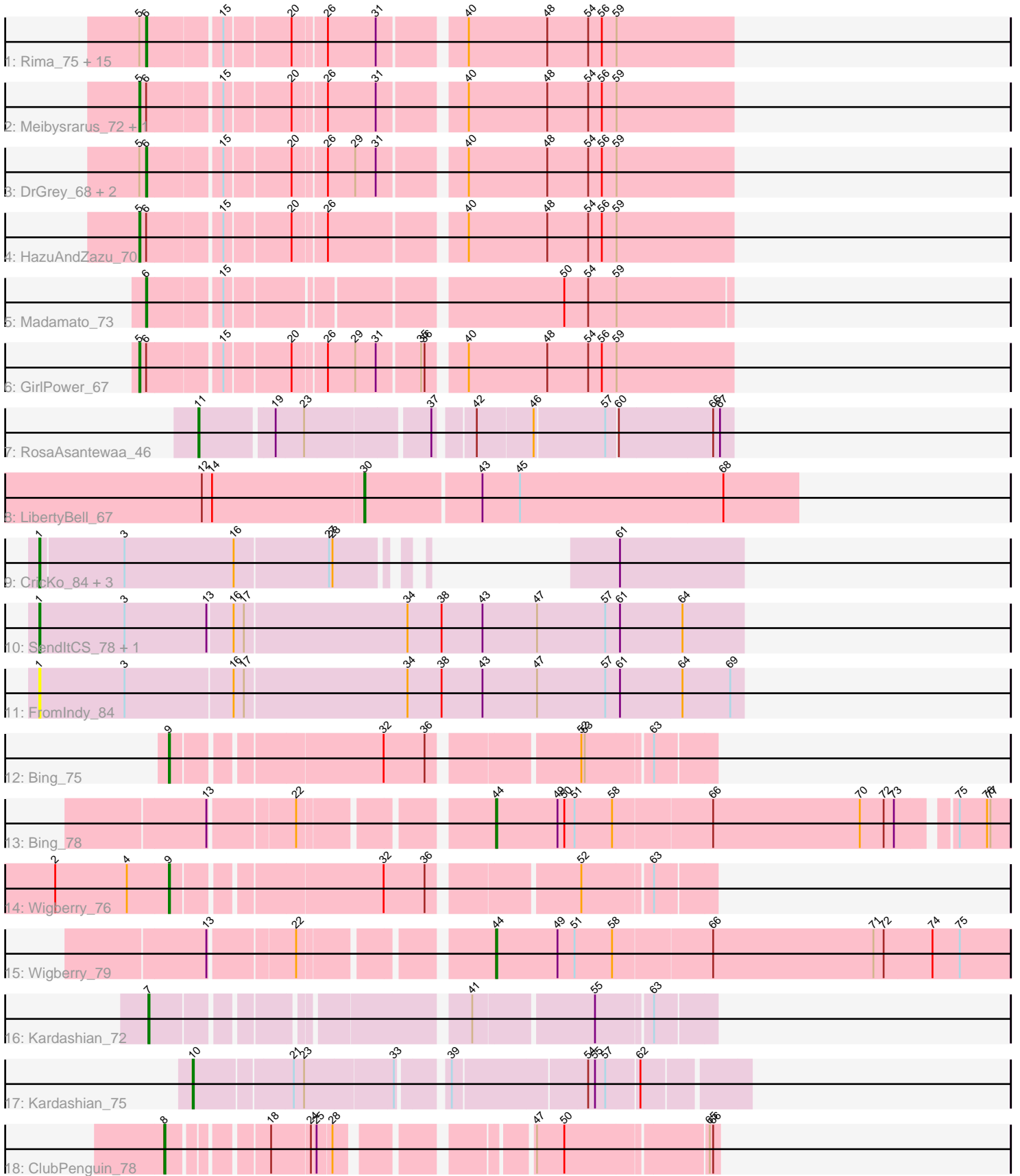


Pham 296725



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 296725 Report

This analysis was run 04/25/26 on database version 644.

Pham number 296725 has 40 members, 2 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\_70, OlympicHelado\_76, Hoshi\_75, Indigenous\_76, CherryBlossom\_74, IceWarrior\_74, Namu\_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 : RosaAsantewaa\_46
- Track 8 : LibertyBell\_67
- Track 9 : Cricko\_84, Rainydai\_81, Regigigas\_84, Thiqqums\_84
- Track 10 : SendItCS\_78, Miek\_80
- Track 11 : FromIndy\_84
- Track 12 : Bing\_75
- Track 13 : Bing\_78
- Track 14 : Wigberry\_76
- Track 15 : Wigberry\_79
- Track 16 : Kardashian\_72
- Track 17 : Kardashian\_75
- Track 18 : 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 20 of the 38 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- CherryBlossom\_74, DrGrey\_68, Esketit\_70, Espio\_70, FidgetOrca\_76, FrodoSwaggins\_70, Hoshi\_75, IceWarrior\_74, Indigenous\_76, Jaylociraptor\_74, Madamato\_73, Maya\_74, Namu\_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, Kardashian\_75, LibertyBell\_67, Miek\_80, Rainydai\_81, Regigigas\_84, RosaAsantewaa\_46, SendItCS\_78, Thiqqums\_84, Wigberry\_76, Wigberry\_79,

**Summary by start number:**

Start 1:

- Found in 7 of 40 ( 17.5% ) of genes in pham
- Manual Annotations of this start: 5 of 38
- 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 40 ( 57.5% ) of genes in pham
- Manual Annotations of this start: 4 of 38
- 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 40 ( 60.0% ) of genes in pham
- Manual Annotations of this start: 20 of 38
- Called 83.3% of time when present
- Phage (with cluster) where this start called: CherryBlossom\_74 (BI1), DrGrey\_68 (BI1), Esketit\_70 (BI1), Espio\_70 (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 40 ( 2.5% ) 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: Kardashian\_72 (BI6),

Start 8:

- Found in 1 of 40 ( 2.5% ) 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: ClubPenguin\_78 (BI7),

Start 9:

- Found in 2 of 40 ( 5.0% ) of genes in pham
- Manual Annotations of this start: 2 of 38
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Bing\_75 (BI5), Wigberry\_76 (BI5),

Start 10:

- Found in 1 of 40 ( 2.5% ) 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: Kardashian\_75 (BI6),

Start 11:

- Found in 1 of 40 ( 2.5% ) 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: RosaAsantewaa\_46 (BI2),

Start 30:

- Found in 1 of 40 ( 2.5% ) 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: LibertyBell\_67 (BI3),

Start 44:

- Found in 2 of 40 ( 5.0% ) of genes in pham
- Manual Annotations of this start: 2 of 38
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Bing\_78 (BI5), Wigberry\_79 (BI5),

### **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 20 times for cluster BI1.

Info for manual annotations of cluster BI2:

- Start number 11 was manually annotated 1 time for cluster BI2.

Info for manual annotations of cluster BI3:

- Start number 30 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 9 was manually annotated 2 times for cluster BI5.
- Start number 44 was manually annotated 2 times for cluster BI5.

Info for manual annotations of cluster BI6:

- Start number 7 was manually annotated 1 time for cluster BI6.
- Start number 10 was manually annotated 1 time for cluster BI6.

Info for manual annotations of cluster BI7:

- Start number 8 was manually annotated 1 time for cluster BI7.

### **Gene Information:**

Gene: Bing\_75 Start: 46505, Stop: 46933, Start Num: 9

Candidate Starts for Bing\_75:

(Start: 9 @46505 has 2 MA's), (32, 46673), (36, 46709), (52, 46826), (53, 46829), (63, 46883),

Gene: Bing\_78 Start: 47851, Stop: 48282, Start Num: 44

Candidate Starts for Bing\_78:

(13, 47638), (22, 47707), (Start: 44 @47851 has 2 MA's), (49, 47905), (50, 47911), (51, 47920), (58, 47953), (66, 48037), (70, 48166), (72, 48187), (73, 48196), (75, 48238), (76, 48262), (77, 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 20 MA's), (15, 45989), (20, 46043), (26, 46070), (31, 46112), (40, 46178), (48, 46247), (54, 46283), (56, 46295), (59, 46307),

Gene: ClubPenguin\_78 Start: 46389, Stop: 46793, Start Num: 8

Candidate Starts for ClubPenguin\_78:

(Start: 8 @46389 has 1 MA's), (18, 46461), (24, 46494), (25, 46497), (28, 46509), (47, 46644), (50, 46668), (65, 46785), (66, 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), (16, 49224), (27, 49305), (28, 49308), (61, 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 20 MA's), (15, 45949), (20, 46003), (26, 46030), (29, 46054), (31, 46072), (40, 46138), (48, 46207), (54, 46243), (56, 46255), (59, 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 20 MA's), (15, 45090), (20, 45144), (26, 45171), (31, 45213), (40, 45279), (48, 45348), (54, 45384), (56, 45396), (59, 45408),

Gene: Espio\_70 Start: 46284, Stop: 46763, Start Num: 6

Candidate Starts for Espio\_70:

(Start: 5 @46278 has 4 MA's), (Start: 6 @46284 has 20 MA's), (15, 46344), (20, 46398), (26, 46425), (31, 46467), (40, 46533), (48, 46602), (54, 46638), (56, 46650), (59, 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 20 MA's), (15, 46540), (20, 46594), (26, 46621), (31, 46663), (40, 46729), (48, 46798), (54, 46834), (56, 46846), (59, 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 20 MA's), (15, 46343), (20, 46397), (26, 46424), (29, 46448), (31, 46466), (40, 46532), (48, 46601), (54, 46637), (56, 46649), (59, 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), (16, 48858), (17, 48867), (34, 49008), (38, 49038), (43, 49074), (47, 49122), (57, 49182), (61, 49194), (64, 49248), (69, 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 20 MA's), (15, 45893), (20, 45947), (26, 45974), (29, 45998), (31, 46016), (35, 46052), (36, 46055), (40, 46082), (48, 46151), (54, 46187), (56, 46199), (59, 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 20 MA's), (15, 46011), (20, 46065), (26, 46092), (40, 46200), (48, 46269), (54, 46305), (56, 46317), (59, 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 20 MA's), (15, 46153), (20, 46207), (26, 46234), (31, 46276), (40, 46342), (48, 46411), (54, 46447), (56, 46459), (59, 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 20 MA's), (15, 45841), (20, 45895), (26, 45922), (31, 45964), (40, 46030), (48, 46099), (54, 46135), (56, 46147), (59, 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 20 MA's), (15, 46544), (20, 46598), (26, 46625), (31, 46667), (40, 46733), (48, 46802), (54, 46838), (56, 46850), (59, 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 20 MA's), (15, 46125), (20, 46179), (26, 46206), (31, 46248), (40, 46314), (48, 46383), (54, 46419), (56, 46431), (59, 46443),

Gene: Kardashian\_72 Start: 46780, Stop: 47208, Start Num: 7

Candidate Starts for Kardashian\_72:

(Start: 7 @46780 has 1 MA's), (41, 47014), (55, 47113), (63, 47158),

Gene: Kardashian\_75 Start: 48276, Stop: 48716, Start Num: 10

Candidate Starts for Kardashian\_75:

(Start: 10 @48276 has 1 MA's), (21, 48357), (23, 48366), (33, 48441), (39, 48477), (54, 48588), (55, 48594), (57, 48603), (62, 48630),

Gene: LibertyBell\_67 Start: 43991, Stop: 44365, Start Num: 30

Candidate Starts for LibertyBell\_67:

(12, 43850), (14, 43859), (Start: 30 @43991 has 1 MA's), (43, 44090), (45, 44123), (68, 44300),

Gene: Madamoto\_73 Start: 45668, Stop: 46138, Start Num: 6

Candidate Starts for Madamoto\_73:

(Start: 6 @45668 has 20 MA's), (15, 45728), (50, 45995), (54, 46016), (59, 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 20 MA's), (15, 46139), (20, 46193), (26, 46220), (31, 46262), (40, 46328), (48, 46397), (54, 46433), (56, 46445), (59, 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 20 MA's), (15, 45523), (20, 45577), (26, 45604), (31, 45646), (40, 45712), (48, 45781), (54, 45817), (56, 45829), (59, 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), (13, 48019), (16, 48040), (17, 48049), (34, 48190), (38, 48220), (43, 48256), (47, 48304), (57, 48364), (61, 48376), (64, 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 20 MA's), (15, 46503), (20, 46557), (26, 46584), (31, 46626), (40, 46692), (48, 46761), (54, 46797), (56, 46809), (59, 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 20 MA's), (15, 46615), (20, 46669), (26, 46696), (31, 46738), (40, 46804), (48, 46873), (54, 46909), (56, 46921), (59, 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 20 MA's), (15, 46343), (20, 46397), (26, 46424), (29, 46448), (31, 46466), (40, 46532), (48, 46601), (54, 46637), (56, 46649), (59, 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), (16, 49224), (27, 49305), (28, 49308), (61, 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), (16, 48836), (27, 48917), (28, 48920), (61, 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 20 MA's), (15, 46503), (20, 46557), (26, 46584), (31, 46626), (40, 46692), (48, 46761), (54, 46797), (56, 46809), (59, 46821),

Gene: RosaAsantewaa\_46 Start: 35392, Stop: 35820, Start Num: 11

Candidate Starts for RosaAsantewaa\_46:

(Start: 11 @35392 has 1 MA's), (19, 35452), (23, 35476), (37, 35578), (42, 35605), (46, 35653), (57, 35713), (60, 35722), (66, 35803), (67, 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), (13, 48007), (16, 48028), (17, 48037), (34, 48178), (38, 48208), (43, 48244), (47, 48292), (57, 48352), (61, 48364), (64, 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 20 MA's), (15, 46208), (20, 46262), (26, 46289), (31, 46331), (40, 46397), (48, 46466), (54, 46502), (56, 46514), (59, 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 20 MA's), (15, 46132), (20, 46186), (26, 46213), (31, 46255), (40, 46321), (48, 46390), (54, 46426), (56, 46438), (59, 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 20 MA's), (15, 47028), (20, 47082), (26, 47109), (31, 47151), (40, 47217), (48, 47286), (54, 47322), (56, 47334), (59, 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), (16, 49224), (27, 49305), (28, 49308), (61, 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 20 MA's), (15, 45453), (20, 45507), (26, 45534), (31, 45576), (40, 45642), (48, 45711), (54, 45747), (56, 45759), (59, 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 20 MA's), (15, 45895), (20, 45949), (26, 45976), (31, 46018), (40, 46084), (48, 46153), (54, 46189), (56, 46201), (59, 46213),

Gene: Wigberry\_76 Start: 46367, Stop: 46795, Start Num: 9

Candidate Starts for Wigberry\_76:

(2, 46268), (4, 46331), (Start: 9 @46367 has 2 MA's), (32, 46535), (36, 46571), (52, 46688), (63, 46745),

Gene: Wigberry\_79 Start: 47806, Stop: 48252, Start Num: 44

Candidate Starts for Wigberry\_79:

(13, 47593), (22, 47662), (Start: 44 @47806 has 2 MA's), (49, 47860), (51, 47875), (58, 47908), (66, 47992), (71, 48133), (72, 48142), (74, 48184), (75, 48208),