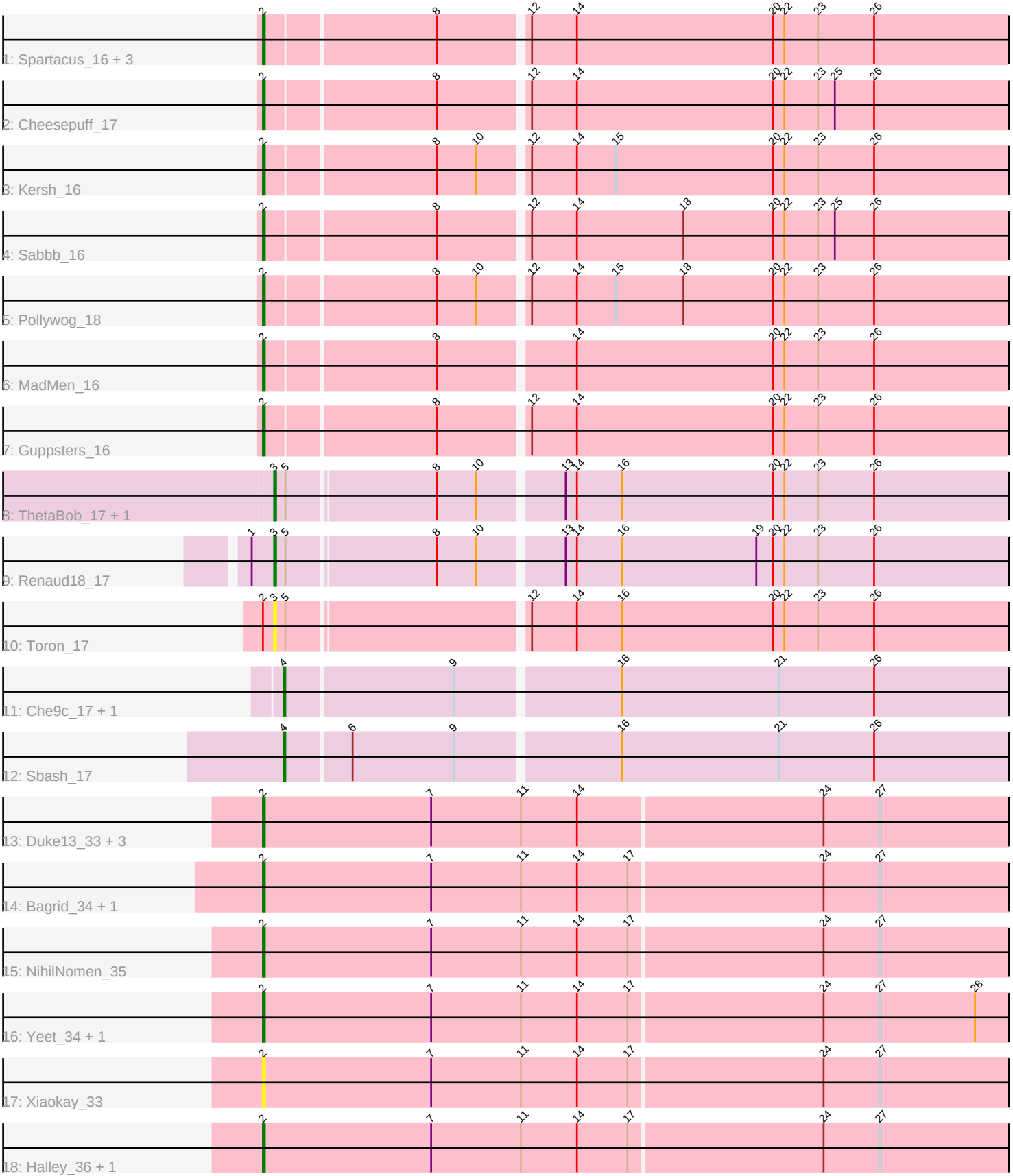


Zoomed Pham 280744



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 280744 Report

This analysis was run 02/07/26 on database version 634.

Pham number 280744 has 29 members, 5 are drafts.

Phages represented in each track:

- Track 1 : Spartacus_16, Polo2Bam_17, NewHope4_16, LunaBlu_16
- Track 2 : Cheesepuff_17
- Track 3 : Kersh_16
- Track 4 : Sabbb_16
- Track 5 : Pollywog_18
- Track 6 : MadMen_16
- Track 7 : Guppsters_16
- Track 8 : ThetaBob_17, Cornie_17
- Track 9 : Renaud18_17
- Track 10 : Toron_17
- Track 11 : Che9c_17, Stuck_18
- Track 12 : Sbash_17
- Track 13 : Duke13_33, HokkenD_31, EricMillard_36, Beem_36
- Track 14 : Bagrid_34, Dallas_37
- Track 15 : NihilNomen_35
- Track 16 : Yeet_34, Pound_37
- Track 17 : Xiaokay_33
- Track 18 : Halley_36, JuicyJay_38

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 19 of the 24 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Bagrid_34, Beem_36, Cheesepuff_17, Dallas_37, Duke13_33, EricMillard_36, Guppsters_16, Halley_36, HokkenD_31, JuicyJay_38, Kersh_16, LunaBlu_16, MadMen_16, NewHope4_16, NihilNomen_35, Pollywog_18, Polo2Bam_17, Pound_37, Sabbb_16, Spartacus_16, Xiaokay_33, Yeet_34,

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

- Toron_17,

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

- Che9c_17, Cornie_17, Renaud18_17, Sbash_17, Stuck_18, ThetaBob_17,

Summary by start number:

Start 2:

- Found in 23 of 29 (79.3%) of genes in pham
- Manual Annotations of this start: 19 of 24
- Called 95.7% of time when present
- Phage (with cluster) where this start called: Bagrid_34 (J), Beem_36 (J), Cheesepuff_17 (F1), Dallas_37 (J), Duke13_33 (J), EricMillard_36 (J), Guppsters_16 (F1), Halley_36 (J), HokkenD_31 (J), JuicyJay_38 (J), Kersh_16 (F1), LunaBlu_16 (F1), MadMen_16 (F1), NewHope4_16 (F1), NihilNomen_35 (J), Pollywog_18 (F1), Polo2Bam_17 (F1), Pound_37 (J), Sabb_16 (F1), Spartacus_16 (F1), Xiaokay_33 (J), Yeet_34 (J),

Start 3:

- Found in 4 of 29 (13.8%) of genes in pham
- Manual Annotations of this start: 3 of 24
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Cornie_17 (F5), Renaud18_17 (F4), ThetaBob_17 (F4), Toron_17 (F6),

Start 4:

- Found in 3 of 29 (10.3%) of genes in pham
- Manual Annotations of this start: 2 of 24
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Che9c_17 (I2), Sbash_17 (I2), Stuck_18 (I2),

Summary by clusters:

There are 6 clusters represented in this pham: F1, J, F4, F5, F6, I2,

Info for manual annotations of cluster F1:

- Start number 2 was manually annotated 9 times for cluster F1.

Info for manual annotations of cluster F4:

- Start number 3 was manually annotated 2 times for cluster F4.

Info for manual annotations of cluster F5:

- Start number 3 was manually annotated 1 time for cluster F5.

Info for manual annotations of cluster I2:

- Start number 4 was manually annotated 2 times for cluster I2.

Info for manual annotations of cluster J:

- Start number 2 was manually annotated 10 times for cluster J.

Gene Information:

Gene: Bagrid_34 Start: 26769, Stop: 27986, Start Num: 2

Candidate Starts for Bagrid_34:

(Start: 2 @26769 has 19 MA's), (7, 26859), (11, 26907), (14, 26937), (17, 26964), (24, 27066), (27, 27096), (29, 27195), (32, 27231), (33, 27237), (34, 27258), (43, 27330), (45, 27339), (47, 27360), (53, 27429), (56, 27468), (57, 27471), (58, 27486), (63, 27525), (66, 27573), (68, 27585), (69, 27591), (70, 27639), (71, 27648), (75, 27669), (76, 27687), (79, 27735), (86, 27837), (90, 27909), (91, 27954), (92, 27966),

Gene: Beem_36 Start: 27335, Stop: 28552, Start Num: 2

Candidate Starts for Beem_36:

(Start: 2 @27335 has 19 MA's), (7, 27425), (11, 27473), (14, 27503), (24, 27632), (27, 27662), (29, 27761), (32, 27797), (34, 27824), (43, 27896), (45, 27905), (47, 27926), (53, 27995), (56, 28034), (57, 28037), (58, 28052), (63, 28091), (66, 28139), (68, 28151), (69, 28157), (70, 28205), (71, 28214), (75, 28235), (76, 28253), (79, 28301), (86, 28403), (90, 28475), (91, 28520), (92, 28532),

Gene: Che9c_17 Start: 15832, Stop: 17493, Start Num: 4

Candidate Starts for Che9c_17:

(Start: 4 @15832 has 2 MA's), (9, 15919), (16, 16003), (21, 16087), (26, 16138), (34, 16297), (37, 16315), (38, 16321), (40, 16333), (46, 16393), (48, 16411), (54, 16483), (55, 16498), (56, 16504), (57, 16507), (61, 16543), (63, 16561), (67, 16615), (72, 16687), (73, 16690), (81, 16762), (84, 16822), (85, 16831), (87, 16855), (89, 16918), (95, 17074), (96, 17437), (97, 17473),

Gene: Cheesepuff_17 Start: 15599, Stop: 16831, Start Num: 2

Candidate Starts for Cheesepuff_17:

(Start: 2 @15599 has 19 MA's), (8, 15686), (12, 15731), (14, 15755), (20, 15860), (22, 15866), (23, 15884), (25, 15893), (26, 15914), (30, 16019), (35, 16079), (39, 16100), (40, 16109), (42, 16133), (47, 16175), (49, 16208), (50, 16211), (51, 16220), (52, 16235), (53, 16241), (54, 16259), (55, 16274), (56, 16280), (58, 16298), (59, 16301), (60, 16316), (61, 16319), (62, 16331), (63, 16337), (66, 16385), (68, 16397), (69, 16403), (72, 16463), (77, 16511), (78, 16523), (82, 16544), (84, 16598), (85, 16607), (87, 16631), (88, 16661),

Gene: Cornie_17 Start: 15669, Stop: 16895, Start Num: 3

Candidate Starts for Cornie_17:

(Start: 3 @15669 has 3 MA's), (5, 15675), (8, 15750), (10, 15771), (13, 15813), (14, 15819), (16, 15843), (20, 15924), (22, 15930), (23, 15948), (26, 15978), (30, 16083), (36, 16152), (40, 16173), (41, 16176), (44, 16212), (48, 16251), (51, 16284), (52, 16299), (53, 16305), (54, 16323), (55, 16338), (56, 16344), (59, 16365), (60, 16380), (63, 16401), (64, 16419), (66, 16449), (72, 16527), (77, 16575), (78, 16587), (83, 16620), (84, 16662), (85, 16671), (87, 16695), (88, 16725), (90, 16770), (94, 16887),

Gene: Dallas_37 Start: 26860, Stop: 28077, Start Num: 2

Candidate Starts for Dallas_37:

(Start: 2 @26860 has 19 MA's), (7, 26950), (11, 26998), (14, 27028), (17, 27055), (24, 27157), (27, 27187), (29, 27286), (32, 27322), (33, 27328), (34, 27349), (43, 27421), (45, 27430), (47, 27451), (53, 27520), (56, 27559), (57, 27562), (58, 27577), (63, 27616), (66, 27664), (68, 27676), (69, 27682), (70, 27730), (71, 27739), (75, 27760), (76, 27778), (79, 27826), (86, 27928), (90, 28000), (91, 28045), (92, 28057),

Gene: Duke13_33 Start: 26890, Stop: 28107, Start Num: 2

Candidate Starts for Duke13_33:

(Start: 2 @26890 has 19 MA's), (7, 26980), (11, 27028), (14, 27058), (24, 27187), (27, 27217), (29, 27316), (32, 27352), (34, 27379), (43, 27451), (45, 27460), (47, 27481), (53, 27550), (56, 27589), (57, 27592), (58, 27607), (63, 27646), (66, 27694), (68, 27706), (69, 27712), (70, 27760), (71, 27769), (75, 27790), (76, 27808), (79, 27856), (86, 27958), (90, 28030), (91, 28075), (92, 28087),

Gene: EricMillard_36 Start: 27621, Stop: 28838, Start Num: 2

Candidate Starts for EricMillard_36:

(Start: 2 @27621 has 19 MA's), (7, 27711), (11, 27759), (14, 27789), (24, 27918), (27, 27948), (29, 28047), (32, 28083), (34, 28110), (43, 28182), (45, 28191), (47, 28212), (53, 28281), (56, 28320), (57, 28323), (58, 28338), (63, 28377), (66, 28425), (68, 28437), (69, 28443), (70, 28491), (71, 28500), (75, 28521), (76, 28539), (79, 28587), (86, 28689), (90, 28761), (91, 28806), (92, 28818),

Gene: Guppsters_16 Start: 14937, Stop: 16169, Start Num: 2

Candidate Starts for Guppsters_16:

(Start: 2 @14937 has 19 MA's), (8, 15024), (12, 15069), (14, 15093), (20, 15198), (22, 15204), (23, 15222), (26, 15252), (30, 15357), (35, 15417), (39, 15438), (40, 15447), (42, 15471), (54, 15597), (55, 15612), (56, 15618), (60, 15654), (61, 15657), (62, 15669), (63, 15675), (66, 15723), (68, 15735), (69, 15741), (72, 15801), (74, 15813), (77, 15849), (78, 15861), (82, 15882), (84, 15936), (85, 15945), (87, 15969),

Gene: Halley_36 Start: 27334, Stop: 28551, Start Num: 2

Candidate Starts for Halley_36:

(Start: 2 @27334 has 19 MA's), (7, 27424), (11, 27472), (14, 27502), (17, 27529), (24, 27631), (27, 27661), (29, 27760), (32, 27796), (33, 27802), (34, 27823), (43, 27895), (45, 27904), (47, 27925), (56, 28033), (57, 28036), (58, 28051), (63, 28090), (66, 28138), (68, 28150), (69, 28156), (70, 28204), (71, 28213), (75, 28234), (76, 28252), (79, 28300), (86, 28402), (90, 28474), (91, 28519), (92, 28531),

Gene: HokkenD_31 Start: 26883, Stop: 28100, Start Num: 2

Candidate Starts for HokkenD_31:

(Start: 2 @26883 has 19 MA's), (7, 26973), (11, 27021), (14, 27051), (24, 27180), (27, 27210), (29, 27309), (32, 27345), (34, 27372), (43, 27444), (45, 27453), (47, 27474), (53, 27543), (56, 27582), (57, 27585), (58, 27600), (63, 27639), (66, 27687), (68, 27699), (69, 27705), (70, 27753), (71, 27762), (75, 27783), (76, 27801), (79, 27849), (86, 27951), (90, 28023), (91, 28068), (92, 28080),

Gene: JuicyJay_38 Start: 29084, Stop: 30301, Start Num: 2

Candidate Starts for JuicyJay_38:

(Start: 2 @29084 has 19 MA's), (7, 29174), (11, 29222), (14, 29252), (17, 29279), (24, 29381), (27, 29411), (29, 29510), (32, 29546), (33, 29552), (34, 29573), (43, 29645), (45, 29654), (47, 29675), (56, 29783), (57, 29786), (58, 29801), (63, 29840), (66, 29888), (68, 29900), (69, 29906), (70, 29954), (71, 29963), (75, 29984), (76, 30002), (79, 30050), (86, 30152), (90, 30224), (91, 30269), (92, 30281),

Gene: Kersh_16 Start: 14921, Stop: 16141, Start Num: 2

Candidate Starts for Kersh_16:

(Start: 2 @14921 has 19 MA's), (8, 15008), (10, 15029), (12, 15053), (14, 15077), (15, 15098), (20, 15182), (22, 15188), (23, 15206), (26, 15236), (30, 15341), (35, 15401), (40, 15431), (42, 15455), (49, 15530), (50, 15533), (52, 15557), (53, 15563), (54, 15581), (55, 15596), (56, 15602), (60, 15638), (62, 15653), (63, 15659), (66, 15707), (68, 15719), (69, 15725), (72, 15785), (74, 15797), (77, 15833), (78, 15845), (84, 15920), (85, 15929), (86, 15947), (87, 15953), (88, 15983),

Gene: LunaBlu_16 Start: 14832, Stop: 16064, Start Num: 2

Candidate Starts for LunaBlu_16:

(Start: 2 @14832 has 19 MA's), (8, 14919), (12, 14964), (14, 14988), (20, 15093), (22, 15099), (23, 15117), (26, 15147), (30, 15252), (35, 15312), (39, 15333), (40, 15342), (42, 15366), (54, 15492), (55, 15507), (56, 15513), (60, 15549), (61, 15552), (62, 15564), (63, 15570), (66, 15618), (68, 15630), (69, 15636), (72, 15696), (74, 15708), (77, 15744), (78, 15756), (84, 15831), (85, 15840), (86, 15858), (87, 15864), (88, 15894),

Gene: MadMen_16 Start: 14990, Stop: 16210, Start Num: 2

Candidate Starts for MadMen_16:

(Start: 2 @14990 has 19 MA's), (8, 15077), (14, 15146), (20, 15251), (22, 15257), (23, 15275), (26, 15305), (30, 15410), (35, 15470), (39, 15491), (40, 15500), (42, 15524), (49, 15599), (50, 15602), (52, 15626), (53, 15632), (54, 15650), (55, 15665), (56, 15671), (60, 15707), (62, 15722), (63, 15728), (66, 15776), (68, 15788), (69, 15794), (72, 15854), (74, 15866), (77, 15902), (78, 15914), (84, 15989), (85, 15998), (86, 16016), (87, 16022), (88, 16052),

Gene: NewHope4_16 Start: 14802, Stop: 16034, Start Num: 2

Candidate Starts for NewHope4_16:

(Start: 2 @14802 has 19 MA's), (8, 14889), (12, 14934), (14, 14958), (20, 15063), (22, 15069), (23, 15087), (26, 15117), (30, 15222), (35, 15282), (39, 15303), (40, 15312), (42, 15336), (54, 15462), (55, 15477), (56, 15483), (60, 15519), (61, 15522), (62, 15534), (63, 15540), (66, 15588), (68, 15600), (69, 15606), (72, 15666), (74, 15678), (77, 15714), (78, 15726), (84, 15801), (85, 15810), (86, 15828), (87, 15834), (88, 15864),

Gene: NihilNomen_35 Start: 27379, Stop: 28596, Start Num: 2

Candidate Starts for NihilNomen_35:

(Start: 2 @27379 has 19 MA's), (7, 27469), (11, 27517), (14, 27547), (17, 27574), (24, 27676), (27, 27706), (29, 27805), (32, 27841), (33, 27847), (34, 27868), (43, 27940), (45, 27949), (47, 27970), (53, 28039), (56, 28078), (57, 28081), (58, 28096), (63, 28135), (66, 28183), (68, 28195), (69, 28201), (71, 28258), (75, 28279), (76, 28297), (79, 28345), (86, 28447), (90, 28519), (91, 28564), (92, 28576),

Gene: Pollywog_18 Start: 15957, Stop: 17177, Start Num: 2

Candidate Starts for Pollywog_18:

(Start: 2 @15957 has 19 MA's), (8, 16044), (10, 16065), (12, 16089), (14, 16113), (15, 16134), (18, 16170), (20, 16218), (22, 16224), (23, 16242), (26, 16272), (30, 16377), (35, 16437), (40, 16467), (42, 16491), (49, 16566), (50, 16569), (52, 16593), (53, 16599), (54, 16617), (55, 16632), (56, 16638), (60, 16674), (62, 16689), (63, 16695), (66, 16743), (68, 16755), (69, 16761), (72, 16821), (74, 16833), (77, 16869), (78, 16881), (82, 16902), (84, 16956), (85, 16965), (86, 16983), (87, 16989), (88, 17019),

Gene: Polo2Bam_17 Start: 14802, Stop: 16034, Start Num: 2

Candidate Starts for Polo2Bam_17:

(Start: 2 @14802 has 19 MA's), (8, 14889), (12, 14934), (14, 14958), (20, 15063), (22, 15069), (23, 15087), (26, 15117), (30, 15222), (35, 15282), (39, 15303), (40, 15312), (42, 15336), (54, 15462), (55, 15477), (56, 15483), (60, 15519), (61, 15522), (62, 15534), (63, 15540), (66, 15588), (68, 15600), (69, 15606), (72, 15666), (74, 15678), (77, 15714), (78, 15726), (84, 15801), (85, 15810), (86, 15828), (87, 15834), (88, 15864),

Gene: Pound_37 Start: 28610, Stop: 29827, Start Num: 2

Candidate Starts for Pound_37:

(Start: 2 @28610 has 19 MA's), (7, 28700), (11, 28748), (14, 28778), (17, 28805), (24, 28907), (27, 28937), (28, 28988), (29, 29036), (32, 29072), (33, 29078), (34, 29099), (43, 29171), (45, 29180), (47, 29201), (56, 29309), (57, 29312), (58, 29327), (63, 29366), (66, 29414), (68, 29426), (69, 29432), (70, 29480), (71, 29489), (75, 29510), (76, 29528), (79, 29576), (86, 29678), (90, 29750), (91, 29795), (92, 29807),

Gene: Renaud18_17 Start: 15238, Stop: 16464, Start Num: 3

Candidate Starts for Renaud18_17:

(1, 15226), (Start: 3 @15238 has 3 MA's), (5, 15244), (8, 15319), (10, 15340), (13, 15382), (14, 15388), (16, 15412), (19, 15484), (20, 15493), (22, 15499), (23, 15517), (26, 15547), (30, 15652), (36, 15721), (40, 15742), (41, 15745), (51, 15853), (53, 15874), (54, 15892), (55, 15907), (56, 15913), (60, 15949), (62, 15964), (63, 15970), (64, 15988), (66, 16018), (69, 16036), (72, 16096), (77, 16144), (78, 16156),

(80, 16168), (83, 16189), (84, 16231), (85, 16240), (87, 16264), (90, 16339), (94, 16456),

Gene: Sabbb_16 Start: 14978, Stop: 16210, Start Num: 2

Candidate Starts for Sabbb_16:

(Start: 2 @14978 has 19 MA's), (8, 15065), (12, 15110), (14, 15134), (18, 15191), (20, 15239), (22, 15245), (23, 15263), (25, 15272), (26, 15293), (30, 15398), (34, 15452), (35, 15458), (36, 15467), (39, 15479), (40, 15488), (42, 15512), (46, 15548), (47, 15554), (49, 15587), (50, 15590), (51, 15599), (52, 15614), (53, 15620), (54, 15638), (55, 15653), (56, 15659), (58, 15677), (59, 15680), (60, 15695), (61, 15698), (62, 15710), (63, 15716), (65, 15746), (66, 15764), (68, 15776), (69, 15782), (72, 15842), (74, 15854), (77, 15890), (78, 15902), (82, 15923), (84, 15977), (85, 15986), (87, 16010), (88, 16040),

Gene: Sbash_17 Start: 15662, Stop: 17323, Start Num: 4

Candidate Starts for Sbash_17:

(Start: 4 @15662 has 2 MA's), (6, 15695), (9, 15749), (16, 15833), (21, 15917), (26, 15968), (31, 16094), (34, 16127), (35, 16133), (37, 16145), (38, 16151), (40, 16163), (46, 16223), (48, 16241), (54, 16313), (55, 16328), (56, 16334), (57, 16337), (60, 16370), (63, 16391), (67, 16445), (72, 16517), (73, 16520), (81, 16592), (84, 16652), (85, 16661), (87, 16685), (89, 16748), (95, 16904), (96, 17267), (97, 17303),

Gene: Spartacus_16 Start: 14836, Stop: 16068, Start Num: 2

Candidate Starts for Spartacus_16:

(Start: 2 @14836 has 19 MA's), (8, 14923), (12, 14968), (14, 14992), (20, 15097), (22, 15103), (23, 15121), (26, 15151), (30, 15256), (35, 15316), (39, 15337), (40, 15346), (42, 15370), (54, 15496), (55, 15511), (56, 15517), (60, 15553), (61, 15556), (62, 15568), (63, 15574), (66, 15622), (68, 15634), (69, 15640), (72, 15700), (74, 15712), (77, 15748), (78, 15760), (84, 15835), (85, 15844), (86, 15862), (87, 15868), (88, 15898),

Gene: Stuck_18 Start: 15829, Stop: 17490, Start Num: 4

Candidate Starts for Stuck_18:

(Start: 4 @15829 has 2 MA's), (9, 15916), (16, 16000), (21, 16084), (26, 16135), (34, 16294), (37, 16312), (38, 16318), (40, 16330), (46, 16390), (48, 16408), (54, 16480), (55, 16495), (56, 16501), (57, 16504), (61, 16540), (63, 16558), (67, 16612), (72, 16684), (73, 16687), (81, 16759), (84, 16819), (85, 16828), (87, 16852), (89, 16915), (95, 17071), (96, 17434), (97, 17470),

Gene: ThetaBob_17 Start: 15156, Stop: 16382, Start Num: 3

Candidate Starts for ThetaBob_17:

(Start: 3 @15156 has 3 MA's), (5, 15162), (8, 15237), (10, 15258), (13, 15300), (14, 15306), (16, 15330), (20, 15411), (22, 15417), (23, 15435), (26, 15465), (30, 15570), (36, 15639), (40, 15660), (41, 15663), (44, 15699), (48, 15738), (51, 15771), (52, 15786), (53, 15792), (54, 15810), (55, 15825), (56, 15831), (59, 15852), (60, 15867), (63, 15888), (64, 15906), (66, 15936), (72, 16014), (77, 16062), (78, 16074), (83, 16107), (84, 16149), (85, 16158), (87, 16182), (88, 16212), (90, 16257), (94, 16374),

Gene: Toron_17 Start: 15256, Stop: 16887, Start Num: 3

Candidate Starts for Toron_17:

(Start: 2 @15250 has 19 MA's), (Start: 3 @15256 has 3 MA's), (5, 15262), (12, 15382), (14, 15406), (16, 15430), (20, 15511), (22, 15517), (23, 15535), (26, 15565), (30, 15670), (36, 15739), (40, 15760), (41, 15763), (44, 15799), (53, 15892), (54, 15910), (55, 15925), (56, 15931), (60, 15967), (63, 15988), (64, 16006), (66, 16036), (68, 16048), (69, 16054), (72, 16114), (77, 16162), (84, 16249), (85, 16258), (87, 16282), (88, 16312), (93, 16465), (95, 16498),

Gene: Xiaokay_33 Start: 26885, Stop: 28102, Start Num: 2

Candidate Starts for Xiaokay_33:

(Start: 2 @26885 has 19 MA's), (7, 26975), (11, 27023), (14, 27053), (17, 27080), (24, 27182), (27, 27212), (29, 27311), (32, 27347), (33, 27353), (34, 27374), (43, 27446), (45, 27455), (47, 27476), (53, 27545), (56, 27584), (57, 27587), (58, 27602), (63, 27641), (66, 27689), (68, 27701), (69, 27707), (70, 27755), (71, 27764), (75, 27785), (76, 27803), (79, 27851), (86, 27953), (89, 28013), (90, 28025), (91, 28070), (92, 28082),

Gene: Yeet_34 Start: 26605, Stop: 27822, Start Num: 2

Candidate Starts for Yeet_34:

(Start: 2 @26605 has 19 MA's), (7, 26695), (11, 26743), (14, 26773), (17, 26800), (24, 26902), (27, 26932), (28, 26983), (29, 27031), (32, 27067), (33, 27073), (34, 27094), (43, 27166), (45, 27175), (47, 27196), (56, 27304), (57, 27307), (58, 27322), (63, 27361), (66, 27409), (68, 27421), (69, 27427), (70, 27475), (71, 27484), (75, 27505), (76, 27523), (79, 27571), (86, 27673), (90, 27745), (91, 27790), (92, 27802),