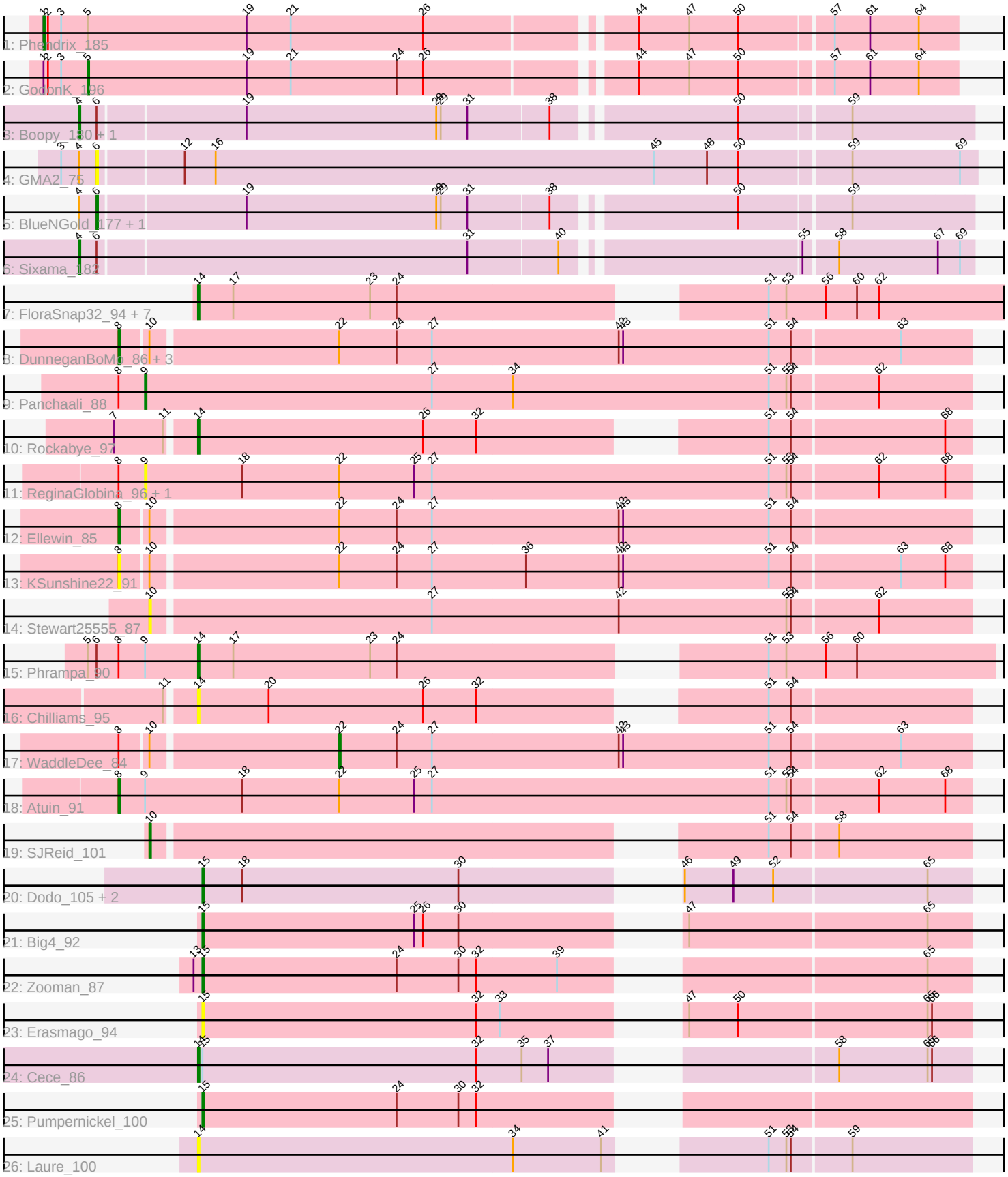
Pham 344157


1: Phendrix_185
2: GodbnK_196
3: Boopy_180 + 1
4: GMA2_75
5: BlueNGold_177 + 1
6: Sixama_182
7: FloraSnap32_94 + 7
8: DunneganBoMo_86 + 3
9: Panchaali_88
10: Rockabye_97
11: ReginaGlobina_96 + 1
12: Ellewin_85
13: KSunshine22_91
14: Stewart25555_87
15: Phrampal_90
16: Chilliams_95
17: WaddleDee_84
18: Atuin_91
19: SJReid_101
20: Dodo_105 + 2
21: Big4_92
22: Zooman_87
23: Erasmago_94
24: Cece_86
25: Pumpernickel_100
26: Laure_100

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 344157 Report

This analysis was run 11/14/26 on database version 672.

Pham number 344157 has 41 members, 10 are drafts.

Phages represented in each track:
• Track 1 : Phendrix_185
• Track 2 : GodonK_196
• Track 3 : Boopy_180, Mareelih_178
• Track 4 : GMA2_75
• Track 5 : BlueNGold_177, Forza_181
• Track 6 : Sixama_182
• Track 7 : FloraSnap32_94, Racecar_98, Talia1610_97, Mimi_97, Patbob_96, FrostedClock_96, Bloom_101, GoldenEssence_83
• Track 8 : DunneganBoMo_86, Artu_87, BooTeria_87, Emmetator_89
• Track 9 : Panchaali_88
• Track 10 : Rockabye_97
• Track 11 : ReginaGlobina_96, LeoJr_96
• Track 12 : Ellewin_85
• Track 13 : KSunshine22_91
• Track 14 : Stewart25555_87
• Track 15 : Phrampa_90
• Track 16 : Chilliams_95
• Track 17 : WaddleDee_84
• Track 18 : Atuin_91
• Track 19 : SJReid_101
• Track 20 : Dodo_105, A3Wally_103, PauloDiaboli_103
• Track 21 : Big4_92
• Track 22 : Zooman_87
• Track 23 : Erasmago_94
• Track 24 : Cece_86
• Track 25 : Pumpernickel_100
• Track 26 : Laure_100

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 31 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

• Bloom_101, Cece_86, Chilliams_95, FloraSnap32_94, FrostedClock_96, GoldenEssence_83, Laure_100, Mimi_97, Patbob_96, Phrampa_90, Racecar_98, Rockabye_97, Talia1610_97,

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

Genes that do not have the "Most Annotated" start:
• A3Wally_103, Artu_87, Atuin_91, Big4_92, BlueNGold_177, BooTeria_87, Boopy_180, Dodo_105, DunneganBoMo_86, Ellewin_85, Emmetator_89, Erasmago_94, Forza_181, GMA2_75, GodonK_196, KSunshine22_91, LeoJr_96, Mareelih_178, Panchaali_88, PauloDiaboli_103, Phendrix_185, Pumpernickel_100, ReginaGlobina_96, SJReid_101, Sixama_182, Stewart25555_87, WaddleDee_84, Zooman_87,

Summary by start number:

Start 1:
• Found in 2 of 41 (4.9%) of genes in pham
• Manual Annotations of this start: 1 of 31
• Called 50.0% of time when present
• Phage (with cluster) where this start called: Phendrix_185 (DK),

Start 4:
• Found in 6 of 41 (14.6%) of genes in pham
• Manual Annotations of this start: 3 of 31
• Called 50.0% of time when present
• Phage (with cluster) where this start called: Boopy_180 (DS), Mareelih_178 (DS), Sixama_182 (DS),

Start 5:
• Found in 3 of 41 (7.3%) of genes in pham
• Manual Annotations of this start: 1 of 31
• Called 33.3% of time when present
• Phage (with cluster) where this start called: GodonK_196 (DK),

Start 6:
• Found in 7 of 41 (17.1%) of genes in pham
• Manual Annotations of this start: 2 of 31
• Called 42.9% of time when present
• Phage (with cluster) where this start called: BlueNGold_177 (DS), Forza_181 (DS), GMA2_75 (DS),

Start 8:
• Found in 12 of 41 (29.3%) of genes in pham
• Manual Annotations of this start: 5 of 31
• Called 58.3% of time when present
• Phage (with cluster) where this start called: Artu_87 (FC), Atuin_91 (FC), BooTeria_87 (FC), DunneganBoMo_86 (FC), Ellewin_85 (FC), Emmetator_89 (FC), KSunshine22_91 (FC),

Start 9:
• Found in 5 of 41 (12.2%) of genes in pham

• Manual Annotations of this start: 1 of 31
• Called 60.0% of time when present
• Phage (with cluster) where this start called: LeoJr_96 (FC), Panchaali_88 (FC), ReginaGlobina_96 (FC),

Start 10:
• Found in 9 of 41 (22.0%) of genes in pham
• Manual Annotations of this start: 1 of 31
• Called 22.2% of time when present
• Phage (with cluster) where this start called: SJReid_101 (FC), Stewart25555_87 (FC),

Start 14:
• Found in 13 of 41 (31.7%) of genes in pham
• Manual Annotations of this start: 10 of 31
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Bloom_101 (FC), Cece_86 (GD3), Chilliams_95 (FC), FloraSnap32_94 (FC), FrostedClock_96 (FC), GoldenEssence_83 (FC), Laure_100 (UNK), Mimi_97 (FC), Patbob_96 (FC), Phrampa_90 (FC), Racecar_98 (FC), Rockabye_97 (FC), Talia1610_97 (FC),

Start 15:
• Found in 8 of 41 (19.5%) of genes in pham
• Manual Annotations of this start: 6 of 31
• Called 87.5% of time when present
• Phage (with cluster) where this start called: A3Wally_103 (GD1), Big4_92 (GD2), Dodo_105 (GD1), Erasmago_94 (GD2), PauloDiaboli_103 (GD1), Pumpernickel_100 (GD4), Zooman_87 (GD2),

Start 22:
• Found in 10 of 41 (24.4%) of genes in pham
• Manual Annotations of this start: 1 of 31
• Called 10.0% of time when present
• Phage (with cluster) where this start called: WaddleDee_84 (FC),

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 1 was manually annotated 1 time for cluster DK.
•Start number 5 was manually annotated 1 time for cluster DK.

Info for manual annotations of cluster DS:
•Start number 4 was manually annotated 3 times for cluster DS.
•Start number 6 was manually annotated 2 times for cluster DS.

Info for manual annotations of cluster FC:
•Start number 8 was manually annotated 5 times for cluster FC.
•Start number 9 was manually annotated 1 time for cluster FC.
•Start number 10 was manually annotated 1 time for cluster FC.
•Start number 14 was manually annotated 9 times for cluster FC.

•Start number 22 was manually annotated 1 time for cluster FC.

Info for manual annotations of cluster GD1:
•Start number 15 was manually annotated 3 times for cluster GD1.

Info for manual annotations of cluster GD2:
•Start number 15 was manually annotated 2 times for cluster GD2.

Info for manual annotations of cluster GD3:
•Start number 14 was manually annotated 1 time for cluster GD3.

Info for manual annotations of cluster GD4:
•Start number 15 was manually annotated 1 time for cluster GD4.

Gene Information:

Gene: A3Wally_103 Start: 68020, Stop: 68490, Start Num: 15
Candidate Starts for A3Wally_103:
(Start: 15 @68020 has 6 MA's), (18, 68047), (30, 68194), (46, 68299), (49, 68332), (52, 68359), (65, 68461),

Gene: Artu_87 Start: 73552, Stop: 74118, Start Num: 8
Candidate Starts for Artu_87:
(Start: 8 @73552 has 5 MA's), (Start: 10 @73570 has 1 MA's), (Start: 22 @73693 has 1 MA's), (24, 73732), (27, 73756), (42, 73882), (43, 73885), (51, 73984), (54, 73999), (63, 74071),

Gene: Atuin_91 Start: 76978, Stop: 77553, Start Num: 8
Candidate Starts for Atuin_91:
(Start: 8 @76978 has 5 MA's), (Start: 9 @76996 has 1 MA's), (18, 77062), (Start: 22 @77128 has 1 MA's), (25, 77179), (27, 77191), (51, 77419), (53, 77431), (54, 77434), (62, 77491), (68, 77536),

Gene: Big4_92 Start: 67235, Stop: 67705, Start Num: 15
Candidate Starts for Big4_92:
(Start: 15 @67235 has 6 MA's), (25, 67379), (26, 67385), (30, 67409), (47, 67517), (65, 67676),

Gene: Bloom_101 Start: 77157, Stop: 77663, Start Num: 14
Candidate Starts for Bloom_101:
(Start: 14 @77157 has 10 MA's), (17, 77181), (23, 77274), (24, 77292), (51, 77499), (53, 77511), (56, 77538), (60, 77559), (62, 77574),

Gene: BlueNGold_177 Start: 104697, Stop: 104134, Start Num: 6
Candidate Starts for BlueNGold_177:
(Start: 4 @104709 has 3 MA's), (Start: 6 @104697 has 2 MA's), (19, 104601), (28, 104472), (29, 104469), (31, 104451), (38, 104397), (50, 104286), (59, 104214),

Gene: BooTeria_87 Start: 73620, Stop: 74186, Start Num: 8
Candidate Starts for BooTeria_87:
(Start: 8 @73620 has 5 MA's), (Start: 10 @73638 has 1 MA's), (Start: 22 @73761 has 1 MA's), (24, 73800), (27, 73824), (42, 73950), (43, 73953), (51, 74052), (54, 74067), (63, 74139),

Gene: Boopy_180 Start: 104720, Stop: 104145, Start Num: 4
Candidate Starts for Boopy_180:
(Start: 4 @104720 has 3 MA's), (Start: 6 @104708 has 2 MA's), (19, 104612), (28, 104483), (29, 104480), (31, 104462), (38, 104408), (50, 104297), (59, 104225),

Gene: Cece_86 Start: 70286, Stop: 70759, Start Num: 14
Candidate Starts for Cece_86:
(Start: 14 @70286 has 10 MA's), (Start: 15 @70289 has 6 MA's), (32, 70475), (35, 70505), (37, 70523), (58, 70670), (65, 70730), (66, 70733),

Gene: Chilliams_95 Start: 69949, Stop: 70425, Start Num: 14
Candidate Starts for Chilliams_95:
(11, 69931), (Start: 14 @69949 has 10 MA's), (20, 69997), (26, 70102), (32, 70138), (51, 70291), (54, 70306),

Gene: Dodo_105 Start: 68342, Stop: 68812, Start Num: 15
Candidate Starts for Dodo_105:
(Start: 15 @68342 has 6 MA's), (18, 68369), (30, 68516), (46, 68621), (49, 68654), (52, 68681), (65, 68783),

Gene: DunneganBoMo_86 Start: 72889, Stop: 73455, Start Num: 8
Candidate Starts for DunneganBoMo_86:
(Start: 8 @72889 has 5 MA's), (Start: 10 @72907 has 1 MA's), (Start: 22 @73030 has 1 MA's), (24, 73069), (27, 73093), (42, 73219), (43, 73222), (51, 73321), (54, 73336), (63, 73408),

Gene: Ellewin_85 Start: 72301, Stop: 72867, Start Num: 8
Candidate Starts for Ellewin_85:
(Start: 8 @72301 has 5 MA's), (Start: 10 @72319 has 1 MA's), (Start: 22 @72442 has 1 MA's), (24, 72481), (27, 72505), (42, 72631), (43, 72634), (51, 72733), (54, 72748),

Gene: Emmetator_89 Start: 72892, Stop: 73458, Start Num: 8
Candidate Starts for Emmetator_89:
(Start: 8 @72892 has 5 MA's), (Start: 10 @72910 has 1 MA's), (Start: 22 @73033 has 1 MA's), (24, 73072), (27, 73096), (42, 73222), (43, 73225), (51, 73324), (54, 73339), (63, 73411),

Gene: Erasmago_94 Start: 64892, Stop: 65362, Start Num: 15
Candidate Starts for Erasmago_94:
(Start: 15 @64892 has 6 MA's), (32, 65078), (33, 65093), (47, 65174), (50, 65207), (65, 65333), (66, 65336),

Gene: FloraSnap32_94 Start: 76054, Stop: 76560, Start Num: 14
Candidate Starts for FloraSnap32_94:
(Start: 14 @76054 has 10 MA's), (17, 76078), (23, 76171), (24, 76189), (51, 76396), (53, 76408), (56, 76435), (60, 76456), (62, 76471),

Gene: Forza_181 Start: 104625, Stop: 104062, Start Num: 6
Candidate Starts for Forza_181:
(Start: 4 @104637 has 3 MA's), (Start: 6 @104625 has 2 MA's), (19, 104529), (28, 104400), (29, 104397), (31, 104379), (38, 104325), (50, 104214), (59, 104142),

Gene: FrostedClock_96 Start: 76636, Stop: 77142, Start Num: 14
Candidate Starts for FrostedClock_96:

(Start: 14 @76636 has 10 MA's), (17, 76660), (23, 76753), (24, 76771), (51, 76978), (53, 76990), (56, 77017), (60, 77038), (62, 77053),

Gene: GMA2_75 Start: 76604, Stop: 76020, Start Num: 6
Candidate Starts for GMA2_75:
(3, 76628), (Start: 4 @76616 has 3 MA's), (Start: 6 @76604 has 2 MA's), (12, 76550), (16, 76529), (45, 76232), (48, 76196), (50, 76175), (59, 76103), (69, 76031),

Gene: GodonK_196 Start: 101457, Stop: 100891, Start Num: 5
Candidate Starts for GodonK_196:
(Start: 1 @101487 has 1 MA's), (2, 101484), (3, 101475), (Start: 5 @101457 has 1 MA's), (19, 101349), (21, 101319), (24, 101247), (26, 101229), (44, 101100), (47, 101067), (50, 101034), (57, 100974), (61, 100950), (64, 100917),

Gene: GoldenEssence_83 Start: 70942, Stop: 71448, Start Num: 14
Candidate Starts for GoldenEssence_83:
(Start: 14 @70942 has 10 MA's), (17, 70966), (23, 71059), (24, 71077), (51, 71284), (53, 71296), (56, 71323), (60, 71344), (62, 71359),

Gene: KSunshine22_91 Start: 73946, Stop: 74512, Start Num: 8
Candidate Starts for KSunshine22_91:
(Start: 8 @73946 has 5 MA's), (Start: 10 @73964 has 1 MA's), (Start: 22 @74087 has 1 MA's), (24, 74126), (27, 74150), (36, 74213), (42, 74276), (43, 74279), (51, 74378), (54, 74393), (63, 74465), (68, 74495),

Gene: Laure_100 Start: 69919, Stop: 70395, Start Num: 14
Candidate Starts for Laure_100:
(Start: 14 @69919 has 10 MA's), (34, 70132), (41, 70192), (51, 70261), (53, 70273), (54, 70276), (59, 70315),

Gene: LeoJr_96 Start: 77232, Stop: 77789, Start Num: 9
Candidate Starts for LeoJr_96:
(Start: 8 @77214 has 5 MA's), (Start: 9 @77232 has 1 MA's), (18, 77298), (Start: 22 @77364 has 1 MA's), (25, 77415), (27, 77427), (51, 77655), (53, 77667), (54, 77670), (62, 77727), (68, 77772),

Gene: Mareelih_178 Start: 104155, Stop: 103580, Start Num: 4
Candidate Starts for Mareelih_178:
(Start: 4 @104155 has 3 MA's), (Start: 6 @104143 has 2 MA's), (19, 104047), (28, 103918), (29, 103915), (31, 103897), (38, 103843), (50, 103732), (59, 103660),

Gene: Mimi_97 Start: 76504, Stop: 77010, Start Num: 14
Candidate Starts for Mimi_97:
(Start: 14 @76504 has 10 MA's), (17, 76528), (23, 76621), (24, 76639), (51, 76846), (53, 76858), (56, 76885), (60, 76906), (62, 76921),

Gene: Panchaali_88 Start: 73901, Stop: 74458, Start Num: 9
Candidate Starts for Panchaali_88:
(Start: 8 @73883 has 5 MA's), (Start: 9 @73901 has 1 MA's), (27, 74096), (34, 74150), (51, 74324), (53, 74336), (54, 74339), (62, 74396),

Gene: Patbob_96 Start: 77232, Stop: 77738, Start Num: 14
Candidate Starts for Patbob_96:

(Start: 14 @77232 has 10 MA's), (17, 77256), (23, 77349), (24, 77367), (51, 77574), (53, 77586), (56, 77613), (60, 77634), (62, 77649),

Gene: PauloDiaboli_103 Start: 67377, Stop: 67847, Start Num: 15
Candidate Starts for PauloDiaboli_103:
(Start: 15 @67377 has 6 MA's), (18, 67404), (30, 67551), (46, 67656), (49, 67689), (52, 67716), (65, 67818),

Gene: Phendrix_185 Start: 100076, Stop: 99480, Start Num: 1
Candidate Starts for Phendrix_185:
(Start: 1 @100076 has 1 MA's), (2, 100073), (3, 100064), (Start: 5 @100046 has 1 MA's), (19, 99938), (21, 99908), (26, 99818), (44, 99689), (47, 99656), (50, 99623), (57, 99563), (61, 99539), (64, 99506),

Gene: Phrampa_90 Start: 78737, Stop: 79231, Start Num: 14
Candidate Starts for Phrampa_90:
(Start: 5 @78662 has 1 MA's), (Start: 6 @78668 has 2 MA's), (Start: 8 @78683 has 5 MA's), (Start: 9 @78701 has 1 MA's), (Start: 14 @78737 has 10 MA's), (17, 78761), (23, 78854), (24, 78872), (51, 79079), (53, 79091), (56, 79118), (60, 79139),

Gene: Pumpernickel_100 Start: 69028, Stop: 69498, Start Num: 15
Candidate Starts for Pumpernickel_100:
(Start: 15 @69028 has 6 MA's), (24, 69160), (30, 69202), (32, 69214),

Gene: Racecar_98 Start: 77157, Stop: 77663, Start Num: 14
Candidate Starts for Racecar_98:
(Start: 14 @77157 has 10 MA's), (17, 77181), (23, 77274), (24, 77292), (51, 77499), (53, 77511), (56, 77538), (60, 77559), (62, 77574),

Gene: ReginaGlobina_96 Start: 76797, Stop: 77354, Start Num: 9
Candidate Starts for ReginaGlobina_96:
(Start: 8 @76779 has 5 MA's), (Start: 9 @76797 has 1 MA's), (18, 76863), (Start: 22 @76929 has 1 MA's), (25, 76980), (27, 76992), (51, 77220), (53, 77232), (54, 77235), (62, 77292), (68, 77337),

Gene: Rockabye_97 Start: 70393, Stop: 70869, Start Num: 14
Candidate Starts for Rockabye_97:
(7, 70342), (11, 70375), (Start: 14 @70393 has 10 MA's), (26, 70546), (32, 70582), (51, 70735), (54, 70750), (68, 70852),

Gene: SJReid_101 Start: 69475, Stop: 69978, Start Num: 10
Candidate Starts for SJReid_101:
(Start: 10 @69475 has 1 MA's), (51, 69844), (54, 69859), (58, 69889),

Gene: Sixama_182 Start: 105456, Stop: 104881, Start Num: 4
Candidate Starts for Sixama_182:
(Start: 4 @105456 has 3 MA's), (Start: 6 @105444 has 2 MA's), (31, 105198), (40, 105138), (55, 104991), (58, 104970), (67, 104904), (69, 104889),

Gene: Stewart25555_87 Start: 73030, Stop: 73578, Start Num: 10
Candidate Starts for Stewart25555_87:
(Start: 10 @73030 has 1 MA's), (27, 73216), (42, 73342), (53, 73456), (54, 73459), (62, 73516),

Gene: Talia1610_97 Start: 76522, Stop: 77028, Start Num: 14
Candidate Starts for Talia1610_97:

(Start: 14 @76522 has 10 MA's), (17, 76546), (23, 76639), (24, 76657), (51, 76864), (53, 76876), (56, 76903), (60, 76924), (62, 76939),

Gene: WaddleDee_84 Start: 72216, Stop: 72641, Start Num: 22
Candidate Starts for WaddleDee_84:
(Start: 8 @72075 has 5 MA's), (Start: 10 @72093 has 1 MA's), (Start: 22 @72216 has 1 MA's), (24, 72255), (27, 72279), (42, 72405), (43, 72408), (51, 72507), (54, 72522), (63, 72594),

Gene: Zooman_87 Start: 65082, Stop: 65552, Start Num: 15
Candidate Starts for Zooman_87:
(13, 65076), (Start: 15 @65082 has 6 MA's), (24, 65214), (30, 65256), (32, 65268), (39, 65322), (65, 65523),