

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 301357 Report

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

Pham number 301357 has 60 members, 19 are drafts.

Phages represented in each track:

- Track 1 : ApoKipo_22
- Track 2 : Kovu_22
- Track 3 : EastWest_55
- Track 4 : Wyborn_7, Sicarius2_7
- Track 5 : Abba_27
- Track 6 : TunaTartare_192
- Track 7 : Sham_183
- Track 8 : Muntaha_161, Wakanda_159
- Track 9 : Circinus_152, BillNye_151
- Track 10 : Chaewon_156
- Track 11 : BooTeria_141, WaddleDee_130, DunneganBoMo_133, Emmetator_136, Artu_136
- Track 12 : KSunshine22_138, Ellewin_132, Atuin_136, ReginaGlobina_145
- Track 13 : Chilliams_142
- Track 14 : Panchaali_135
- Track 15 : FrostedClock_149, Mimi_146, Racecar_147, Talia1610_148, Bloom_150
- Track 16 : GoldenEssence_133, FloraSnap32_145, Patbob_143
- Track 17 : LeoJr_146
- Track 18 : Rockabye_147
- Track 19 : Stewart25555_133
- Track 20 : SJReid_147
- Track 21 : Phrampa_140
- Track 22 : Maruru_29
- Track 23 : Sunshine23_30
- Track 24 : Sonali_28
- Track 25 : Bumble_57
- Track 26 : Altadena_58
- Track 27 : BlackJade_32
- Track 28 : Hirko_55
- Track 29 : Ottawa_6, Kharcho_6
- Track 30 : Neuville_2, CardboardBox_2, AnnabelLee_2, ChamoyPickle_2, Roberts_2, Gerri43_2, ChipsNGuac_2
- Track 31 : TMaxx_2
- Track 32 : Mireles_2
- Track 33 : Audell_2
- Track 34 : Makima_3
- Track 35 : TripleC_2

- Track 36 : LastNadiia_2
- Track 37 : Laure_150

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

The start number called the most often in the published annotations is 14, it was called in 10 of the 41 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Artu_136, Bloom_150, BooTeria_141, Chilliams_142, DunneganBoMo_133, Emmetator_136, FloraSnap32_145, FrostedClock_149, GoldenEssence_133, Laure_150, Mimi_146, Panchaali_135, Patbob_143, Phrampa_140, Racecar_147, Rockabye_147, SJReid_147, Stewart25555_133, Talia1610_148, WaddleDee_130,

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

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

- Abba_27, Altadena_58, AnnabelLee_2, ApoKipo_22, Atuin_136, Audell_2, BillNye_151, BlackJade_32, Bumble_57, CardboardBox_2, Chaewon_156, ChamoyPickle_2, ChipsNGuac_2, Circinus_152, EastWest_55, Ellewin_132, Gerri43_2, Hirko_55, KSunshine22_138, Kharcho_6, Kovu_22, LastNadiia_2, LeoJr_146, Makima_3, Maruru_29, Mireles_2, Muntaha_161, Neuvillette_2, Ottawa_6, ReginaGlobina_145, Roberts_2, Sham_183, Sicarius2_7, Sonali_28, Sunshine23_30, TMaxx_2, TripleC_2, TunaTartare_192, Wakanda_159, Wyborn_7,

Summary by start number:

Start 11:

- Found in 6 of 60 (10.0%) of genes in pham
- Manual Annotations of this start: 2 of 41
- Called 83.3% of time when present
- Phage (with cluster) where this start called: Atuin_136 (FC), Ellewin_132 (FC), KSunshine22_138 (FC), LeoJr_146 (FC), ReginaGlobina_145 (FC),

Start 13:

- Found in 2 of 60 (3.3%) of genes in pham
- Manual Annotations of this start: 2 of 41
- Called 100.0% of time when present
- Phage (with cluster) where this start called: ApoKipo_22 (AL), Kovu_22 (AL),

Start 14:

- Found in 20 of 60 (33.3%) of genes in pham
- Manual Annotations of this start: 10 of 41
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Artu_136 (FC), Bloom_150 (FC), BooTeria_141 (FC), Chilliams_142 (FC), DunneganBoMo_133 (FC), Emmetator_136 (FC), FloraSnap32_145 (FC), FrostedClock_149 (FC), GoldenEssence_133 (FC), Laure_150 (UNK), Mimi_146 (FC), Panchaali_135 (FC), Patbob_143 (FC), Phrampa_140 (FC), Racecar_147 (FC), Rockabye_147 (FC), SJReid_147 (FC),

Stewart25555_133 (FC), Talia1610_148 (FC), WaddleDee_130 (FC),

Start 19:

- Found in 8 of 60 (13.3%) of genes in pham
- Manual Annotations of this start: 5 of 41
- Called 100.0% of time when present
- Phage (with cluster) where this start called: AnnabelLee_2 (FR), CardboardBox_2 (FR), ChamoyPickle_2 (FR), ChipsNGuac_2 (FR), Gerri43_2 (FR), Hirko_55 (FL), Neuville_2 (FR), Roberts_2 (FR),

Start 20:

- Found in 12 of 60 (20.0%) of genes in pham
- Manual Annotations of this start: 9 of 41
- Called 83.3% of time when present
- Phage (with cluster) where this start called: Audell_2 (FR), BillNye_151 (BK2), Chaewon_156 (BK2), Circinus_152 (BK2), LastNadiia_2 (FR), Makima_3 (FR), Muntaha_161 (BK2), TripleC_2 (FR), TunaTartare_192 (BK1), Wakanda_159 (BK2),

Start 21:

- Found in 3 of 60 (5.0%) of genes in pham
- Manual Annotations of this start: 2 of 41
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Sonali_28 (FG), Sunshine23_30 (FG), TMaxx_2 (FR),

Start 22:

- Found in 3 of 60 (5.0%) of genes in pham
- Manual Annotations of this start: 2 of 41
- Called 66.7% of time when present
- Phage (with cluster) where this start called: Abba_27 (AO3), Mireles_2 (FR),

Start 23:

- Found in 3 of 60 (5.0%) of genes in pham
- Manual Annotations of this start: 2 of 41
- Called 66.7% of time when present
- Phage (with cluster) where this start called: EastWest_55 (AO), Maruru_29 (FG),

Start 25:

- Found in 17 of 60 (28.3%) of genes in pham
- Manual Annotations of this start: 1 of 41
- Called 5.9% of time when present
- Phage (with cluster) where this start called: Sham_183 (BK1),

Start 26:

- Found in 2 of 60 (3.3%) of genes in pham
- Manual Annotations of this start: 2 of 41
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Kharcho_6 (FM), Ottawa_6 (FM),

Start 28:

- Found in 2 of 60 (3.3%) of genes in pham
- Manual Annotations of this start: 2 of 41
- Called 100.0% of time when present

- Phage (with cluster) where this start called: Sicarius2_7 (AO2), Wyborn_7 (AO2),

Start 29:

- Found in 1 of 60 (1.7%) of genes in pham
- Manual Annotations of this start: 1 of 41
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Bumble_57 (FH),

Start 31:

- Found in 4 of 60 (6.7%) of genes in pham
- Manual Annotations of this start: 1 of 41
- Called 50.0% of time when present
- Phage (with cluster) where this start called: Altadena_58 (FH), BlackJade_32 (FL),

Summary by clusters:

There are 13 clusters represented in this pham: FR, AL, AO, FC, AO3, BK1, BK2, FG, FH, UNK, FL, FM, AO2,

Info for manual annotations of cluster AL:

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

Info for manual annotations of cluster AO:

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

Info for manual annotations of cluster AO2:

- Start number 28 was manually annotated 2 times for cluster AO2.

Info for manual annotations of cluster AO3:

- Start number 22 was manually annotated 1 time for cluster AO3.

Info for manual annotations of cluster BK1:

- Start number 20 was manually annotated 1 time for cluster BK1.
- Start number 25 was manually annotated 1 time for cluster BK1.

Info for manual annotations of cluster BK2:

- Start number 20 was manually annotated 4 times for cluster BK2.

Info for manual annotations of cluster FC:

- Start number 11 was manually annotated 2 times for cluster FC.
- Start number 14 was manually annotated 10 times for cluster FC.

Info for manual annotations of cluster FG:

- Start number 21 was manually annotated 1 time for cluster FG.
- Start number 23 was manually annotated 1 time for cluster FG.

Info for manual annotations of cluster FH:

- Start number 29 was manually annotated 1 time for cluster FH.
- Start number 31 was manually annotated 1 time for cluster FH.

Info for manual annotations of cluster FL:

- Start number 19 was manually annotated 1 time for cluster FL.

Info for manual annotations of cluster FM:

- Start number 26 was manually annotated 2 times for cluster FM.

Info for manual annotations of cluster FR:

- Start number 19 was manually annotated 4 times for cluster FR.
- Start number 20 was manually annotated 4 times for cluster FR.
- Start number 21 was manually annotated 1 time for cluster FR.
- Start number 22 was manually annotated 1 time for cluster FR.

Gene Information:

Gene: Abba_27 Start: 23462, Stop: 23824, Start Num: 22

Candidate Starts for Abba_27:

(2, 23108), (10, 23414), (Start: 22 @23462 has 2 MA's), (70, 23735),

Gene: Altadena_58 Start: 37595, Stop: 37945, Start Num: 31

Candidate Starts for Altadena_58:

(30, 37592), (Start: 31 @37595 has 1 MA's), (47, 37673), (79, 37904),

Gene: AnnabelLee_2 Start: 591, Stop: 968, Start Num: 19

Candidate Starts for AnnabelLee_2:

(Start: 19 @591 has 5 MA's), (33, 639), (49, 714), (56, 759), (75, 909),

Gene: ApoKipo_22 Start: 15394, Stop: 15786, Start Num: 13

Candidate Starts for ApoKipo_22:

(Start: 13 @15394 has 2 MA's), (16, 15403), (Start: 23 @15433 has 2 MA's), (32, 15457), (45, 15505), (46, 15511), (58, 15598), (60, 15619), (75, 15700), (79, 15733),

Gene: Artu_136 Start: 95115, Stop: 95534, Start Num: 14

Candidate Starts for Artu_136:

(Start: 14 @95115 has 10 MA's), (Start: 25 @95157 has 1 MA's), (41, 95229), (52, 95280), (62, 95373), (64, 95388), (73, 95454), (77, 95481), (81, 95523),

Gene: Atuin_136 Start: 97930, Stop: 98343, Start Num: 11

Candidate Starts for Atuin_136:

(Start: 11 @97930 has 2 MA's), (39, 98047), (49, 98089), (51, 98101), (67, 98254),

Gene: Audell_2 Start: 519, Stop: 890, Start Num: 20

Candidate Starts for Audell_2:

(17, 498), (Start: 20 @519 has 9 MA's), (61, 744), (77, 849), (78, 861),

Gene: BillNye_151 Start: 88009, Stop: 88371, Start Num: 20

Candidate Starts for BillNye_151:

(Start: 20 @88009 has 9 MA's), (41, 88081), (43, 88087), (44, 88093), (45, 88099), (49, 88117), (50, 88123), (76, 88324), (77, 88327),

Gene: BlackJade_32 Start: 23720, Stop: 24070, Start Num: 31

Candidate Starts for BlackJade_32:

(4, 23594), (Start: 31 @23720 has 1 MA's), (35, 23744), (37, 23753), (57, 23885), (65, 23942), (75, 24002),

Gene: Bloom_150 Start: 99871, Stop: 100284, Start Num: 14

Candidate Starts for Bloom_150:

(8, 99835), (Start: 14 @99871 has 10 MA's), (Start: 25 @99913 has 1 MA's), (52, 100036), (64, 100144), (73, 100210), (77, 100237),

Gene: BooTeria_141 Start: 95256, Stop: 95675, Start Num: 14

Candidate Starts for BooTeria_141:

(Start: 14 @95256 has 10 MA's), (Start: 25 @95298 has 1 MA's), (41, 95370), (52, 95421), (62, 95514), (64, 95529), (73, 95595), (77, 95622), (81, 95664),

Gene: Bumble_57 Start: 38445, Stop: 38798, Start Num: 29

Candidate Starts for Bumble_57:

(Start: 29 @38445 has 1 MA's), (Start: 31 @38451 has 1 MA's), (47, 38529), (53, 38562), (67, 38691), (79, 38757),

Gene: CardboardBox_2 Start: 591, Stop: 968, Start Num: 19

Candidate Starts for CardboardBox_2:

(Start: 19 @591 has 5 MA's), (33, 639), (49, 714), (56, 759), (75, 909),

Gene: Chaewon_156 Start: 88172, Stop: 88534, Start Num: 20

Candidate Starts for Chaewon_156:

(Start: 20 @88172 has 9 MA's), (42, 88247), (44, 88256), (45, 88262), (63, 88397), (76, 88487), (77, 88490),

Gene: ChamoyPickle_2 Start: 591, Stop: 968, Start Num: 19

Candidate Starts for ChamoyPickle_2:

(Start: 19 @591 has 5 MA's), (33, 639), (49, 714), (56, 759), (75, 909),

Gene: Chilliams_142 Start: 89265, Stop: 89678, Start Num: 14

Candidate Starts for Chilliams_142:

(Start: 14 @89265 has 10 MA's), (49, 89415), (52, 89430), (62, 89523), (64, 89538), (73, 89604), (77, 89625), (81, 89667),

Gene: ChipsNGuac_2 Start: 591, Stop: 968, Start Num: 19

Candidate Starts for ChipsNGuac_2:

(Start: 19 @591 has 5 MA's), (33, 639), (49, 714), (56, 759), (75, 909),

Gene: Circinus_152 Start: 87975, Stop: 88337, Start Num: 20

Candidate Starts for Circinus_152:

(Start: 20 @87975 has 9 MA's), (41, 88047), (43, 88053), (44, 88059), (45, 88065), (49, 88083), (50, 88089), (76, 88290), (77, 88293),

Gene: DunneganBoMo_133 Start: 94525, Stop: 94944, Start Num: 14

Candidate Starts for DunneganBoMo_133:

(Start: 14 @94525 has 10 MA's), (Start: 25 @94567 has 1 MA's), (41, 94639), (52, 94690), (62, 94783), (64, 94798), (73, 94864), (77, 94891), (81, 94933),

Gene: EastWest_55 Start: 37310, Stop: 37666, Start Num: 23

Candidate Starts for EastWest_55:

(7, 37235), (Start: 11 @37265 has 2 MA's), (Start: 23 @37310 has 2 MA's), (41, 37385), (47, 37409), (54, 37457), (60, 37520), (68, 37571), (79, 37631),

Gene: Ellewin_132 Start: 94115, Stop: 94531, Start Num: 11

Candidate Starts for Ellewin_132:

(Start: 11 @94115 has 2 MA's), (39, 94232), (49, 94274), (51, 94286), (67, 94439),

Gene: Emmetator_136 Start: 94442, Stop: 94861, Start Num: 14

Candidate Starts for Emmetator_136:

(Start: 14 @94442 has 10 MA's), (Start: 25 @94484 has 1 MA's), (41, 94556), (52, 94607), (62, 94700), (64, 94715), (73, 94781), (77, 94808), (81, 94850),

Gene: FloraSnap32_145 Start: 98637, Stop: 99056, Start Num: 14

Candidate Starts for FloraSnap32_145:

(8, 98601), (Start: 14 @98637 has 10 MA's), (Start: 25 @98679 has 1 MA's), (41, 98751), (52, 98802), (64, 98910), (73, 98976), (81, 99045),

Gene: FrostedClock_149 Start: 99868, Stop: 100281, Start Num: 14

Candidate Starts for FrostedClock_149:

(8, 99832), (Start: 14 @99868 has 10 MA's), (Start: 25 @99910 has 1 MA's), (52, 100033), (64, 100141), (73, 100207), (77, 100234),

Gene: Gerri43_2 Start: 591, Stop: 968, Start Num: 19

Candidate Starts for Gerri43_2:

(Start: 19 @591 has 5 MA's), (33, 639), (49, 714), (56, 759), (75, 909),

Gene: GoldenEssence_133 Start: 93520, Stop: 93939, Start Num: 14

Candidate Starts for GoldenEssence_133:

(8, 93484), (Start: 14 @93520 has 10 MA's), (Start: 25 @93562 has 1 MA's), (41, 93634), (52, 93685), (64, 93793), (73, 93859), (81, 93928),

Gene: Hirko_55 Start: 40206, Stop: 40562, Start Num: 19

Candidate Starts for Hirko_55:

(Start: 19 @40206 has 5 MA's), (24, 40218), (34, 40257), (40, 40287), (72, 40488), (80, 40551),

Gene: KSunshine22_138 Start: 95675, Stop: 96091, Start Num: 11

Candidate Starts for KSunshine22_138:

(Start: 11 @95675 has 2 MA's), (39, 95792), (49, 95834), (51, 95846), (67, 95999),

Gene: Kharcho_6 Start: 1919, Stop: 2308, Start Num: 26

Candidate Starts for Kharcho_6:

(Start: 26 @1919 has 2 MA's), (39, 1982),

Gene: Kovu_22 Start: 15481, Stop: 15873, Start Num: 13

Candidate Starts for Kovu_22:

(5, 15433), (Start: 13 @15481 has 2 MA's), (16, 15490), (Start: 20 @15511 has 9 MA's), (Start: 22 @15514 has 2 MA's), (27, 15526), (32, 15541), (43, 15589), (45, 15601), (46, 15607), (62, 15721), (74, 15790), (75, 15796), (83, 15862),

Gene: LastNadiia_2 Start: 520, Stop: 891, Start Num: 20

Candidate Starts for LastNadiia_2:

(17, 499), (Start: 20 @520 has 9 MA's), (55, 676), (61, 745), (78, 862),

Gene: Laure_150 Start: 92008, Stop: 92397, Start Num: 14

Candidate Starts for Laure_150:

(Start: 14 @92008 has 10 MA's), (32, 92077), (36, 92098), (53, 92179), (59, 92257), (64, 92281), (71, 92338), (76, 92365),

Gene: LeoJr_146 Start: 98531, Stop: 98944, Start Num: 11

Candidate Starts for LeoJr_146:

(Start: 11 @98531 has 2 MA's), (39, 98648), (49, 98690), (51, 98702),

Gene: Makima_3 Start: 2079, Stop: 2453, Start Num: 20

Candidate Starts for Makima_3:

(Start: 20 @2079 has 9 MA's), (49, 2199),

Gene: Maruru_29 Start: 27682, Stop: 28050, Start Num: 23

Candidate Starts for Maruru_29:

(1, 27271), (3, 27490), (9, 27622), (Start: 23 @27682 has 2 MA's), (57, 27868), (60, 27895), (77, 27991),

Gene: Mimi_146 Start: 98936, Stop: 99349, Start Num: 14

Candidate Starts for Mimi_146:

(8, 98900), (Start: 14 @98936 has 10 MA's), (Start: 25 @98978 has 1 MA's), (52, 99101), (64, 99209), (73, 99275), (77, 99302),

Gene: Mireles_2 Start: 515, Stop: 886, Start Num: 22

Candidate Starts for Mireles_2:

(18, 506), (Start: 22 @515 has 2 MA's), (49, 632),

Gene: Muntaha_161 Start: 87293, Stop: 87655, Start Num: 20

Candidate Starts for Muntaha_161:

(12, 87257), (Start: 20 @87293 has 9 MA's), (42, 87368), (43, 87371), (44, 87377), (45, 87383), (63, 87518), (76, 87608), (77, 87611),

Gene: Neuville_2 Start: 591, Stop: 968, Start Num: 19

Candidate Starts for Neuville_2:

(Start: 19 @591 has 5 MA's), (33, 639), (49, 714), (56, 759), (75, 909),

Gene: Ottawa_6 Start: 1919, Stop: 2308, Start Num: 26

Candidate Starts for Ottawa_6:

(Start: 26 @1919 has 2 MA's), (39, 1982),

Gene: Panchaali_135 Start: 94861, Stop: 95280, Start Num: 14

Candidate Starts for Panchaali_135:

(Start: 14 @94861 has 10 MA's), (Start: 25 @94903 has 1 MA's), (52, 95026), (64, 95134), (73, 95200), (77, 95227), (82, 95272),

Gene: Patbob_143 Start: 99649, Stop: 100068, Start Num: 14

Candidate Starts for Patbob_143:

(8, 99613), (Start: 14 @99649 has 10 MA's), (Start: 25 @99691 has 1 MA's), (41, 99763), (52, 99814), (64, 99922), (73, 99988), (81, 100057),

Gene: Phrampa_140 Start: 101294, Stop: 101719, Start Num: 14

Candidate Starts for Phrampa_140:

(Start: 14 @101294 has 10 MA's), (38, 101390), (48, 101438), (52, 101459), (56, 101489), (62, 101552), (64, 101567), (72, 101627), (83, 101711),

Gene: Racecar_147 Start: 99924, Stop: 100337, Start Num: 14
Candidate Starts for Racecar_147:
(8, 99888), (Start: 14 @99924 has 10 MA's), (Start: 25 @99966 has 1 MA's), (52, 100089), (64, 100197), (73, 100263), (77, 100290),

Gene: ReginaGlobina_145 Start: 98753, Stop: 99169, Start Num: 11
Candidate Starts for ReginaGlobina_145:
(Start: 11 @98753 has 2 MA's), (39, 98870), (49, 98912), (51, 98924), (67, 99077),

Gene: Roberts_2 Start: 591, Stop: 968, Start Num: 19
Candidate Starts for Roberts_2:
(Start: 19 @591 has 5 MA's), (33, 639), (49, 714), (56, 759), (75, 909),

Gene: Rockabye_147 Start: 90427, Stop: 90843, Start Num: 14
Candidate Starts for Rockabye_147:
(Start: 14 @90427 has 10 MA's), (Start: 25 @90469 has 1 MA's), (52, 90592), (64, 90700), (73, 90766), (77, 90793),

Gene: SJReid_147 Start: 89398, Stop: 89817, Start Num: 14
Candidate Starts for SJReid_147:
(Start: 14 @89398 has 10 MA's), (Start: 31 @89458 has 1 MA's), (49, 89548), (64, 89671), (69, 89722), (81, 89806),

Gene: Sham_183 Start: 99378, Stop: 99734, Start Num: 25
Candidate Starts for Sham_183:
(Start: 20 @99366 has 9 MA's), (Start: 25 @99378 has 1 MA's), (34, 99417), (42, 99453), (44, 99462), (45, 99468), (76, 99687),

Gene: Sicarius2_7 Start: 6118, Stop: 6459, Start Num: 28
Candidate Starts for Sicarius2_7:
(Start: 28 @6118 has 2 MA's), (76, 6406),

Gene: Sonali_28 Start: 27905, Stop: 28276, Start Num: 21
Candidate Starts for Sonali_28:
(Start: 21 @27905 has 2 MA's), (62, 28127),

Gene: Stewart25555_133 Start: 95534, Stop: 95953, Start Num: 14
Candidate Starts for Stewart25555_133:
(Start: 14 @95534 has 10 MA's), (64, 95807), (73, 95873),

Gene: Sunshine23_30 Start: 27923, Stop: 28294, Start Num: 21
Candidate Starts for Sunshine23_30:
(Start: 21 @27923 has 2 MA's), (62, 28145),

Gene: TMaxx_2 Start: 552, Stop: 920, Start Num: 21
Candidate Starts for TMaxx_2:
(Start: 21 @552 has 2 MA's), (62, 771), (66, 810),

Gene: Talia1610_148 Start: 99939, Stop: 100352, Start Num: 14
Candidate Starts for Talia1610_148:
(8, 99903), (Start: 14 @99939 has 10 MA's), (Start: 25 @99981 has 1 MA's), (52, 100104), (64, 100212), (73, 100278), (77, 100305),

Gene: TripleC_2 Start: 535, Stop: 909, Start Num: 20

Candidate Starts for TripleC_2:

(6, 460), (15, 508), (Start: 20 @535 has 9 MA's), (49, 655), (74, 844), (76, 862), (79, 883),

Gene: TunaTartare_192 Start: 101415, Stop: 101783, Start Num: 20

Candidate Starts for TunaTartare_192:

(Start: 20 @101415 has 9 MA's), (Start: 25 @101427 has 1 MA's), (34, 101466), (42, 101502), (44, 101511), (45, 101517), (76, 101736),

Gene: WaddleDee_130 Start: 93711, Stop: 94130, Start Num: 14

Candidate Starts for WaddleDee_130:

(Start: 14 @93711 has 10 MA's), (Start: 25 @93753 has 1 MA's), (41, 93825), (52, 93876), (62, 93969), (64, 93984), (73, 94050), (77, 94077), (81, 94119),

Gene: Wakanda_159 Start: 86971, Stop: 87333, Start Num: 20

Candidate Starts for Wakanda_159:

(12, 86935), (Start: 20 @86971 has 9 MA's), (42, 87046), (43, 87049), (44, 87055), (45, 87061), (63, 87196), (76, 87286), (77, 87289),

Gene: Wyborn_7 Start: 5979, Stop: 6320, Start Num: 28

Candidate Starts for Wyborn_7:

(Start: 28 @5979 has 2 MA's), (76, 6267),