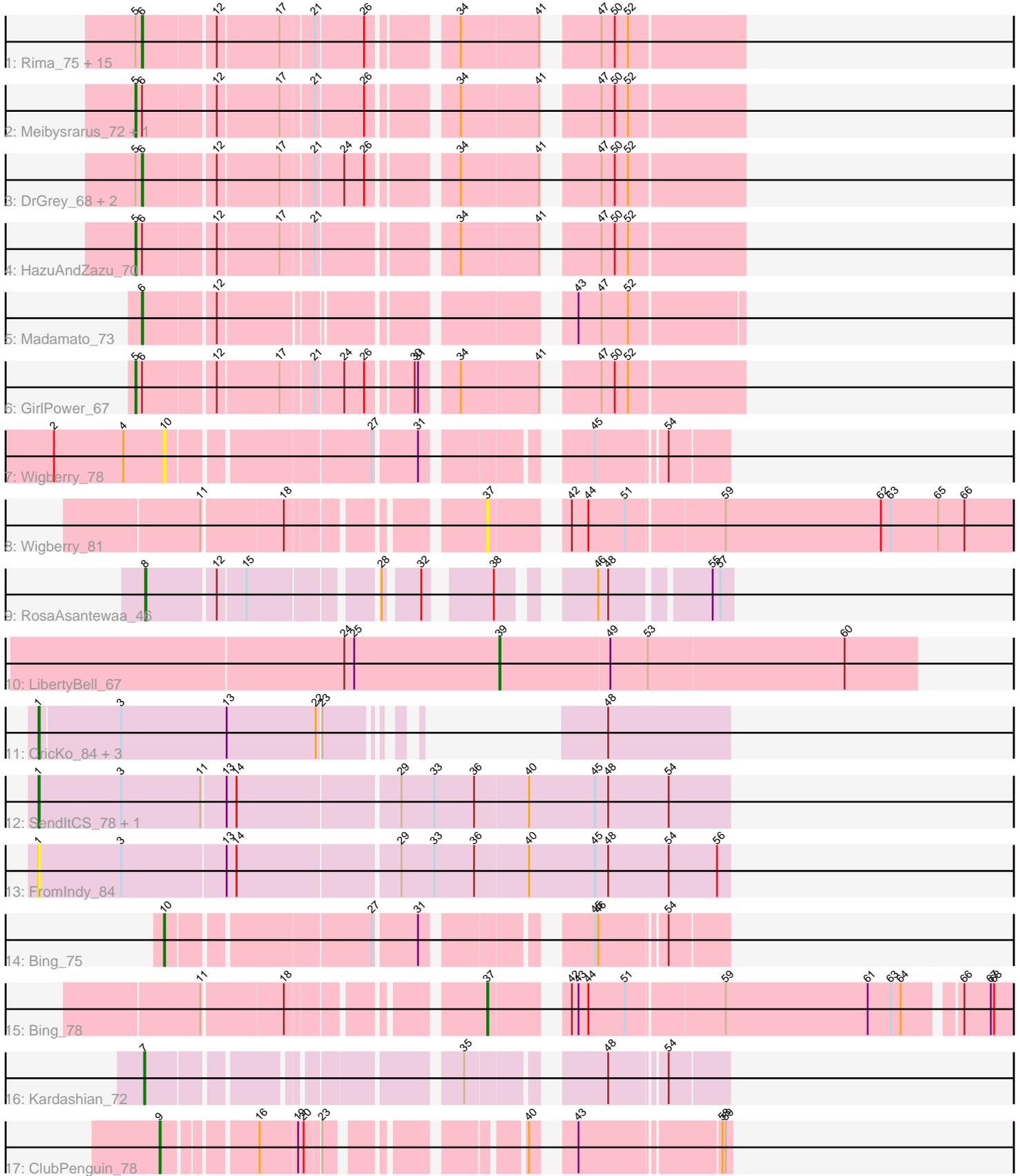# Pham 291332

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 291332 Report

This analysis was run 03/28/26 on database version 641.

Pham number 291332 has 39 members, 5 are drafts.

Phages represented in each track:
• Track 1 : Rima_75, TaidaOne_75, Esketit_70, TonyStarch_73, Spectropatronm_73, FidgetOrca_76, Soshi_71, Jaylociraptor_74, Maya_74, Espio_72, OlympicHelado_76, Hoshi_75, Indigenous_76, CherryBlossom_74, IceWarrior_74, Namo_76
• Track 2 : Meibysrarus_72, TieDye_70
• Track 3 : DrGrey_68, FrodoSwaggins_70, Popy_70
• Track 4 : HazuAndZazu_70
• Track 5 : Madamato_73
• Track 6 : GirlPower_67
• Track 7 : Wigberry_78
• Track 8 : Wigberry_81
• Track 9 : RosaAsantewaa_46
• Track 10 : LibertyBell_67
• Track 11 : CricKo_84, Rainydai_81, Regigigas_84, Thiqqums_84
• Track 12 : SendItCS_78, Miek_80
• Track 13 : FromIndy_84
• Track 14 : Bing_75
• Track 15 : Bing_78
• Track 16 : Kardashian_72
• Track 17 : ClubPenguin_78

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

The start number called the most often in the published annotations is 6, it was called in 19 of the 34 non-draft genes in the pham.

Genes that call this "Most Annotated" start:
• CherryBlossom_74, DrGrey_68, Esketit_70, Espio_72, FidgetOrca_76, FrodoSwaggins_70, Hoshi_75, IceWarrior_74, Indigenous_76, Jaylociraptor_74, Madamato_73, Maya_74, Namo_76, OlympicHelado_76, Popy_70, Rima_75, Soshi_71, Spectropatronm_73, TaidaOne_75, TonyStarch_73,

Genes that have the "Most Annotated" start but do not call it:
• GirlPower_67, HazuAndZazu_70, Meibysrarus_72, TieDye_70,

Genes that do not have the "Most Annotated" start:
• Bing_75, Bing_78, ClubPenguin_78, CricKo_84, FromIndy_84, Kardashian_72, LibertyBell_67, Miek_80, Rainydai_81, Regigigas_84, RosaAsantewaa_46, SendItCS_78, Thiqqums_84, Wigberry_78, Wigberry_81,

Summary by start number:

Start 1:
• Found in 7 of 39 (17.9%) of genes in pham
• Manual Annotations of this start: 5 of 34
• Called 100.0% of time when present
• Phage (with cluster) where this start called: CricKo_84 (BI4), FromIndy_84 (BI4), Miek_80 (BI4), Rainydai_81 (BI4), Regigigas_84 (BI4), SendItCS_78 (BI4), Thiqqums_84 (BI4),

Start 5:
• Found in 23 of 39 (59.0%) of genes in pham
• Manual Annotations of this start: 4 of 34
• Called 17.4% of time when present
• Phage (with cluster) where this start called: GirlPower_67 (BI1), HazuAndZazu_70 (BI1), Meibysrarus_72 (BI1), TieDye_70 (BI1),

Start 6:
• Found in 24 of 39 (61.5%) of genes in pham
• Manual Annotations of this start: 19 of 34
• Called 83.3% of time when present
• Phage (with cluster) where this start called: CherryBlossom_74 (BI1), DrGrey_68 (BI1), Esketit_70 (BI1), Espio_72 (BI1), FidgetOrca_76 (BI1), FrodoSwaggins_70 (BI1), Hoshi_75 (BI1), IceWarrior_74 (BI1), Indigenous_76 (BI1), Jaylociraptor_74 (BI1), Madamato_73 (BI1), Maya_74 (BI1), Namo_76 (BI1), OlympicHelado_76 (BI1), Popy_70 (BI1), Rima_75 (BI1), Soshi_71 (BI1), Spectropatronm_73 (BI1), TaidaOne_75 (BI1), TonyStarch_73 (BI1),

Start 7:
• Found in 1 of 39 (2.6%) of genes in pham
• Manual Annotations of this start: 1 of 34
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Kardashian_72 (BI6),

Start 8:
• Found in 1 of 39 (2.6%) of genes in pham
• Manual Annotations of this start: 1 of 34
• Called 100.0% of time when present
• Phage (with cluster) where this start called: RosaAsantewaa_46 (BI2),

Start 9:
• Found in 1 of 39 (2.6%) of genes in pham
• Manual Annotations of this start: 1 of 34
• Called 100.0% of time when present
• Phage (with cluster) where this start called: ClubPenguin_78 (BI7),

Start 10:
• Found in 2 of 39 (5.1%) of genes in pham

• Manual Annotations of this start: 1 of 34
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Bing_75 (BI5), Wigberry_78 (BI1),

Start 37:
• Found in 2 of 39 (5.1%) of genes in pham
• Manual Annotations of this start: 1 of 34
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Bing_78 (BI5), Wigberry_81 (BI1),

Start 39:
• Found in 1 of 39 (2.6%) of genes in pham
• Manual Annotations of this start: 1 of 34
• Called 100.0% of time when present
• Phage (with cluster) where this start called: LibertyBell_67 (BI3),

Summary by clusters:

There are 7 clusters represented in this pham: BI6, BI7, BI4, BI5, BI2, BI3, BI1,

Info for manual annotations of cluster BI1:
•Start number 5 was manually annotated 4 times for cluster BI1.
•Start number 6 was manually annotated 19 times for cluster BI1.

Info for manual annotations of cluster BI2:
•Start number 8 was manually annotated 1 time for cluster BI2.

Info for manual annotations of cluster BI3:
•Start number 39 was manually annotated 1 time for cluster BI3.

Info for manual annotations of cluster BI4:
•Start number 1 was manually annotated 5 times for cluster BI4.

Info for manual annotations of cluster BI5:
•Start number 10 was manually annotated 1 time for cluster BI5.
•Start number 37 was manually annotated 1 time for cluster BI5.

Info for manual annotations of cluster BI6:
•Start number 7 was manually annotated 1 time for cluster BI6.

Info for manual annotations of cluster BI7:
•Start number 9 was manually annotated 1 time for cluster BI7.

Gene Information:
Gene: Bing_75 Start: 46505, Stop: 46933, Start Num: 10
Candidate Starts for Bing_75:
(Start: 10 @46505 has 1 MA's), (27, 46673), (31, 46709), (45, 46826), (46, 46829), (54, 46883),

Gene: Bing_78 Start: 47851, Stop: 48282, Start Num: 37
Candidate Starts for Bing_78:

(11, 47638), (18, 47707), (Start: 37 @47851 has 1 MA's), (42, 47905), (43, 47911), (44, 47920), (51, 47953), (59, 48037), (61, 48166), (63, 48187), (64, 48196), (66, 48238), (67, 48262), (68, 48265),

Gene: CherryBlossom_74 Start: 45929, Stop: 46408, Start Num: 6
Candidate Starts for CherryBlossom_74:
(Start: 5 @45923 has 4 MA's), (Start: 6 @45929 has 19 MA's), (12, 45989), (17, 46043), (21, 46070), (26, 46112), (34, 46178), (41, 46247), (47, 46283), (50, 46295), (52, 46307),

Gene: ClubPenguin_78 Start: 46389, Stop: 46793, Start Num: 9
Candidate Starts for ClubPenguin_78:
(Start: 9 @46389 has 1 MA's), (16, 46461), (19, 46494), (20, 46497), (23, 46509), (40, 46644), (43, 46668), (58, 46785), (59, 46788),

Gene: CricKo_84 Start: 49056, Stop: 49514, Start Num: 1
Candidate Starts for CricKo_84:
(Start: 1 @49056 has 5 MA's), (3, 49128), (13, 49224), (22, 49305), (23, 49308), (48, 49407),

Gene: DrGrey_68 Start: 45889, Stop: 46368, Start Num: 6
Candidate Starts for DrGrey_68:
(Start: 5 @45883 has 4 MA's), (Start: 6 @45889 has 19 MA's), (12, 45949), (17, 46003), (21, 46030), (24, 46054), (26, 46072), (34, 46138), (41, 46207), (47, 46243), (50, 46255), (52, 46267),

Gene: Esketit_70 Start: 45030, Stop: 45509, Start Num: 6
Candidate Starts for Esketit_70:
(Start: 5 @45024 has 4 MA's), (Start: 6 @45030 has 19 MA's), (12, 45090), (17, 45144), (21, 45171), (26, 45213), (34, 45279), (41, 45348), (47, 45384), (50, 45396), (52, 45408),

Gene: Espio_72 Start: 46284, Stop: 46763, Start Num: 6
Candidate Starts for Espio_72:
(Start: 5 @46278 has 4 MA's), (Start: 6 @46284 has 19 MA's), (12, 46344), (17, 46398), (21, 46425), (26, 46467), (34, 46533), (41, 46602), (47, 46638), (50, 46650), (52, 46662),

Gene: FidgetOrca_76 Start: 46480, Stop: 46959, Start Num: 6
Candidate Starts for FidgetOrca_76:
(Start: 5 @46474 has 4 MA's), (Start: 6 @46480 has 19 MA's), (12, 46540), (17, 46594), (21, 46621), (26, 46663), (34, 46729), (41, 46798), (47, 46834), (50, 46846), (52, 46858),

Gene: FrodoSwaggins_70 Start: 46283, Stop: 46762, Start Num: 6
Candidate Starts for FrodoSwaggins_70:
(Start: 5 @46277 has 4 MA's), (Start: 6 @46283 has 19 MA's), (12, 46343), (17, 46397), (21, 46424), (24, 46448), (26, 46466), (34, 46532), (41, 46601), (47, 46637), (50, 46649), (52, 46661),

Gene: FromIndy_84 Start: 48690, Stop: 49301, Start Num: 1
Candidate Starts for FromIndy_84:
(Start: 1 @48690 has 5 MA's), (3, 48765), (13, 48858), (14, 48867), (29, 49008), (33, 49038), (36, 49074), (40, 49122), (45, 49182), (48, 49194), (54, 49248), (56, 49290),

Gene: GirlPower_67 Start: 45827, Stop: 46312, Start Num: 5
Candidate Starts for GirlPower_67:
(Start: 5 @45827 has 4 MA's), (Start: 6 @45833 has 19 MA's), (12, 45893), (17, 45947), (21, 45974), (24, 45998), (26, 46016), (30, 46052), (31, 46055), (34, 46082), (41, 46151), (47, 46187), (50, 46199), (52, 46211),

Gene: HazuAndZazu_70 Start: 45945, Stop: 46430, Start Num: 5
Candidate Starts for HazuAndZazu_70:
(Start: 5 @45945 has 4 MA's), (Start: 6 @45951 has 19 MA's), (12, 46011), (17, 46065), (21, 46092), (34, 46200), (41, 46269), (47, 46305), (50, 46317), (52, 46329),

Gene: Hoshi_75 Start: 46093, Stop: 46572, Start Num: 6
Candidate Starts for Hoshi_75:
(Start: 5 @46087 has 4 MA's), (Start: 6 @46093 has 19 MA's), (12, 46153), (17, 46207), (21, 46234), (26, 46276), (34, 46342), (41, 46411), (47, 46447), (50, 46459), (52, 46471),

Gene: IceWarrior_74 Start: 45781, Stop: 46260, Start Num: 6
Candidate Starts for IceWarrior_74:
(Start: 5 @45775 has 4 MA's), (Start: 6 @45781 has 19 MA's), (12, 45841), (17, 45895), (21, 45922), (26, 45964), (34, 46030), (41, 46099), (47, 46135), (50, 46147), (52, 46159),

Gene: Indigenous_76 Start: 46484, Stop: 46963, Start Num: 6
Candidate Starts for Indigenous_76:
(Start: 5 @46478 has 4 MA's), (Start: 6 @46484 has 19 MA's), (12, 46544), (17, 46598), (21, 46625), (26, 46667), (34, 46733), (41, 46802), (47, 46838), (50, 46850), (52, 46862),

Gene: Jaylociraptor_74 Start: 46065, Stop: 46544, Start Num: 6
Candidate Starts for Jaylociraptor_74:
(Start: 5 @46059 has 4 MA's), (Start: 6 @46065 has 19 MA's), (12, 46125), (17, 46179), (21, 46206), (26, 46248), (34, 46314), (41, 46383), (47, 46419), (50, 46431), (52, 46443),

Gene: Kardashian_72 Start: 46780, Stop: 47208, Start Num: 7
Candidate Starts for Kardashian_72:
(Start: 7 @46780 has 1 MA's), (35, 47014), (48, 47113), (54, 47158),

Gene: LibertyBell_67 Start: 43991, Stop: 44365, Start Num: 39
Candidate Starts for LibertyBell_67:
(24, 43850), (25, 43859), (Start: 39 @43991 has 1 MA's), (49, 44090), (53, 44123), (60, 44300),

Gene: Madamato_73 Start: 45668, Stop: 46138, Start Num: 6
Candidate Starts for Madamato_73:
(Start: 6 @45668 has 19 MA's), (12, 45728), (43, 45995), (47, 46016), (52, 46040),

Gene: Maya_74 Start: 46079, Stop: 46558, Start Num: 6
Candidate Starts for Maya_74:
(Start: 5 @46073 has 4 MA's), (Start: 6 @46079 has 19 MA's), (12, 46139), (17, 46193), (21, 46220), (26, 46262), (34, 46328), (41, 46397), (47, 46433), (50, 46445), (52, 46457),

Gene: Meibysrarus_72 Start: 45457, Stop: 45942, Start Num: 5
Candidate Starts for Meibysrarus_72:
(Start: 5 @45457 has 4 MA's), (Start: 6 @45463 has 19 MA's), (12, 45523), (17, 45577), (21, 45604), (26, 45646), (34, 45712), (41, 45781), (47, 45817), (50, 45829), (52, 45841),

Gene: Miek_80 Start: 47872, Stop: 48483, Start Num: 1
Candidate Starts for Miek_80:
(Start: 1 @47872 has 5 MA's), (3, 47947), (11, 48019), (13, 48040), (14, 48049), (29, 48190), (33, 48220), (36, 48256), (40, 48304), (45, 48364), (48, 48376), (54, 48430),

Gene: Namo_76 Start: 46443, Stop: 46922, Start Num: 6

Candidate Starts for Namo_76:
(Start: 5 @46437 has 4 MA's), (Start: 6 @46443 has 19 MA's), (12, 46503), (17, 46557), (21, 46584), (26, 46626), (34, 46692), (41, 46761), (47, 46797), (50, 46809), (52, 46821),

Gene: OlympicHelado_76 Start: 46555, Stop: 47034, Start Num: 6
Candidate Starts for OlympicHelado_76:
(Start: 5 @46549 has 4 MA's), (Start: 6 @46555 has 19 MA's), (12, 46615), (17, 46669), (21, 46696), (26, 46738), (34, 46804), (41, 46873), (47, 46909), (50, 46921), (52, 46933),

Gene: Popy_70 Start: 46283, Stop: 46762, Start Num: 6
Candidate Starts for Popy_70:
(Start: 5 @46277 has 4 MA's), (Start: 6 @46283 has 19 MA's), (12, 46343), (17, 46397), (21, 46424), (24, 46448), (26, 46466), (34, 46532), (41, 46601), (47, 46637), (50, 46649), (52, 46661),

Gene: Rainydai_81 Start: 49056, Stop: 49514, Start Num: 1
Candidate Starts for Rainydai_81:
(Start: 1 @49056 has 5 MA's), (3, 49128), (13, 49224), (22, 49305), (23, 49308), (48, 49407),

Gene: Regigigas_84 Start: 48668, Stop: 49126, Start Num: 1
Candidate Starts for Regigigas_84:
(Start: 1 @48668 has 5 MA's), (3, 48740), (13, 48836), (22, 48917), (23, 48920), (48, 49019),

Gene: Rima_75 Start: 46443, Stop: 46922, Start Num: 6
Candidate Starts for Rima_75:
(Start: 5 @46437 has 4 MA's), (Start: 6 @46443 has 19 MA's), (12, 46503), (17, 46557), (21, 46584), (26, 46626), (34, 46692), (41, 46761), (47, 46797), (50, 46809), (52, 46821),

Gene: RosaAsantewaa_46 Start: 35392, Stop: 35820, Start Num: 8
Candidate Starts for RosaAsantewaa_46:
(Start: 8 @35392 has 1 MA's), (12, 35452), (15, 35476), (28, 35578), (32, 35605), (38, 35653), (46, 35713), (48, 35722), (55, 35803), (57, 35809),

Gene: SendItCS_78 Start: 47860, Stop: 48471, Start Num: 1
Candidate Starts for SendItCS_78:
(Start: 1 @47860 has 5 MA's), (3, 47935), (11, 48007), (13, 48028), (14, 48037), (29, 48178), (33, 48208), (36, 48244), (40, 48292), (45, 48352), (48, 48364), (54, 48418),

Gene: Soshi_71 Start: 46148, Stop: 46627, Start Num: 6
Candidate Starts for Soshi_71:
(Start: 5 @46142 has 4 MA's), (Start: 6 @46148 has 19 MA's), (12, 46208), (17, 46262), (21, 46289), (26, 46331), (34, 46397), (41, 46466), (47, 46502), (50, 46514), (52, 46526),

Gene: Spectropatronm_73 Start: 46072, Stop: 46551, Start Num: 6
Candidate Starts for Spectropatronm_73:
(Start: 5 @46066 has 4 MA's), (Start: 6 @46072 has 19 MA's), (12, 46132), (17, 46186), (21, 46213), (26, 46255), (34, 46321), (41, 46390), (47, 46426), (50, 46438), (52, 46450),

Gene: TaidaOne_75 Start: 46968, Stop: 47447, Start Num: 6
Candidate Starts for TaidaOne_75:
(Start: 5 @46962 has 4 MA's), (Start: 6 @46968 has 19 MA's), (12, 47028), (17, 47082), (21, 47109), (26, 47151), (34, 47217), (41, 47286), (47, 47322), (50, 47334), (52, 47346),

Gene: Thiqqums_84 Start: 49056, Stop: 49514, Start Num: 1

Candidate Starts for Thiqqums_84:
(Start: 1 @49056 has 5 MA's), (3, 49128), (13, 49224), (22, 49305), (23, 49308), (48, 49407),

Gene: TieDye_70 Start: 45387, Stop: 45872, Start Num: 5
Candidate Starts for TieDye_70:
(Start: 5 @45387 has 4 MA's), (Start: 6 @45393 has 19 MA's), (12, 45453), (17, 45507), (21, 45534), (26, 45576), (34, 45642), (41, 45711), (47, 45747), (50, 45759), (52, 45771),

Gene: TonyStarch_73 Start: 45835, Stop: 46314, Start Num: 6
Candidate Starts for TonyStarch_73:
(Start: 5 @45829 has 4 MA's), (Start: 6 @45835 has 19 MA's), (12, 45895), (17, 45949), (21, 45976), (26, 46018), (34, 46084), (41, 46153), (47, 46189), (50, 46201), (52, 46213),

Gene: Wigberry_78 Start: 46367, Stop: 46795, Start Num: 10
Candidate Starts for Wigberry_78:
(2, 46268), (4, 46331), (Start: 10 @46367 has 1 MA's), (27, 46535), (31, 46571), (45, 46688), (54, 46745),

Gene: Wigberry_81 Start: 47806, Stop: 48252, Start Num: 37
Candidate Starts for Wigberry_81:
(11, 47593), (18, 47662), (Start: 37 @47806 has 1 MA's), (42, 47860), (44, 47875), (51, 47908), (59, 47992), (62, 48133), (63, 48142), (65, 48184), (66, 48208),