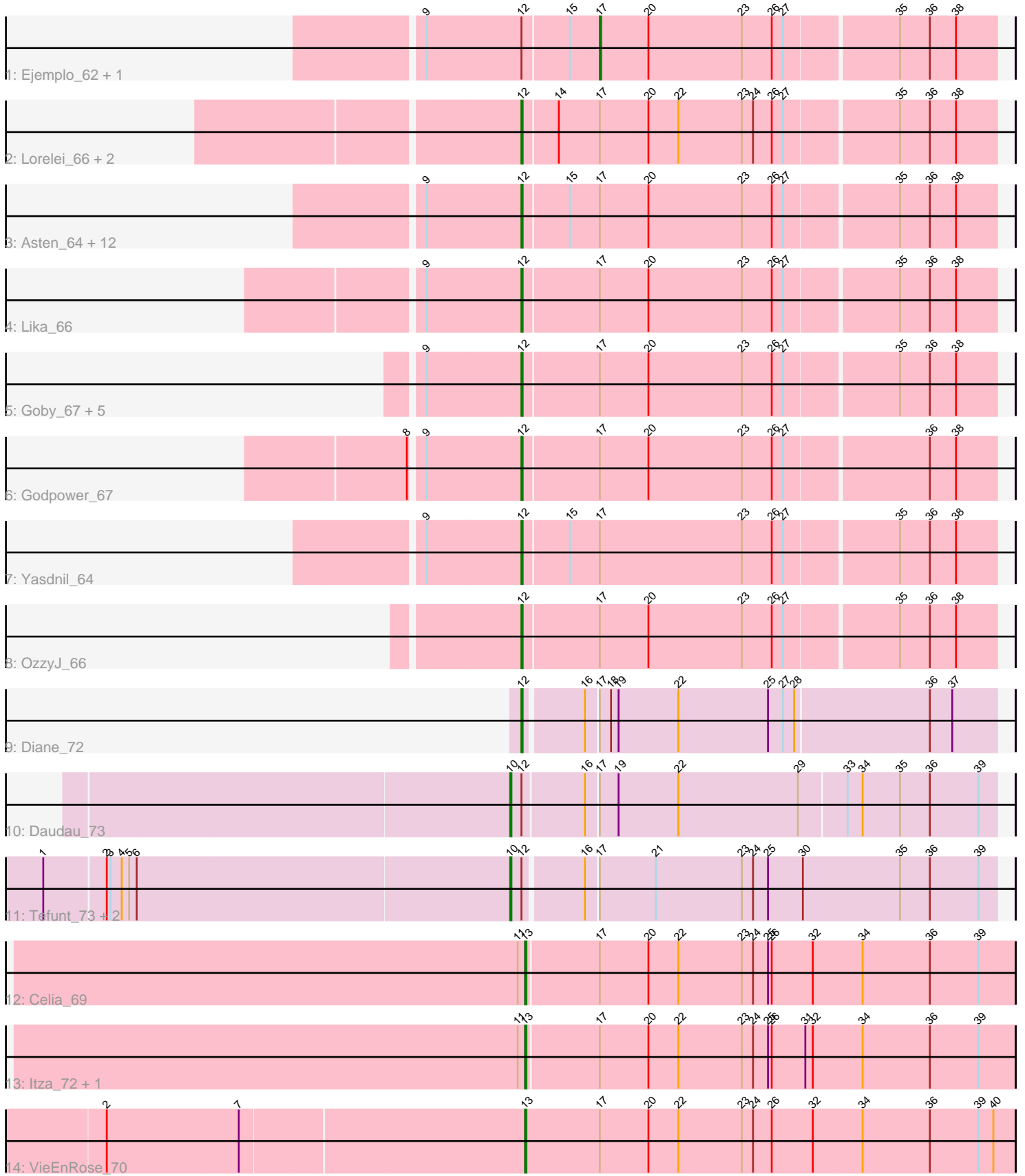


Pham 163767



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 163767 Report

This analysis was run 04/28/24 on database version 559.

Pham number 163767 has 37 members, 1 are drafts.

Phages represented in each track:

- Track 1 : Ejemplo\_62, Emaanora\_67
- Track 2 : Lorelei\_66, Rana\_67, Nabi\_67
- Track 3 : Asten\_64, Dwayne\_64, Hippo\_64, SarahRose\_64, TuanPN\_62, Triste\_65, TagePhighter\_66, Werner\_64, Snorlax\_64, Whatever\_64, Chucky\_64, BarryBee\_67, Maneekul\_64
- Track 4 : Lika\_66
- Track 5 : Goby\_67, Brataylor\_68, Toma\_67, Danzina\_67, Celeste\_67, Zemlya\_67
- Track 6 : Godpower\_67
- Track 7 : Yasdnil\_64
- Track 8 : OzzyJ\_66
- Track 9 : Diane\_72
- Track 10 : Daudau\_73
- Track 11 : Tefunt\_73, Haizum\_73, Nishikigoi\_74
- Track 12 : Celia\_69
- Track 13 : Itza\_72, Urza\_71
- Track 14 : VieEnRose\_70

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

The start number called the most often in the published annotations is 12, it was called in 27 of the 36 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Asten\_64, BarryBee\_67, Brataylor\_68, Celeste\_67, Chucky\_64, Danzina\_67, Diane\_72, Dwayne\_64, Goby\_67, Godpower\_67, Hippo\_64, Lika\_66, Lorelei\_66, Maneekul\_64, Nabi\_67, OzzyJ\_66, Rana\_67, SarahRose\_64, Snorlax\_64, TagePhighter\_66, Toma\_67, Triste\_65, TuanPN\_62, Werner\_64, Whatever\_64, Yasdnil\_64, Zemlya\_67,

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

- Daudau\_73, Ejemplo\_62, Emaanora\_67, Haizum\_73, Nishikigoi\_74, Tefunt\_73,

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

- Celia\_69, Itza\_72, Urza\_71, VieEnRose\_70,

## Summary by start number:

### Start 10:

- Found in 4 of 37 ( 10.8% ) of genes in pham
- Manual Annotations of this start: 4 of 36
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Daudau\_73 (BD2), Haizum\_73 (BD2), Nishikigoi\_74 (BD2), Tefunt\_73 (BD2),

### Start 12:

- Found in 33 of 37 ( 89.2% ) of genes in pham
- Manual Annotations of this start: 27 of 36
- Called 81.8% of time when present
- Phage (with cluster) where this start called: Asten\_64 (BD1), BarryBee\_67 (BD1), Brataylor\_68 (BD1), Celeste\_67 (BD1), Chucky\_64 (BD1), Danzina\_67 (BD1), Diane\_72 (BD2), Dwayne\_64 (BD1), Goby\_67 (BD1), Godpower\_67 (BD1), Hippo\_64 (BD1), Lika\_66 (BD1), Lorelei\_66 (BD1), Maneekul\_64 (BD1), Nabi\_67 (BD1), OzzyJ\_66 (BD1), Rana\_67 (BD1), SarahRose\_64 (BD1), Snorlax\_64 (BD1), TagePhighter\_66 (BD1), Toma\_67 (BD1), Triste\_65 (BD1), TuanPN\_62 (BD1), Werner\_64 (BD1), Whatever\_64 (BD1), Yasdnil\_64 (BD1), Zemlya\_67 (BD1),

### Start 13:

- Found in 4 of 37 ( 10.8% ) of genes in pham
- Manual Annotations of this start: 4 of 36
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Celia\_69 (BD6), Itza\_72 (BD6), Urza\_71 (BD6), VieEnRose\_70 (BD6),

### Start 17:

- Found in 37 of 37 ( 100.0% ) of genes in pham
- Manual Annotations of this start: 1 of 36
- Called 5.4% of time when present
- Phage (with cluster) where this start called: Ejemplo\_62 (BD1), Emaanora\_67 (BD1),

## Summary by clusters:

There are 3 clusters represented in this pham: BD6, BD1, BD2,

### Info for manual annotations of cluster BD1:

- Start number 12 was manually annotated 26 times for cluster BD1.
- Start number 17 was manually annotated 1 time for cluster BD1.

### Info for manual annotations of cluster BD2:

- Start number 10 was manually annotated 4 times for cluster BD2.
- Start number 12 was manually annotated 1 time for cluster BD2.

### Info for manual annotations of cluster BD6:

- Start number 13 was manually annotated 4 times for cluster BD6.

**Gene Information:**

Gene: Asten\_64 Start: 46443, Stop: 46072, Start Num: 12

Candidate Starts for Asten\_64:

(9, 46518), (Start: 12 @46443 has 27 MA's), (15, 46407), (Start: 17 @46383 has 1 MA's), (20, 46344), (23, 46269), (26, 46245), (27, 46236), (35, 46149), (36, 46125), (38, 46104),

Gene: BarryBee\_67 Start: 46419, Stop: 46048, Start Num: 12

Candidate Starts for BarryBee\_67:

(9, 46494), (Start: 12 @46419 has 27 MA's), (15, 46383), (Start: 17 @46359 has 1 MA's), (20, 46320), (23, 46245), (26, 46221), (27, 46212), (35, 46125), (36, 46101), (38, 46080),

Gene: Brataylor\_68 Start: 45979, Stop: 45608, Start Num: 12

Candidate Starts for Brataylor\_68:

(9, 46054), (Start: 12 @45979 has 27 MA's), (Start: 17 @45919 has 1 MA's), (20, 45880), (23, 45805), (26, 45781), (27, 45772), (35, 45685), (36, 45661), (38, 45640),

Gene: Celeste\_67 Start: 45444, Stop: 45073, Start Num: 12

Candidate Starts for Celeste\_67:

(9, 45519), (Start: 12 @45444 has 27 MA's), (Start: 17 @45384 has 1 MA's), (20, 45345), (23, 45270), (26, 45246), (27, 45237), (35, 45150), (36, 45126), (38, 45105),

Gene: Celia\_69 Start: 45609, Stop: 45220, Start Num: 13

Candidate Starts for Celia\_69:

(11, 45615), (Start: 13 @45609 has 4 MA's), (Start: 17 @45552 has 1 MA's), (20, 45513), (22, 45489), (23, 45438), (24, 45429), (25, 45417), (26, 45414), (32, 45381), (34, 45342), (36, 45288), (39, 45249),

Gene: Chucky\_64 Start: 46480, Stop: 46109, Start Num: 12

Candidate Starts for Chucky\_64:

(9, 46555), (Start: 12 @46480 has 27 MA's), (15, 46444), (Start: 17 @46420 has 1 MA's), (20, 46381), (23, 46306), (26, 46282), (27, 46273), (35, 46186), (36, 46162), (38, 46141),

Gene: Danzina\_67 Start: 45693, Stop: 45322, Start Num: 12

Candidate Starts for Danzina\_67:

(9, 45768), (Start: 12 @45693 has 27 MA's), (Start: 17 @45633 has 1 MA's), (20, 45594), (23, 45519), (26, 45495), (27, 45486), (35, 45399), (36, 45375), (38, 45354),

Gene: Daudau\_73 Start: 46103, Stop: 45723, Start Num: 10

Candidate Starts for Daudau\_73:

(Start: 10 @46103 has 4 MA's), (Start: 12 @46094 has 27 MA's), (16, 46046), (Start: 17 @46037 has 1 MA's), (19, 46022), (22, 45974), (29, 45878), (33, 45842), (34, 45830), (35, 45800), (36, 45776), (39, 45737),

Gene: Diane\_72 Start: 46434, Stop: 46066, Start Num: 12

Candidate Starts for Diane\_72:

(Start: 12 @46434 has 27 MA's), (16, 46389), (Start: 17 @46380 has 1 MA's), (18, 46371), (19, 46365), (22, 46317), (25, 46245), (27, 46233), (28, 46224), (36, 46119), (37, 46101),

Gene: Dwayne\_64 Start: 46468, Stop: 46097, Start Num: 12

Candidate Starts for Dwayne\_64:

(9, 46543), (Start: 12 @46468 has 27 MA's), (15, 46432), (Start: 17 @46408 has 1 MA's), (20, 46369), (23, 46294), (26, 46270), (27, 46261), (35, 46174), (36, 46150), (38, 46129),

Gene: Ejemplo\_62 Start: 46347, Stop: 46036, Start Num: 17

Candidate Starts for Ejemplo\_62:

(9, 46482), (Start: 12 @46407 has 27 MA's), (15, 46371), (Start: 17 @46347 has 1 MA's), (20, 46308), (23, 46233), (26, 46209), (27, 46200), (35, 46113), (36, 46089), (38, 46068),

Gene: Emaanora\_67 Start: 46332, Stop: 46021, Start Num: 17

Candidate Starts for Emaanora\_67:

(9, 46467), (Start: 12 @46392 has 27 MA's), (15, 46356), (Start: 17 @46332 has 1 MA's), (20, 46293), (23, 46218), (26, 46194), (27, 46185), (35, 46098), (36, 46074), (38, 46053),

Gene: Goby\_67 Start: 46314, Stop: 45943, Start Num: 12

Candidate Starts for Goby\_67:

(9, 46389), (Start: 12 @46314 has 27 MA's), (Start: 17 @46254 has 1 MA's), (20, 46215), (23, 46140), (26, 46116), (27, 46107), (35, 46020), (36, 45996), (38, 45975),

Gene: Godpower\_67 Start: 45590, Stop: 45219, Start Num: 12

Candidate Starts for Godpower\_67:

(8, 45674), (9, 45665), (Start: 12 @45590 has 27 MA's), (Start: 17 @45530 has 1 MA's), (20, 45491), (23, 45416), (26, 45392), (27, 45383), (36, 45272), (38, 45251),

Gene: Haizum\_73 Start: 46686, Stop: 46306, Start Num: 10

Candidate Starts for Haizum\_73:

(1, 47055), (2, 47007), (3, 47004), (4, 46995), (5, 46989), (6, 46983), (Start: 10 @46686 has 4 MA's), (Start: 12 @46677 has 27 MA's), (16, 46632), (Start: 17 @46623 has 1 MA's), (21, 46578), (23, 46509), (24, 46500), (25, 46488), (30, 46461), (35, 46383), (36, 46359), (39, 46320),

Gene: Hippo\_64 Start: 46455, Stop: 46084, Start Num: 12

Candidate Starts for Hippo\_64:

(9, 46530), (Start: 12 @46455 has 27 MA's), (15, 46419), (Start: 17 @46395 has 1 MA's), (20, 46356), (23, 46281), (26, 46257), (27, 46248), (35, 46161), (36, 46137), (38, 46116),

Gene: Itza\_72 Start: 45542, Stop: 45153, Start Num: 13

Candidate Starts for Itza\_72:

(11, 45548), (Start: 13 @45542 has 4 MA's), (Start: 17 @45485 has 1 MA's), (20, 45446), (22, 45422), (23, 45371), (24, 45362), (25, 45350), (26, 45347), (31, 45320), (32, 45314), (34, 45275), (36, 45221), (39, 45182),

Gene: Lika\_66 Start: 46143, Stop: 45772, Start Num: 12

Candidate Starts for Lika\_66:

(9, 46218), (Start: 12 @46143 has 27 MA's), (Start: 17 @46083 has 1 MA's), (20, 46044), (23, 45969), (26, 45945), (27, 45936), (35, 45849), (36, 45825), (38, 45804),

Gene: Lorelei\_66 Start: 45450, Stop: 45079, Start Num: 12

Candidate Starts for Lorelei\_66:

(Start: 12 @45450 has 27 MA's), (14, 45423), (Start: 17 @45390 has 1 MA's), (20, 45351), (22, 45327), (23, 45276), (24, 45267), (26, 45252), (27, 45243), (35, 45156), (36, 45132), (38, 45111),

Gene: Maneekul\_64 Start: 46485, Stop: 46114, Start Num: 12

Candidate Starts for Maneekul\_64:

(9, 46560), (Start: 12 @46485 has 27 MA's), (15, 46449), (Start: 17 @46425 has 1 MA's), (20, 46386), (23, 46311), (26, 46287), (27, 46278), (35, 46191), (36, 46167), (38, 46146),

Gene: Nabi\_67 Start: 46021, Stop: 45650, Start Num: 12

Candidate Starts for Nabi\_67:

(Start: 12 @46021 has 27 MA's), (14, 45994), (Start: 17 @45961 has 1 MA's), (20, 45922), (22, 45898), (23, 45847), (24, 45838), (26, 45823), (27, 45814), (35, 45727), (36, 45703), (38, 45682),

Gene: Nishikigoi\_74 Start: 46686, Stop: 46306, Start Num: 10

Candidate Starts for Nishikigoi\_74:

(1, 47055), (2, 47007), (3, 47004), (4, 46995), (5, 46989), (6, 46983), (Start: 10 @46686 has 4 MA's), (Start: 12 @46677 has 27 MA's), (16, 46632), (Start: 17 @46623 has 1 MA's), (21, 46578), (23, 46509), (24, 46500), (25, 46488), (30, 46461), (35, 46383), (36, 46359), (39, 46320),

Gene: OzzyJ\_66 Start: 46380, Stop: 46009, Start Num: 12

Candidate Starts for OzzyJ\_66:

(Start: 12 @46380 has 27 MA's), (Start: 17 @46320 has 1 MA's), (20, 46281), (23, 46206), (26, 46182), (27, 46173), (35, 46086), (36, 46062), (38, 46041),

Gene: Rana\_67 Start: 45872, Stop: 45501, Start Num: 12

Candidate Starts for Rana\_67:

(Start: 12 @45872 has 27 MA's), (14, 45845), (Start: 17 @45812 has 1 MA's), (20, 45773), (22, 45749), (23, 45698), (24, 45689), (26, 45674), (27, 45665), (35, 45578), (36, 45554), (38, 45533),

Gene: SarahRose\_64 Start: 46455, Stop: 46084, Start Num: 12

Candidate Starts for SarahRose\_64:

(9, 46530), (Start: 12 @46455 has 27 MA's), (15, 46419), (Start: 17 @46395 has 1 MA's), (20, 46356), (23, 46281), (26, 46257), (27, 46248), (35, 46161), (36, 46137), (38, 46116),

Gene: Snorlax\_64 Start: 46480, Stop: 46109, Start Num: 12

Candidate Starts for Snorlax\_64:

(9, 46555), (Start: 12 @46480 has 27 MA's), (15, 46444), (Start: 17 @46420 has 1 MA's), (20, 46381), (23, 46306), (26, 46282), (27, 46273), (35, 46186), (36, 46162), (38, 46141),

Gene: TagePighther\_66 Start: 46455, Stop: 46084, Start Num: 12

Candidate Starts for TagePighther\_66:

(9, 46530), (Start: 12 @46455 has 27 MA's), (15, 46419), (Start: 17 @46395 has 1 MA's), (20, 46356), (23, 46281), (26, 46257), (27, 46248), (35, 46161), (36, 46137), (38, 46116),

Gene: Tefunt\_73 Start: 46600, Stop: 46220, Start Num: 10

Candidate Starts for Tefunt\_73:

(1, 46969), (2, 46921), (3, 46918), (4, 46909), (5, 46903), (6, 46897), (Start: 10 @46600 has 4 MA's), (Start: 12 @46591 has 27 MA's), (16, 46546), (Start: 17 @46537 has 1 MA's), (21, 46492), (23, 46423), (24, 46414), (25, 46402), (30, 46375), (35, 46297), (36, 46273), (39, 46234),

Gene: Toma\_67 Start: 46317, Stop: 45946, Start Num: 12

Candidate Starts for Toma\_67:

(9, 46392), (Start: 12 @46317 has 27 MA's), (Start: 17 @46257 has 1 MA's), (20, 46218), (23, 46143), (26, 46119), (27, 46110), (35, 46023), (36, 45999), (38, 45978),

Gene: Triste\_65 Start: 46454, Stop: 46083, Start Num: 12

Candidate Starts for Triste\_65:

(9, 46529), (Start: 12 @46454 has 27 MA's), (15, 46418), (Start: 17 @46394 has 1 MA's), (20, 46355), (23, 46280), (26, 46256), (27, 46247), (35, 46160), (36, 46136), (38, 46115),

Gene: TuanPN\_62 Start: 46407, Stop: 46036, Start Num: 12

Candidate Starts for TuanPN\_62:

(9, 46482), (Start: 12 @46407 has 27 MA's), (15, 46371), (Start: 17 @46347 has 1 MA's), (20, 46308), (23, 46233), (26, 46209), (27, 46200), (35, 46113), (36, 46089), (38, 46068),

Gene: Urza\_71 Start: 45563, Stop: 45174, Start Num: 13

Candidate Starts for Urza\_71:

(11, 45569), (Start: 13 @45563 has 4 MA's), (Start: 17 @45506 has 1 MA's), (20, 45467), (22, 45443), (23, 45392), (24, 45383), (25, 45371), (26, 45368), (31, 45341), (32, 45335), (34, 45296), (36, 45242), (39, 45203),

Gene: VieEnRose\_70 Start: 45152, Stop: 44760, Start Num: 13

Candidate Starts for VieEnRose\_70:

(2, 45479), (7, 45374), (Start: 13 @45152 has 4 MA's), (Start: 17 @45092 has 1 MA's), (20, 45053), (22, 45029), (23, 44978), (24, 44969), (26, 44954), (32, 44921), (34, 44882), (36, 44828), (39, 44789), (40, 44777),

Gene: Werner\_64 Start: 46452, Stop: 46081, Start Num: 12

Candidate Starts for Werner\_64:

(9, 46527), (Start: 12 @46452 has 27 MA's), (15, 46416), (Start: 17 @46392 has 1 MA's), (20, 46353), (23, 46278), (26, 46254), (27, 46245), (35, 46158), (36, 46134), (38, 46113),

Gene: Whatever\_64 Start: 46477, Stop: 46106, Start Num: 12

Candidate Starts for Whatever\_64:

(9, 46552), (Start: 12 @46477 has 27 MA's), (15, 46441), (Start: 17 @46417 has 1 MA's), (20, 46378), (23, 46303), (26, 46279), (27, 46270), (35, 46183), (36, 46159), (38, 46138),

Gene: Yasdnii\_64 Start: 46504, Stop: 46133, Start Num: 12

Candidate Starts for Yasdnii\_64:

(9, 46579), (Start: 12 @46504 has 27 MA's), (15, 46468), (Start: 17 @46444 has 1 MA's), (23, 46330), (26, 46306), (27, 46297), (35, 46210), (36, 46186), (38, 46165),

Gene: Zemlya\_67 Start: 45998, Stop: 45627, Start Num: 12

Candidate Starts for Zemlya\_67:

(9, 46073), (Start: 12 @45998 has 27 MA's), (Start: 17 @45938 has 1 MA's), (20, 45899), (23, 45824), (26, 45800), (27, 45791), (35, 45704), (36, 45680), (38, 45659),