37

Candidate Starts for Teardrop_198:

(7, 105577), (11, 105652), (Start: 21 @105760 has 28 MA's), (Start: 25 @105778 has 2 MA's), (Start: 37 @105901 has 11 MA's), (51, 106021), (58, 106075),

Gene: Tonenili_222 Start: 113140, Stop: 113517, Start Num: 21

Candidate Starts for Tonenili_222:

(7, 112957), (11, 113032), (Start: 21 @113140 has 28 MA's), (51, 113401),

Gene: Tortoise16_199 Start: 107144, Stop: 107377, Start Num: 37

Candidate Starts for Tortoise16_199:

(7, 106820), (11, 106895), (Start: 21 @107003 has 28 MA's), (Start: 25 @107021 has 2 MA's), (Start: 37 @107144 has 11 MA's), (51, 107264), (58, 107318),

Gene: Tyke_199 Start: 108370, Stop: 108744, Start Num: 21

Candidate Starts for Tyke_199:

(7, 108187), (11, 108262), (Start: 21 @108370 has 28 MA's), (Start: 25 @108388 has 2 MA's), (Start: 37 @108511 has 11 MA's), (51, 108631), (58, 108685),

Gene: Vortrix_220 Start: 111927, Stop: 112304, Start Num: 21

Candidate Starts for Vortrix_220:

(7, 111744), (11, 111819), (Start: 21 @111927 has 28 MA's), (51, 112188),