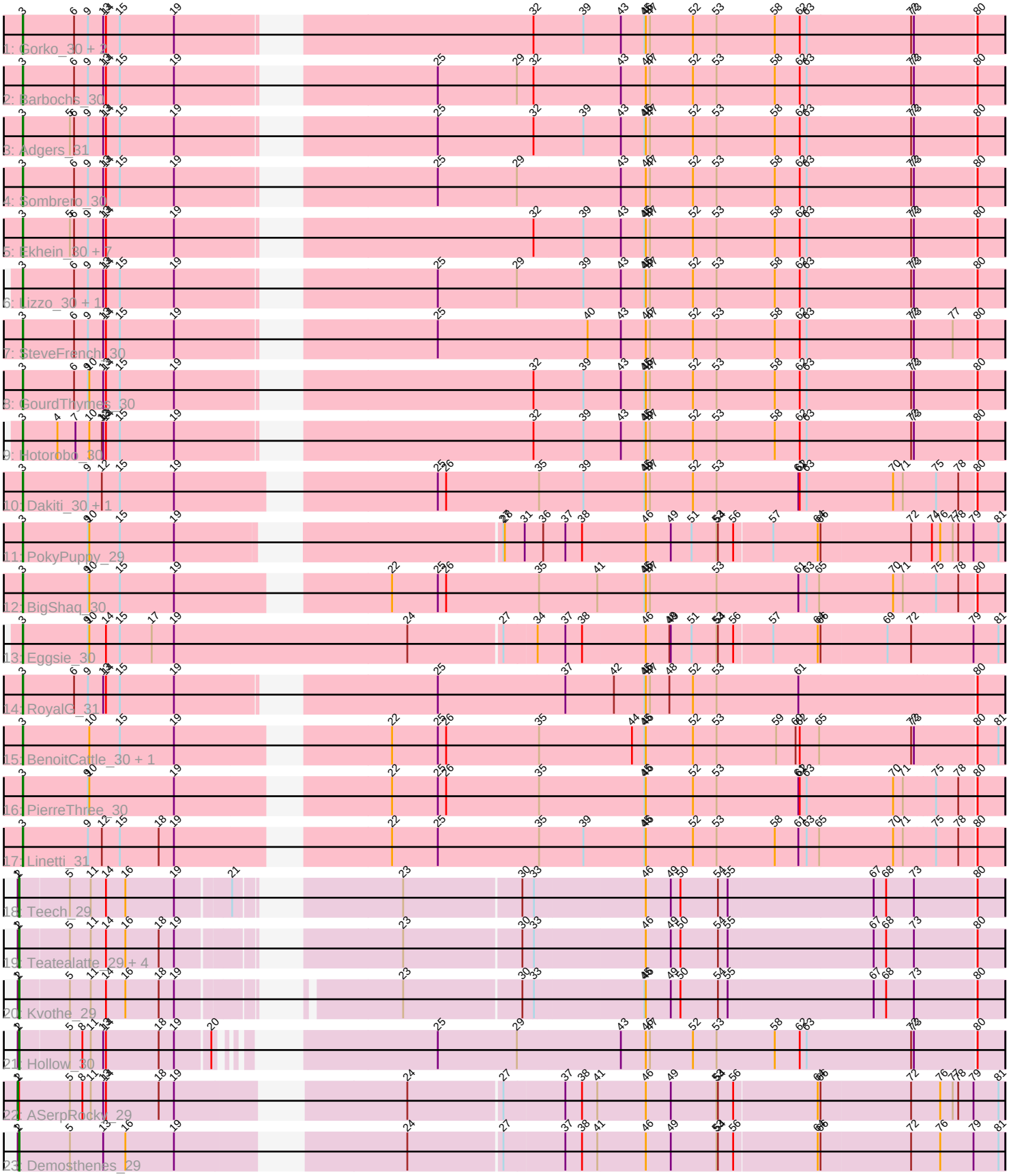
Pham 347807


1: Gorko_30 + 2
2: Barboch6_30
3: Adgers_31
4: Sombrero_30
5: Ekhein_30 + 7
6: Lizzo_30 + 1
7: SteveFrench_30
8: GourdThymes_30
9: Hotorobo_30
10: Dakiti_30 + 1
11: PokyPuppy_29
12: BigShaq_30
13: Eggsie_30
14: RoyalG_31
15: BenoitCattle_30 + 1
16: PierreThree_30
17: Linetti_31
18: Teech_29
19: Teatealatte_29 + 4
20: Kvothe_29
21: Hollow_30
22: ASerpRocky_29
23: Demosthenes_29

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 347807 Report

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

Pham number 347807 has 39 members, 1 are drafts.

Phages represented in each track:
• Track 1 : Gorko_30, Monty_29, Flakey_30
• Track 2 : Barbochs_30
• Track 3 : Adgers_31
• Track 4 : Sombrero_30
• Track 5 : Ekhein_30, Kelzog_30, RemRem_31, Worcestershire_30, Squibbles_30, Exiguo_30, Breezic_30, Sam12_30
• Track 6 : Lizzo_30, CathyBurgh_30
• Track 7 : SteveFrench_30
• Track 8 : GourdThymes_30
• Track 9 : Hotorobo_30
• Track 10 : Dakiti_30, Chelms_30
• Track 11 : PokyPuppy_29
• Track 12 : BigShaq_30
• Track 13 : Eggsie_30
• Track 14 : RoyalG_31
• Track 15 : BenoitCattle_30, Crete_31
• Track 16 : PierreThree_30
• Track 17 : Linetti_31
• Track 18 : Teech_29
• Track 19 : Teatealatte_29, Katyusha_29, Benczkowski14_29, Tredge_29, Niagara_29
• Track 20 : Kvothe_29
• Track 21 : Hollow_30
• Track 22 : ASerpRocky_29
• Track 23 : Demosthenes_29

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

The start number called the most often in the published annotations is 3, it was called in 28 of the 38 non-draft genes in the pham.

Genes that call this "Most Annotated" start:
• Adgers_31, Barbochs_30, BenoitCattle_30, BigShaq_30, Breezic_30, CathyBurgh_30, Chelms_30, Crete_31, Dakiti_30, Eggsie_30, Ekhein_30,

Exiguo_30, Flakey_30, Gorko_30, GourdThymes_30, Hotorobo_30, Kelzog_30, Linetti_31, Lizzo_30, Monty_29, PierreThree_30, PokyPuppy_29, RemRem_31, RoyalG_31, Sam12_30, Sombrero_30, Squibbles_30, SteveFrench_30, Worcestershire_30,

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

Genes that do not have the "Most Annotated" start:
• ASerpRocky_29, Benczkowski14_29, Demosthenes_29, Hollow_30, Katyusha_29, Kvothe_29, Niagara_29, Teatealatte_29, Teech_29, Tredge_29,

Summary by start number:

Start 1:
• Found in 10 of 39 (25.6%) of genes in pham
• Manual Annotations of this start: 1 of 38
• Called 10.0% of time when present
• Phage (with cluster) where this start called: ASerpRocky_29 (CS4),

Start 2:
• Found in 10 of 39 (25.6%) of genes in pham
• Manual Annotations of this start: 9 of 38
• Called 90.0% of time when present
• Phage (with cluster) where this start called: Benczkowski14_29 (CS4), Demosthenes_29 (CS4), Hollow_30 (CS4), Katyusha_29 (CS4), Kvothe_29 (CS4), Niagara_29 (CS4), Teatealatte_29 (CS4), Teech_29 (CS4), Tredge_29 (CS4),

Start 3:
• Found in 29 of 39 (74.4%) of genes in pham
• Manual Annotations of this start: 28 of 38
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Adgers_31 (CS2), Barbochs_30 (CS2), BenoitCattle_30 (CS2), BigShaq_30 (CS2), Breezic_30 (CS2), CathyBurgh_30 (CS2), Chelms_30 (CS2), Crete_31 (CS2), Dakiti_30 (CS2), Eggsie_30 (CS2), Ekhein_30 (CS2), Exiguo_30 (CS2), Flakey_30 (CS2), Gorko_30 (CS2), GourdThymes_30 (CS2), Hotorobo_30 (CS2), Kelzog_30 (CS2), Linetti_31 (CS2), Lizzo_30 (CS2), Monty_29 (CS2), PierreThree_30 (CS2), PokyPuppy_29 (CS2), RemRem_31 (CS2), RoyalG_31 (CS2), Sam12_30 (CS2), Sombrero_30 (CS2), Squibbles_30 (CS2), SteveFrench_30 (CS2), Worcestershire_30 (CS2),

Summary by clusters:

There are 2 clusters represented in this pham: CS4, CS2,

Info for manual annotations of cluster CS2:
•Start number 3 was manually annotated 28 times for cluster CS2.

Info for manual annotations of cluster CS4:
•Start number 1 was manually annotated 1 time for cluster CS4.
•Start number 2 was manually annotated 9 times for cluster CS4.

Gene Information:

Gene: ASerpRocky_29 Start: 36764, Stop: 38752, Start Num: 1
Candidate Starts for ASerpRocky_29:
(Start: 1 @36764 has 1 MA's), (Start: 2 @36767 has 9 MA's), (5, 36872), (8, 36899), (11, 36917), (13, 36944), (14, 36950), (18, 37064), (19, 37097), (24, 37490), (27, 37688), (37, 37817), (38, 37853), (41, 37886), (46, 37988), (49, 38039), (53, 38138), (54, 38141), (56, 38174), (64, 38351), (66, 38357), (72, 38549), (76, 38612), (77, 38639), (78, 38651), (79, 38684), (81, 38738),

Gene: Adgers_31 Start: 35244, Stop: 37241, Start Num: 3
Candidate Starts for Adgers_31:
(Start: 3 @35244 has 28 MA's), (5, 35346), (6, 35355), (9, 35385), (13, 35418), (14, 35424), (15, 35454), (19, 35571), (25, 36033), (32, 36240), (39, 36345), (43, 36426), (45, 36477), (46, 36480), (47, 36489), (52, 36579), (53, 36627), (58, 36753), (62, 36807), (63, 36822), (72, 37047), (73, 37053), (80, 37182),

Gene: Barbochs_30 Start: 35082, Stop: 37079, Start Num: 3
Candidate Starts for Barbochs_30:
(Start: 3 @35082 has 28 MA's), (6, 35193), (9, 35223), (13, 35256), (14, 35262), (15, 35292), (19, 35409), (25, 35871), (29, 36042), (32, 36078), (43, 36264), (46, 36318), (47, 36327), (52, 36417), (53, 36465), (58, 36591), (62, 36645), (63, 36660), (72, 36885), (73, 36891), (80, 37020),

Gene: Benczkowski14_29 Start: 36845, Stop: 38806, Start Num: 2
Candidate Starts for Benczkowski14_29:
(Start: 1 @36842 has 1 MA's), (Start: 2 @36845 has 9 MA's), (5, 36950), (11, 36995), (14, 37028), (16, 37070), (18, 37142), (19, 37175), (23, 37538), (30, 37787), (33, 37811), (46, 38042), (49, 38096), (50, 38117), (54, 38198), (55, 38219), (67, 38531), (68, 38558), (73, 38618), (80, 38747),

Gene: BenoitCattle_30 Start: 35161, Stop: 37176, Start Num: 3
Candidate Starts for BenoitCattle_30:
(Start: 3 @35161 has 28 MA's), (10, 35305), (15, 35371), (19, 35488), (22, 35872), (25, 35971), (26, 35989), (35, 36190), (44, 36388), (45, 36415), (46, 36418), (52, 36517), (53, 36565), (59, 36694), (60, 36736), (62, 36745), (65, 36787), (72, 36985), (73, 36991), (80, 37117), (81, 37162),

Gene: BigShaq_30 Start: 35166, Stop: 37181, Start Num: 3
Candidate Starts for BigShaq_30:
(Start: 3 @35166 has 28 MA's), (9, 35307), (10, 35310), (15, 35376), (19, 35493), (22, 35877), (25, 35976), (26, 35994), (35, 36195), (41, 36318), (45, 36420), (46, 36423), (47, 36432), (53, 36570), (61, 36747), (63, 36765), (65, 36792), (70, 36951), (71, 36972), (75, 37038), (78, 37086), (80, 37122),

Gene: Breezic_30 Start: 35096, Stop: 37093, Start Num: 3
Candidate Starts for Breezic_30:
(Start: 3 @35096 has 28 MA's), (5, 35198), (6, 35207), (9, 35237), (13, 35270), (14, 35276), (19, 35423), (32, 36092), (39, 36197), (43, 36278), (45, 36329), (46, 36332), (47, 36341), (52, 36431), (53, 36479), (58, 36605), (62, 36659), (63, 36674), (72, 36899), (73, 36905), (80, 37034),

Gene: CathyBurgh_30 Start: 35950, Stop: 37947, Start Num: 3
Candidate Starts for CathyBurgh_30:
(Start: 3 @35950 has 28 MA's), (6, 36061), (9, 36091), (13, 36124), (14, 36130), (15, 36160), (19, 36277), (25, 36739), (29, 36910), (39, 37051), (43, 37132), (45, 37183), (46, 37186), (47, 37195), (52, 37285), (53, 37333), (58, 37459), (62, 37513), (63, 37528), (72, 37753), (73, 37759), (80, 37888),

Gene: Chelms_30 Start: 35169, Stop: 37184, Start Num: 3

Candidate Starts for Chelms_30:
(Start: 3 @35169 has 28 MA's), (9, 35310), (12, 35340), (15, 35379), (19, 35496), (25, 35979), (26, 35997), (35, 36198), (39, 36291), (45, 36423), (46, 36426), (47, 36435), (52, 36525), (53, 36573), (61, 36750), (62, 36753), (63, 36768), (70, 36954), (71, 36975), (75, 37041), (78, 37089), (80, 37125),

Gene: Crete_31 Start: 35432, Stop: 37447, Start Num: 3
Candidate Starts for Crete_31:
(Start: 3 @35432 has 28 MA's), (10, 35576), (15, 35642), (19, 35759), (22, 36143), (25, 36242), (26, 36260), (35, 36461), (44, 36659), (45, 36686), (46, 36689), (52, 36788), (53, 36836), (59, 36965), (60, 37007), (62, 37016), (65, 37058), (72, 37256), (73, 37262), (80, 37388), (81, 37433),

Gene: Dakiti_30 Start: 36037, Stop: 38052, Start Num: 3
Candidate Starts for Dakiti_30:
(Start: 3 @36037 has 28 MA's), (9, 36178), (12, 36208), (15, 36247), (19, 36364), (25, 36847), (26, 36865), (35, 37066), (39, 37159), (45, 37291), (46, 37294), (47, 37303), (52, 37393), (53, 37441), (61, 37618), (62, 37621), (63, 37636), (70, 37822), (71, 37843), (75, 37909), (78, 37957), (80, 37993),

Gene: Demosthenes_29 Start: 36740, Stop: 38725, Start Num: 2
Candidate Starts for Demosthenes_29:
(Start: 1 @36737 has 1 MA's), (Start: 2 @36740 has 9 MA's), (5, 36845), (13, 36917), (16, 36965), (19, 37070), (24, 37463), (27, 37661), (37, 37790), (38, 37826), (41, 37859), (46, 37961), (49, 38012), (53, 38111), (54, 38114), (56, 38147), (64, 38324), (66, 38330), (72, 38522), (76, 38585), (79, 38657), (81, 38711),

Gene: Eggsie_30 Start: 35106, Stop: 37196, Start Num: 3
Candidate Starts for Eggsie_30:
(Start: 3 @35106 has 28 MA's), (9, 35247), (10, 35250), (14, 35286), (15, 35316), (17, 35385), (19, 35433), (24, 35934), (27, 36132), (34, 36201), (37, 36261), (38, 36297), (46, 36432), (48, 36480), (49, 36483), (51, 36528), (53, 36582), (54, 36585), (56, 36618), (57, 36699), (64, 36795), (66, 36801), (69, 36942), (72, 36993), (79, 37128), (81, 37182),

Gene: Ekhein_30 Start: 35078, Stop: 37075, Start Num: 3
Candidate Starts for Ekhein_30:
(Start: 3 @35078 has 28 MA's), (5, 35180), (6, 35189), (9, 35219), (13, 35252), (14, 35258), (19, 35405), (32, 36074), (39, 36179), (43, 36260), (45, 36311), (46, 36314), (47, 36323), (52, 36413), (53, 36461), (58, 36587), (62, 36641), (63, 36656), (72, 36881), (73, 36887), (80, 37016),

Gene: Exiguo_30 Start: 35090, Stop: 37087, Start Num: 3
Candidate Starts for Exiguo_30:
(Start: 3 @35090 has 28 MA's), (5, 35192), (6, 35201), (9, 35231), (13, 35264), (14, 35270), (19, 35417), (32, 36086), (39, 36191), (43, 36272), (45, 36323), (46, 36326), (47, 36335), (52, 36425), (53, 36473), (58, 36599), (62, 36653), (63, 36668), (72, 36893), (73, 36899), (80, 37028),

Gene: Flakey_30 Start: 35954, Stop: 37951, Start Num: 3
Candidate Starts for Flakey_30:
(Start: 3 @35954 has 28 MA's), (6, 36065), (9, 36095), (13, 36128), (14, 36134), (15, 36164), (19, 36281), (32, 36950), (39, 37055), (43, 37136), (45, 37187), (46, 37190), (47, 37199), (52, 37289), (53, 37337), (58, 37463), (62, 37517), (63, 37532), (72, 37757), (73, 37763), (80, 37892),

Gene: Gorko_30 Start: 35082, Stop: 37079, Start Num: 3
Candidate Starts for Gorko_30:
(Start: 3 @35082 has 28 MA's), (6, 35193), (9, 35223), (13, 35256), (14, 35262), (15, 35292), (19, 35409), (32, 36078), (39, 36183), (43, 36264), (45, 36315), (46, 36318), (47, 36327), (52, 36417), (53,

36465), (58, 36591), (62, 36645), (63, 36660), (72, 36885), (73, 36891), (80, 37020),

Gene: GourdThymes_30 Start: 35956, Stop: 37953, Start Num: 3
Candidate Starts for GourdThymes_30:
(Start: 3 @35956 has 28 MA's), (6, 36067), (9, 36097), (10, 36100), (13, 36130), (14, 36136), (15, 36166), (19, 36283), (32, 36952), (39, 37057), (43, 37138), (45, 37189), (46, 37192), (47, 37201), (52, 37291), (53, 37339), (58, 37465), (62, 37519), (63, 37534), (72, 37759), (73, 37765), (80, 37894),

Gene: Hollow_30 Start: 37188, Stop: 39122, Start Num: 2
Candidate Starts for Hollow_30:
(Start: 1 @37185 has 1 MA's), (Start: 2 @37188 has 9 MA's), (5, 37293), (8, 37320), (11, 37338), (13, 37365), (14, 37371), (18, 37485), (19, 37518), (20, 37590), (25, 37914), (29, 38085), (43, 38307), (46, 38361), (47, 38370), (52, 38460), (53, 38508), (58, 38634), (62, 38688), (63, 38703), (72, 38928), (73, 38934), (80, 39063),

Gene: Hotorobo_30 Start: 35961, Stop: 37958, Start Num: 3
Candidate Starts for Hotorobo_30:
(Start: 3 @35961 has 28 MA's), (4, 36036), (7, 36075), (10, 36105), (12, 36132), (13, 36135), (14, 36141), (15, 36171), (19, 36288), (32, 36957), (39, 37062), (43, 37143), (45, 37194), (46, 37197), (47, 37206), (52, 37296), (53, 37344), (58, 37470), (62, 37524), (63, 37539), (72, 37764), (73, 37770), (80, 37899),

Gene: Katyusha_29 Start: 36845, Stop: 38806, Start Num: 2
Candidate Starts for Katyusha_29:
(Start: 1 @36842 has 1 MA's), (Start: 2 @36845 has 9 MA's), (5, 36950), (11, 36995), (14, 37028), (16, 37070), (18, 37142), (19, 37175), (23, 37538), (30, 37787), (33, 37811), (46, 38042), (49, 38096), (50, 38117), (54, 38198), (55, 38219), (67, 38531), (68, 38558), (73, 38618), (80, 38747),

Gene: Kelzog_30 Start: 35968, Stop: 37965, Start Num: 3
Candidate Starts for Kelzog_30:
(Start: 3 @35968 has 28 MA's), (5, 36070), (6, 36079), (9, 36109), (13, 36142), (14, 36148), (19, 36295), (32, 36964), (39, 37069), (43, 37150), (45, 37201), (46, 37204), (47, 37213), (52, 37303), (53, 37351), (58, 37477), (62, 37531), (63, 37546), (72, 37771), (73, 37777), (80, 37906),

Gene: Kvothe_29 Start: 36765, Stop: 38705, Start Num: 2
Candidate Starts for Kvothe_29:
(Start: 1 @36762 has 1 MA's), (Start: 2 @36765 has 9 MA's), (5, 36870), (11, 36915), (14, 36948), (16, 36990), (18, 37062), (19, 37095), (23, 37437), (30, 37686), (33, 37710), (45, 37938), (46, 37941), (49, 37995), (50, 38016), (54, 38097), (55, 38118), (67, 38430), (68, 38457), (73, 38517), (80, 38646),

Gene: Linetti_31 Start: 36163, Stop: 38178, Start Num: 3
Candidate Starts for Linetti_31:
(Start: 3 @36163 has 28 MA's), (9, 36304), (12, 36334), (15, 36373), (18, 36457), (19, 36490), (22, 36874), (25, 36973), (35, 37192), (39, 37285), (45, 37417), (46, 37420), (52, 37519), (53, 37567), (58, 37693), (61, 37744), (63, 37762), (65, 37789), (70, 37948), (71, 37969), (75, 38035), (78, 38083), (80, 38119),

Gene: Lizzo_30 Start: 35950, Stop: 37947, Start Num: 3
Candidate Starts for Lizzo_30:
(Start: 3 @35950 has 28 MA's), (6, 36061), (9, 36091), (13, 36124), (14, 36130), (15, 36160), (19, 36277), (25, 36739), (29, 36910), (39, 37051), (43, 37132), (45, 37183), (46, 37186), (47, 37195), (52, 37285), (53, 37333), (58, 37459), (62, 37513), (63, 37528), (72, 37753), (73, 37759), (80, 37888),

Gene: Monty_29 Start: 35100, Stop: 37097, Start Num: 3
Candidate Starts for Monty_29:
(Start: 3 @35100 has 28 MA's), (6, 35211), (9, 35241), (13, 35274), (14, 35280), (15, 35310), (19, 35427), (32, 36096), (39, 36201), (43, 36282), (45, 36333), (46, 36336), (47, 36345), (52, 36435), (53, 36483), (58, 36609), (62, 36663), (63, 36678), (72, 36903), (73, 36909), (80, 37038),

Gene: Niagara_29 Start: 36802, Stop: 38763, Start Num: 2
Candidate Starts for Niagara_29:
(Start: 1 @36799 has 1 MA's), (Start: 2 @36802 has 9 MA's), (5, 36907), (11, 36952), (14, 36985), (16, 37027), (18, 37099), (19, 37132), (23, 37495), (30, 37744), (33, 37768), (46, 37999), (49, 38053), (50, 38074), (54, 38155), (55, 38176), (67, 38488), (68, 38515), (73, 38575), (80, 38704),

Gene: PierreThree_30 Start: 36034, Stop: 38049, Start Num: 3
Candidate Starts for PierreThree_30:
(Start: 3 @36034 has 28 MA's), (9, 36175), (10, 36178), (19, 36361), (22, 36745), (25, 36844), (26, 36862), (35, 37063), (45, 37288), (46, 37291), (52, 37390), (53, 37438), (61, 37615), (62, 37618), (63, 37633), (70, 37819), (71, 37840), (75, 37906), (78, 37954), (80, 37990),

Gene: PokyPuppy_29 Start: 35986, Stop: 37971, Start Num: 3
Candidate Starts for PokyPuppy_29:
(Start: 3 @35986 has 28 MA's), (9, 36127), (10, 36130), (15, 36196), (19, 36313), (27, 36907), (28, 36910), (31, 36952), (36, 36988), (37, 37036), (38, 37072), (46, 37207), (49, 37258), (51, 37303), (53, 37357), (54, 37360), (56, 37393), (57, 37474), (64, 37570), (66, 37576), (72, 37768), (74, 37813), (76, 37831), (77, 37858), (78, 37870), (79, 37903), (81, 37957),

Gene: RemRem_31 Start: 35090, Stop: 37087, Start Num: 3
Candidate Starts for RemRem_31:
(Start: 3 @35090 has 28 MA's), (5, 35192), (6, 35201), (9, 35231), (13, 35264), (14, 35270), (19, 35417), (32, 36086), (39, 36191), (43, 36272), (45, 36323), (46, 36326), (47, 36335), (52, 36425), (53, 36473), (58, 36599), (62, 36653), (63, 36668), (72, 36893), (73, 36899), (80, 37028),

Gene: RoyalG_31 Start: 35588, Stop: 37576, Start Num: 3
Candidate Starts for RoyalG_31:
(Start: 3 @35588 has 28 MA's), (6, 35699), (9, 35729), (13, 35762), (14, 35768), (15, 35798), (19, 35915), (25, 36377), (37, 36647), (42, 36752), (45, 36818), (46, 36821), (47, 36830), (48, 36869), (52, 36920), (53, 36968), (61, 37145), (80, 37520),

Gene: Sam12_30 Start: 35090, Stop: 37087, Start Num: 3
Candidate Starts for Sam12_30:
(Start: 3 @35090 has 28 MA's), (5, 35192), (6, 35201), (9, 35231), (13, 35264), (14, 35270), (19, 35417), (32, 36086), (39, 36191), (43, 36272), (45, 36323), (46, 36326), (47, 36335), (52, 36425), (53, 36473), (58, 36599), (62, 36653), (63, 36668), (72, 36893), (73, 36899), (80, 37028),

Gene: Sombrero_30 Start: 35092, Stop: 37089, Start Num: 3
Candidate Starts for Sombrero_30:
(Start: 3 @35092 has 28 MA's), (6, 35203), (9, 35233), (13, 35266), (14, 35272), (15, 35302), (19, 35419), (25, 35881), (29, 36052), (43, 36274), (46, 36328), (47, 36337), (52, 36427), (53, 36475), (58, 36601), (62, 36655), (63, 36670), (72, 36895), (73, 36901), (80, 37030),

Gene: Squibbles_30 Start: 35953, Stop: 37950, Start Num: 3
Candidate Starts for Squibbles_30:
(Start: 3 @35953 has 28 MA's), (5, 36055), (6, 36064), (9, 36094), (13, 36127), (14, 36133), (19, 36280), (32, 36949), (39, 37054), (43, 37135), (45, 37186), (46, 37189), (47, 37198), (52, 37288), (53,

37336), (58, 37462), (62, 37516), (63, 37531), (72, 37756), (73, 37762), (80, 37891),

Gene: SteveFrench_30 Start: 35811, Stop: 37808, Start Num: 3
Candidate Starts for SteveFrench_30:
(Start: 3 @35811 has 28 MA's), (6, 35922), (9, 35952), (13, 35985), (14, 35991), (15, 36021), (19, 36138), (25, 36600), (40, 36921), (43, 36993), (46, 37047), (47, 37056), (52, 37146), (53, 37194), (58, 37320), (62, 37374), (63, 37389), (72, 37614), (73, 37620), (77, 37701), (80, 37749),

Gene: Teatealatte_29 Start: 36747, Stop: 38708, Start Num: 2
Candidate Starts for Teatealatte_29:
(Start: 1 @36744 has 1 MA's), (Start: 2 @36747 has 9 MA's), (5, 36852), (11, 36897), (14, 36930), (16, 36972), (18, 37044), (19, 37077), (23, 37440), (30, 37689), (33, 37713), (46, 37944), (49, 37998), (50, 38019), (54, 38100), (55, 38121), (67, 38433), (68, 38460), (73, 38520), (80, 38649),

Gene: Teech_29 Start: 36548, Stop: 38509, Start Num: 2
Candidate Starts for Teech_29:
(Start: 1 @36545 has 1 MA's), (Start: 2 @36548 has 9 MA's), (5, 36653), (11, 36698), (14, 36731), (16, 36773), (19, 36878), (21, 36986), (23, 37241), (30, 37490), (33, 37514), (46, 37745), (49, 37799), (50, 37820), (54, 37901), (55, 37922), (67, 38234), (68, 38261), (73, 38321), (80, 38450),

Gene: Tredge_29 Start: 36747, Stop: 38708, Start Num: 2
Candidate Starts for Tredge_29:
(Start: 1 @36744 has 1 MA's), (Start: 2 @36747 has 9 MA's), (5, 36852), (11, 36897), (14, 36930), (16, 36972), (18, 37044), (19, 37077), (23, 37440), (30, 37689), (33, 37713), (46, 37944), (49, 37998), (50, 38019), (54, 38100), (55, 38121), (67, 38433), (68, 38460), (73, 38520), (80, 38649),

Gene: Worcestershire_30 Start: 35092, Stop: 37089, Start Num: 3
Candidate Starts for Worcestershire_30:
(Start: 3 @35092 has 28 MA's), (5, 35194), (6, 35203), (9, 35233), (13, 35266), (14, 35272), (19, 35419), (32, 36088), (39, 36193), (43, 36274), (45, 36325), (46, 36328), (47, 36337), (52, 36427), (53, 36475), (58, 36601), (62, 36655), (63, 36670), (72, 36895), (73, 36901), (80, 37030),