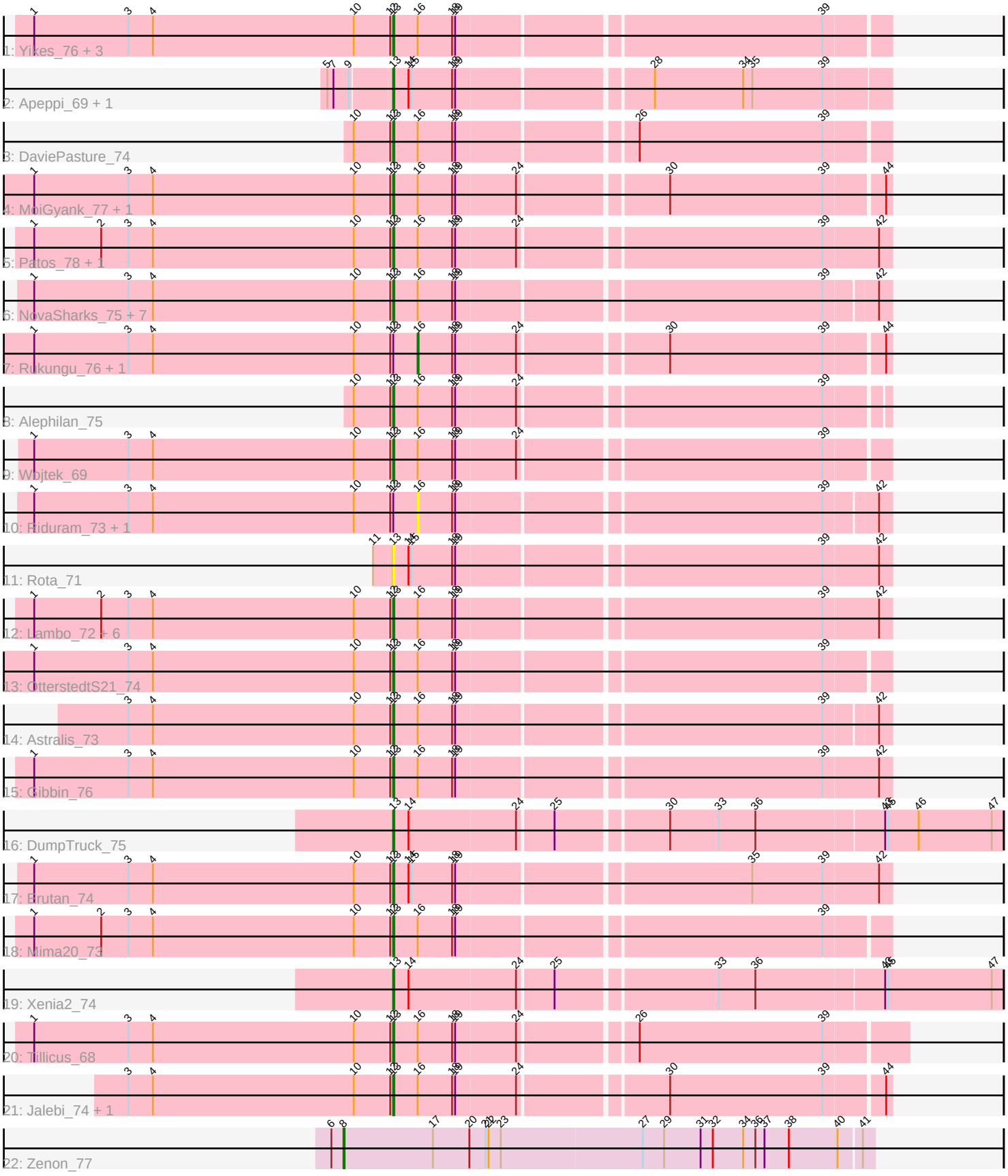
Pham 294863


1: Yikes_76 + 3
2: Apeppi_69 + 1
3: DaviePasture_74
4: MoiGyank_77 + 1
5: Patos_78 + 1
6: NovaSharks_75 + 7
7: Rukungu_76 + 1
8: Alephilan_75
9: Wojtek_69
10: Riduram_73 + 1
11: Rota_71
12: Lambo_72 + 6
13: OtterstedtS21_74
14: Astralis_73
15: Gibbin_76
16: DumpTruck_75
17: Brutan_74
18: Mima20_73
19: Xenia2_74
20: Tillicus_68
21: Jalebi_74 + 1
22: Zenon_77

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 294863 Report

This analysis was run 04/18/26 on database version 643.

Pham number 294863 has 44 members, 6 are drafts.

Phages represented in each track:
• Track 1 : Yikes_76, Ranch_74, GretelLyn_74, Sadboi_75
• Track 2 : Apeppi_69, LuckyLeo_71
• Track 3 : DaviePasture_74
• Track 4 : MoiGyank_77, LavAbarElk_74
• Track 5 : Patos_78, NorManre_78
• Track 6 : NovaSharks_75, RazorC_73, Alyssamiracle_76, Stormer_73, Avian_71, Jamemuya19_72, Genamy16_76, Rumi_74
• Track 7 : Rukungu_76, Zany_72
• Track 8 : Alephilan_75
• Track 9 : Wojtek_69
• Track 10 : Riduram_73, Charminar_73
• Track 11 : Rota_71
• Track 12 : Lambo_72, Fulcrum_74, GOATification_74, DoobyDoo_73, Lila22_75, ParvusTarda_73, BirthdayBoy_76
• Track 13 : OtterstedtS21_74
• Track 14 : Astralis_73
• Track 15 : Gibbin_76
• Track 16 : DumpTruck_75
• Track 17 : Erutan_74
• Track 18 : Mima20_73
• Track 19 : Xenia2_74
• Track 20 : Tillicus_68
• Track 21 : Jalebi_74, Sampudon_75
• Track 22 : Zenon_77

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

The start number called the most often in the published annotations is 13, it was called in 36 of the 38 non-draft genes in the pham.

Genes that call this "Most Annotated" start:
• Alephilan_75, Alyssamiracle_76, Apeppi_69, Astralis_73, Avian_71, BirthdayBoy_76, DaviePasture_74, DoobyDoo_73, DumpTruck_75, Erutan_74, Fulcrum_74, GOATification_74, Genamy16_76, Gibbin_76, GretelLyn_74, Jalebi_74,

Jamemuya19_72, Lambo_72, LavAbarElk_74, Lila22_75, LuckyLeo_71, Mima20_73, MoiGyank_77, NorManre_78, NovaSharks_75, OtterstedtS21_74, ParvusTarda_73, Patos_78, Ranch_74, RazorC_73, Rota_71, Rumi_74, Sadboi_75, Sampudon_75, Stormer_73, Tillicus_68, Wojtek_69, Xenia2_74, Yikes_76,

Genes that have the "Most Annotated" start but do not call it:
• Charminar_73, Riduram_73, Rukungu_76, Zany_72,

Genes that do not have the "Most Annotated" start:
• Zenon_77,

Summary by start number:

Start 8:
• Found in 1 of 44 (2.3%) of genes in pham
• Manual Annotations of this start: 1 of 38
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Zenon_77 (R),

Start 13:
• Found in 43 of 44 (97.7%) of genes in pham
• Manual Annotations of this start: 36 of 38
• Called 90.7% of time when present
• Phage (with cluster) where this start called: Alephilan_75 (DV), Alyssamiracle_76 (DV), Apeppi_69 (DV), Astralis_73 (DV), Avian_71 (DV), BirthdayBoy_76 (DV), DaviePasture_74 (DV), DoobyDoo_73 (DV), DumpTruck_75 (DV), Erutan_74 (DV), Fulcrum_74 (DV), GOATification_74 (DV), Genamy16_76 (DV), Gibbin_76 (DV), GretelLyn_74 (DV), Jalebi_74 (DV), Jamemuya19_72 (DV), Lambo_72 (DV), LavAbarElk_74 (DV), Lila22_75 (DV), LuckyLeo_71 (DV), Mima20_73 (DV), MoiGyank_77 (DV), NorManre_78 (DV), NovaSharks_75 (DV), OtterstedtS21_74 (DV), ParvusTarda_73 (DV), Patos_78 (DV), Ranch_74 (DV), RazorC_73 (DV), Rota_71 (DV), Rumi_74 (DV), Sadboi_75 (DV), Sampudon_75 (DV), Stormer_73 (DV), Tillicus_68 (DV), Wojtek_69 (DV), Xenia2_74 (DV), Yikes_76 (DV),

Start 16:
• Found in 37 of 44 (84.1%) of genes in pham
• Manual Annotations of this start: 1 of 38
• Called 10.8% of time when present
• Phage (with cluster) where this start called: Charminar_73 (DV), Riduram_73 (DV), Rukungu_76 (DV), Zany_72 (DV),

Summary by clusters:

There are 2 clusters represented in this pham: DV, R,

Info for manual annotations of cluster DV:
•Start number 13 was manually annotated 36 times for cluster DV.
•Start number 16 was manually annotated 1 time for cluster DV.

Info for manual annotations of cluster R:
•Start number 8 was manually annotated 1 time for cluster R.

Gene Information:

Gene: Alephilan_75 Start: 50462, Stop: 50920, Start Num: 13
Candidate Starts for Alephilan_75:
(10, 50426), (12, 50459), (Start: 13 @50462 has 36 MA's), (Start: 16 @50486 has 1 MA's), (18, 50519), (19, 50522), (24, 50579), (39, 50864),

Gene: Alyssamiracle_76 Start: 49100, Stop: 49561, Start Num: 13
Candidate Starts for Alyssamiracle_76:
(1, 48749), (3, 48842), (4, 48866), (10, 49064), (12, 49097), (Start: 13 @49100 has 36 MA's), (Start: 16 @49124 has 1 MA's), (18, 49157), (19, 49160), (39, 49502), (42, 49550),

Gene: Apeppi_69 Start: 49601, Stop: 50065, Start Num: 13
Candidate Starts for Apeppi_69:
(5, 49541), (7, 49547), (9, 49562), (Start: 13 @49601 has 36 MA's), (14, 49616), (15, 49619), (18, 49658), (19, 49661), (28, 49838), (34, 49925), (35, 49934), (39, 50003),

Gene: Astralis_73 Start: 48679, Stop: 49140, Start Num: 13
Candidate Starts for Astralis_73:
(3, 48421), (4, 48445), (10, 48643), (12, 48676), (Start: 13 @48679 has 36 MA's), (Start: 16 @48703 has 1 MA's), (18, 48736), (19, 48739), (39, 49081), (42, 49129),

Gene: Avian_71 Start: 48828, Stop: 49289, Start Num: 13
Candidate Starts for Avian_71:
(1, 48477), (3, 48570), (4, 48594), (10, 48792), (12, 48825), (Start: 13 @48828 has 36 MA's), (Start: 16 @48852 has 1 MA's), (18, 48885), (19, 48888), (39, 49230), (42, 49278),

Gene: BirthdayBoy_76 Start: 50736, Stop: 51203, Start Num: 13
Candidate Starts for BirthdayBoy_76:
(1, 50385), (2, 50451), (3, 50478), (4, 50502), (10, 50700), (12, 50733), (Start: 13 @50736 has 36 MA's), (Start: 16 @50760 has 1 MA's), (18, 50793), (19, 50796), (39, 51138), (42, 51192),

Gene: Charminar_73 Start: 48360, Stop: 48797, Start Num: 16
Candidate Starts for Charminar_73:
(1, 47985), (3, 48078), (4, 48102), (10, 48300), (12, 48333), (Start: 13 @48336 has 36 MA's), (Start: 16 @48360 has 1 MA's), (18, 48393), (19, 48396), (39, 48738), (42, 48786),

Gene: DaviePasture_74 Start: 50326, Stop: 50787, Start Num: 13
Candidate Starts for DaviePasture_74:
(10, 50290), (12, 50323), (Start: 13 @50326 has 36 MA's), (Start: 16 @50350 has 1 MA's), (18, 50383), (19, 50386), (26, 50548), (39, 50728),

Gene: DoobyDoo_73 Start: 49084, Stop: 49551, Start Num: 13
Candidate Starts for DoobyDoo_73:
(1, 48733), (2, 48799), (3, 48826), (4, 48850), (10, 49048), (12, 49081), (Start: 13 @49084 has 36 MA's), (Start: 16 @49108 has 1 MA's), (18, 49141), (19, 49144), (39, 49486), (42, 49540),

Gene: DumpTruck_75 Start: 49735, Stop: 50310, Start Num: 13
Candidate Starts for DumpTruck_75:
(Start: 13 @49735 has 36 MA's), (14, 49750), (24, 49852), (25, 49885), (30, 49987), (33, 50035), (36, 50071), (43, 50194), (45, 50197), (46, 50227), (47, 50299),

Gene: Erutan_74 Start: 49851, Stop: 50318, Start Num: 13

Candidate Starts for Erutan_74:
(1, 49500), (3, 49593), (4, 49617), (10, 49815), (12, 49848), (Start: 13 @49851 has 36 MA's), (14, 49866), (15, 49869), (18, 49908), (19, 49911), (35, 50184), (39, 50253), (42, 50307),

Gene: Fulcrum_74 Start: 50089, Stop: 50556, Start Num: 13
Candidate Starts for Fulcrum_74:
(1, 49738), (2, 49804), (3, 49831), (4, 49855), (10, 50053), (12, 50086), (Start: 13 @50089 has 36 MA's), (Start: 16 @50113 has 1 MA's), (18, 50146), (19, 50149), (39, 50491), (42, 50545),

Gene: GOATification_74 Start: 50089, Stop: 50556, Start Num: 13
Candidate Starts for GOATification_74:
(1, 49738), (2, 49804), (3, 49831), (4, 49855), (10, 50053), (12, 50086), (Start: 13 @50089 has 36 MA's), (Start: 16 @50113 has 1 MA's), (18, 50146), (19, 50149), (39, 50491), (42, 50545),

Gene: Genamy16_76 Start: 49086, Stop: 49547, Start Num: 13
Candidate Starts for Genamy16_76:
(1, 48735), (3, 48828), (4, 48852), (10, 49050), (12, 49083), (Start: 13 @49086 has 36 MA's), (Start: 16 @49110 has 1 MA's), (18, 49143), (19, 49146), (39, 49488), (42, 49536),

Gene: Gibbin_76 Start: 50894, Stop: 51361, Start Num: 13
Candidate Starts for Gibbin_76:
(1, 50543), (3, 50636), (4, 50660), (10, 50858), (12, 50891), (Start: 13 @50894 has 36 MA's), (Start: 16 @50918 has 1 MA's), (18, 50951), (19, 50954), (39, 51296), (42, 51350),

Gene: GretelLyn_74 Start: 50729, Stop: 51190, Start Num: 13
Candidate Starts for GretelLyn_74:
(1, 50378), (3, 50471), (4, 50495), (10, 50693), (12, 50726), (Start: 13 @50729 has 36 MA's), (Start: 16 @50753 has 1 MA's), (18, 50786), (19, 50789), (39, 51131),

Gene: Jalebi_74 Start: 51322, Stop: 51783, Start Num: 13
Candidate Starts for Jalebi_74:
(3, 51064), (4, 51088), (10, 51286), (12, 51319), (Start: 13 @51322 has 36 MA's), (Start: 16 @51346 has 1 MA's), (18, 51379), (19, 51382), (24, 51439), (30, 51574), (39, 51724), (44, 51778),

Gene: Jamemuya19_72 Start: 48691, Stop: 49152, Start Num: 13
Candidate Starts for Jamemuya19_72:
(1, 48340), (3, 48433), (4, 48457), (10, 48655), (12, 48688), (Start: 13 @48691 has 36 MA's), (Start: 16 @48715 has 1 MA's), (18, 48748), (19, 48751), (39, 49093), (42, 49141),

Gene: Lambo_72 Start: 49886, Stop: 50353, Start Num: 13
Candidate Starts for Lambo_72:
(1, 49535), (2, 49601), (3, 49628), (4, 49652), (10, 49850), (12, 49883), (Start: 13 @49886 has 36 MA's), (Start: 16 @49910 has 1 MA's), (18, 49943), (19, 49946), (39, 50288), (42, 50342),

Gene: LavAbarElk_74 Start: 49534, Stop: 49995, Start Num: 13
Candidate Starts for LavAbarElk_74:
(1, 49183), (3, 49276), (4, 49300), (10, 49498), (12, 49531), (Start: 13 @49534 has 36 MA's), (Start: 16 @49558 has 1 MA's), (18, 49591), (19, 49594), (24, 49651), (30, 49786), (39, 49936), (44, 49990),

Gene: Lila22_75 Start: 50794, Stop: 51261, Start Num: 13
Candidate Starts for Lila22_75:
(1, 50443), (2, 50509), (3, 50536), (4, 50560), (10, 50758), (12, 50791), (Start: 13 @50794 has 36 MA's), (Start: 16 @50818 has 1 MA's), (18, 50851), (19, 50854), (39, 51196), (42, 51250),

Gene: LuckyLeo_71 Start: 49601, Stop: 50065, Start Num: 13
Candidate Starts for LuckyLeo_71:
(5, 49541), (7, 49547), (9, 49562), (Start: 13 @49601 has 36 MA's), (14, 49616), (15, 49619), (18, 49658), (19, 49661), (28, 49838), (34, 49925), (35, 49934), (39, 50003),

Gene: Mima20_73 Start: 50272, Stop: 50733, Start Num: 13
Candidate Starts for Mima20_73:
(1, 49921), (2, 49987), (3, 50014), (4, 50038), (10, 50236), (12, 50269), (Start: 13 @50272 has 36 MA's), (Start: 16 @50296 has 1 MA's), (18, 50329), (19, 50332), (39, 50674),

Gene: MoiGyank_77 Start: 50876, Stop: 51337, Start Num: 13
Candidate Starts for MoiGyank_77:
(1, 50525), (3, 50618), (4, 50642), (10, 50840), (12, 50873), (Start: 13 @50876 has 36 MA's), (Start: 16 @50900 has 1 MA's), (18, 50933), (19, 50936), (24, 50993), (30, 51128), (39, 51278), (44, 51332),

Gene: NorManre_78 Start: 51151, Stop: 51618, Start Num: 13
Candidate Starts for NorManre_78:
(1, 50800), (2, 50866), (3, 50893), (4, 50917), (10, 51115), (12, 51148), (Start: 13 @51151 has 36 MA's), (Start: 16 @51175 has 1 MA's), (18, 51208), (19, 51211), (24, 51268), (39, 51553), (42, 51607),

Gene: NovaSharks_75 Start: 48677, Stop: 49138, Start Num: 13
Candidate Starts for NovaSharks_75:
(1, 48326), (3, 48419), (4, 48443), (10, 48641), (12, 48674), (Start: 13 @48677 has 36 MA's), (Start: 16 @48701 has 1 MA's), (18, 48734), (19, 48737), (39, 49079), (42, 49127),

Gene: OtterstedtS21_74 Start: 50175, Stop: 50636, Start Num: 13
Candidate Starts for OtterstedtS21_74:
(1, 49824), (3, 49917), (4, 49941), (10, 50139), (12, 50172), (Start: 13 @50175 has 36 MA's), (Start: 16 @50199 has 1 MA's), (18, 50232), (19, 50235), (39, 50577),

Gene: ParvusTarda_73 Start: 49565, Stop: 50032, Start Num: 13
Candidate Starts for ParvusTarda_73:
(1, 49214), (2, 49280), (3, 49307), (4, 49331), (10, 49529), (12, 49562), (Start: 13 @49565 has 36 MA's), (Start: 16 @49589 has 1 MA's), (18, 49622), (19, 49625), (39, 49967), (42, 50021),

Gene: Patos_78 Start: 51150, Stop: 51617, Start Num: 13
Candidate Starts for Patos_78:
(1, 50799), (2, 50865), (3, 50892), (4, 50916), (10, 51114), (12, 51147), (Start: 13 @51150 has 36 MA's), (Start: 16 @51174 has 1 MA's), (18, 51207), (19, 51210), (24, 51267), (39, 51552), (42, 51606),

Gene: Ranch_74 Start: 48903, Stop: 49370, Start Num: 13
Candidate Starts for Ranch_74:
(1, 48552), (3, 48645), (4, 48669), (10, 48867), (12, 48900), (Start: 13 @48903 has 36 MA's), (Start: 16 @48927 has 1 MA's), (18, 48960), (19, 48963), (39, 49305),

Gene: RazorC_73 Start: 48831, Stop: 49292, Start Num: 13
Candidate Starts for RazorC_73:
(1, 48480), (3, 48573), (4, 48597), (10, 48795), (12, 48828), (Start: 13 @48831 has 36 MA's), (Start: 16 @48855 has 1 MA's), (18, 48888), (19, 48891), (39, 49233), (42, 49281),

Gene: Riduram_73 Start: 48430, Stop: 48867, Start Num: 16
Candidate Starts for Riduram_73:

(1, 48055), (3, 48148), (4, 48172), (10, 48370), (12, 48403), (Start: 13 @48406 has 36 MA's), (Start: 16 @48430 has 1 MA's), (18, 48463), (19, 48466), (39, 48808), (42, 48856),

Gene: Rota_71 Start: 50289, Stop: 50756, Start Num: 13
Candidate Starts for Rota_71:
(11, 50271), (Start: 13 @50289 has 36 MA's), (14, 50304), (15, 50307), (18, 50346), (19, 50349), (39, 50691), (42, 50745),

Gene: Rukungu_76 Start: 51039, Stop: 51476, Start Num: 16
Candidate Starts for Rukungu_76:
(1, 50664), (3, 50757), (4, 50781), (10, 50979), (12, 51012), (Start: 13 @51015 has 36 MA's), (Start: 16 @51039 has 1 MA's), (18, 51072), (19, 51075), (24, 51132), (30, 51267), (39, 51417), (44, 51471),

Gene: Rumi_74 Start: 48374, Stop: 48835, Start Num: 13
Candidate Starts for Rumi_74:
(1, 48023), (3, 48116), (4, 48140), (10, 48338), (12, 48371), (Start: 13 @48374 has 36 MA's), (Start: 16 @48398 has 1 MA's), (18, 48431), (19, 48434), (39, 48776), (42, 48824),

Gene: Sadboi_75 Start: 50730, Stop: 51191, Start Num: 13
Candidate Starts for Sadboi_75:
(1, 50379), (3, 50472), (4, 50496), (10, 50694), (12, 50727), (Start: 13 @50730 has 36 MA's), (Start: 16 @50754 has 1 MA's), (18, 50787), (19, 50790), (39, 51132),

Gene: Sampudon_75 Start: 51322, Stop: 51783, Start Num: 13
Candidate Starts for Sampudon_75:
(3, 51064), (4, 51088), (10, 51286), (12, 51319), (Start: 13 @51322 has 36 MA's), (Start: 16 @51346 has 1 MA's), (18, 51379), (19, 51382), (24, 51439), (30, 51574), (39, 51724), (44, 51778),

Gene: Stormer_73 Start: 48378, Stop: 48839, Start Num: 13
Candidate Starts for Stormer_73:
(1, 48027), (3, 48120), (4, 48144), (10, 48342), (12, 48375), (Start: 13 @48378 has 36 MA's), (Start: 16 @48402 has 1 MA's), (18, 48435), (19, 48438), (39, 48780), (42, 48828),

Gene: Tillicus_68 Start: 49535, Stop: 50014, Start Num: 13
Candidate Starts for Tillicus_68:
(1, 49184), (3, 49277), (4, 49301), (10, 49499), (12, 49532), (Start: 13 @49535 has 36 MA's), (Start: 16 @49559 has 1 MA's), (18, 49592), (19, 49595), (24, 49652), (26, 49757), (39, 49937),

Gene: Wojtek_69 Start: 49317, Stop: 49778, Start Num: 13
Candidate Starts for Wojtek_69:
(1, 48966), (3, 49059), (4, 49083), (10, 49281), (12, 49314), (Start: 13 @49317 has 36 MA's), (Start: 16 @49341 has 1 MA's), (18, 49374), (19, 49377), (24, 49434), (39, 49719),

Gene: Xenia2_74 Start: 49619, Stop: 50194, Start Num: 13
Candidate Starts for Xenia2_74:
(Start: 13 @49619 has 36 MA's), (14, 49634), (24, 49736), (25, 49769), (33, 49919), (36, 49955), (43, 50078), (45, 50081), (47, 50183),

Gene: Yikes_76 Start: 51176, Stop: 51637, Start Num: 13
Candidate Starts for Yikes_76:
(1, 50825), (3, 50918), (4, 50942), (10, 51140), (12, 51173), (Start: 13 @51176 has 36 MA's), (Start: 16 @51200 has 1 MA's), (18, 51233), (19, 51236), (39, 51578),

Gene: Zany_72 Start: 50659, Stop: 51096, Start Num: 16
Candidate Starts for Zany_72:
(1, 50284), (3, 50377), (4, 50401), (10, 50599), (12, 50632), (Start: 13 @50635 has 36 MA's), (Start: 16 @50659 has 1 MA's), (18, 50692), (19, 50695), (24, 50752), (30, 50887), (39, 51037), (44, 51091),

Gene: Zenon_77 Start: 58221, Stop: 58736, Start Num: 8
Candidate Starts for Zenon_77:
(6, 58209), (Start: 8 @58221 has 1 MA's), (17, 58308), (20, 58344), (21, 58359), (22, 58362), (23, 58374), (27, 58512), (29, 58533), (31, 58569), (32, 58581), (34, 58611), (36, 58623), (37, 58632), (38, 58656), (40, 58704), (41, 58725),