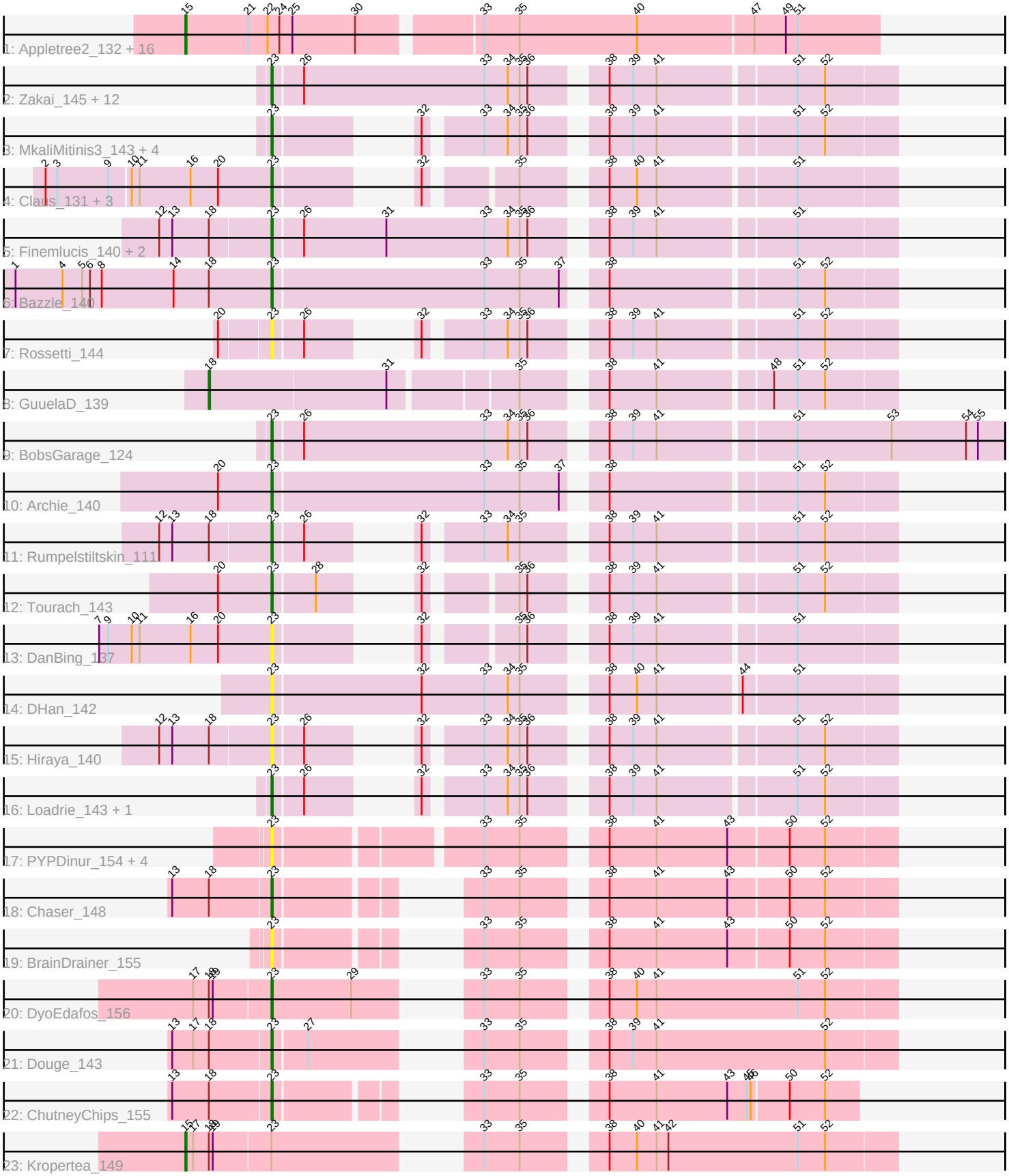
# Pham 342152


1: Appletree2_132 + 16
2: Zakai_145 + 12
3: MkaliMitinis3_143 + 4
4: Claus_131 + 3
5: Finemlucis_140 + 2
6: Bazzle_140
7: Rossetti_144
8: GuuelaD_139
9: BobsGarage_124
10: Archie_140
11: Rumpelstiltskin_111
12: Tourach_143
13: DanBing_137
14: DHan_142
15: Hiraya_140
16: Loadrie_143 + 1
17: PYPDinur_154 + 4
18: Chaser_148
19: BrainDrainer_155
20: DyoEdafos_156
21: Douge_143
22: ChutneyChips_155
23: Kropertea_149

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 342152 Report

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

Pham number 342152 has 65 members, 18 are drafts.

Phages represented in each track:
• Track 1 : Appletree2_132, AvadaKedavra_132, LeBron_131, JoeDirt_133, CicholasNage_122, Calm_138, UPIE_130, Poochiewood_124, Wyatt2_131, Tyson_133, Halena_131, Zaria_136, OhShagHennessy_124, MAckerman_132, Rose5_132, Wamburgrxpress_135, Acquire49_131
• Track 2 : Zakai_145, Netyap_142, Lewan_143, Sarshaun_134, Soap141_142, Breezona_143, DrSeegs_140, BigCheese_138, Itos_144, Faith1_140, Miley16_143, Molivier_132, Winky_143
• Track 3 : MkaliMitinis3_143, Crossroads_144, Vetrix_140, Lynnae_142, Wigglewiggle_144
• Track 4 : Claus_131, Baoshan_130, ZhongYanYuan_140, Hafay_110
• Track 5 : Finemlucis_140, SoJulia_147, Gabriela_142
• Track 6 : Bazzle_140
• Track 7 : Rossetti_144
• Track 8 : GuuelaD_139
• Track 9 : BobsGarage_124
• Track 10 : Archie_140
• Track 11 : Rumpelstiltskin_111
• Track 12 : Tourach_143
• Track 13 : DanBing_137
• Track 14 : DHan_142
• Track 15 : Hiraya_140
• Track 16 : Loadrie_143, OverPar_127
• Track 17 : PYPDinur_154, Quby_155, Douzhi_155, FarmResident_154, Sheng711_154
• Track 18 : Chaser_148
• Track 19 : BrainDrainer_155
• Track 20 : DyoEdafos_156
• Track 21 : Douge_143
• Track 22 : ChutneyChips_155
• Track 23 : Kropertea_149

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

The start number called the most often in the published annotations is 23, it was called in 29 of the 47 non-draft genes in the pham.

Genes that call this "Most Annotated" start:
• Archie_140, Baoshan_130, Bazzle_140, BigCheese_138, BobsGarage_124, BrainDrainer_155, Breezona_143, Chaser_148, ChutneyChips_155, Claus_131, Crossroads_144, DHan_142, DanBing_137, Douge_143, Douzhi_155, DrSeegs_140, DyoEdafos_156, Faith1_140, FarmResident_154, Finemlucis_140, Gabriela_142, Hafay_110, Hiraya_140, Itos_144, Lewan_143, Loadrie_143, Lynnae_142, Miley16_143, MkaliMitinis3_143, Molivier_132, Netyap_142, OverPar_127, PYPDinur_154, Quby_155, Rossetti_144, Rumpelstiltskin_111, Sarshaun_134, Sheng711_154, SoJulia_147, Soap141_142, Tourach_143, Vetrix_140, Wigglewiggle_144, Winky_143, Zakai_145, ZhongYanYuan_140,

Genes that have the "Most Annotated" start but do not call it:
• Kropertea_149,

Genes that do not have the "Most Annotated" start:
• Acquire49_131, Appletree2_132, AvadaKedavra_132, Calm_138, CicholasNage_122, GuuelaD_139, Halena_131, JoeDirt_133, LeBron_131, MAckerman_132, OhShagHennessy_124, Poochiewood_124, Rose5_132, Tyson_133, UPIE_130, Wamburgrxpress_135, Wyatt2_131, Zaria_136,

**Summary by start number:**

Start 15:
• Found in 18 of 65 ( 27.7% ) of genes in pham
• Manual Annotations of this start: 17 of 47
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Acquire49_131 (L1), Appletree2_132 (L1), AvadaKedavra_132 (L1), Calm_138 (L1), CicholasNage_122 (L1), Halena_131 (L1), JoeDirt_133 (L1), Kropertea_149 (L4), LeBron_131 (L1), MAckerman_132 (L1), OhShagHennessy_124 (L1), Poochiewood_124 (L1), Rose5_132 (L1), Tyson_133 (L1), UPIE_130 (L1), Wamburgrxpress_135 (L1), Wyatt2_131 (L1), Zaria_136 (L1),

Start 18:
• Found in 12 of 65 ( 18.5% ) of genes in pham
• Manual Annotations of this start: 1 of 47
• Called 8.3% of time when present
• Phage (with cluster) where this start called: GuuelaD_139 (L2),

Start 23:
• Found in 47 of 65 ( 72.3% ) of genes in pham
• Manual Annotations of this start: 29 of 47
• Called 97.9% of time when present
• Phage (with cluster) where this start called: Archie_140 (L2), Baoshan_130 (L2), Bazzle_140 (L2), BigCheese_138 (L2), BobsGarage_124 (L2), BrainDrainer_155 (L4), Breezona_143 (L2), Chaser_148 (L4), ChutneyChips_155 (L4), Claus_131 (L2), Crossroads_144 (L2), DHan_142 (L2), DanBing_137 (L2), Douge_143 (L4), Douzhi_155 (L4), DrSeegs_140 (L2), DyoEdafos_156 (L4), Faith1_140 (L2), FarmResident_154 (L4), Finemlucis_140 (L2), Gabriela_142 (L2), Hafay_110 (L2), Hiraya_140 (L2), Itos_144 (L2), Lewan_143 (L2), Loadrie_143 (L2), Lynnae_142 (L2), Miley16_143 (L2), MkaliMitinis3_143 (L2), Molivier_132 (L2), Netyap_142 (L2),

OverPar_127 (L2), PYPDinur_154 (L4), Quby_155 (L4), Rossetti_144 (L2), Rumpelstiltskin_111 (L2), Sarshaun_134 (L2), Sheng711_154 (L4), SoJulia_147 (L2), Soap141_142 (L2), Tourach_143 (L2), Vetrix_140 (L2), Wigglewiggle_144 (L2), Winky_143 (L2), Zakai_145 (L2), ZhongYanYuan_140 (L2),

**Summary by clusters:**

There are 3 clusters represented in this pham: L4, L2, L1,

Info for manual annotations of cluster L1:
•Start number 15 was manually annotated 16 times for cluster L1.

Info for manual annotations of cluster L2:
•Start number 18 was manually annotated 1 time for cluster L2.
•Start number 23 was manually annotated 25 times for cluster L2.

Info for manual annotations of cluster L4:
•Start number 15 was manually annotated 1 time for cluster L4.
•Start number 23 was manually annotated 4 times for cluster L4.

***Gene Information:***

Gene: Acquire49_131 Start: 72845, Stop: 72333, Start Num: 15
Candidate Starts for Acquire49_131:
(Start: 15 @72845 has 17 MA's), (21, 72797), (22, 72782), (24, 72773), (25, 72764), (30, 72716), (33, 72632), (35, 72605), (40, 72515), (47, 72428), (49, 72404), (51, 72395),

Gene: Appletree2_132 Start: 73023, Stop: 72511, Start Num: 15
Candidate Starts for Appletree2_132:
(Start: 15 @73023 has 17 MA's), (21, 72975), (22, 72960), (24, 72951), (25, 72942), (30, 72894), (33, 72810), (35, 72783), (40, 72693), (47, 72606), (49, 72582), (51, 72573),

Gene: Archie_140 Start: 75399, Stop: 74956, Start Num: 23
Candidate Starts for Archie_140:
(20, 75438), (Start: 23 @75399 has 29 MA's), (33, 75240), (35, 75213), (37, 75183), (38, 75162), (51, 75027), (52, 75006),

Gene: AvadaKedavra_132 Start: 72888, Stop: 72376, Start Num: 15
Candidate Starts for AvadaKedavra_132:
(Start: 15 @72888 has 17 MA's), (21, 72840), (22, 72825), (24, 72816), (25, 72807), (30, 72759), (33, 72675), (35, 72648), (40, 72558), (47, 72471), (49, 72447), (51, 72438),

Gene: Baoshan_130 Start: 70471, Stop: 70094, Start Num: 23
Candidate Starts for Baoshan_130:
(2, 70639), (3, 70630), (9, 70591), (10, 70576), (11, 70570), (16, 70531), (20, 70510), (Start: 23 @70471 has 29 MA's), (32, 70408), (35, 70351), (38, 70300), (40, 70279), (41, 70264), (51, 70165),

Gene: Bazzle_140 Start: 75896, Stop: 75453, Start Num: 23
Candidate Starts for Bazzle_140:
(1, 76088), (4, 76052), (5, 76037), (6, 76031), (8, 76022), (14, 75968), (Start: 18 @75941 has 1 MA's), (Start: 23 @75896 has 29 MA's), (33, 75737), (35, 75710), (37, 75680), (38, 75659), (51, 75524), (52,

75503),

Gene: BigCheese_138 Start: 71942, Stop: 71499, Start Num: 23
Candidate Starts for BigCheese_138:
(Start: 23 @71942 has 29 MA's), (26, 71921), (33, 71783), (34, 71765), (35, 71756), (36, 71750), (38, 71705), (39, 71687), (41, 71669), (51, 71570), (52, 71549),

Gene: BobsGarage_124 Start: 67234, Stop: 66704, Start Num: 23
Candidate Starts for BobsGarage_124:
(Start: 23 @67234 has 29 MA's), (26, 67213), (33, 67075), (34, 67057), (35, 67048), (36, 67042), (38, 66997), (39, 66979), (41, 66961), (51, 66862), (53, 66790), (54, 66733), (55, 66724),

Gene: BrainDrainer_155 Start: 76837, Stop: 76448, Start Num: 23
Candidate Starts for BrainDrainer_155:
(Start: 23 @76837 has 29 MA's), (33, 76738), (35, 76711), (38, 76660), (41, 76624), (43, 76570), (50, 76525), (52, 76498),

Gene: Breezona_143 Start: 75784, Stop: 75341, Start Num: 23
Candidate Starts for Breezona_143:
(Start: 23 @75784 has 29 MA's), (26, 75763), (33, 75625), (34, 75607), (35, 75598), (36, 75592), (38, 75547), (39, 75529), (41, 75511), (51, 75412), (52, 75391),

Gene: Calm_138 Start: 74106, Stop: 73594, Start Num: 15
Candidate Starts for Calm_138:
(Start: 15 @74106 has 17 MA's), (21, 74058), (22, 74043), (24, 74034), (25, 74025), (30, 73977), (33, 73893), (35, 73866), (40, 73776), (47, 73689), (49, 73665), (51, 73656),

Gene: Chaser_148 Start: 75823, Stop: 75434, Start Num: 23
Candidate Starts for Chaser_148:
(13, 75895), (Start: 18 @75868 has 1 MA's), (Start: 23 @75823 has 29 MA's), (33, 75724), (35, 75697), (38, 75646), (41, 75610), (43, 75556), (50, 75511), (52, 75484),

Gene: ChutneyChips_155 Start: 76947, Stop: 76585, Start Num: 23
Candidate Starts for ChutneyChips_155:
(13, 77019), (Start: 18 @76992 has 1 MA's), (Start: 23 @76947 has 29 MA's), (33, 76848), (35, 76821), (38, 76770), (41, 76734), (43, 76680), (45, 76665), (46, 76662), (50, 76635), (52, 76608),

Gene: CicholasNage_122 Start: 70202, Stop: 69690, Start Num: 15
Candidate Starts for CicholasNage_122:
(Start: 15 @70202 has 17 MA's), (21, 70154), (22, 70139), (24, 70130), (25, 70121), (30, 70073), (33, 69989), (35, 69962), (40, 69872), (47, 69785), (49, 69761), (51, 69752),

Gene: Claus_131 Start: 71384, Stop: 71007, Start Num: 23
Candidate Starts for Claus_131:
(2, 71552), (3, 71543), (9, 71504), (10, 71489), (11, 71483), (16, 71444), (20, 71423), (Start: 23 @71384 has 29 MA's), (32, 71321), (35, 71264), (38, 71213), (40, 71192), (41, 71177), (51, 71078),

Gene: Crossroads_144 Start: 75286, Stop: 74903, Start Num: 23
Candidate Starts for Crossroads_144:
(Start: 23 @75286 has 29 MA's), (32, 75223), (33, 75187), (34, 75169), (35, 75160), (36, 75154), (38, 75109), (39, 75091), (41, 75073), (51, 74974), (52, 74953),

Gene: DHan_142 Start: 75640, Stop: 75197, Start Num: 23

Candidate Starts for DHan_142:
(Start: 23 @75640 has 29 MA's), (32, 75529), (33, 75481), (34, 75463), (35, 75454), (38, 75403), (40, 75382), (41, 75367), (44, 75307), (51, 75268),

Gene: DanBing_137 Start: 71647, Stop: 71270, Start Num: 23
Candidate Starts for DanBing_137:
(7, 71776), (9, 71770), (10, 71752), (11, 71746), (16, 71707), (20, 71686), (Start: 23 @71647 has 29 MA's), (32, 71584), (35, 71527), (36, 71521), (38, 71476), (39, 71458), (41, 71440), (51, 71341),

Gene: Douge_143 Start: 73698, Stop: 73297, Start Num: 23
Candidate Starts for Douge_143:
(13, 73770), (17, 73755), (Start: 18 @73743 has 1 MA's), (Start: 23 @73698 has 29 MA's), (27, 73674), (33, 73590), (35, 73563), (38, 73512), (39, 73494), (41, 73476), (52, 73347),

Gene: Douzhi_155 Start: 77003, Stop: 76614, Start Num: 23
Candidate Starts for Douzhi_155:
(Start: 23 @77003 has 29 MA's), (33, 76904), (35, 76877), (38, 76826), (41, 76790), (43, 76736), (50, 76691), (52, 76664),

Gene: DrSeegs_140 Start: 75784, Stop: 75341, Start Num: 23
Candidate Starts for DrSeegs_140:
(Start: 23 @75784 has 29 MA's), (26, 75763), (33, 75625), (34, 75607), (35, 75598), (36, 75592), (38, 75547), (39, 75529), (41, 75511), (51, 75412), (52, 75391),

Gene: DyoEdafos_156 Start: 76685, Stop: 76281, Start Num: 23
Candidate Starts for DyoEdafos_156:
(17, 76739), (Start: 18 @76727 has 1 MA's), (19, 76724), (Start: 23 @76685 has 29 MA's), (29, 76625), (33, 76574), (35, 76547), (38, 76496), (40, 76475), (41, 76460), (51, 76352), (52, 76331),

Gene: Faith1_140 Start: 75092, Stop: 74649, Start Num: 23
Candidate Starts for Faith1_140:
(Start: 23 @75092 has 29 MA's), (26, 75071), (33, 74933), (34, 74915), (35, 74906), (36, 74900), (38, 74855), (39, 74837), (41, 74819), (51, 74720), (52, 74699),

Gene: FarmResident_154 Start: 76652, Stop: 76263, Start Num: 23
Candidate Starts for FarmResident_154:
(Start: 23 @76652 has 29 MA's), (33, 76553), (35, 76526), (38, 76475), (41, 76439), (43, 76385), (50, 76340), (52, 76313),

Gene: Finemlucis_140 Start: 76184, Stop: 75741, Start Num: 23
Candidate Starts for Finemlucis_140:
(12, 76265), (13, 76256), (Start: 18 @76229 has 1 MA's), (Start: 23 @76184 has 29 MA's), (26, 76163), (31, 76100), (33, 76025), (34, 76007), (35, 75998), (36, 75992), (38, 75947), (39, 75929), (41, 75911), (51, 75812),

Gene: Gabriela_142 Start: 74527, Stop: 74084, Start Num: 23
Candidate Starts for Gabriela_142:
(12, 74608), (13, 74599), (Start: 18 @74572 has 1 MA's), (Start: 23 @74527 has 29 MA's), (26, 74506), (31, 74443), (33, 74368), (34, 74350), (35, 74341), (36, 74335), (38, 74290), (39, 74272), (41, 74254), (51, 74155),

Gene: GuuelaD_139 Start: 75467, Stop: 74988, Start Num: 18
Candidate Starts for GuuelaD_139:

(Start: 18 @75467 has 1 MA's), (31, 75335), (35, 75245), (38, 75194), (41, 75158), (48, 75077), (51, 75059), (52, 75038),

Gene: Hafay_110 Start: 67215, Stop: 66838, Start Num: 23
Candidate Starts for Hafay_110:
(2, 67383), (3, 67374), (9, 67335), (10, 67320), (11, 67314), (16, 67275), (20, 67254), (Start: 23 @67215 has 29 MA's), (32, 67152), (35, 67095), (38, 67044), (40, 67023), (41, 67008), (51, 66909),

Gene: Halena_131 Start: 73043, Stop: 72531, Start Num: 15
Candidate Starts for Halena_131:
(Start: 15 @73043 has 17 MA's), (21, 72995), (22, 72980), (24, 72971), (25, 72962), (30, 72914), (33, 72830), (35, 72803), (40, 72713), (47, 72626), (49, 72602), (51, 72593),

Gene: Hiraya_140 Start: 75197, Stop: 74814, Start Num: 23
Candidate Starts for Hiraya_140:
(12, 75278), (13, 75269), (Start: 18 @75242 has 1 MA's), (Start: 23 @75197 has 29 MA's), (26, 75176), (32, 75134), (33, 75098), (34, 75080), (35, 75071), (36, 75065), (38, 75020), (39, 75002), (41, 74984), (51, 74885), (52, 74864),

Gene: Itos_144 Start: 74069, Stop: 73626, Start Num: 23
Candidate Starts for Itos_144:
(Start: 23 @74069 has 29 MA's), (26, 74048), (33, 73910), (34, 73892), (35, 73883), (36, 73877), (38, 73832), (39, 73814), (41, 73796), (51, 73697), (52, 73676),

Gene: JoeDirt_133 Start: 74086, Stop: 73574, Start Num: 15
Candidate Starts for JoeDirt_133:
(Start: 15 @74086 has 17 MA's), (21, 74038), (22, 74023), (24, 74014), (25, 74005), (30, 73957), (33, 73873), (35, 73846), (40, 73756), (47, 73669), (49, 73645), (51, 73636),

Gene: Kropertea_149 Start: 76165, Stop: 75701, Start Num: 15
Candidate Starts for Kropertea_149:
(Start: 15 @76165 has 17 MA's), (17, 76159), (Start: 18 @76147 has 1 MA's), (19, 76144), (Start: 23 @76105 has 29 MA's), (33, 75994), (35, 75967), (38, 75916), (40, 75895), (41, 75880), (42, 75871), (51, 75772), (52, 75751),

Gene: LeBron_131 Start: 72608, Stop: 72096, Start Num: 15
Candidate Starts for LeBron_131:
(Start: 15 @72608 has 17 MA's), (21, 72560), (22, 72545), (24, 72536), (25, 72527), (30, 72479), (33, 72395), (35, 72368), (40, 72278), (47, 72191), (49, 72167), (51, 72158),

Gene: Lewan_143 Start: 75891, Stop: 75448, Start Num: 23
Candidate Starts for Lewan_143:
(Start: 23 @75891 has 29 MA's), (26, 75870), (33, 75732), (34, 75714), (35, 75705), (36, 75699), (38, 75654), (39, 75636), (41, 75618), (51, 75519), (52, 75498),

Gene: Loadrie_143 Start: 75624, Stop: 75241, Start Num: 23
Candidate Starts for Loadrie_143:
(Start: 23 @75624 has 29 MA's), (26, 75603), (32, 75561), (33, 75525), (34, 75507), (35, 75498), (36, 75492), (38, 75447), (39, 75429), (41, 75411), (51, 75312), (52, 75291),

Gene: Lynnae_142 Start: 74761, Stop: 74378, Start Num: 23
Candidate Starts for Lynnae_142:

(Start: 23 @74761 has 29 MA's), (32, 74698), (33, 74662), (34, 74644), (35, 74635), (36, 74629), (38, 74584), (39, 74566), (41, 74548), (51, 74449), (52, 74428),

Gene: MAckerman_132 Start: 73046, Stop: 72534, Start Num: 15
Candidate Starts for MAckerman_132:
(Start: 15 @73046 has 17 MA's), (21, 72998), (22, 72983), (24, 72974), (25, 72965), (30, 72917), (33, 72833), (35, 72806), (40, 72716), (47, 72629), (49, 72605), (51, 72596),

Gene: Miley16_143 Start: 75785, Stop: 75342, Start Num: 23
Candidate Starts for Miley16_143:
(Start: 23 @75785 has 29 MA's), (26, 75764), (33, 75626), (34, 75608), (35, 75599), (36, 75593), (38, 75548), (39, 75530), (41, 75512), (51, 75413), (52, 75392),

Gene: MkaliMitinis3_143 Start: 75001, Stop: 74618, Start Num: 23
Candidate Starts for MkaliMitinis3_143:
(Start: 23 @75001 has 29 MA's), (32, 74938), (33, 74902), (34, 74884), (35, 74875), (36, 74869), (38, 74824), (39, 74806), (41, 74788), (51, 74689), (52, 74668),

Gene: Molivier_132 Start: 70354, Stop: 69911, Start Num: 23
Candidate Starts for Molivier_132:
(Start: 23 @70354 has 29 MA's), (26, 70333), (33, 70195), (34, 70177), (35, 70168), (36, 70162), (38, 70117), (39, 70099), (41, 70081), (51, 69982), (52, 69961),

Gene: Netyap_142 Start: 75498, Stop: 75055, Start Num: 23
Candidate Starts for Netyap_142:
(Start: 23 @75498 has 29 MA's), (26, 75477), (33, 75339), (34, 75321), (35, 75312), (36, 75306), (38, 75261), (39, 75243), (41, 75225), (51, 75126), (52, 75105),

Gene: OhShagHennessy_124 Start: 71807, Stop: 71295, Start Num: 15
Candidate Starts for OhShagHennessy_124:
(Start: 15 @71807 has 17 MA's), (21, 71759), (22, 71744), (24, 71735), (25, 71726), (30, 71678), (33, 71594), (35, 71567), (40, 71477), (47, 71390), (49, 71366), (51, 71357),

Gene: OverPar_127 Start: 69125, Stop: 68742, Start Num: 23
Candidate Starts for OverPar_127:
(Start: 23 @69125 has 29 MA's), (26, 69104), (32, 69062), (33, 69026), (34, 69008), (35, 68999), (36, 68993), (38, 68948), (39, 68930), (41, 68912), (51, 68813), (52, 68792),

Gene: PYPDinur_154 Start: 76886, Stop: 76455, Start Num: 23
Candidate Starts for PYPDinur_154:
(Start: 23 @76886 has 29 MA's), (33, 76745), (35, 76718), (38, 76667), (41, 76631), (43, 76577), (50, 76532), (52, 76505),

Gene: Poochiewood_124 Start: 70632, Stop: 70120, Start Num: 15
Candidate Starts for Poochiewood_124:
(Start: 15 @70632 has 17 MA's), (21, 70584), (22, 70569), (24, 70560), (25, 70551), (30, 70503), (33, 70419), (35, 70392), (40, 70302), (47, 70215), (49, 70191), (51, 70182),

Gene: Quby_155 Start: 76706, Stop: 76317, Start Num: 23
Candidate Starts for Quby_155:
(Start: 23 @76706 has 29 MA's), (33, 76607), (35, 76580), (38, 76529), (41, 76493), (43, 76439), (50, 76394), (52, 76367),

Gene: Rose5_132 Start: 73116, Stop: 72604, Start Num: 15
Candidate Starts for Rose5_132:
(Start: 15 @73116 has 17 MA's), (21, 73068), (22, 73053), (24, 73044), (25, 73035), (30, 72987), (33, 72903), (35, 72876), (40, 72786), (47, 72699), (49, 72675), (51, 72666),

Gene: Rossetti_144 Start: 75764, Stop: 75381, Start Num: 23
Candidate Starts for Rossetti_144:
(20, 75800), (Start: 23 @75764 has 29 MA's), (26, 75743), (32, 75701), (33, 75665), (34, 75647), (35, 75638), (36, 75632), (38, 75587), (39, 75569), (41, 75551), (51, 75452), (52, 75431),

Gene: Rumpelstiltskin_111 Start: 68448, Stop: 68065, Start Num: 23
Candidate Starts for Rumpelstiltskin_111:
(12, 68529), (13, 68520), (Start: 18 @68493 has 1 MA's), (Start: 23 @68448 has 29 MA's), (26, 68427), (32, 68385), (33, 68349), (34, 68331), (35, 68322), (38, 68271), (39, 68253), (41, 68235), (51, 68136), (52, 68115),

Gene: Sarshaun_134 Start: 72297, Stop: 71854, Start Num: 23
Candidate Starts for Sarshaun_134:
(Start: 23 @72297 has 29 MA's), (26, 72276), (33, 72138), (34, 72120), (35, 72111), (36, 72105), (38, 72060), (39, 72042), (41, 72024), (51, 71925), (52, 71904),

Gene: Sheng711_154 Start: 76211, Stop: 75822, Start Num: 23
Candidate Starts for Sheng711_154:
(Start: 23 @76211 has 29 MA's), (33, 76112), (35, 76085), (38, 76034), (41, 75998), (43, 75944), (50, 75899), (52, 75872),

Gene: SoJulia_147 Start: 77202, Stop: 76759, Start Num: 23
Candidate Starts for SoJulia_147:
(12, 77283), (13, 77274), (Start: 18 @77247 has 1 MA's), (Start: 23 @77202 has 29 MA's), (26, 77181), (31, 77118), (33, 77043), (34, 77025), (35, 77016), (36, 77010), (38, 76965), (39, 76947), (41, 76929), (51, 76830),

Gene: Soap141_142 Start: 76003, Stop: 75560, Start Num: 23
Candidate Starts for Soap141_142:
(Start: 23 @76003 has 29 MA's), (26, 75982), (33, 75844), (34, 75826), (35, 75817), (36, 75811), (38, 75766), (39, 75748), (41, 75730), (51, 75631), (52, 75610),

Gene: Tourach_143 Start: 77029, Stop: 76652, Start Num: 23
Candidate Starts for Tourach_143:
(20, 77068), (Start: 23 @77029 has 29 MA's), (28, 76999), (32, 76966), (35, 76909), (36, 76903), (38, 76858), (39, 76840), (41, 76822), (51, 76723), (52, 76702),

Gene: Tyson_133 Start: 73596, Stop: 73084, Start Num: 15
Candidate Starts for Tyson_133:
(Start: 15 @73596 has 17 MA's), (21, 73548), (22, 73533), (24, 73524), (25, 73515), (30, 73467), (33, 73383), (35, 73356), (40, 73266), (47, 73179), (49, 73155), (51, 73146),

Gene: UPIE_130 Start: 72915, Stop: 72403, Start Num: 15
Candidate Starts for UPIE_130:
(Start: 15 @72915 has 17 MA's), (21, 72867), (22, 72852), (24, 72843), (25, 72834), (30, 72786), (33, 72702), (35, 72675), (40, 72585), (47, 72498), (49, 72474), (51, 72465),

Gene: Vetrix_140 Start: 75660, Stop: 75277, Start Num: 23

Candidate Starts for Vetrix_140:
(Start: 23 @75660 has 29 MA's), (32, 75597), (33, 75561), (34, 75543), (35, 75534), (36, 75528), (38, 75483), (39, 75465), (41, 75447), (51, 75348), (52, 75327),

Gene: Wamburgrxpress_135 Start: 73573, Stop: 73061, Start Num: 15
Candidate Starts for Wamburgrxpress_135:
(Start: 15 @73573 has 17 MA's), (21, 73525), (22, 73510), (24, 73501), (25, 73492), (30, 73444), (33, 73360), (35, 73333), (40, 73243), (47, 73156), (49, 73132), (51, 73123),

Gene: Wigglewiggle_144 Start: 75586, Stop: 75203, Start Num: 23
Candidate Starts for Wigglewiggle_144:
(Start: 23 @75586 has 29 MA's), (32, 75523), (33, 75487), (34, 75469), (35, 75460), (36, 75454), (38, 75409), (39, 75391), (41, 75373), (51, 75274), (52, 75253),

Gene: Winky_143 Start: 75785, Stop: 75342, Start Num: 23
Candidate Starts for Winky_143:
(Start: 23 @75785 has 29 MA's), (26, 75764), (33, 75626), (34, 75608), (35, 75599), (36, 75593), (38, 75548), (39, 75530), (41, 75512), (51, 75413), (52, 75392),

Gene: Wyatt2_131 Start: 73222, Stop: 72710, Start Num: 15
Candidate Starts for Wyatt2_131:
(Start: 15 @73222 has 17 MA's), (21, 73174), (22, 73159), (24, 73150), (25, 73141), (30, 73093), (33, 73009), (35, 72982), (40, 72892), (47, 72805), (49, 72781), (51, 72772),

Gene: Zakai_145 Start: 75495, Stop: 75052, Start Num: 23
Candidate Starts for Zakai_145:
(Start: 23 @75495 has 29 MA's), (26, 75474), (33, 75336), (34, 75318), (35, 75309), (36, 75303), (38, 75258), (39, 75240), (41, 75222), (51, 75123), (52, 75102),

Gene: Zaria_136 Start: 73571, Stop: 73059, Start Num: 15
Candidate Starts for Zaria_136:
(Start: 15 @73571 has 17 MA's), (21, 73523), (22, 73508), (24, 73499), (25, 73490), (30, 73442), (33, 73358), (35, 73331), (40, 73241), (47, 73154), (49, 73130), (51, 73121),

Gene: ZhongYanYuan_140 Start: 75351, Stop: 74974, Start Num: 23
Candidate Starts for ZhongYanYuan_140:
(2, 75519), (3, 75510), (9, 75471), (10, 75456), (11, 75450), (16, 75411), (20, 75390), (Start: 23 @75351 has 29 MA's), (32, 75288), (35, 75231), (38, 75180), (40, 75159), (41, 75144), (51, 75045),