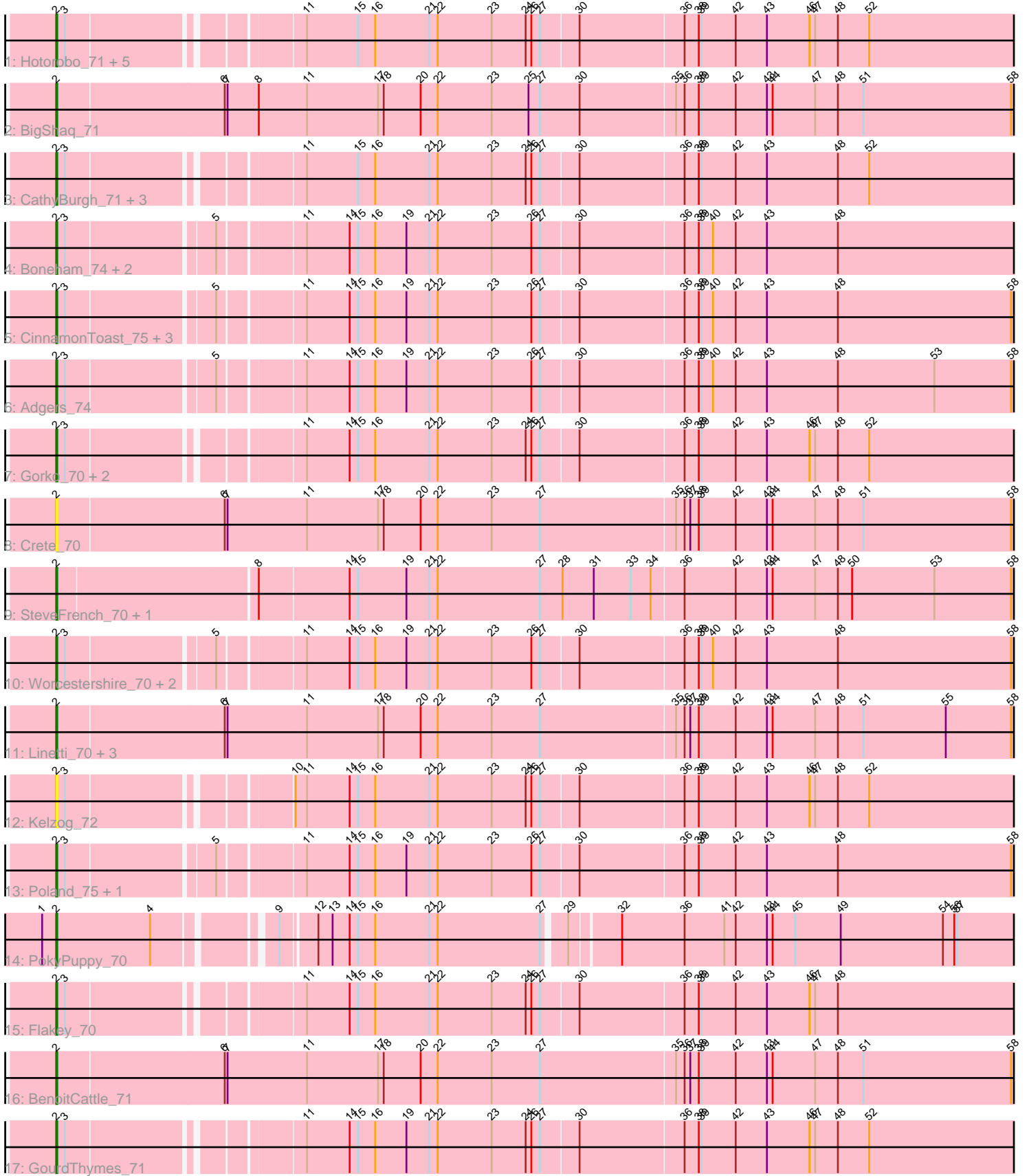


Zoomed Pham 311792



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 311792 Report

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

Pham number 311792 has 39 members, 5 are drafts.

Phages represented in each track:

- Track 1 : Hotorobo_71, John316_74, Ekhein_71, Monty_70, Exiguo_70, Sam12_70
- Track 2 : BigShaq_71
- Track 3 : CathyBurgh_71, RemRem_72, Breezic_71, Lizzo_71
- Track 4 : Boneham_74, FelixAlejandro_75, Butterball_73
- Track 5 : CinnamonToast_75, BillyBobJr_75, Sombrero_72, Barbochs_68
- Track 6 : Adgers_74
- Track 7 : Gorko_70, Squibbles_70, Beaver_74
- Track 8 : Crete_70
- Track 9 : SteveFrench_70, RoyalG_71
- Track 10 : Worcestershire_70, Jellybones_72, BirksAndSocks_75
- Track 11 : Linetti_70, Chelms_70, PierreThree_69, Dakiti_71
- Track 12 : Kelzog_72
- Track 13 : Poland_75, Msay19_75
- Track 14 : PokyPuppy_70
- Track 15 : Flakey_70
- Track 16 : BenoitCattle_71
- Track 17 : GourdThymes_71

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

The start number called the most often in the published annotations is 2, it was called in 34 of the 34 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Adgers_74, Barbochs_68, Beaver_74, BenoitCattle_71, BigShaq_71, BillyBobJr_75, BirksAndSocks_75, Boneham_74, Breezic_71, Butterball_73, CathyBurgh_71, Chelms_70, CinnamonToast_75, Crete_70, Dakiti_71, Ekhein_71, Exiguo_70, FelixAlejandro_75, Flakey_70, Gorko_70, GourdThymes_71, Hotorobo_71, Jellybones_72, John316_74, Kelzog_72, Linetti_70, Lizzo_71, Monty_70, Msay19_75, PierreThree_69, PokyPuppy_70, Poland_75, RemRem_72, RoyalG_71, Sam12_70, Sombrero_72, Squibbles_70, SteveFrench_70, Worcestershire_70,

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

-

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

-

Summary by start number:

Start 2:

- Found in 39 of 39 (100.0%) of genes in pham
- Manual Annotations of this start: 34 of 34
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Adgers_74 (CS2), Barbochs_68 (CS2), Beaver_74 (CS2), BenoitCattle_71 (CS2), BigShaq_71 (CS2), BillyBobJr_75 (CS2), BirksAndSocks_75 (CS2), Boneham_74 (CS2), Breezic_71 (CS2), Butterball_73 (CS2), CathyBurgh_71 (CS2), Chelms_70 (CS2), CinnamonToast_75 (CS2), Crete_70 (CS2), Dakiti_71 (CS2), Ekhein_71 (CS2), Exiguo_70 (CS2), FelixAlejandro_75 (CS2), Flakey_70 (CS2), Gorko_70 (CS2), GourdThymes_71 (CS2), Hotorobo_71 (CS2), Jellybones_72 (CS2), John316_74 (CS2), Kelzog_72 (CS2), Linetti_70 (CS2), Lizzo_71 (CS2), Monty_70 (CS2), Msay19_75 (CS2), PierreThree_69 (CS2), PokyPuppy_70 (CS2), Poland_75 (CS2), RemRem_72 (CS2), RoyalG_71 (CS2), Sam12_70 (CS2), Sombrero_72 (CS2), Squibbles_70 (CS2), SteveFrench_70 (CS2), Worcestershire_70 (CS2),

Summary by clusters:

There is one cluster represented in this pham: CS2

Info for manual annotations of cluster CS2:

- Start number 2 was manually annotated 34 times for cluster CS2.

Gene Information:

Gene: Adgers_74 Start: 58397, Stop: 57150, Start Num: 2

Candidate Starts for Adgers_74:

(Start: 2 @58397 has 34 MA's), (3, 58388), (5, 58241), (11, 58160), (14, 58115), (15, 58106), (16, 58088), (19, 58055), (21, 58031), (22, 58022), (23, 57965), (26, 57923), (27, 57914), (30, 57875), (36, 57767), (38, 57752), (39, 57749), (40, 57737), (42, 57713), (43, 57680), (48, 57605), (53, 57503), (58, 57422), (62, 57323), (64, 57233), (66, 57221), (67, 57206), (69, 57194),

Gene: Barbochs_68 Start: 57771, Stop: 56524, Start Num: 2

Candidate Starts for Barbochs_68:

(Start: 2 @57771 has 34 MA's), (3, 57762), (5, 57615), (11, 57534), (14, 57489), (15, 57480), (16, 57462), (19, 57429), (21, 57405), (22, 57396), (23, 57339), (26, 57297), (27, 57288), (30, 57249), (36, 57141), (38, 57126), (39, 57123), (40, 57111), (42, 57087), (43, 57054), (48, 56979), (58, 56796), (62, 56697), (66, 56595), (67, 56580), (69, 56568),

Gene: Beaver_74 Start: 59709, Stop: 58468, Start Num: 2

Candidate Starts for Beaver_74:

(Start: 2 @59709 has 34 MA's), (3, 59700), (11, 59478), (14, 59433), (15, 59424), (16, 59406), (21, 59349), (22, 59340), (23, 59283), (24, 59247), (26, 59241), (27, 59232), (30, 59193), (36, 59085), (38, 59070), (39, 59067), (42, 59031), (43, 58998), (46, 58953), (47, 58947), (48, 58923), (52, 58890), (62, 58641), (66, 58539), (67, 58524), (69, 58512),

Gene: BenoitCattle_71 Start: 58376, Stop: 57102, Start Num: 2

Candidate Starts for BenoitCattle_71:

(Start: 2 @58376 has 34 MA's), (6, 58202), (7, 58199), (11, 58115), (17, 58040), (18, 58034), (20, 57995), (22, 57977), (23, 57920), (27, 57869), (35, 57728), (36, 57719), (37, 57713), (38, 57704), (39, 57701), (42, 57665), (43, 57632), (44, 57626), (47, 57581), (48, 57557), (51, 57530), (58, 57374), (61, 57293), (62, 57275), (65, 57182),

Gene: BigShaq_71 Start: 58381, Stop: 57107, Start Num: 2

Candidate Starts for BigShaq_71:

(Start: 2 @58381 has 34 MA's), (6, 58207), (7, 58204), (8, 58171), (11, 58120), (17, 58045), (18, 58039), (20, 58000), (22, 57982), (23, 57925), (25, 57886), (27, 57874), (30, 57832), (35, 57733), (36, 57724), (38, 57709), (39, 57706), (42, 57670), (43, 57637), (44, 57631), (47, 57586), (48, 57562), (51, 57535), (58, 57379), (61, 57298), (62, 57280), (65, 57187),

Gene: BillyBobJr_75 Start: 59851, Stop: 58604, Start Num: 2

Candidate Starts for BillyBobJr_75:

(Start: 2 @59851 has 34 MA's), (3, 59842), (5, 59695), (11, 59614), (14, 59569), (15, 59560), (16, 59542), (19, 59509), (21, 59485), (22, 59476), (23, 59419), (26, 59377), (27, 59368), (30, 59329), (36, 59221), (38, 59206), (39, 59203), (40, 59191), (42, 59167), (43, 59134), (48, 59059), (58, 58876), (62, 58777), (66, 58675), (67, 58660), (69, 58648),

Gene: BirksAndSocks_75 Start: 59855, Stop: 58608, Start Num: 2

Candidate Starts for BirksAndSocks_75:

(Start: 2 @59855 has 34 MA's), (3, 59846), (5, 59699), (11, 59618), (14, 59573), (15, 59564), (16, 59546), (19, 59513), (21, 59489), (22, 59480), (23, 59423), (26, 59381), (27, 59372), (30, 59333), (36, 59225), (38, 59210), (39, 59207), (40, 59195), (42, 59171), (43, 59138), (48, 59063), (58, 58880), (62, 58781), (64, 58691), (66, 58679), (67, 58664), (69, 58652),

Gene: Boneham_74 Start: 59780, Stop: 58533, Start Num: 2

Candidate Starts for Boneham_74:

(Start: 2 @59780 has 34 MA's), (3, 59771), (5, 59624), (11, 59543), (14, 59498), (15, 59489), (16, 59471), (19, 59438), (21, 59414), (22, 59405), (23, 59348), (26, 59306), (27, 59297), (30, 59258), (36, 59150), (38, 59135), (39, 59132), (40, 59120), (42, 59096), (43, 59063), (48, 58988), (62, 58706), (66, 58604), (67, 58589), (69, 58577),

Gene: Breezic_71 Start: 57952, Stop: 56705, Start Num: 2

Candidate Starts for Breezic_71:

(Start: 2 @57952 has 34 MA's), (3, 57943), (11, 57715), (15, 57661), (16, 57643), (21, 57586), (22, 57577), (23, 57520), (24, 57484), (26, 57478), (27, 57469), (30, 57430), (36, 57322), (38, 57307), (39, 57304), (42, 57268), (43, 57235), (48, 57160), (52, 57127), (62, 56878), (66, 56776), (67, 56761), (69, 56749),

Gene: Butterball_73 Start: 59785, Stop: 58538, Start Num: 2

Candidate Starts for Butterball_73:

(Start: 2 @59785 has 34 MA's), (3, 59776), (5, 59629), (11, 59548), (14, 59503), (15, 59494), (16, 59476), (19, 59443), (21, 59419), (22, 59410), (23, 59353), (26, 59311), (27, 59302), (30, 59263), (36, 59155), (38, 59140), (39, 59137), (40, 59125), (42, 59101), (43, 59068), (48, 58993), (62, 58711), (66, 58609), (67, 58594), (69, 58582),

Gene: CathyBurgh_71 Start: 58460, Stop: 57219, Start Num: 2

Candidate Starts for CathyBurgh_71:

(Start: 2 @58460 has 34 MA's), (3, 58451), (11, 58229), (15, 58175), (16, 58157), (21, 58100), (22, 58091), (23, 58034), (24, 57998), (26, 57992), (27, 57983), (30, 57944), (36, 57836), (38, 57821), (39, 57818), (42, 57782), (43, 57749), (48, 57674), (52, 57641), (62, 57392), (66, 57290), (67, 57275), (69, 57263),

Gene: Chelms_70 Start: 58320, Stop: 57046, Start Num: 2

Candidate Starts for Chelms_70:

(Start: 2 @58320 has 34 MA's), (6, 58146), (7, 58143), (11, 58059), (17, 57984), (18, 57978), (20, 57939), (22, 57921), (23, 57864), (27, 57813), (35, 57672), (36, 57663), (37, 57657), (38, 57648), (39, 57645), (42, 57609), (43, 57576), (44, 57570), (47, 57525), (48, 57501), (51, 57474), (55, 57387), (58, 57318), (61, 57237), (62, 57219),

Gene: CinnamonToast_75 Start: 59851, Stop: 58604, Start Num: 2

Candidate Starts for CinnamonToast_75:

(Start: 2 @59851 has 34 MA's), (3, 59842), (5, 59695), (11, 59614), (14, 59569), (15, 59560), (16, 59542), (19, 59509), (21, 59485), (22, 59476), (23, 59419), (26, 59377), (27, 59368), (30, 59329), (36, 59221), (38, 59206), (39, 59203), (40, 59191), (42, 59167), (43, 59134), (48, 59059), (58, 58876), (62, 58777), (66, 58675), (67, 58660), (69, 58648),

Gene: Crete_70 Start: 58439, Stop: 57165, Start Num: 2

Candidate Starts for Crete_70:

(Start: 2 @58439 has 34 MA's), (6, 58265), (7, 58262), (11, 58178), (17, 58103), (18, 58097), (20, 58058), (22, 58040), (23, 57983), (27, 57932), (35, 57791), (36, 57782), (37, 57776), (38, 57767), (39, 57764), (42, 57728), (43, 57695), (44, 57689), (47, 57644), (48, 57620), (51, 57593), (58, 57437), (61, 57356), (62, 57338),

Gene: Dakiti_71 Start: 59188, Stop: 57914, Start Num: 2

Candidate Starts for Dakiti_71:

(Start: 2 @59188 has 34 MA's), (6, 59014), (7, 59011), (11, 58927), (17, 58852), (18, 58846), (20, 58807), (22, 58789), (23, 58732), (27, 58681), (35, 58540), (36, 58531), (37, 58525), (38, 58516), (39, 58513), (42, 58477), (43, 58444), (44, 58438), (47, 58393), (48, 58369), (51, 58342), (55, 58255), (58, 58186), (61, 58105), (62, 58087),

Gene: Ekhein_71 Start: 57651, Stop: 56410, Start Num: 2

Candidate Starts for Ekhein_71:

(Start: 2 @57651 has 34 MA's), (3, 57642), (11, 57420), (15, 57366), (16, 57348), (21, 57291), (22, 57282), (23, 57225), (24, 57189), (26, 57183), (27, 57174), (30, 57135), (36, 57027), (38, 57012), (39, 57009), (42, 56973), (43, 56940), (46, 56895), (47, 56889), (48, 56865), (52, 56832), (62, 56583), (66, 56481), (67, 56466), (69, 56454),

Gene: Exiguo_70 Start: 57687, Stop: 56446, Start Num: 2

Candidate Starts for Exiguo_70:

(Start: 2 @57687 has 34 MA's), (3, 57678), (11, 57456), (15, 57402), (16, 57384), (21, 57327), (22, 57318), (23, 57261), (24, 57225), (26, 57219), (27, 57210), (30, 57171), (36, 57063), (38, 57048), (39, 57045), (42, 57009), (43, 56976), (46, 56931), (47, 56925), (48, 56901), (52, 56868), (62, 56619), (66, 56517), (67, 56502), (69, 56490),

Gene: FelixAlejandro_75 Start: 60183, Stop: 58936, Start Num: 2

Candidate Starts for FelixAlejandro_75:

(Start: 2 @60183 has 34 MA's), (3, 60174), (5, 60027), (11, 59946), (14, 59901), (15, 59892), (16, 59874), (19, 59841), (21, 59817), (22, 59808), (23, 59751), (26, 59709), (27, 59700), (30, 59661), (36, 59553), (38, 59538), (39, 59535), (40, 59523), (42, 59499), (43, 59466), (48, 59391), (62, 59109), (66, 59007), (67, 58992), (69, 58980),

Gene: Flakey_70 Start: 58446, Stop: 57205, Start Num: 2

Candidate Starts for Flakey_70:

(Start: 2 @58446 has 34 MA's), (3, 58437), (11, 58215), (14, 58170), (15, 58161), (16, 58143), (21, 58086), (22, 58077), (23, 58020), (24, 57984), (26, 57978), (27, 57969), (30, 57930), (36, 57822), (38, 57807), (39, 57804), (42, 57768), (43, 57735), (46, 57690), (47, 57684), (48, 57660), (62, 57378), (66, 57276), (67, 57261), (69, 57249),

Gene: Gorko_70 Start: 57592, Stop: 56351, Start Num: 2

Candidate Starts for Gorko_70:

(Start: 2 @57592 has 34 MA's), (3, 57583), (11, 57361), (14, 57316), (15, 57307), (16, 57289), (21, 57232), (22, 57223), (23, 57166), (24, 57130), (26, 57124), (27, 57115), (30, 57076), (36, 56968), (38, 56953), (39, 56950), (42, 56914), (43, 56881), (46, 56836), (47, 56830), (48, 56806), (52, 56773), (62, 56524), (66, 56422), (67, 56407), (69, 56395),

Gene: GourdThymes_71 Start: 58547, Stop: 57306, Start Num: 2

Candidate Starts for GourdThymes_71:

(Start: 2 @58547 has 34 MA's), (3, 58538), (11, 58316), (14, 58271), (15, 58262), (16, 58244), (19, 58211), (21, 58187), (22, 58178), (23, 58121), (24, 58085), (26, 58079), (27, 58070), (30, 58031), (36, 57923), (38, 57908), (39, 57905), (42, 57869), (43, 57836), (46, 57791), (47, 57785), (48, 57761), (52, 57728), (62, 57479), (66, 57377), (67, 57362), (69, 57350),

Gene: Hotorobo_71 Start: 58534, Stop: 57293, Start Num: 2

Candidate Starts for Hotorobo_71:

(Start: 2 @58534 has 34 MA's), (3, 58525), (11, 58303), (15, 58249), (16, 58231), (21, 58174), (22, 58165), (23, 58108), (24, 58072), (26, 58066), (27, 58057), (30, 58018), (36, 57910), (38, 57895), (39, 57892), (42, 57856), (43, 57823), (46, 57778), (47, 57772), (48, 57748), (52, 57715), (62, 57466), (66, 57364), (67, 57349), (69, 57337),

Gene: Jellybones_72 Start: 59468, Stop: 58221, Start Num: 2

Candidate Starts for Jellybones_72:

(Start: 2 @59468 has 34 MA's), (3, 59459), (5, 59312), (11, 59231), (14, 59186), (15, 59177), (16, 59159), (19, 59126), (21, 59102), (22, 59093), (23, 59036), (26, 58994), (27, 58985), (30, 58946), (36, 58838), (38, 58823), (39, 58820), (40, 58808), (42, 58784), (43, 58751), (48, 58676), (58, 58493), (62, 58394), (64, 58304), (66, 58292), (67, 58277), (69, 58265),

Gene: John316_74 Start: 59611, Stop: 58370, Start Num: 2

Candidate Starts for John316_74:

(Start: 2 @59611 has 34 MA's), (3, 59602), (11, 59380), (15, 59326), (16, 59308), (21, 59251), (22, 59242), (23, 59185), (24, 59149), (26, 59143), (27, 59134), (30, 59095), (36, 58987), (38, 58972), (39, 58969), (42, 58933), (43, 58900), (46, 58855), (47, 58849), (48, 58825), (52, 58792), (62, 58543), (66, 58441), (67, 58426), (69, 58414),

Gene: Kelzog_72 Start: 58423, Stop: 57182, Start Num: 2

Candidate Starts for Kelzog_72:

(Start: 2 @58423 has 34 MA's), (3, 58414), (10, 58204), (11, 58192), (14, 58147), (15, 58138), (16, 58120), (21, 58063), (22, 58054), (23, 57997), (24, 57961), (26, 57955), (27, 57946), (30, 57907), (36, 57799), (38, 57784), (39, 57781), (42, 57745), (43, 57712), (46, 57667), (47, 57661), (48, 57637), (52, 57604), (62, 57355), (66, 57253), (67, 57238), (69, 57226),

Gene: Linetti_70 Start: 59342, Stop: 58068, Start Num: 2

Candidate Starts for Linetti_70:

(Start: 2 @59342 has 34 MA's), (6, 59168), (7, 59165), (11, 59081), (17, 59006), (18, 59000), (20, 58961), (22, 58943), (23, 58886), (27, 58835), (35, 58694), (36, 58685), (37, 58679), (38, 58670), (39, 58667), (42, 58631), (43, 58598), (44, 58592), (47, 58547), (48, 58523), (51, 58496), (55, 58409), (58, 58340), (61, 58259), (62, 58241),

Gene: Lizzo_71 Start: 58460, Stop: 57219, Start Num: 2

Candidate Starts for Lizzo_71:

(Start: 2 @58460 has 34 MA's), (3, 58451), (11, 58229), (15, 58175), (16, 58157), (21, 58100), (22, 58091), (23, 58034), (24, 57998), (26, 57992), (27, 57983), (30, 57944), (36, 57836), (38, 57821), (39, 57818), (42, 57782), (43, 57749), (48, 57674), (52, 57641), (62, 57392), (66, 57290), (67, 57275), (69, 57263),

Gene: Monty_70 Start: 57673, Stop: 56432, Start Num: 2

Candidate Starts for Monty_70:

(Start: 2 @57673 has 34 MA's), (3, 57664), (11, 57442), (15, 57388), (16, 57370), (21, 57313), (22, 57304), (23, 57247), (24, 57211), (26, 57205), (27, 57196), (30, 57157), (36, 57049), (38, 57034), (39, 57031), (42, 56995), (43, 56962), (46, 56917), (47, 56911), (48, 56887), (52, 56854), (62, 56605), (66, 56503), (67, 56488), (69, 56476),

Gene: Msay19_75 Start: 60069, Stop: 58822, Start Num: 2

Candidate Starts for Msay19_75:

(Start: 2 @60069 has 34 MA's), (3, 60060), (5, 59913), (11, 59832), (14, 59787), (15, 59778), (16, 59760), (19, 59727), (21, 59703), (22, 59694), (23, 59637), (26, 59595), (27, 59586), (30, 59547), (36, 59439), (38, 59424), (39, 59421), (42, 59385), (43, 59352), (48, 59277), (58, 59094), (62, 58995), (66, 58893), (67, 58878), (69, 58866),

Gene: PierreThree_69 Start: 58819, Stop: 57545, Start Num: 2

Candidate Starts for PierreThree_69:

(Start: 2 @58819 has 34 MA's), (6, 58645), (7, 58642), (11, 58558), (17, 58483), (18, 58477), (20, 58438), (22, 58420), (23, 58363), (27, 58312), (35, 58171), (36, 58162), (37, 58156), (38, 58147), (39, 58144), (42, 58108), (43, 58075), (44, 58069), (47, 58024), (48, 58000), (51, 57973), (55, 57886), (58, 57817), (61, 57736), (62, 57718),

Gene: PokyPuppy_70 Start: 58809, Stop: 57583, Start Num: 2

Candidate Starts for PokyPuppy_70:

(1, 58824), (Start: 2 @58809 has 34 MA's), (4, 58710), (9, 58602), (12, 58569), (13, 58554), (14, 58536), (15, 58527), (16, 58509), (21, 58452), (22, 58443), (27, 58335), (29, 58314), (32, 58266), (36, 58200), (41, 58158), (42, 58146), (43, 58113), (44, 58107), (45, 58083), (49, 58035), (54, 57927), (56, 57915), (57, 57912), (59, 57804), (60, 57792), (62, 57756), (63, 57684),

Gene: Poland_75 Start: 60048, Stop: 58801, Start Num: 2

Candidate Starts for Poland_75:

(Start: 2 @60048 has 34 MA's), (3, 60039), (5, 59892), (11, 59811), (14, 59766), (15, 59757), (16, 59739), (19, 59706), (21, 59682), (22, 59673), (23, 59616), (26, 59574), (27, 59565), (30, 59526), (36, 59418), (38, 59403), (39, 59400), (42, 59364), (43, 59331), (48, 59256), (58, 59073), (62, 58974), (66, 58872), (67, 58857), (69, 58845),

Gene: RemRem_72 Start: 57663, Stop: 56422, Start Num: 2

Candidate Starts for RemRem_72:

(Start: 2 @57663 has 34 MA's), (3, 57654), (11, 57432), (15, 57378), (16, 57360), (21, 57303), (22, 57294), (23, 57237), (24, 57201), (26, 57195), (27, 57186), (30, 57147), (36, 57039), (38, 57024), (39, 57021), (42, 56985), (43, 56952), (48, 56877), (52, 56844), (62, 56595), (66, 56493), (67, 56478), (69, 56466),

Gene: RoyalG_71 Start: 58320, Stop: 57055, Start Num: 2

Candidate Starts for RoyalG_71:

(Start: 2 @58320 has 34 MA's), (8, 58116), (14, 58023), (15, 58014), (19, 57963), (21, 57939), (22, 57930), (27, 57822), (28, 57798), (31, 57765), (33, 57726), (34, 57705), (36, 57672), (42, 57618), (43, 57585), (44, 57579), (47, 57534), (48, 57510), (50, 57495), (53, 57408), (58, 57327), (62, 57228), (65, 57135), (68, 57105),

Gene: Sam12_70 Start: 57687, Stop: 56446, Start Num: 2

Candidate Starts for Sam12_70:

(Start: 2 @57687 has 34 MA's), (3, 57678), (11, 57456), (15, 57402), (16, 57384), (21, 57327), (22, 57318), (23, 57261), (24, 57225), (26, 57219), (27, 57210), (30, 57171), (36, 57063), (38, 57048), (39, 57045), (42, 57009), (43, 56976), (46, 56931), (47, 56925), (48, 56901), (52, 56868), (62, 56619), (66, 56517), (67, 56502), (69, 56490),

Gene: Sombrero_72 Start: 58260, Stop: 57013, Start Num: 2

Candidate Starts for Sombrero_72:

(Start: 2 @58260 has 34 MA's), (3, 58251), (5, 58104), (11, 58023), (14, 57978), (15, 57969), (16, 57951), (19, 57918), (21, 57894), (22, 57885), (23, 57828), (26, 57786), (27, 57777), (30, 57738), (36, 57630), (38, 57615), (39, 57612), (40, 57600), (42, 57576), (43, 57543), (48, 57468), (58, 57285), (62, 57186), (66, 57084), (67, 57069), (69, 57057),

Gene: Squibbles_70 Start: 58526, Stop: 57285, Start Num: 2

Candidate Starts for Squibbles_70:

(Start: 2 @58526 has 34 MA's), (3, 58517), (11, 58295), (14, 58250), (15, 58241), (16, 58223), (21, 58166), (22, 58157), (23, 58100), (24, 58064), (26, 58058), (27, 58049), (30, 58010), (36, 57902), (38, 57887), (39, 57884), (42, 57848), (43, 57815), (46, 57770), (47, 57764), (48, 57740), (52, 57707), (62, 57458), (66, 57356), (67, 57341), (69, 57329),

Gene: SteveFrench_70 Start: 58560, Stop: 57295, Start Num: 2

Candidate Starts for SteveFrench_70:

(Start: 2 @58560 has 34 MA's), (8, 58356), (14, 58263), (15, 58254), (19, 58203), (21, 58179), (22, 58170), (27, 58062), (28, 58038), (31, 58005), (33, 57966), (34, 57945), (36, 57912), (42, 57858), (43, 57825), (44, 57819), (47, 57774), (48, 57750), (50, 57735), (53, 57648), (58, 57567), (62, 57468), (65, 57375), (68, 57345),

Gene: Worcestershire_70 Start: 57671, Stop: 56424, Start Num: 2

Candidate Starts for Worcestershire_70:

(Start: 2 @57671 has 34 MA's), (3, 57662), (5, 57515), (11, 57434), (14, 57389), (15, 57380), (16, 57362), (19, 57329), (21, 57305), (22, 57296), (23, 57239), (26, 57197), (27, 57188), (30, 57149), (36, 57041), (38, 57026), (39, 57023), (40, 57011), (42, 56987), (43, 56954), (48, 56879), (58, 56696), (62, 56597), (64, 56507), (66, 56495), (67, 56480), (69, 56468),