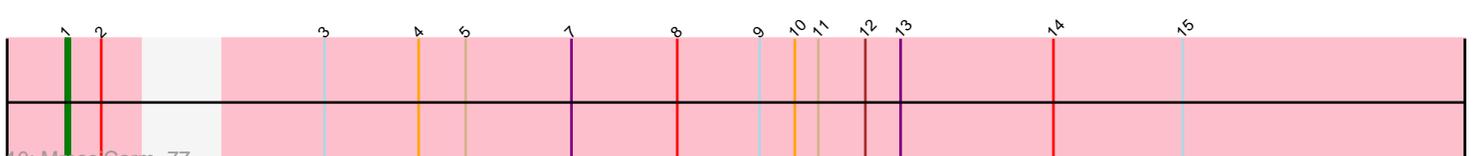
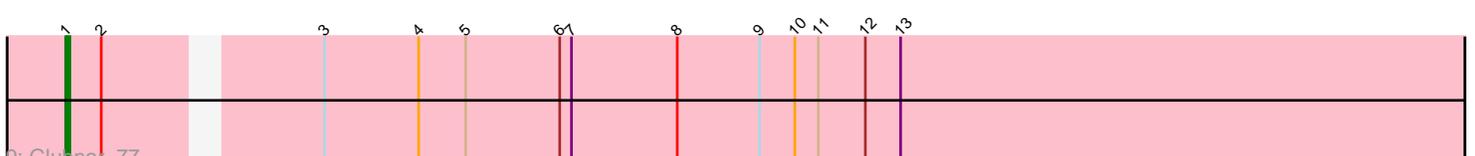
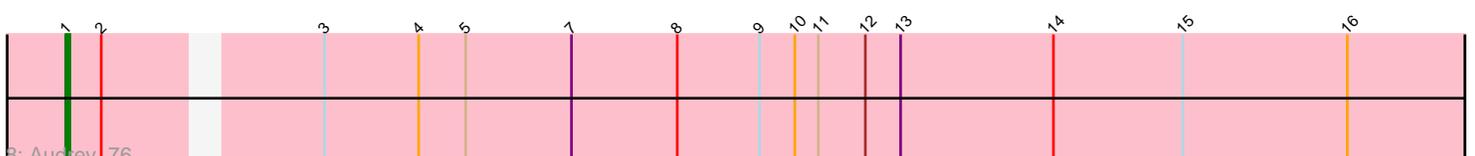
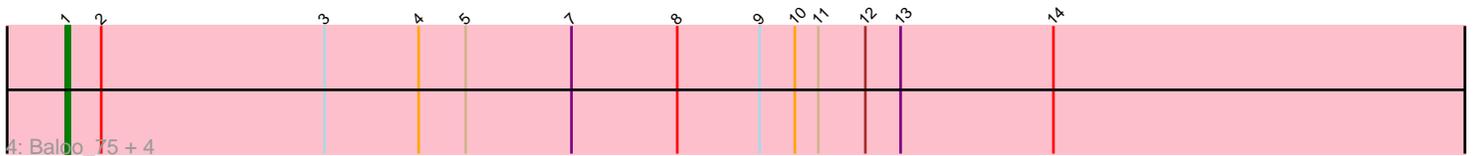
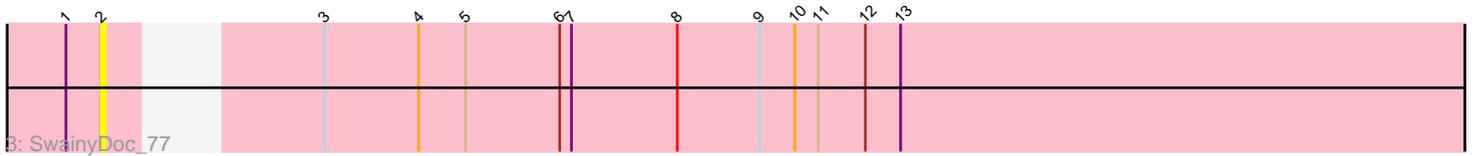
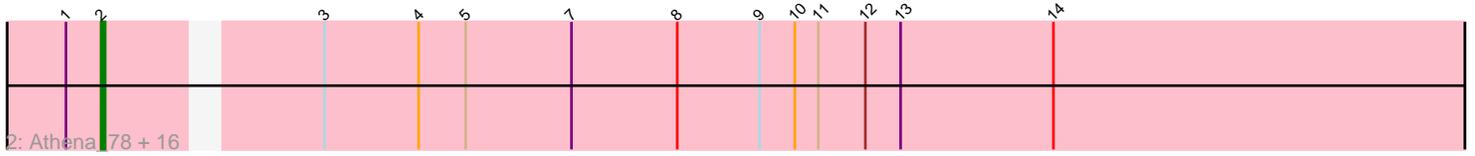
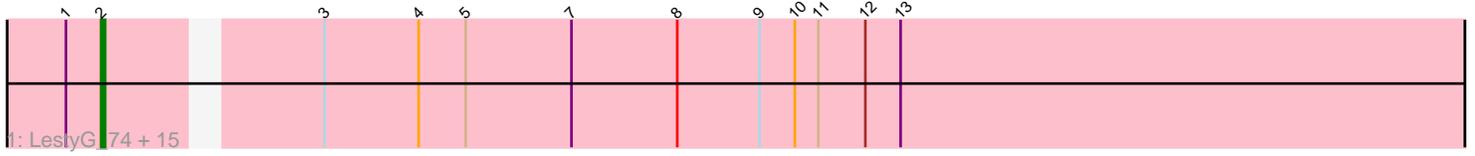


Pham 282239



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 282239 Report

This analysis was run 02/23/26 on database version 636.

Pham number 282239 has 56 members, 6 are drafts.

Phages represented in each track:

- Track 1 : LestyG_74, Tydolla_72, Jackstina_71, Akoma_76, HarveySr_75, Casbah_76, Philly_75, Chentzyk_78, Kamiyu_76, Neos5_76, Marlia_77, Yinz_76, GlenHope_77, Phaedrus_71, Mortcellus_76, Mulaychimus_77
- Track 2 : Athena_78, Briakila_76, Ben11_76, Gervas_77, Corofin_76, Chalmers_75, RomaT_76, Morty007_75, SlippinJimmy_79, Marley1013_77, Phlyer_76, Halfpint_75, Pipefish_78, Compostia_75, Obutu_78, Rita1961_77, Olivio_76
- Track 3 : SwainyDoc_77
- Track 4 : Baloo_75, Deenasa_76, Nozo_76, OrangeOswald_76, ChaChing_76
- Track 5 : Daisy_75, Heathcliff_76
- Track 6 : Abinghost_76, Devonte_75, TinyTerror_77, Yahalom_74, Chandler_76, Bernardo_77, Gadget_77, SynergyX_76, Shenandoah_75, RagingRooster_75
- Track 7 : Kronus_76, Phayeta_79
- Track 8 : Audrey_76
- Track 9 : Glubnar_77
- Track 10 : MmasiCarm_77

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 40 of the 50 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Abinghost_76, Akoma_76, Athena_78, Ben11_76, Bernardo_77, Briakila_76, Casbah_76, Chalmers_75, Chandler_76, Chentzyk_78, Compostia_75, Corofin_76, Daisy_75, Devonte_75, Gadget_77, Gervas_77, GlenHope_77, Halfpint_75, HarveySr_75, Heathcliff_76, Jackstina_71, Kamiyu_76, LestyG_74, Marley1013_77, Marlia_77, Mortcellus_76, Morty007_75, Mulaychimus_77, Neos5_76, Obutu_78, Olivio_76, Phaedrus_71, Philly_75, Phlyer_76, Pipefish_78, RagingRooster_75, Rita1961_77, RomaT_76, Shenandoah_75, SlippinJimmy_79, SwainyDoc_77, SynergyX_76, TinyTerror_77, Tydolla_72, Yahalom_74, Yinz_76,

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

- Audrey_76, Baloo_75, ChaChing_76, Deenasa_76, Glubnar_77, Kronus_76, MmasiCarm_77, Nozo_76, OrangeOswald_76, Phayeta_79,

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

-

Summary by start number:

Start 1:

- Found in 56 of 56 (100.0%) of genes in pham
- Manual Annotations of this start: 10 of 50
- Called 17.9% of time when present
- Phage (with cluster) where this start called: Audrey_76 (B3), Baloo_75 (B3), ChaChing_76 (B3), Deenasa_76 (B3), Glubnar_77 (B3), Kronus_76 (B3), MmasiCarm_77 (B3), Nozo_76 (B3), OrangeOswald_76 (B3), Phayeta_79 (B3),

Start 2:

- Found in 56 of 56 (100.0%) of genes in pham
- Manual Annotations of this start: 40 of 50
- Called 82.1% of time when present
- Phage (with cluster) where this start called: Abinghost_76 (B3), Akoma_76 (B3), Athena_78 (B3), Ben11_76 (B3), Bernardo_77 (B3), Briakila_76 (B3), Casbah_76 (B3), Chalmers_75 (B3), Chandler_76 (B3), Chentzyk_78 (B3), Compostia_75 (B3), Corofin_76 (B3), Daisy_75 (B3), Devonte_75 (B3), Gadget_77 (B3), Gervas_77 (B3), GlenHope_77 (B3), Halfpint_75 (B3), HarveySr_75 (B3), Heathcliff_76 (B3), Jackstina_71 (B3), Kamiyu_76 (B3), LestyG_74 (B3), Marley1013_77 (B3), Marlia_77 (B3), Mortcellus_76 (B3), Morty007_75 (B3), Mulaychimus_77 (B3), Neos5_76 (B3), Obutu_78 (B3), Olivio_76 (B3), Phaedrus_71 (B3), Philly_75 (B3), Phlyer_76 (B3), Pipefish_78 (B3), RagingRooster_75 (B3), Rita1961_77 (B3), RomaT_76 (B3), Shenandoah_75 (B3), SlippinJimmy_79 (B3), SwainyDoc_77 (B3), SynergyX_76 (B3), TinyTerror_77 (B3), Tydolla_72 (B3), Yahalom_74 (B3), Yinz_76 (B3),

Summary by clusters:

There is one cluster represented in this pham: B3

Info for manual annotations of cluster B3:

- Start number 1 was manually annotated 10 times for cluster B3.
- Start number 2 was manually annotated 40 times for cluster B3.

Gene Information:

Gene: Abinghost_76 Start: 59516, Stop: 59863, Start Num: 2

Candidate Starts for Abinghost_76:

(Start: 1 @59507 has 10 MA's), (Start: 2 @59516 has 40 MA's), (3, 59564), (4, 59588), (5, 59600), (7, 59627), (8, 59654), (9, 59675), (10, 59684), (11, 59690), (12, 59702), (13, 59711), (14, 59750), (15, 59783),

Gene: Akoma_76 Start: 59556, Stop: 59903, Start Num: 2

Candidate Starts for Akoma_76:

(Start: 1 @59547 has 10 MA's), (Start: 2 @59556 has 40 MA's), (3, 59604), (4, 59628), (5, 59640), (7, 59667), (8, 59694), (9, 59715), (10, 59724), (11, 59730), (12, 59742), (13, 59751),

Gene: Athena_78 Start: 60291, Stop: 60638, Start Num: 2

Candidate Starts for Athena_78:

(Start: 1 @60282 has 10 MA's), (Start: 2 @60291 has 40 MA's), (3, 60339), (4, 60363), (5, 60375), (7, 60402), (8, 60429), (9, 60450), (10, 60459), (11, 60465), (12, 60477), (13, 60486), (14, 60525),

Gene: Audrey_76 Start: 59536, Stop: 59892, Start Num: 1

Candidate Starts for Audrey_76:

(Start: 1 @59536 has 10 MA's), (Start: 2 @59545 has 40 MA's), (3, 59593), (4, 59617), (5, 59629), (7, 59656), (8, 59683), (9, 59704), (10, 59713), (11, 59719), (12, 59731), (13, 59740), (14, 59779), (15, 59812), (16, 59854),

Gene: Baloo_75 Start: 59379, Stop: 59744, Start Num: 1

Candidate Starts for Baloo_75:

(Start: 1 @59379 has 10 MA's), (Start: 2 @59388 has 40 MA's), (3, 59445), (4, 59469), (5, 59481), (7, 59508), (8, 59535), (9, 59556), (10, 59565), (11, 59571), (12, 59583), (13, 59592), (14, 59631),

Gene: Ben11_76 Start: 59772, Stop: 60119, Start Num: 2

Candidate Starts for Ben11_76:

(Start: 1 @59763 has 10 MA's), (Start: 2 @59772 has 40 MA's), (3, 59820), (4, 59844), (5, 59856), (7, 59883), (8, 59910), (9, 59931), (10, 59940), (11, 59946), (12, 59958), (13, 59967), (14, 60006),

Gene: Bernardo_77 Start: 59747, Stop: 60082, Start Num: 2

Candidate Starts for Bernardo_77:

(Start: 1 @59738 has 10 MA's), (Start: 2 @59747 has 40 MA's), (3, 59783), (4, 59807), (5, 59819), (7, 59846), (8, 59873), (9, 59894), (10, 59903), (11, 59909), (12, 59921), (13, 59930), (14, 59969), (15, 60002),

Gene: Briakila_76 Start: 59755, Stop: 60090, Start Num: 2

Candidate Starts for Briakila_76:

(Start: 1 @59746 has 10 MA's), (Start: 2 @59755 has 40 MA's), (3, 59791), (4, 59815), (5, 59827), (7, 59854), (8, 59881), (9, 59902), (10, 59911), (11, 59917), (12, 59929), (13, 59938), (14, 59977),

Gene: Casbah_76 Start: 59856, Stop: 60203, Start Num: 2

Candidate Starts for Casbah_76:

(Start: 1 @59847 has 10 MA's), (Start: 2 @59856 has 40 MA's), (3, 59904), (4, 59928), (5, 59940), (7, 59967), (8, 59994), (9, 60015), (10, 60024), (11, 60030), (12, 60042), (13, 60051),

Gene: ChaChing_76 Start: 59564, Stop: 59908, Start Num: 1

Candidate Starts for ChaChing_76:

(Start: 1 @59564 has 10 MA's), (Start: 2 @59573 has 40 MA's), (3, 59609), (4, 59633), (5, 59645), (7, 59672), (8, 59699), (9, 59720), (10, 59729), (11, 59735), (12, 59747), (13, 59756), (14, 59795),

Gene: Chalmers_75 Start: 60003, Stop: 60338, Start Num: 2

Candidate Starts for Chalmers_75:

(Start: 1 @59994 has 10 MA's), (Start: 2 @60003 has 40 MA's), (3, 60039), (4, 60063), (5, 60075), (7, 60102), (8, 60129), (9, 60150), (10, 60159), (11, 60165), (12, 60177), (13, 60186), (14, 60225),

Gene: Chandler_76 Start: 60332, Stop: 60679, Start Num: 2

Candidate Starts for Chandler_76:

(Start: 1 @60323 has 10 MA's), (Start: 2 @60332 has 40 MA's), (3, 60380), (4, 60404), (5, 60416), (7, 60443), (8, 60470), (9, 60491), (10, 60500), (11, 60506), (12, 60518), (13, 60527), (14, 60566), (15, 60599),

Gene: Chentzyk_78 Start: 60499, Stop: 60846, Start Num: 2

Candidate Starts for Chentzyk_78:

(Start: 1 @60490 has 10 MA's), (Start: 2 @60499 has 40 MA's), (3, 60547), (4, 60571), (5, 60583), (7, 60610), (8, 60637), (9, 60658), (10, 60667), (11, 60673), (12, 60685), (13, 60694),

Gene: Compostia_75 Start: 60001, Stop: 60348, Start Num: 2

Candidate Starts for Compostia_75:

(Start: 1 @59992 has 10 MA's), (Start: 2 @60001 has 40 MA's), (3, 60049), (4, 60073), (5, 60085), (7, 60112), (8, 60139), (9, 60160), (10, 60169), (11, 60175), (12, 60187), (13, 60196), (14, 60235),

Gene: Corofin_76 Start: 59579, Stop: 59914, Start Num: 2

Candidate Starts for Corofin_76:

(Start: 1 @59570 has 10 MA's), (Start: 2 @59579 has 40 MA's), (3, 59615), (4, 59639), (5, 59651), (7, 59678), (8, 59705), (9, 59726), (10, 59735), (11, 59741), (12, 59753), (13, 59762), (14, 59801),

Gene: Daisy_75 Start: 59118, Stop: 59465, Start Num: 2

Candidate Starts for Daisy_75:

(Start: 1 @59109 has 10 MA's), (Start: 2 @59118 has 40 MA's), (3, 59166), (4, 59190), (5, 59202), (7, 59229), (8, 59256), (9, 59277), (10, 59286), (11, 59292), (12, 59304), (13, 59313), (14, 59352), (15, 59385), (16, 59427),

Gene: Deenasa_76 Start: 60458, Stop: 60814, Start Num: 1

Candidate Starts for Deenasa_76:

(Start: 1 @60458 has 10 MA's), (Start: 2 @60467 has 40 MA's), (3, 60515), (4, 60539), (5, 60551), (7, 60578), (8, 60605), (9, 60626), (10, 60635), (11, 60641), (12, 60653), (13, 60662), (14, 60701),

Gene: Devonte_75 Start: 59195, Stop: 59530, Start Num: 2

Candidate Starts for Devonte_75:

(Start: 1 @59186 has 10 MA's), (Start: 2 @59195 has 40 MA's), (3, 59231), (4, 59255), (5, 59267), (7, 59294), (8, 59321), (9, 59342), (10, 59351), (11, 59357), (12, 59369), (13, 59378), (14, 59417), (15, 59450),

Gene: Gadget_77 Start: 59930, Stop: 60265, Start Num: 2

Candidate Starts for Gadget_77:

(Start: 1 @59921 has 10 MA's), (Start: 2 @59930 has 40 MA's), (3, 59966), (4, 59990), (5, 60002), (7, 60029), (8, 60056), (9, 60077), (10, 60086), (11, 60092), (12, 60104), (13, 60113), (14, 60152), (15, 60185),

Gene: Gervas_77 Start: 60024, Stop: 60359, Start Num: 2

Candidate Starts for Gervas_77:

(Start: 1 @60015 has 10 MA's), (Start: 2 @60024 has 40 MA's), (3, 60060), (4, 60084), (5, 60096), (7, 60123), (8, 60150), (9, 60171), (10, 60180), (11, 60186), (12, 60198), (13, 60207), (14, 60246),

Gene: GlenHope_77 Start: 59591, Stop: 59938, Start Num: 2

Candidate Starts for GlenHope_77:

(Start: 1 @59582 has 10 MA's), (Start: 2 @59591 has 40 MA's), (3, 59639), (4, 59663), (5, 59675), (7, 59702), (8, 59729), (9, 59750), (10, 59759), (11, 59765), (12, 59777), (13, 59786),

Gene: Glubnar_77 Start: 59441, Stop: 59797, Start Num: 1

Candidate Starts for Glubnar_77:

(Start: 1 @59441 has 10 MA's), (Start: 2 @59450 has 40 MA's), (3, 59498), (4, 59522), (5, 59534), (6, 59558), (7, 59561), (8, 59588), (9, 59609), (10, 59618), (11, 59624), (12, 59636), (13, 59645),

Gene: Halfpint_75 Start: 59333, Stop: 59680, Start Num: 2

Candidate Starts for Halfpint_75:

(Start: 1 @59324 has 10 MA's), (Start: 2 @59333 has 40 MA's), (3, 59381), (4, 59405), (5, 59417), (7, 59444), (8, 59471), (9, 59492), (10, 59501), (11, 59507), (12, 59519), (13, 59528), (14, 59567),

Gene: HarveySr_75 Start: 59102, Stop: 59449, Start Num: 2

Candidate Starts for HarveySr_75:

(Start: 1 @59093 has 10 MA's), (Start: 2 @59102 has 40 MA's), (3, 59150), (4, 59174), (5, 59186), (7, 59213), (8, 59240), (9, 59261), (10, 59270), (11, 59276), (12, 59288), (13, 59297),

Gene: Heathcliff_76 Start: 59512, Stop: 59859, Start Num: 2

Candidate Starts for Heathcliff_76:

(Start: 1 @59503 has 10 MA's), (Start: 2 @59512 has 40 MA's), (3, 59560), (4, 59584), (5, 59596), (7, 59623), (8, 59650), (9, 59671), (10, 59680), (11, 59686), (12, 59698), (13, 59707), (14, 59746), (15, 59779), (16, 59821),

Gene: Jackstina_71 Start: 59438, Stop: 59773, Start Num: 2

Candidate Starts for Jackstina_71:

(Start: 1 @59429 has 10 MA's), (Start: 2 @59438 has 40 MA's), (3, 59474), (4, 59498), (5, 59510), (7, 59537), (8, 59564), (9, 59585), (10, 59594), (11, 59600), (12, 59612), (13, 59621),

Gene: Kamiyu_76 Start: 59515, Stop: 59862, Start Num: 2

Candidate Starts for Kamiyu_76:

(Start: 1 @59506 has 10 MA's), (Start: 2 @59515 has 40 MA's), (3, 59563), (4, 59587), (5, 59599), (7, 59626), (8, 59653), (9, 59674), (10, 59683), (11, 59689), (12, 59701), (13, 59710),

Gene: Kronus_76 Start: 60602, Stop: 60946, Start Num: 1

Candidate Starts for Kronus_76:

(Start: 1 @60602 has 10 MA's), (Start: 2 @60611 has 40 MA's), (3, 60647), (4, 60671), (5, 60683), (7, 60710), (8, 60737), (9, 60758), (10, 60767), (11, 60773), (12, 60785), (13, 60794),

Gene: LestyG_74 Start: 59085, Stop: 59432, Start Num: 2

Candidate Starts for LestyG_74:

(Start: 1 @59076 has 10 MA's), (Start: 2 @59085 has 40 MA's), (3, 59133), (4, 59157), (5, 59169), (7, 59196), (8, 59223), (9, 59244), (10, 59253), (11, 59259), (12, 59271), (13, 59280),

Gene: Marley1013_77 Start: 60463, Stop: 60798, Start Num: 2

Candidate Starts for Marley1013_77:

(Start: 1 @60454 has 10 MA's), (Start: 2 @60463 has 40 MA's), (3, 60499), (4, 60523), (5, 60535), (7, 60562), (8, 60589), (9, 60610), (10, 60619), (11, 60625), (12, 60637), (13, 60646), (14, 60685),

Gene: Marlia_77 Start: 59984, Stop: 60331, Start Num: 2

Candidate Starts for Marlia_77:

(Start: 1 @59975 has 10 MA's), (Start: 2 @59984 has 40 MA's), (3, 60032), (4, 60056), (5, 60068), (7, 60095), (8, 60122), (9, 60143), (10, 60152), (11, 60158), (12, 60170), (13, 60179),

Gene: MmasiCarm_77 Start: 59957, Stop: 60301, Start Num: 1

Candidate Starts for MmasiCarm_77:

(Start: 1 @59957 has 10 MA's), (Start: 2 @59966 has 40 MA's), (3, 60002), (4, 60026), (5, 60038), (7, 60065), (8, 60092), (9, 60113), (10, 60122), (11, 60128), (12, 60140), (13, 60149), (14, 60188), (15, 60221),

Gene: Mortcellus_76 Start: 60670, Stop: 61017, Start Num: 2

Candidate Starts for Mortcellus_76:

(Start: 1 @60661 has 10 MA's), (Start: 2 @60670 has 40 MA's), (3, 60718), (4, 60742), (5, 60754), (7, 60781), (8, 60808), (9, 60829), (10, 60838), (11, 60844), (12, 60856), (13, 60865),

Gene: Morty007_75 Start: 60463, Stop: 60798, Start Num: 2

Candidate Starts for Morty007_75:

(Start: 1 @60454 has 10 MA's), (Start: 2 @60463 has 40 MA's), (3, 60499), (4, 60523), (5, 60535), (7, 60562), (8, 60589), (9, 60610), (10, 60619), (11, 60625), (12, 60637), (13, 60646), (14, 60685),

Gene: Mulaychimus_77 Start: 59976, Stop: 60311, Start Num: 2

Candidate Starts for Mulaychimus_77:

(Start: 1 @59967 has 10 MA's), (Start: 2 @59976 has 40 MA's), (3, 60012), (4, 60036), (5, 60048), (7, 60075), (8, 60102), (9, 60123), (10, 60132), (11, 60138), (12, 60150), (13, 60159),

Gene: Neos5_76 Start: 59925, Stop: 60260, Start Num: 2

Candidate Starts for Neos5_76:

(Start: 1 @59916 has 10 MA's), (Start: 2 @59925 has 40 MA's), (3, 59961), (4, 59985), (5, 59997), (7, 60024), (8, 60051), (9, 60072), (10, 60081), (11, 60087), (12, 60099), (13, 60108),

Gene: Nozo_76 Start: 60313, Stop: 60669, Start Num: 1

Candidate Starts for Nozo_76:

(Start: 1 @60313 has 10 MA's), (Start: 2 @60322 has 40 MA's), (3, 60370), (4, 60394), (5, 60406), (7, 60433), (8, 60460), (9, 60481), (10, 60490), (11, 60496), (12, 60508), (13, 60517), (14, 60556),

Gene: Obutu_78 Start: 60137, Stop: 60472, Start Num: 2

Candidate Starts for Obutu_78:

(Start: 1 @60128 has 10 MA's), (Start: 2 @60137 has 40 MA's), (3, 60173), (4, 60197), (5, 60209), (7, 60236), (8, 60263), (9, 60284), (10, 60293), (11, 60299), (12, 60311), (13, 60320), (14, 60359),

Gene: Olivio_76 Start: 59778, Stop: 60113, Start Num: 2

Candidate Starts for Olivio_76:

(Start: 1 @59769 has 10 MA's), (Start: 2 @59778 has 40 MA's), (3, 59814), (4, 59838), (5, 59850), (7, 59877), (8, 59904), (9, 59925), (10, 59934), (11, 59940), (12, 59952), (13, 59961), (14, 60000),

Gene: OrangeOswald_76 Start: 59547, Stop: 59903, Start Num: 1

Candidate Starts for OrangeOswald_76:

(Start: 1 @59547 has 10 MA's), (Start: 2 @59556 has 40 MA's), (3, 59604), (4, 59628), (5, 59640), (7, 59667), (8, 59694), (9, 59715), (10, 59724), (11, 59730), (12, 59742), (13, 59751), (14, 59790),

Gene: Phaedrus_71 Start: 58985, Stop: 59320, Start Num: 2

Candidate Starts for Phaedrus_71:

(Start: 1 @58976 has 10 MA's), (Start: 2 @58985 has 40 MA's), (3, 59021), (4, 59045), (5, 59057), (7, 59084), (8, 59111), (9, 59132), (10, 59141), (11, 59147), (12, 59159), (13, 59168),

Gene: Phayeta_79 Start: 60033, Stop: 60389, Start Num: 1

Candidate Starts for Phayeta_79:

(Start: 1 @60033 has 10 MA's), (Start: 2 @60042 has 40 MA's), (3, 60090), (4, 60114), (5, 60126), (7, 60153), (8, 60180), (9, 60201), (10, 60210), (11, 60216), (12, 60228), (13, 60237),

Gene: Philly_75 Start: 59417, Stop: 59752, Start Num: 2

Candidate Starts for Philly_75:

(Start: 1 @59408 has 10 MA's), (Start: 2 @59417 has 40 MA's), (3, 59453), (4, 59477), (5, 59489), (7, 59516), (8, 59543), (9, 59564), (10, 59573), (11, 59579), (12, 59591), (13, 59600),

Gene: Phlyer_76 Start: 60268, Stop: 60615, Start Num: 2

Candidate Starts for Phlyer_76:

(Start: 1 @60259 has 10 MA's), (Start: 2 @60268 has 40 MA's), (3, 60316), (4, 60340), (5, 60352), (7, 60379), (8, 60406), (9, 60427), (10, 60436), (11, 60442), (12, 60454), (13, 60463), (14, 60502),

Gene: Pipefish_78 Start: 60676, Stop: 61011, Start Num: 2

Candidate Starts for Pipefish_78:

(Start: 1 @60667 has 10 MA's), (Start: 2 @60676 has 40 MA's), (3, 60712), (4, 60736), (5, 60748), (7, 60775), (8, 60802), (9, 60823), (10, 60832), (11, 60838), (12, 60850), (13, 60859), (14, 60898),

Gene: RagingRooster_75 Start: 59248, Stop: 59595, Start Num: 2

Candidate Starts for RagingRooster_75:

(Start: 1 @59239 has 10 MA's), (Start: 2 @59248 has 40 MA's), (3, 59296), (4, 59320), (5, 59332), (7, 59359), (8, 59386), (9, 59407), (10, 59416), (11, 59422), (12, 59434), (13, 59443), (14, 59482), (15, 59515),

Gene: Rita1961_77 Start: 59914, Stop: 60249, Start Num: 2

Candidate Starts for Rita1961_77:

(Start: 1 @59905 has 10 MA's), (Start: 2 @59914 has 40 MA's), (3, 59950), (4, 59974), (5, 59986), (7, 60013), (8, 60040), (9, 60061), (10, 60070), (11, 60076), (12, 60088), (13, 60097), (14, 60136),

Gene: RomaT_76 Start: 60122, Stop: 60469, Start Num: 2

Candidate Starts for RomaT_76:

(Start: 1 @60113 has 10 MA's), (Start: 2 @60122 has 40 MA's), (3, 60170), (4, 60194), (5, 60206), (7, 60233), (8, 60260), (9, 60281), (10, 60290), (11, 60296), (12, 60308), (13, 60317), (14, 60356),

Gene: Shenandoah_75 Start: 59180, Stop: 59515, Start Num: 2

Candidate Starts for Shenandoah_75:

(Start: 1 @59171 has 10 MA's), (Start: 2 @59180 has 40 MA's), (3, 59216), (4, 59240), (5, 59252), (7, 59279), (8, 59306), (9, 59327), (10, 59336), (11, 59342), (12, 59354), (13, 59363), (14, 59402), (15, 59435),

Gene: SlippinJimmy_79 Start: 60944, Stop: 61279, Start Num: 2

Candidate Starts for SlippinJimmy_79:

(Start: 1 @60935 has 10 MA's), (Start: 2 @60944 has 40 MA's), (3, 60980), (4, 61004), (5, 61016), (7, 61043), (8, 61070), (9, 61091), (10, 61100), (11, 61106), (12, 61118), (13, 61127), (14, 61166),

Gene: SwainyDoc_77 Start: 59943, Stop: 60278, Start Num: 2

Candidate Starts for SwainyDoc_77:

(Start: 1 @59934 has 10 MA's), (Start: 2 @59943 has 40 MA's), (3, 59979), (4, 60003), (5, 60015), (6, 60039), (7, 60042), (8, 60069), (9, 60090), (10, 60099), (11, 60105), (12, 60117), (13, 60126),

Gene: SynergyX_76 Start: 59559, Stop: 59906, Start Num: 2

Candidate Starts for SynergyX_76:

(Start: 1 @59550 has 10 MA's), (Start: 2 @59559 has 40 MA's), (3, 59607), (4, 59631), (5, 59643), (7, 59670), (8, 59697), (9, 59718), (10, 59727), (11, 59733), (12, 59745), (13, 59754), (14, 59793), (15, 59826),

Gene: TinyTerror_77 Start: 59982, Stop: 60329, Start Num: 2

Candidate Starts for TinyTerror_77:

(Start: 1 @59973 has 10 MA's), (Start: 2 @59982 has 40 MA's), (3, 60030), (4, 60054), (5, 60066), (7, 60093), (8, 60120), (9, 60141), (10, 60150), (11, 60156), (12, 60168), (13, 60177), (14, 60216), (15,

60249),

Gene: Tydolla_72 Start: 59550, Stop: 59885, Start Num: 2

Candidate Starts for Tydolla_72:

(Start: 1 @59541 has 10 MA's), (Start: 2 @59550 has 40 MA's), (3, 59586), (4, 59610), (5, 59622), (7, 59649), (8, 59676), (9, 59697), (10, 59706), (11, 59712), (12, 59724), (13, 59733),

Gene: Yahalom_74 Start: 59365, Stop: 59712, Start Num: 2

Candidate Starts for Yahalom_74:

(Start: 1 @59356 has 10 MA's), (Start: 2 @59365 has 40 MA's), (3, 59413), (4, 59437), (5, 59449), (7, 59476), (8, 59503), (9, 59524), (10, 59533), (11, 59539), (12, 59551), (13, 59560), (14, 59599), (15, 59632),

Gene: Yinz_76 Start: 59430, Stop: 59777, Start Num: 2

Candidate Starts for Yinz_76:

(Start: 1 @59421 has 10 MA's), (Start: 2 @59430 has 40 MA's), (3, 59478), (4, 59502), (5, 59514), (7, 59541), (8, 59568), (9, 59589), (10, 59598), (11, 59604), (12, 59616), (13, 59625),