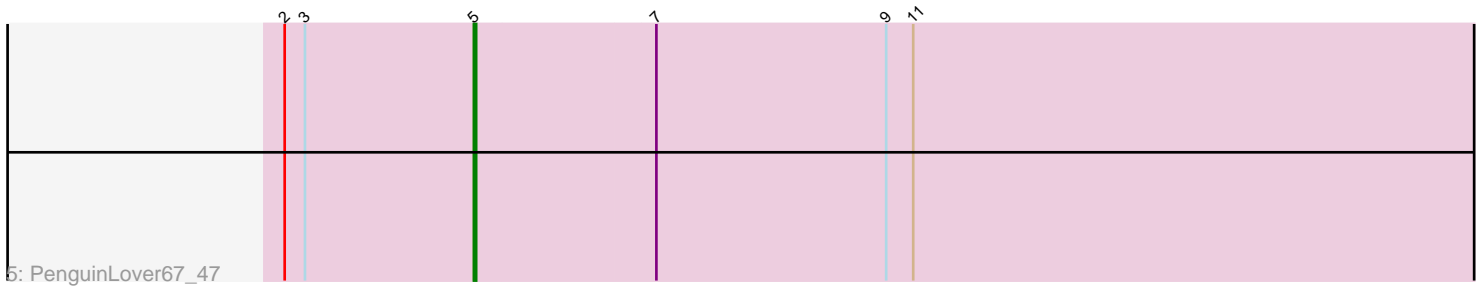
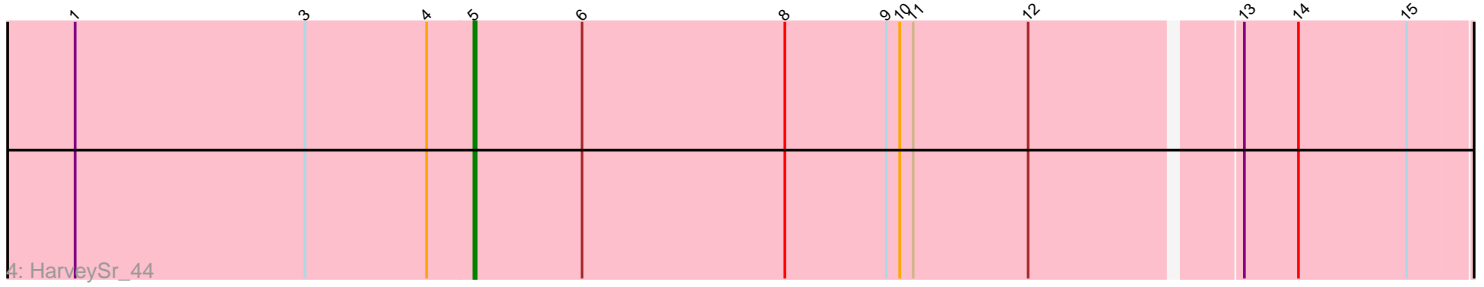
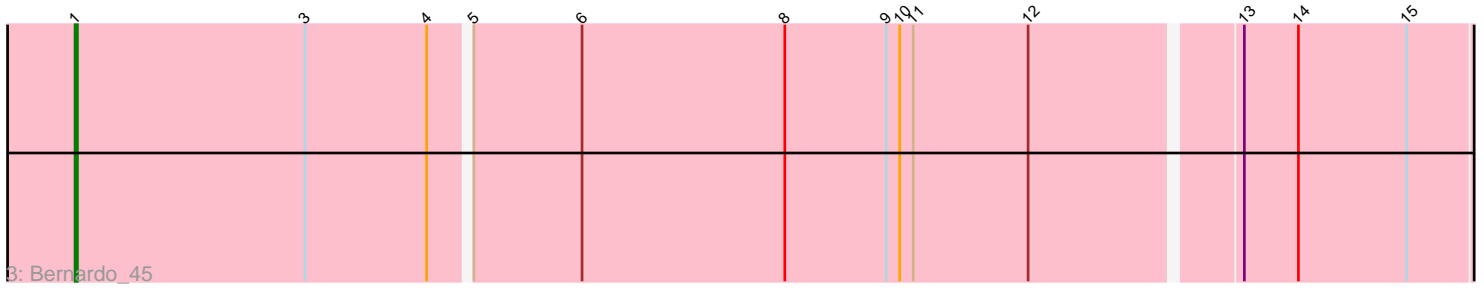
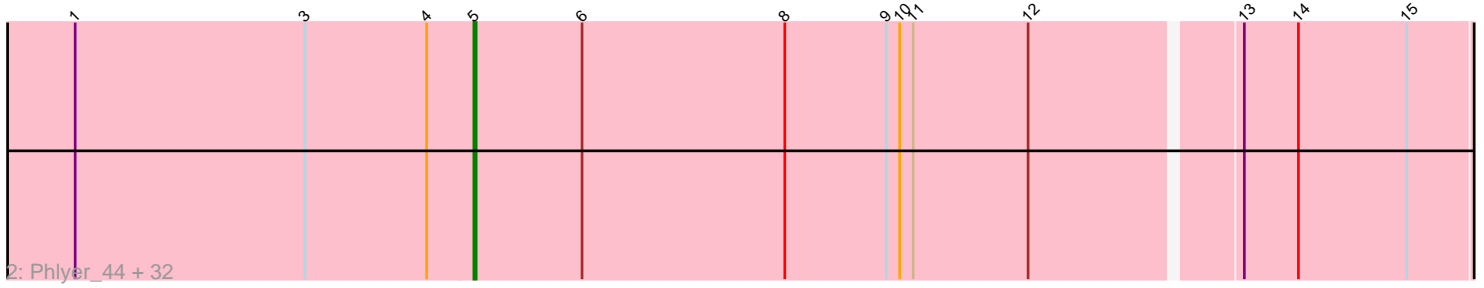
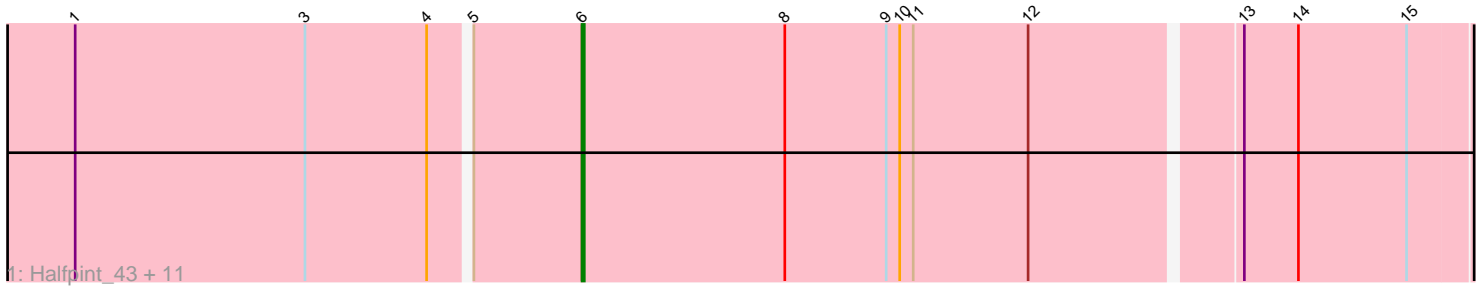


Pham 171549



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 171549 Report

This analysis was run 07/10/24 on database version 566.

Pham number 171549 has 48 members, 3 are drafts.

Phages represented in each track:

- Track 1 : Halfpint_43, Phayeta_45, Chandler_44, Phaedrus_42, Tydolla_44, SlippinJimmy_44, Akoma_44, Jackstina_41, Ben11_43, Audrey_44, Casbah_43, Morty007_44
- Track 2 : Phlyer_44, Nozo_44, Heathcliff_44, MmasiCarm_44, Neos5_44, Obutu_44, GlenHope_45, Pipefish_46, Mortcellus_43, ChaChing_44, RagingRooster_44, Compostia_45, Briakila_45, Corofin_44, Baloo_44, Athena_45, Kronus_43, OrangeOswald_44, LestyG_44, Yinz_44, Gervas_44, Abinghost_44, Daisy_44, Gadget_45, Philly_43, Yahalom_44, Devonte_44, Deenasa_44, RomaT_44, Kamiyu_44, Rita1961_44, SynergyX_44, Marley1013_44
- Track 3 : Bernardo_45
- Track 4 : HarveySr_44
- Track 5 : PenguinLover67_47

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

The start number called the most often in the published annotations is 5, it was called in 35 of the 45 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Abinghost_44, Athena_45, Baloo_44, Briakila_45, ChaChing_44, Compostia_45, Corofin_44, Daisy_44, Deenasa_44, Devonte_44, Gadget_45, Gervas_44, GlenHope_45, HarveySr_44, Heathcliff_44, Kamiyu_44, Kronus_43, LestyG_44, Marley1013_44, MmasiCarm_44, Mortcellus_43, Neos5_44, Nozo_44, Obutu_44, OrangeOswald_44, PenguinLover67_47, Philly_43, Phlyer_44, Pipefish_46, RagingRooster_44, Rita1961_44, RomaT_44, SynergyX_44, Yahalom_44, Yinz_44,

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

- Akoma_44, Audrey_44, Ben11_43, Bernardo_45, Casbah_43, Chandler_44, Halfpint_43, Jackstina_41, Morty007_44, Phaedrus_42, Phayeta_45, SlippinJimmy_44, Tydolla_44,

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

-

Summary by start number:

Start 1:

- Found in 47 of 48 (97.9%) of genes in pham
- Manual Annotations of this start: 1 of 45
- Called 2.1% of time when present
- Phage (with cluster) where this start called: Bernardo_45 (B3),

Start 5:

- Found in 48 of 48 (100.0%) of genes in pham
- Manual Annotations of this start: 35 of 45
- Called 72.9% of time when present
- Phage (with cluster) where this start called: Abinghost_44 (B3), Athena_45 (B3), Baloo_44 (B3), Briakila_45 (B3), ChaChing_44 (B3), Compostia_45 (B3), Corofin_44 (B3), Daisy_44 (B3), Deenasa_44 (B3), Devonte_44 (B3), Gadget_45 (B3), Gervas_44 (B3), GlenHope_45 (B3), HarveySr_44 (B3), Heathcliff_44 (B3), Kamiyu_44 (B3), Kronus_43 (B3), LestyG_44 (B3), Marley1013_44 (B3), MmasiCarm_44 (B3), Mortcellus_43 (B3), Neos5_44 (B3), Nozo_44 (B3), Obutu_44 (B3), OrangeOswald_44 (B3), PenguinLover67_47 (B9), Philly_43 (B3), Phlyer_44 (B3), Pipefish_46 (B3), RagingRooster_44 (B3), Rita1961_44 (B3), RomaT_44 (B3), SynergyX_44 (B3), Yahalom_44 (B3), Yinz_44 (B3),

Start 6:

- Found in 47 of 48 (97.9%) of genes in pham
- Manual Annotations of this start: 9 of 45
- Called 25.5% of time when present
- Phage (with cluster) where this start called: Akoma_44 (B3), Audrey_44 (B3), Ben11_43 (B3), Casbah_43 (B3), Chandler_44 (B3), Halfpint_43 (B3), Jackstina_41 (B3), Morty007_44 (B3), Phaedrus_42 (B3), Phayeta_45 (B3), SlippinJimmy_44 (B3), Tydolla_44 (B3),

Summary by clusters:

There are 2 clusters represented in this pham: B9, B3,

Info for manual annotations of cluster B3:

- Start number 1 was manually annotated 1 time for cluster B3.
- Start number 5 was manually annotated 34 times for cluster B3.
- Start number 6 was manually annotated 9 times for cluster B3.

Info for manual annotations of cluster B9:

- Start number 5 was manually annotated 1 time for cluster B9.

Gene Information:

Gene: Abinghost_44 Start: 39509, Stop: 39024, Start Num: 5

Candidate Starts for Abinghost_44:

(Start: 1 @39680 has 1 MA's), (3, 39578), (4, 39524), (Start: 5 @39509 has 35 MA's), (Start: 6 @39461 has 9 MA's), (8, 39371), (9, 39326), (10, 39320), (11, 39314), (12, 39263), (13, 39176), (14, 39152), (15, 39104),

Gene: Akoma_44 Start: 39465, Stop: 39028, Start Num: 6

Candidate Starts for Akoma_44:

(Start: 1 @39684 has 1 MA's), (3, 39582), (4, 39528), (Start: 5 @39513 has 35 MA's), (Start: 6 @39465 has 9 MA's), (8, 39375), (9, 39330), (10, 39324), (11, 39318), (12, 39267), (13, 39180), (14, 39156), (15, 39108),

Gene: Athena_45 Start: 40260, Stop: 39775, Start Num: 5

Candidate Starts for Athena_45:

(Start: 1 @40431 has 1 MA's), (3, 40329), (4, 40275), (Start: 5 @40260 has 35 MA's), (Start: 6 @40212 has 9 MA's), (8, 40122), (9, 40077), (10, 40071), (11, 40065), (12, 40014), (13, 39927), (14, 39903), (15, 39855),

Gene: Audrey_44 Start: 39461, Stop: 39024, Start Num: 6

Candidate Starts for Audrey_44:

(Start: 1 @39680 has 1 MA's), (3, 39578), (4, 39524), (Start: 5 @39509 has 35 MA's), (Start: 6 @39461 has 9 MA's), (8, 39371), (9, 39326), (10, 39320), (11, 39314), (12, 39263), (13, 39176), (14, 39152), (15, 39104),

Gene: Baloo_44 Start: 39512, Stop: 39027, Start Num: 5

Candidate Starts for Baloo_44:

(Start: 1 @39683 has 1 MA's), (3, 39581), (4, 39527), (Start: 5 @39512 has 35 MA's), (Start: 6 @39464 has 9 MA's), (8, 39374), (9, 39329), (10, 39323), (11, 39317), (12, 39266), (13, 39179), (14, 39155), (15, 39107),

Gene: Ben11_43 Start: 39283, Stop: 38846, Start Num: 6

Candidate Starts for Ben11_43:

(Start: 1 @39502 has 1 MA's), (3, 39400), (4, 39346), (Start: 5 @39331 has 35 MA's), (Start: 6 @39283 has 9 MA's), (8, 39193), (9, 39148), (10, 39142), (11, 39136), (12, 39085), (13, 38998), (14, 38974), (15, 38926),

Gene: Bernardo_45 Start: 40228, Stop: 39572, Start Num: 1

Candidate Starts for Bernardo_45:

(Start: 1 @40228 has 1 MA's), (3, 40126), (4, 40072), (Start: 5 @40057 has 35 MA's), (Start: 6 @40009 has 9 MA's), (8, 39919), (9, 39874), (10, 39868), (11, 39862), (12, 39811), (13, 39724), (14, 39700), (15, 39652),

Gene: Briakila_45 Start: 40279, Stop: 39794, Start Num: 5

Candidate Starts for Briakila_45:

(Start: 1 @40450 has 1 MA's), (3, 40348), (4, 40294), (Start: 5 @40279 has 35 MA's), (Start: 6 @40231 has 9 MA's), (8, 40141), (9, 40096), (10, 40090), (11, 40084), (12, 40033), (13, 39946), (14, 39922), (15, 39874),

Gene: Casbah_43 Start: 39313, Stop: 38876, Start Num: 6

Candidate Starts for Casbah_43:

(Start: 1 @39532 has 1 MA's), (3, 39430), (4, 39376), (Start: 5 @39361 has 35 MA's), (Start: 6 @39313 has 9 MA's), (8, 39223), (9, 39178), (10, 39172), (11, 39166), (12, 39115), (13, 39028), (14, 39004), (15, 38956),

Gene: ChaChing_44 Start: 39524, Stop: 39039, Start Num: 5

Candidate Starts for ChaChing_44:

(Start: 1 @39695 has 1 MA's), (3, 39593), (4, 39539), (Start: 5 @39524 has 35 MA's), (Start: 6 @39476 has 9 MA's), (8, 39386), (9, 39341), (10, 39335), (11, 39329), (12, 39278), (13, 39191), (14, 39167), (15, 39119),

Gene: Chandler_44 Start: 40244, Stop: 39807, Start Num: 6

Candidate Starts for Chandler_44:

(Start: 1 @40463 has 1 MA's), (3, 40361), (4, 40307), (Start: 5 @40292 has 35 MA's), (Start: 6 @40244 has 9 MA's), (8, 40154), (9, 40109), (10, 40103), (11, 40097), (12, 40046), (13, 39959), (14, 39935), (15, 39887),

Gene: Compostia_45 Start: 39940, Stop: 39455, Start Num: 5

Candidate Starts for Compostia_45:

(Start: 1 @40111 has 1 MA's), (3, 40009), (4, 39955), (Start: 5 @39940 has 35 MA's), (Start: 6 @39892 has 9 MA's), (8, 39802), (9, 39757), (10, 39751), (11, 39745), (12, 39694), (13, 39607), (14, 39583), (15, 39535),

Gene: Corofin_44 Start: 39535, Stop: 39050, Start Num: 5

Candidate Starts for Corofin_44:

(Start: 1 @39706 has 1 MA's), (3, 39604), (4, 39550), (Start: 5 @39535 has 35 MA's), (Start: 6 @39487 has 9 MA's), (8, 39397), (9, 39352), (10, 39346), (11, 39340), (12, 39289), (13, 39202), (14, 39178), (15, 39130),

Gene: Daisy_44 Start: 39536, Stop: 39051, Start Num: 5

Candidate Starts for Daisy_44:

(Start: 1 @39707 has 1 MA's), (3, 39605), (4, 39551), (Start: 5 @39536 has 35 MA's), (Start: 6 @39488 has 9 MA's), (8, 39398), (9, 39353), (10, 39347), (11, 39341), (12, 39290), (13, 39203), (14, 39179), (15, 39131),

Gene: Deenasa_44 Start: 40271, Stop: 39786, Start Num: 5

Candidate Starts for Deenasa_44:

(Start: 1 @40442 has 1 MA's), (3, 40340), (4, 40286), (Start: 5 @40271 has 35 MA's), (Start: 6 @40223 has 9 MA's), (8, 40133), (9, 40088), (10, 40082), (11, 40076), (12, 40025), (13, 39938), (14, 39914), (15, 39866),

Gene: Devonte_44 Start: 39500, Stop: 39015, Start Num: 5

Candidate Starts for Devonte_44:

(Start: 1 @39671 has 1 MA's), (3, 39569), (4, 39515), (Start: 5 @39500 has 35 MA's), (Start: 6 @39452 has 9 MA's), (8, 39362), (9, 39317), (10, 39311), (11, 39305), (12, 39254), (13, 39167), (14, 39143), (15, 39095),

Gene: Gadget_45 Start: 39523, Stop: 39038, Start Num: 5

Candidate Starts for Gadget_45:

(Start: 1 @39694 has 1 MA's), (3, 39592), (4, 39538), (Start: 5 @39523 has 35 MA's), (Start: 6 @39475 has 9 MA's), (8, 39385), (9, 39340), (10, 39334), (11, 39328), (12, 39277), (13, 39190), (14, 39166), (15, 39118),

Gene: Gervas_44 Start: 39490, Stop: 39005, Start Num: 5

Candidate Starts for Gervas_44:

(Start: 1 @39661 has 1 MA's), (3, 39559), (4, 39505), (Start: 5 @39490 has 35 MA's), (Start: 6 @39442 has 9 MA's), (8, 39352), (9, 39307), (10, 39301), (11, 39295), (12, 39244), (13, 39157), (14, 39133), (15, 39085),

Gene: GlenHope_45 Start: 39503, Stop: 39018, Start Num: 5

Candidate Starts for GlenHope_45:

(Start: 1 @39674 has 1 MA's), (3, 39572), (4, 39518), (Start: 5 @39503 has 35 MA's), (Start: 6 @39455 has 9 MA's), (8, 39365), (9, 39320), (10, 39314), (11, 39308), (12, 39257), (13, 39170), (14,

39146), (15, 39098),

Gene: Halfpint_43 Start: 39281, Stop: 38844, Start Num: 6

Candidate Starts for Halfpint_43:

(Start: 1 @39500 has 1 MA's), (3, 39398), (4, 39344), (Start: 5 @39329 has 35 MA's), (Start: 6 @39281 has 9 MA's), (8, 39191), (9, 39146), (10, 39140), (11, 39134), (12, 39083), (13, 38996), (14, 38972), (15, 38924),

Gene: HarveySr_44 Start: 39496, Stop: 39011, Start Num: 5

Candidate Starts for HarveySr_44:

(Start: 1 @39667 has 1 MA's), (3, 39565), (4, 39511), (Start: 5 @39496 has 35 MA's), (Start: 6 @39448 has 9 MA's), (8, 39358), (9, 39313), (10, 39307), (11, 39301), (12, 39250), (13, 39163), (14, 39139), (15, 39091),

Gene: Heathcliff_44 Start: 39474, Stop: 38989, Start Num: 5

Candidate Starts for Heathcliff_44:

(Start: 1 @39645 has 1 MA's), (3, 39543), (4, 39489), (Start: 5 @39474 has 35 MA's), (Start: 6 @39426 has 9 MA's), (8, 39336), (9, 39291), (10, 39285), (11, 39279), (12, 39228), (13, 39141), (14, 39117), (15, 39069),

Gene: Jackstina_41 Start: 39385, Stop: 38948, Start Num: 6

Candidate Starts for Jackstina_41:

(Start: 1 @39604 has 1 MA's), (3, 39502), (4, 39448), (Start: 5 @39433 has 35 MA's), (Start: 6 @39385 has 9 MA's), (8, 39295), (9, 39250), (10, 39244), (11, 39238), (12, 39187), (13, 39100), (14, 39076), (15, 39028),

Gene: Kamiyu_44 Start: 39482, Stop: 38997, Start Num: 5

Candidate Starts for Kamiyu_44:

(Start: 1 @39653 has 1 MA's), (3, 39551), (4, 39497), (Start: 5 @39482 has 35 MA's), (Start: 6 @39434 has 9 MA's), (8, 39344), (9, 39299), (10, 39293), (11, 39287), (12, 39236), (13, 39149), (14, 39125), (15, 39077),

Gene: Kronus_43 Start: 40092, Stop: 39607, Start Num: 5

Candidate Starts for Kronus_43:

(Start: 1 @40263 has 1 MA's), (3, 40161), (4, 40107), (Start: 5 @40092 has 35 MA's), (Start: 6 @40044 has 9 MA's), (8, 39954), (9, 39909), (10, 39903), (11, 39897), (12, 39846), (13, 39759), (14, 39735), (15, 39687),

Gene: LestyG_44 Start: 39513, Stop: 39028, Start Num: 5

Candidate Starts for LestyG_44:

(Start: 1 @39684 has 1 MA's), (3, 39582), (4, 39528), (Start: 5 @39513 has 35 MA's), (Start: 6 @39465 has 9 MA's), (8, 39375), (9, 39330), (10, 39324), (11, 39318), (12, 39267), (13, 39180), (14, 39156), (15, 39108),

Gene: Marley1013_44 Start: 40291, Stop: 39806, Start Num: 5

Candidate Starts for Marley1013_44:

(Start: 1 @40462 has 1 MA's), (3, 40360), (4, 40306), (Start: 5 @40291 has 35 MA's), (Start: 6 @40243 has 9 MA's), (8, 40153), (9, 40108), (10, 40102), (11, 40096), (12, 40045), (13, 39958), (14, 39934), (15, 39886),

Gene: MmasiCarm_44 Start: 39495, Stop: 39010, Start Num: 5

Candidate Starts for MmasiCarm_44:

(Start: 1 @39666 has 1 MA's), (3, 39564), (4, 39510), (Start: 5 @39495 has 35 MA's), (Start: 6 @39447 has 9 MA's), (8, 39357), (9, 39312), (10, 39306), (11, 39300), (12, 39249), (13, 39162), (14, 39138), (15, 39090),

Gene: Mortcellus_43 Start: 40147, Stop: 39662, Start Num: 5

Candidate Starts for Mortcellus_43:

(Start: 1 @40318 has 1 MA's), (3, 40216), (4, 40162), (Start: 5 @40147 has 35 MA's), (Start: 6 @40099 has 9 MA's), (8, 40009), (9, 39964), (10, 39958), (11, 39952), (12, 39901), (13, 39814), (14, 39790), (15, 39742),

Gene: Morty007_44 Start: 40243, Stop: 39806, Start Num: 6

Candidate Starts for Morty007_44:

(Start: 1 @40462 has 1 MA's), (3, 40360), (4, 40306), (Start: 5 @40291 has 35 MA's), (Start: 6 @40243 has 9 MA's), (8, 40153), (9, 40108), (10, 40102), (11, 40096), (12, 40045), (13, 39958), (14, 39934), (15, 39886),

Gene: Neos5_44 Start: 40306, Stop: 39821, Start Num: 5

Candidate Starts for Neos5_44:

(Start: 1 @40477 has 1 MA's), (3, 40375), (4, 40321), (Start: 5 @40306 has 35 MA's), (Start: 6 @40258 has 9 MA's), (8, 40168), (9, 40123), (10, 40117), (11, 40111), (12, 40060), (13, 39973), (14, 39949), (15, 39901),

Gene: Nozo_44 Start: 40271, Stop: 39786, Start Num: 5

Candidate Starts for Nozo_44:

(Start: 1 @40442 has 1 MA's), (3, 40340), (4, 40286), (Start: 5 @40271 has 35 MA's), (Start: 6 @40223 has 9 MA's), (8, 40133), (9, 40088), (10, 40082), (11, 40076), (12, 40025), (13, 39938), (14, 39914), (15, 39866),

Gene: Obutu_44 Start: 39495, Stop: 39010, Start Num: 5

Candidate Starts for Obutu_44:

(Start: 1 @39666 has 1 MA's), (3, 39564), (4, 39510), (Start: 5 @39495 has 35 MA's), (Start: 6 @39447 has 9 MA's), (8, 39357), (9, 39312), (10, 39306), (11, 39300), (12, 39249), (13, 39162), (14, 39138), (15, 39090),

Gene: OrangeOswald_44 Start: 39512, Stop: 39027, Start Num: 5

Candidate Starts for OrangeOswald_44:

(Start: 1 @39683 has 1 MA's), (3, 39581), (4, 39527), (Start: 5 @39512 has 35 MA's), (Start: 6 @39464 has 9 MA's), (8, 39374), (9, 39329), (10, 39323), (11, 39317), (12, 39266), (13, 39179), (14, 39155), (15, 39107),

Gene: PenguinLover67_47 Start: 41507, Stop: 41013, Start Num: 5

Candidate Starts for PenguinLover67_47:

(2, 41591), (3, 41582), (Start: 5 @41507 has 35 MA's), (7, 41429), (9, 41327), (11, 41315),

Gene: Phaedrus_42 Start: 39384, Stop: 38947, Start Num: 6

Candidate Starts for Phaedrus_42:

(Start: 1 @39603 has 1 MA's), (3, 39501), (4, 39447), (Start: 5 @39432 has 35 MA's), (Start: 6 @39384 has 9 MA's), (8, 39294), (9, 39249), (10, 39243), (11, 39237), (12, 39186), (13, 39099), (14, 39075), (15, 39027),

Gene: Phayeta_45 Start: 39329, Stop: 38892, Start Num: 6

Candidate Starts for Phayeta_45:

(Start: 1 @39548 has 1 MA's), (3, 39446), (4, 39392), (Start: 5 @39377 has 35 MA's), (Start: 6 @39329 has 9 MA's), (8, 39239), (9, 39194), (10, 39188), (11, 39182), (12, 39131), (13, 39044), (14, 39020), (15, 38972),

Gene: Philly_43 Start: 39363, Stop: 38878, Start Num: 5

Candidate Starts for Philly_43:

(Start: 1 @39534 has 1 MA's), (3, 39432), (4, 39378), (Start: 5 @39363 has 35 MA's), (Start: 6 @39315 has 9 MA's), (8, 39225), (9, 39180), (10, 39174), (11, 39168), (12, 39117), (13, 39030), (14, 39006), (15, 38958),

Gene: Phlyer_44 Start: 40251, Stop: 39766, Start Num: 5

Candidate Starts for Phlyer_44:

(Start: 1 @40422 has 1 MA's), (3, 40320), (4, 40266), (Start: 5 @40251 has 35 MA's), (Start: 6 @40203 has 9 MA's), (8, 40113), (9, 40068), (10, 40062), (11, 40056), (12, 40005), (13, 39918), (14, 39894), (15, 39846),

Gene: Pipefish_46 Start: 40904, Stop: 40419, Start Num: 5

Candidate Starts for Pipefish_46:

(Start: 1 @41075 has 1 MA's), (3, 40973), (4, 40919), (Start: 5 @40904 has 35 MA's), (Start: 6 @40856 has 9 MA's), (8, 40766), (9, 40721), (10, 40715), (11, 40709), (12, 40658), (13, 40571), (14, 40547), (15, 40499),

Gene: RagingRooster_44 Start: 39513, Stop: 39028, Start Num: 5

Candidate Starts for RagingRooster_44:

(Start: 1 @39684 has 1 MA's), (3, 39582), (4, 39528), (Start: 5 @39513 has 35 MA's), (Start: 6 @39465 has 9 MA's), (8, 39375), (9, 39330), (10, 39324), (11, 39318), (12, 39267), (13, 39180), (14, 39156), (15, 39108),

Gene: Rita1961_44 Start: 39496, Stop: 39011, Start Num: 5

Candidate Starts for Rita1961_44:

(Start: 1 @39667 has 1 MA's), (3, 39565), (4, 39511), (Start: 5 @39496 has 35 MA's), (Start: 6 @39448 has 9 MA's), (8, 39358), (9, 39313), (10, 39307), (11, 39301), (12, 39250), (13, 39163), (14, 39139), (15, 39091),

Gene: RomaT_44 Start: 40286, Stop: 39801, Start Num: 5

Candidate Starts for RomaT_44:

(Start: 1 @40457 has 1 MA's), (3, 40355), (4, 40301), (Start: 5 @40286 has 35 MA's), (Start: 6 @40238 has 9 MA's), (8, 40148), (9, 40103), (10, 40097), (11, 40091), (12, 40040), (13, 39953), (14, 39929), (15, 39881),

Gene: SlippinJimmy_44 Start: 40230, Stop: 39793, Start Num: 6

Candidate Starts for SlippinJimmy_44:

(Start: 1 @40449 has 1 MA's), (3, 40347), (4, 40293), (Start: 5 @40278 has 35 MA's), (Start: 6 @40230 has 9 MA's), (8, 40140), (9, 40095), (10, 40089), (11, 40083), (12, 40032), (13, 39945), (14, 39921), (15, 39873),

Gene: SynergyX_44 Start: 39513, Stop: 39028, Start Num: 5

Candidate Starts for SynergyX_44:

(Start: 1 @39684 has 1 MA's), (3, 39582), (4, 39528), (Start: 5 @39513 has 35 MA's), (Start: 6 @39465 has 9 MA's), (8, 39375), (9, 39330), (10, 39324), (11, 39318), (12, 39267), (13, 39180), (14, 39156), (15, 39108),

Gene: Tydolla_44 Start: 40199, Stop: 39762, Start Num: 6

Candidate Starts for Tydolla_44:

(Start: 1 @40418 has 1 MA's), (3, 40316), (4, 40262), (Start: 5 @40247 has 35 MA's), (Start: 6 @40199 has 9 MA's), (8, 40109), (9, 40064), (10, 40058), (11, 40052), (12, 40001), (13, 39914), (14, 39890), (15, 39842),

Gene: Yahalom_44 Start: 39523, Stop: 39038, Start Num: 5

Candidate Starts for Yahalom_44:

(Start: 1 @39694 has 1 MA's), (3, 39592), (4, 39538), (Start: 5 @39523 has 35 MA's), (Start: 6 @39475 has 9 MA's), (8, 39385), (9, 39340), (10, 39334), (11, 39328), (12, 39277), (13, 39190), (14, 39166), (15, 39118),

Gene: Yinz_44 Start: 39549, Stop: 39064, Start Num: 5

Candidate Starts for Yinz_44:

(Start: 1 @39720 has 1 MA's), (3, 39618), (4, 39564), (Start: 5 @39549 has 35 MA's), (Start: 6 @39501 has 9 MA's), (8, 39411), (9, 39366), (10, 39360), (11, 39354), (12, 39303), (13, 39216), (14, 39192), (15, 39144),