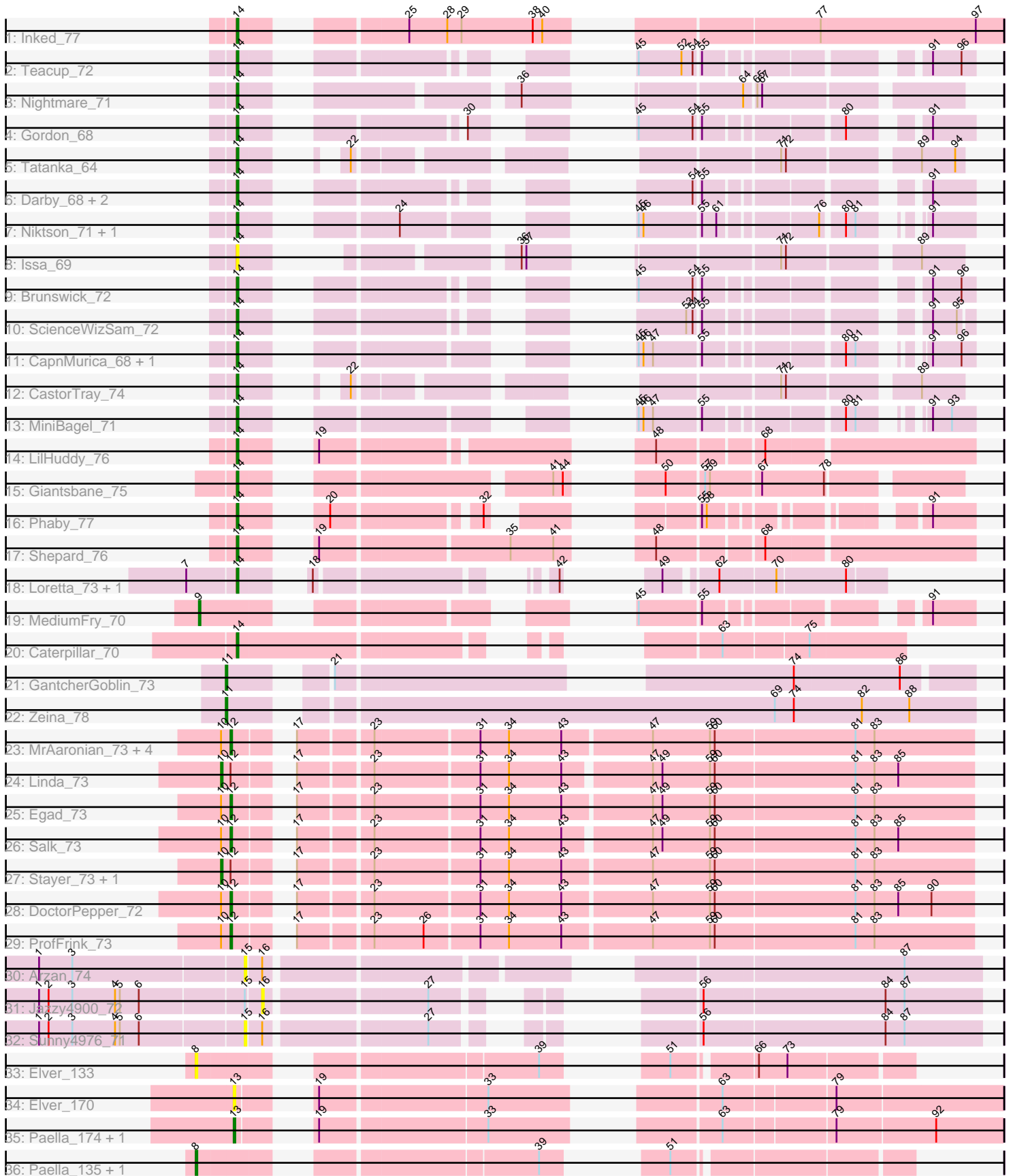


Pham 196613



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 196613 Report

This analysis was run 12/09/24 on database version 580.

Pham number 196613 has 48 members, 6 are drafts.

Phages represented in each track:

- Track 1 : Inked\_77
- Track 2 : Teacup\_72
- Track 3 : Nightmare\_71
- Track 4 : Gordon\_68
- Track 5 : Tatanka\_64
- Track 6 : Darby\_68, Trustiboi\_69, DevitoJr\_70
- Track 7 : Niktson\_71, ElephantMan\_71
- Track 8 : Issa\_69
- Track 9 : Brunswick\_72
- Track 10 : ScienceWizSam\_72
- Track 11 : CapnMurica\_68, Tenno\_70
- Track 12 : CastorTray\_74
- Track 13 : MiniBagel\_71
- Track 14 : LilHuddy\_76
- Track 15 : Giantsbane\_75
- Track 16 : Phaby\_77
- Track 17 : Shepard\_76
- Track 18 : Loretta\_73, Ingrid\_77
- Track 19 : MediumFry\_70
- Track 20 : Caterpillar\_70
- Track 21 : GantcherGoblin\_73
- Track 22 : Zeina\_78
- Track 23 : MrAaronian\_73, Djungelskog\_72, Sloopyjoe\_73, BronxBay\_73, StarLord\_73
- Track 24 : Linda\_73
- Track 25 : Egad\_73
- Track 26 : Salk\_73
- Track 27 : Stayer\_73, Michelle\_73
- Track 28 : DoctorPepper\_72
- Track 29 : ProfFrink\_73
- Track 30 : Arzan\_74
- Track 31 : Jazzy4900\_72
- Track 32 : Sunny4976\_71
- Track 33 : Elver\_133
- Track 34 : Elver\_170
- Track 35 : Paella\_174, Qui\_174
- Track 36 : Paella\_135, Qui\_135

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

The start number called the most often in the published annotations is 14, it was called in 23 of the 42 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Brunswick\_72, CapnMurica\_68, CastorTray\_74, Caterpillar\_70, Darby\_68, DevitoJr\_70, ElephantMan\_71, Giantsbane\_75, Gordon\_68, Ingrid\_77, Inked\_77, Issa\_69, LilHuddy\_76, Loretta\_73, MiniBagel\_71, Nightmare\_71, Niktson\_71, Phaby\_77, ScienceWizSam\_72, Shepard\_76, Tatanka\_64, Teacup\_72, Tenno\_70, Trustiboi\_69,

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

- 

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

- Arzan\_74, BronxBay\_73, Djungelskog\_72, DoctorPepper\_72, Egad\_73, Elver\_133, Elver\_170, GantcherGoblin\_73, Jazzy4900\_72, Linda\_73, MediumFry\_70, Michelle\_73, MrAaronian\_73, Paella\_135, Paella\_174, ProfFrink\_73, Qui\_135, Qui\_174, Salk\_73, Sloopyjoe\_73, StarLord\_73, Stayer\_73, Sunny4976\_71, Zeina\_78,

### **Summary by start number:**

Start 8:

- Found in 3 of 48 ( 6.2% ) of genes in pham
- Manual Annotations of this start: 2 of 42
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Elver\_133 (FK), Paella\_135 (FK), Qui\_135 (FK),

Start 9:

- Found in 1 of 48 ( 2.1% ) of genes in pham
- Manual Annotations of this start: 1 of 42
- Called 100.0% of time when present
- Phage (with cluster) where this start called: MediumFry\_70 (AU4),

Start 10:

- Found in 12 of 48 ( 25.0% ) of genes in pham
- Manual Annotations of this start: 3 of 42
- Called 25.0% of time when present
- Phage (with cluster) where this start called: Linda\_73 (AW), Michelle\_73 (AW), Stayer\_73 (AW),

Start 11:

- Found in 2 of 48 ( 4.2% ) of genes in pham
- Manual Annotations of this start: 2 of 42
- Called 100.0% of time when present

- Phage (with cluster) where this start called: GantcherGoblin\_73 (AU6), Zeina\_78 (AU6),

#### Start 12:

- Found in 12 of 48 ( 25.0% ) of genes in pham
- Manual Annotations of this start: 9 of 42
- Called 75.0% of time when present
- Phage (with cluster) where this start called: BronxBay\_73 (AW), Djungelskog\_72 (AW), DoctorPepper\_72 (AW), Egad\_73 (AW), MrAaronian\_73 (AW), ProfFrink\_73 (AW), Salk\_73 (AW), Sloopyjoe\_73 (AW), StarLord\_73 (AW),

#### Start 13:

- Found in 3 of 48 ( 6.2% ) of genes in pham
- Manual Annotations of this start: 2 of 42
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Elver\_170 (FK), Paella\_174 (FK), Qui\_174 (FK),

#### Start 14:

- Found in 24 of 48 ( 50.0% ) of genes in pham
- Manual Annotations of this start: 23 of 42
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Brunswick\_72 (AU1), CapnMurica\_68 (AU1), CastorTray\_74 (AU1), Caterpillar\_70 (AU4), Darby\_68 (AU1), DevitoJr\_70 (AU1), ElephantMan\_71 (AU1), Giantsbane\_75 (AU2), Gordon\_68 (AU1), Ingrid\_77 (AU3), Inked\_77 (AU), Issa\_69 (AU1), LilHuddy\_76 (AU2), Loretta\_73 (AU3), MiniBagel\_71 (AU1), Nightmare\_71 (AU1), Niktson\_71 (AU1), Phaby\_77 (AU2), ScienceWizSam\_72 (AU1), Shepard\_76 (AU2), Tatanka\_64 (AU1), Teacup\_72 (AU1), Tenno\_70 (AU1), Trustiboi\_69 (AU1),

#### Start 15:

- Found in 3 of 48 ( 6.2% ) of genes in pham
- No Manual Annotations of this start.
- Called 66.7% of time when present
- Phage (with cluster) where this start called: Arzan\_74 (FI), Sunny4976\_71 (FI),

#### Start 16:

- Found in 3 of 48 ( 6.2% ) of genes in pham
- No Manual Annotations of this start.
- Called 33.3% of time when present
- Phage (with cluster) where this start called: Jazzy4900\_72 (FI),

### Summary by clusters:

There are 9 clusters represented in this pham: AU1, AU3, AU2, AU, AU4, AW, AU6, FI, FK,

Info for manual annotations of cluster AU:

- Start number 14 was manually annotated 1 time for cluster AU.

Info for manual annotations of cluster AU1:

- Start number 14 was manually annotated 15 times for cluster AU1.

Info for manual annotations of cluster AU2:

- Start number 14 was manually annotated 4 times for cluster AU2.

Info for manual annotations of cluster AU3:

- Start number 14 was manually annotated 2 times for cluster AU3.

Info for manual annotations of cluster AU4:

- Start number 9 was manually annotated 1 time for cluster AU4.
- Start number 14 was manually annotated 1 time for cluster AU4.

Info for manual annotations of cluster AU6:

- Start number 11 was manually annotated 2 times for cluster AU6.

Info for manual annotations of cluster AW:

- Start number 10 was manually annotated 3 times for cluster AW.
- Start number 12 was manually annotated 9 times for cluster AW.

Info for manual annotations of cluster FK:

- Start number 8 was manually annotated 2 times for cluster FK.
- Start number 13 was manually annotated 2 times for cluster FK.

### ***Gene Information:***

Gene: Arzan\_74 Start: 46947, Stop: 47339, Start Num: 15

Candidate Starts for Arzan\_74:

(1, 46821), (3, 46842), (15, 46947), (16, 46956), (87, 47292),

Gene: BronxBay\_73 Start: 45711, Stop: 46145, Start Num: 12

Candidate Starts for BronxBay\_73:

(Start: 10 @45705 has 3 MA's), (Start: 12 @45711 has 9 MA's), (17, 45735), (23, 45777), (31, 45840), (34, 45858), (43, 45891), (47, 45945), (59, 45981), (60, 45984), (81, 46071), (83, 46083),

Gene: Brunswick\_72 Start: 47263, Stop: 47580, Start Num: 14

Candidate Starts for Brunswick\_72:

(Start: 14 @47263 has 23 MA's), (45, 47407), (54, 47440), (55, 47443), (91, 47554), (96, 47572),

Gene: CapnMurica\_68 Start: 47980, Stop: 48297, Start Num: 14

Candidate Starts for CapnMurica\_68:

(Start: 14 @47980 has 23 MA's), (45, 48130), (46, 48133), (47, 48139), (55, 48166), (80, 48241), (81, 48247), (91, 48271), (96, 48289),

Gene: CastorTray\_74 Start: 48014, Stop: 48340, Start Num: 14

Candidate Starts for CastorTray\_74:

(Start: 14 @48014 has 23 MA's), (22, 48044), (71, 48239), (72, 48242), (89, 48314),

Gene: Caterpillar\_70 Start: 46858, Stop: 47175, Start Num: 14

Candidate Starts for Caterpillar\_70:

(Start: 14 @46858 has 23 MA's), (63, 47065), (75, 47116),

Gene: Darby\_68 Start: 47007, Stop: 47324, Start Num: 14

Candidate Starts for Darby\_68:

(Start: 14 @47007 has 23 MA's), (54, 47184), (55, 47187), (91, 47298),

Gene: DevitoJr\_70 Start: 47392, Stop: 47709, Start Num: 14

Candidate Starts for DevitoJr\_70:

(Start: 14 @47392 has 23 MA's), (54, 47569), (55, 47572), (91, 47683),

Gene: Djungelskog\_72 Start: 45713, Stop: 46147, Start Num: 12

Candidate Starts for Djungelskog\_72:

(Start: 10 @45707 has 3 MA's), (Start: 12 @45713 has 9 MA's), (17, 45737), (23, 45779), (31, 45842), (34, 45860), (43, 45893), (47, 45947), (59, 45983), (60, 45986), (81, 46073), (83, 46085),

Gene: DoctorPepper\_72 Start: 45415, Stop: 45849, Start Num: 12

Candidate Starts for DoctorPepper\_72:

(Start: 10 @45409 has 3 MA's), (Start: 12 @45415 has 9 MA's), (17, 45439), (23, 45481), (31, 45544), (34, 45562), (43, 45595), (47, 45649), (59, 45685), (60, 45688), (81, 45775), (83, 45787), (85, 45802), (90, 45823),

Gene: Egad\_73 Start: 45689, Stop: 46123, Start Num: 12

Candidate Starts for Egad\_73:

(Start: 10 @45683 has 3 MA's), (Start: 12 @45689 has 9 MA's), (17, 45713), (23, 45755), (31, 45818), (34, 45836), (43, 45869), (47, 45923), (49, 45929), (59, 45959), (60, 45962), (81, 46049), (83, 46061),

Gene: ElephantMan\_71 Start: 47893, Stop: 48210, Start Num: 14

Candidate Starts for ElephantMan\_71:

(Start: 14 @47893 has 23 MA's), (24, 47962), (45, 48043), (46, 48046), (55, 48079), (61, 48088), (76, 48142), (80, 48154), (81, 48160), (91, 48184),

Gene: Elver\_133 Start: 71797, Stop: 72144, Start Num: 8

Candidate Starts for Elver\_133:

(Start: 8 @71797 has 2 MA's), (39, 71974), (51, 72007), (66, 72052), (73, 72070),

Gene: Elver\_170 Start: 85588, Stop: 85980, Start Num: 13

Candidate Starts for Elver\_170:

(Start: 13 @85588 has 2 MA's), (19, 85612), (33, 85711), (63, 85813), (79, 85879),

Gene: GantcherGoblin\_73 Start: 45315, Stop: 45701, Start Num: 11

Candidate Starts for GantcherGoblin\_73:

(Start: 11 @45315 has 2 MA's), (21, 45360), (74, 45594), (86, 45660),

Gene: Giantsbane\_75 Start: 46546, Stop: 46899, Start Num: 14

Candidate Starts for Giantsbane\_75:

(Start: 14 @46546 has 23 MA's), (41, 46702), (44, 46708), (50, 46732), (57, 46753), (59, 46756), (67, 46786), (78, 46825),

Gene: Gordon\_68 Start: 47880, Stop: 48197, Start Num: 14

Candidate Starts for Gordon\_68:

(Start: 14 @47880 has 23 MA's), (30, 47982), (45, 48024), (54, 48057), (55, 48060), (80, 48135), (91, 48171),

Gene: Ingrid\_77 Start: 47844, Stop: 48110, Start Num: 14

Candidate Starts for Ingrid\_77:

(7, 47814), (Start: 14 @47844 has 23 MA's), (18, 47868), (42, 47973), (49, 47985), (62, 48012), (70, 48045), (80, 48087),

Gene: Inked\_77 Start: 48470, Stop: 48871, Start Num: 14

Candidate Starts for Inked\_77:

(Start: 14 @48470 has 23 MA's), (25, 48545), (28, 48569), (29, 48578), (38, 48623), (40, 48629), (77, 48758), (97, 48854),

Gene: Issa\_69 Start: 47054, Stop: 47380, Start Num: 14

Candidate Starts for Issa\_69:

(Start: 14 @47054 has 23 MA's), (36, 47165), (37, 47168), (71, 47279), (72, 47282), (89, 47354),

Gene: Jazzy4900\_72 Start: 47820, Stop: 48170, Start Num: 16

Candidate Starts for Jazzy4900\_72:

(1, 47685), (2, 47691), (3, 47706), (4, 47733), (5, 47736), (6, 47748), (15, 47811), (16, 47820), (27, 47913), (56, 48000), (84, 48111), (87, 48123),

Gene: LilHuddy\_76 Start: 47672, Stop: 48037, Start Num: 14

Candidate Starts for LilHuddy\_76:

(Start: 14 @47672 has 23 MA's), (19, 47696), (48, 47852), (68, 47912),

Gene: Linda\_73 Start: 45702, Stop: 46139, Start Num: 10

Candidate Starts for Linda\_73:

(Start: 10 @45702 has 3 MA's), (Start: 12 @45708 has 9 MA's), (17, 45732), (23, 45774), (31, 45837), (34, 45855), (43, 45888), (47, 45939), (49, 45945), (59, 45975), (60, 45978), (81, 46065), (83, 46077), (85, 46092),

Gene: Loretta\_73 Start: 47844, Stop: 48110, Start Num: 14

Candidate Starts for Loretta\_73:

(7, 47814), (Start: 14 @47844 has 23 MA's), (18, 47868), (42, 47973), (49, 47985), (62, 48012), (70, 48045), (80, 48087),

Gene: MediumFry\_70 Start: 47193, Stop: 47540, Start Num: 9

Candidate Starts for MediumFry\_70:

(Start: 9 @47193 has 1 MA's), (45, 47367), (55, 47403), (91, 47514),

Gene: Michelle\_73 Start: 45704, Stop: 46144, Start Num: 10

Candidate Starts for Michelle\_73:

(Start: 10 @45704 has 3 MA's), (Start: 12 @45710 has 9 MA's), (17, 45734), (23, 45776), (31, 45839), (34, 45857), (43, 45890), (47, 45944), (59, 45980), (60, 45983), (81, 46070), (83, 46082),

Gene: MiniBagel\_71 Start: 47984, Stop: 48301, Start Num: 14

Candidate Starts for MiniBagel\_71:

(Start: 14 @47984 has 23 MA's), (45, 48134), (46, 48137), (47, 48143), (55, 48170), (80, 48245), (81, 48251), (91, 48275), (93, 48287),

Gene: MrAaronian\_73 Start: 45710, Stop: 46144, Start Num: 12

Candidate Starts for MrAaronian\_73:

(Start: 10 @45704 has 3 MA's), (Start: 12 @45710 has 9 MA's), (17, 45734), (23, 45776), (31, 45839), (34, 45857), (43, 45890), (47, 45944), (59, 45980), (60, 45983), (81, 46070), (83, 46082),

Gene: Nightmare\_71 Start: 48297, Stop: 48647, Start Num: 14

Candidate Starts for Nightmare\_71:

(Start: 14 @48297 has 23 MA's), (36, 48432), (64, 48525), (65, 48531), (67, 48534),

Gene: Niktson\_71 Start: 47893, Stop: 48210, Start Num: 14

Candidate Starts for Niktson\_71:

(Start: 14 @47893 has 23 MA's), (24, 47962), (45, 48043), (46, 48046), (55, 48079), (61, 48088), (76, 48142), (80, 48154), (81, 48160), (91, 48184),

Gene: Paella\_174 Start: 86462, Stop: 86854, Start Num: 13

Candidate Starts for Paella\_174:

(Start: 13 @86462 has 2 MA's), (19, 86486), (33, 86585), (63, 86687), (79, 86753), (92, 86813),

Gene: Paella\_135 Start: 72360, Stop: 72707, Start Num: 8

Candidate Starts for Paella\_135:

(Start: 8 @72360 has 2 MA's), (39, 72537), (51, 72570),

Gene: Phaby\_77 Start: 48203, Stop: 48517, Start Num: 14

Candidate Starts for Phaby\_77:

(Start: 14 @48203 has 23 MA's), (20, 48233), (32, 48314), (55, 48386), (58, 48389), (91, 48491),

Gene: ProfFrink\_73 Start: 45688, Stop: 46122, Start Num: 12

Candidate Starts for ProfFrink\_73:

(Start: 10 @45682 has 3 MA's), (Start: 12 @45688 has 9 MA's), (17, 45712), (23, 45754), (26, 45784), (31, 45817), (34, 45835), (43, 45868), (47, 45922), (59, 45958), (60, 45961), (81, 46048), (83, 46060),

Gene: Qui\_174 Start: 86460, Stop: 86852, Start Num: 13

Candidate Starts for Qui\_174:

(Start: 13 @86460 has 2 MA's), (19, 86484), (33, 86583), (63, 86685), (79, 86751), (92, 86811),

Gene: Qui\_135 Start: 72360, Stop: 72707, Start Num: 8

Candidate Starts for Qui\_135:

(Start: 8 @72360 has 2 MA's), (39, 72537), (51, 72570),

Gene: Salk\_73 Start: 45708, Stop: 46139, Start Num: 12

Candidate Starts for Salk\_73:

(Start: 10 @45702 has 3 MA's), (Start: 12 @45708 has 9 MA's), (17, 45732), (23, 45774), (31, 45837), (34, 45855), (43, 45888), (47, 45939), (49, 45945), (59, 45975), (60, 45978), (81, 46065), (83, 46077), (85, 46092),

Gene: ScienceWizSam\_72 Start: 47594, Stop: 47908, Start Num: 14

Candidate Starts for ScienceWizSam\_72:

(Start: 14 @47594 has 23 MA's), (53, 47768), (54, 47771), (55, 47774), (91, 47885), (95, 47900),

Gene: Shepard\_76 Start: 47525, Stop: 47896, Start Num: 14

Candidate Starts for Shepard\_76:

(Start: 14 @47525 has 23 MA's), (19, 47549), (35, 47660), (41, 47687), (48, 47711), (68, 47771),

Gene: Sloopyjoe\_73 Start: 45712, Stop: 46146, Start Num: 12

Candidate Starts for Sloopyjoe\_73:

(Start: 10 @45706 has 3 MA's), (Start: 12 @45712 has 9 MA's), (17, 45736), (23, 45778), (31, 45841), (34, 45859), (43, 45892), (47, 45946), (59, 45982), (60, 45985), (81, 46072), (83, 46084),

Gene: StarLord\_73 Start: 45705, Stop: 46139, Start Num: 12

Candidate Starts for StarLord\_73:



(Start: 10 @45699 has 3 MA's), (Start: 12 @45705 has 9 MA's), (17, 45729), (23, 45771), (31, 45834), (34, 45852), (43, 45885), (47, 45939), (59, 45975), (60, 45978), (81, 46065), (83, 46077),

Gene: Stayer\_73 Start: 45702, Stop: 46142, Start Num: 10

Candidate Starts for Stayer\_73:

(Start: 10 @45702 has 3 MA's), (Start: 12 @45708 has 9 MA's), (17, 45732), (23, 45774), (31, 45837), (34, 45855), (43, 45888), (47, 45942), (59, 45978), (60, 45981), (81, 46068), (83, 46080),

Gene: Sunny4976\_71 Start: 47811, Stop: 48170, Start Num: 15

Candidate Starts for Sunny4976\_71:

(1, 47685), (2, 47691), (3, 47706), (4, 47733), (5, 47736), (6, 47748), (15, 47811), (16, 47820), (27, 47913), (56, 48000), (84, 48111), (87, 48123),

Gene: Tatanka\_64 Start: 47501, Stop: 47827, Start Num: 14

Candidate Starts for Tatanka\_64:

(Start: 14 @47501 has 23 MA's), (22, 47531), (71, 47726), (72, 47729), (89, 47801), (94, 47822),

Gene: Teacup\_72 Start: 47933, Stop: 48250, Start Num: 14

Candidate Starts for Teacup\_72:

(Start: 14 @47933 has 23 MA's), (45, 48077), (52, 48104), (54, 48110), (55, 48113), (91, 48224), (96, 48242),

Gene: Tenno\_70 Start: 48017, Stop: 48334, Start Num: 14

Candidate Starts for Tenno\_70:

(Start: 14 @48017 has 23 MA's), (45, 48167), (46, 48170), (47, 48176), (55, 48203), (80, 48278), (81, 48284), (91, 48308), (96, 48326),

Gene: Trustiboi\_69 Start: 47616, Stop: 47933, Start Num: 14

Candidate Starts for Trustiboi\_69:

(Start: 14 @47616 has 23 MA's), (54, 47793), (55, 47796), (91, 47907),

Gene: Zeina\_78 Start: 46274, Stop: 46717, Start Num: 11

Candidate Starts for Zeina\_78:

(Start: 11 @46274 has 2 MA's), (69, 46592), (74, 46604), (82, 46646), (88, 46676),