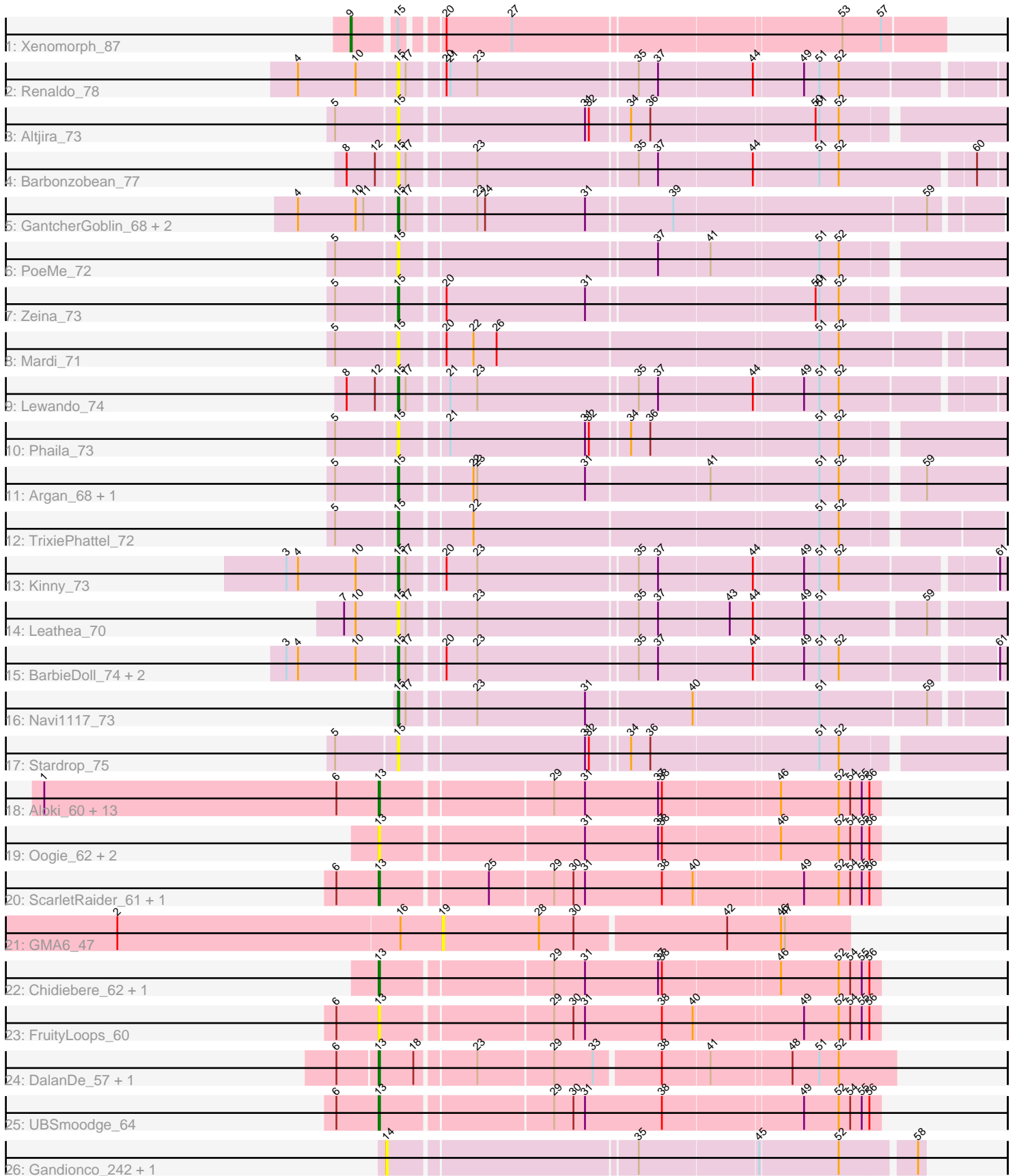


Pham 296661



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 296661 Report

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

Pham number 296661 has 50 members, 28 are drafts.

Phages represented in each track:

- Track 1 : Xenomorph\_87
- Track 2 : Renaldo\_78
- Track 3 : Altjira\_73
- Track 4 : Barbonzobean\_77
- Track 5 : GantcherGoblin\_68, Uzumaki\_67, Tenney120\_71
- Track 6 : PoeMe\_72
- Track 7 : Zeina\_73
- Track 8 : Mardi\_71
- Track 9 : Lewando\_74
- Track 10 : Phaila\_73
- Track 11 : Argan\_68, KevinMinion\_69
- Track 12 : TrixiePhattel\_72
- Track 13 : Kinny\_73
- Track 14 : Leathea\_70
- Track 15 : BarbieDoll\_74, Muglass\_72, Biscute\_70
- Track 16 : Navi1117\_73
- Track 17 : Stardrop\_75
- Track 18 : Alok\_60, ChisanaKitsune\_58, Gray\_62, Argena\_60, Toneprano\_60, EmoNemo\_60, Mikronejon\_60, Schomber\_61, Amoonguss\_60, Pakusa\_60, Hanem\_62, Farrylious\_60, Kabocha\_63, Twin\_60
- Track 19 : Oogie\_62, Beted\_62, Lenoshki\_62
- Track 20 : ScarletRaider\_61, FlyingTortilla\_62
- Track 21 : GMA6\_47
- Track 22 : Chidiebere\_62, MintFritos\_60
- Track 23 : FruityLoops\_60
- Track 24 : DalanDe\_57, Thales\_56
- Track 25 : UBSmoodge\_64
- Track 26 : Gandionco\_242, Marianna39\_242

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

The start number called the most often in the published annotations is 15, it was called in 11 of the 22 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Altjira\_73, Argan\_68, BarbieDoll\_74, Barbonzobean\_77, Biscute\_70, GantcherGoblin\_68, KevinMinion\_69, Kinny\_73, Leathe\_70, Lewando\_74, Mardi\_71, Muglass\_72, Navi1117\_73, Phaila\_73, PoeMe\_72, Renaldo\_78, Stardrop\_75, Tenney120\_71, TrixiePhattel\_72, Uzumaki\_67, Zeina\_73,

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

- Xenomorph\_87,

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

- Aloki\_60, Amoonguss\_60, Argena\_60, Beted\_62, Chidiebere\_62, ChisanaKitsune\_58, DalanDe\_57, EmoNemo\_60, Farrylious\_60, FlyingTortilla\_62, FruityLoops\_60, GMA6\_47, Gandionco\_242, Gray\_62, Hanem\_62, Kabocha\_63, Lenoshki\_62, Marianna39\_242, Mikronejon\_60, MintFritos\_60, Oogie\_62, Pakusa\_60, ScarletRaider\_61, Schomber\_61, Thales\_56, Toneprano\_60, Twin\_60, UBSmoodge\_64,

### Summary by start number:

Start 9:

- Found in 1 of 50 ( 2.0% ) of genes in pham
- Manual Annotations of this start: 1 of 22
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Xenomorph\_87 (AM),

Start 13:

- Found in 25 of 50 ( 50.0% ) of genes in pham
- Manual Annotations of this start: 10 of 22
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Aloki\_60 (DQ), Amoonguss\_60 (DQ), Argena\_60 (DQ), Beted\_62 (DQ), Chidiebere\_62 (DQ), ChisanaKitsune\_58 (DQ), DalanDe\_57 (DQ), EmoNemo\_60 (DQ), Farrylious\_60 (DQ), FlyingTortilla\_62 (DQ), FruityLoops\_60 (DQ), Gray\_62 (DQ), Hanem\_62 (DQ), Kabocha\_63 (DQ), Lenoshki\_62 (DQ), Mikronejon\_60 (DQ), MintFritos\_60 (DQ), Oogie\_62 (DQ), Pakusa\_60 (DQ), ScarletRaider\_61 (DQ), Schomber\_61 (DQ), Thales\_56 (DQ), Toneprano\_60 (DQ), Twin\_60 (DQ), UBSmoodge\_64 (DQ),

Start 14:

- Found in 2 of 50 ( 4.0% ) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Gandionco\_242 (FK), Marianna39\_242 (FK),

Start 15:

- Found in 22 of 50 ( 44.0% ) of genes in pham
- Manual Annotations of this start: 11 of 22
- Called 95.5% of time when present
- Phage (with cluster) where this start called: Altjira\_73 (AU6), Argan\_68 (AU6), BarbieDoll\_74 (AU6), Barbonzobean\_77 (AU6), Biscute\_70 (AU6), GantcherGoblin\_68 (AU6), KevinMinion\_69 (AU6), Kinny\_73 (AU6), Leathe\_70 (AU6), Lewando\_74 (AU6), Mardi\_71 (AU6), Muglass\_72 (AU6), Navi1117\_73 (AU6), Phaila\_73 (AU6), PoeMe\_72 (AU6), Renaldo\_78 (AU6), Stardrop\_75 (AU6),

Tenney120\_71 (AU6), TrixiePhattel\_72 (AU6), Uzumaki\_67 (AU6), Zeina\_73 (AU6),

Start 19:

- Found in 1 of 50 ( 2.0% ) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: GMA6\_47 (DQ),

### **Summary by clusters:**

There are 4 clusters represented in this pham: FK, AU6, AM, DQ,

Info for manual annotations of cluster AM:

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

Info for manual annotations of cluster AU6:

- Start number 15 was manually annotated 11 times for cluster AU6.

Info for manual annotations of cluster DQ:

- Start number 13 was manually annotated 10 times for cluster DQ.

### **Gene Information:**

Gene: Alok\_i\_60 Start: 50472, Stop: 50846, Start Num: 13

Candidate Starts for Alok\_i\_60:

(1, 50211), (6, 50439), (Start: 13 @50472 has 10 MA's), (29, 50598), (31, 50622), (37, 50679), (38, 50682), (46, 50769), (52, 50814), (54, 50823), (55, 50832), (56, 50838),

Gene: Altjira\_73 Start: 44965, Stop: 45408, Start Num: 15

Candidate Starts for Altjira\_73:

(5, 44920), (Start: 15 @44965 has 11 MA's), (31, 45103), (32, 45106), (34, 45133), (36, 45148), (50, 45271), (51, 45274), (52, 45289),

Gene: Amoonguss\_60 Start: 50475, Stop: 50849, Start Num: 13

Candidate Starts for Amoonguss\_60:

(1, 50214), (6, 50442), (Start: 13 @50475 has 10 MA's), (29, 50601), (31, 50625), (37, 50682), (38, 50685), (46, 50772), (52, 50817), (54, 50826), (55, 50835), (56, 50841),

Gene: Argan\_68 Start: 43685, Stop: 44131, Start Num: 15

Candidate Starts for Argan\_68:

(5, 43640), (Start: 15 @43685 has 11 MA's), (22, 43736), (23, 43739), (31, 43823), (41, 43916), (51, 43997), (52, 44012), (59, 44069),

Gene: Argena\_60 Start: 50487, Stop: 50861, Start Num: 13

Candidate Starts for Argena\_60:

(1, 50226), (6, 50454), (Start: 13 @50487 has 10 MA's), (29, 50613), (31, 50637), (37, 50694), (38, 50697), (46, 50784), (52, 50829), (54, 50838), (55, 50847), (56, 50853),

Gene: BarbieDoll\_74 Start: 45295, Stop: 45735, Start Num: 15

Candidate Starts for BarbieDoll\_74:

(3, 45211), (4, 45220), (10, 45265), (Start: 15 @45295 has 11 MA's), (17, 45301), (20, 45325), (23, 45349), (35, 45469), (37, 45484), (44, 45556), (49, 45592), (51, 45604), (52, 45619), (61, 45730),

Gene: Barbonzobean\_77 Start: 45688, Stop: 46131, Start Num: 15

Candidate Starts for Barbonzobean\_77:

(8, 45652), (12, 45673), (Start: 15 @45688 has 11 MA's), (17, 45694), (23, 45742), (35, 45862), (37, 45877), (44, 45949), (51, 45997), (52, 46012), (60, 46111),

Gene: Beted\_62 Start: 52167, Stop: 52541, Start Num: 13

Candidate Starts for Beted\_62:

(Start: 13 @52167 has 10 MA's), (31, 52317), (37, 52374), (38, 52377), (46, 52464), (52, 52509), (54, 52518), (55, 52527), (56, 52533),

Gene: Biscute\_70 Start: 44947, Stop: 45387, Start Num: 15

Candidate Starts for Biscute\_70:

(3, 44863), (4, 44872), (10, 44917), (Start: 15 @44947 has 11 MA's), (17, 44953), (20, 44977), (23, 45001), (35, 45121), (37, 45136), (44, 45208), (49, 45244), (51, 45256), (52, 45271), (61, 45382),

Gene: Chidiebere\_62 Start: 50472, Stop: 50846, Start Num: 13

Candidate Starts for Chidiebere\_62:

(Start: 13 @50472 has 10 MA's), (29, 50598), (31, 50622), (37, 50679), (38, 50682), (46, 50769), (52, 50814), (54, 50823), (55, 50832), (56, 50838),

Gene: ChisanaKitsune\_58 Start: 49266, Stop: 49640, Start Num: 13

Candidate Starts for ChisanaKitsune\_58:

(1, 49005), (6, 49233), (Start: 13 @49266 has 10 MA's), (29, 49392), (31, 49416), (37, 49473), (38, 49476), (46, 49563), (52, 49608), (54, 49617), (55, 49626), (56, 49632),

Gene: DalanDe\_57 Start: 53394, Stop: 53774, Start Num: 13

Candidate Starts for DalanDe\_57:

(6, 53364), (Start: 13 @53394 has 10 MA's), (18, 53421), (23, 53463), (29, 53520), (33, 53550), (38, 53598), (41, 53634), (48, 53694), (51, 53715), (52, 53730),

Gene: EmoNemo\_60 Start: 50472, Stop: 50846, Start Num: 13

Candidate Starts for EmoNemo\_60:

(1, 50211), (6, 50439), (Start: 13 @50472 has 10 MA's), (29, 50598), (31, 50622), (37, 50679), (38, 50682), (46, 50769), (52, 50814), (54, 50823), (55, 50832), (56, 50838),

Gene: Farrylious\_60 Start: 50251, Stop: 50625, Start Num: 13

Candidate Starts for Farrylious\_60:

(1, 49990), (6, 50218), (Start: 13 @50251 has 10 MA's), (29, 50377), (31, 50401), (37, 50458), (38, 50461), (46, 50548), (52, 50593), (54, 50602), (55, 50611), (56, 50617),

Gene: FlyingTortilla\_62 Start: 54094, Stop: 54468, Start Num: 13

Candidate Starts for FlyingTortilla\_62:

(6, 54061), (Start: 13 @54094 has 10 MA's), (25, 54172), (29, 54220), (30, 54235), (31, 54244), (38, 54304), (40, 54328), (49, 54409), (52, 54436), (54, 54445), (55, 54454), (56, 54460),

Gene: FruityLoops\_60 Start: 53399, Stop: 53773, Start Num: 13

Candidate Starts for FruityLoops\_60:

(6, 53366), (Start: 13 @53399 has 10 MA's), (29, 53525), (30, 53540), (31, 53549), (38, 53609), (40, 53633), (49, 53714), (52, 53741), (54, 53750), (55, 53759), (56, 53765),

Gene: GMA6\_47 Start: 41896, Stop: 42207, Start Num: 19  
Candidate Starts for GMA6\_47:  
(2, 41644), (16, 41863), (19, 41896), (28, 41971), (30, 41998), (42, 42112), (46, 42154), (47, 42157),

Gene: Gandionco\_242 Start: 107900, Stop: 108292, Start Num: 14  
Candidate Starts for Gandionco\_242:  
(14, 107900), (35, 108083), (45, 108173), (52, 108233), (58, 108287),

Gene: GantcherGoblin\_68 Start: 43638, Stop: 44078, Start Num: 15  
Candidate Starts for GantcherGoblin\_68:  
(4, 43563), (10, 43608), (11, 43614), (Start: 15 @43638 has 11 MA's), (17, 43644), (23, 43692), (24, 43698), (31, 43776), (39, 43839), (59, 44028),

Gene: Gray\_62 Start: 50473, Stop: 50847, Start Num: 13  
Candidate Starts for Gray\_62:  
(1, 50212), (6, 50440), (Start: 13 @50473 has 10 MA's), (29, 50599), (31, 50623), (37, 50680), (38, 50683), (46, 50770), (52, 50815), (54, 50824), (55, 50833), (56, 50839),

Gene: Hanem\_62 Start: 50472, Stop: 50846, Start Num: 13  
Candidate Starts for Hanem\_62:  
(1, 50211), (6, 50439), (Start: 13 @50472 has 10 MA's), (29, 50598), (31, 50622), (37, 50679), (38, 50682), (46, 50769), (52, 50814), (54, 50823), (55, 50832), (56, 50838),

Gene: Kabocha\_63 Start: 51285, Stop: 51659, Start Num: 13  
Candidate Starts for Kabocha\_63:  
(1, 51024), (6, 51252), (Start: 13 @51285 has 10 MA's), (29, 51411), (31, 51435), (37, 51492), (38, 51495), (46, 51582), (52, 51627), (54, 51636), (55, 51645), (56, 51651),

Gene: KevinMinion\_69 Start: 44636, Stop: 45082, Start Num: 15  
Candidate Starts for KevinMinion\_69:  
(5, 44591), (Start: 15 @44636 has 11 MA's), (22, 44687), (23, 44690), (31, 44774), (41, 44867), (51, 44948), (52, 44963), (59, 45020),

Gene: Kinny\_73 Start: 45775, Stop: 46215, Start Num: 15  
Candidate Starts for Kinny\_73:  
(3, 45691), (4, 45700), (10, 45745), (Start: 15 @45775 has 11 MA's), (17, 45781), (20, 45805), (23, 45829), (35, 45949), (37, 45964), (44, 46036), (49, 46072), (51, 46084), (52, 46099), (61, 46210),

Gene: Leathea\_70 Start: 43549, Stop: 43989, Start Num: 15  
Candidate Starts for Leathea\_70:  
(7, 43507), (10, 43516), (Start: 15 @43549 has 11 MA's), (17, 43555), (23, 43603), (35, 43723), (37, 43738), (43, 43792), (44, 43810), (49, 43846), (51, 43858), (59, 43936),

Gene: Lenoshki\_62 Start: 52167, Stop: 52541, Start Num: 13  
Candidate Starts for Lenoshki\_62:  
(Start: 13 @52167 has 10 MA's), (31, 52317), (37, 52374), (38, 52377), (46, 52464), (52, 52509), (54, 52518), (55, 52527), (56, 52533),

Gene: Lewando\_74 Start: 45512, Stop: 45952, Start Num: 15  
Candidate Starts for Lewando\_74:  
(8, 45476), (12, 45497), (Start: 15 @45512 has 11 MA's), (17, 45518), (21, 45545), (23, 45566), (35, 45686), (37, 45701), (44, 45773), (49, 45809), (51, 45821), (52, 45836),

Gene: Mardi\_71 Start: 44206, Stop: 44652, Start Num: 15

Candidate Starts for Mardi\_71:

(5, 44161), (Start: 15 @44206 has 11 MA's), (20, 44236), (22, 44257), (26, 44275), (51, 44518), (52, 44533),

Gene: Marianna39\_242 Start: 108503, Stop: 108895, Start Num: 14

Candidate Starts for Marianna39\_242:

(14, 108503), (35, 108686), (45, 108776), (52, 108836), (58, 108890),

Gene: Mikronejon\_60 Start: 50472, Stop: 50846, Start Num: 13

Candidate Starts for Mikronejon\_60:

(1, 50211), (6, 50439), (Start: 13 @50472 has 10 MA's), (29, 50598), (31, 50622), (37, 50679), (38, 50682), (46, 50769), (52, 50814), (54, 50823), (55, 50832), (56, 50838),

Gene: MintFritos\_60 Start: 50473, Stop: 50847, Start Num: 13

Candidate Starts for MintFritos\_60:

(Start: 13 @50473 has 10 MA's), (29, 50599), (31, 50623), (37, 50680), (38, 50683), (46, 50770), (52, 50815), (54, 50824), (55, 50833), (56, 50839),

Gene: Muglass\_72 Start: 44851, Stop: 45291, Start Num: 15

Candidate Starts for Muglass\_72:

(3, 44767), (4, 44776), (10, 44821), (Start: 15 @44851 has 11 MA's), (17, 44857), (20, 44881), (23, 44905), (35, 45025), (37, 45040), (44, 45112), (49, 45148), (51, 45160), (52, 45175), (61, 45286),

Gene: Navi1117\_73 Start: 44718, Stop: 45158, Start Num: 15

Candidate Starts for Navi1117\_73:

(Start: 15 @44718 has 11 MA's), (17, 44724), (23, 44772), (31, 44856), (40, 44934), (51, 45027), (59, 45108),

Gene: Oogie\_62 Start: 52193, Stop: 52567, Start Num: 13

Candidate Starts for Oogie\_62:

(Start: 13 @52193 has 10 MA's), (31, 52343), (37, 52400), (38, 52403), (46, 52490), (52, 52535), (54, 52544), (55, 52553), (56, 52559),

Gene: Pakusa\_60 Start: 50214, Stop: 50588, Start Num: 13

Candidate Starts for Pakusa\_60:

(1, 49953), (6, 50181), (Start: 13 @50214 has 10 MA's), (29, 50340), (31, 50364), (37, 50421), (38, 50424), (46, 50511), (52, 50556), (54, 50565), (55, 50574), (56, 50580),

Gene: Phaila\_73 Start: 43871, Stop: 44314, Start Num: 15

Candidate Starts for Phaila\_73:

(5, 43826), (Start: 15 @43871 has 11 MA's), (21, 43904), (31, 44009), (32, 44012), (34, 44039), (36, 44054), (51, 44180), (52, 44195),

Gene: PoeMe\_72 Start: 44359, Stop: 44802, Start Num: 15

Candidate Starts for PoeMe\_72:

(5, 44314), (Start: 15 @44359 has 11 MA's), (37, 44548), (41, 44587), (51, 44668), (52, 44683),

Gene: Renaldo\_78 Start: 45733, Stop: 46173, Start Num: 15

Candidate Starts for Renaldo\_78:

(4, 45658), (10, 45703), (Start: 15 @45733 has 11 MA's), (17, 45739), (20, 45763), (21, 45766), (23, 45787), (35, 45907), (37, 45922), (44, 45994), (49, 46030), (51, 46042), (52, 46057),

Gene: ScarletRaider\_61 Start: 53381, Stop: 53755, Start Num: 13

Candidate Starts for ScarletRaider\_61:

(6, 53348), (Start: 13 @53381 has 10 MA's), (25, 53459), (29, 53507), (30, 53522), (31, 53531), (38, 53591), (40, 53615), (49, 53696), (52, 53723), (54, 53732), (55, 53741), (56, 53747),

Gene: Schomber\_61 Start: 50222, Stop: 50596, Start Num: 13

Candidate Starts for Schomber\_61:

(1, 49961), (6, 50189), (Start: 13 @50222 has 10 MA's), (29, 50348), (31, 50372), (37, 50429), (38, 50432), (46, 50519), (52, 50564), (54, 50573), (55, 50582), (56, 50588),

Gene: Stardrop\_75 Start: 44461, Stop: 44904, Start Num: 15

Candidate Starts for Stardrop\_75:

(5, 44416), (Start: 15 @44461 has 11 MA's), (31, 44599), (32, 44602), (34, 44629), (36, 44644), (51, 44770), (52, 44785),

Gene: Tenney120\_71 Start: 44298, Stop: 44738, Start Num: 15

Candidate Starts for Tenney120\_71:

(4, 44223), (10, 44268), (11, 44274), (Start: 15 @44298 has 11 MA's), (17, 44304), (23, 44352), (24, 44358), (31, 44436), (39, 44499), (59, 44688),

Gene: Thales\_56 Start: 52309, Stop: 52689, Start Num: 13

Candidate Starts for Thales\_56:

(6, 52279), (Start: 13 @52309 has 10 MA's), (18, 52336), (23, 52378), (29, 52435), (33, 52465), (38, 52513), (41, 52549), (48, 52609), (51, 52630), (52, 52645),

Gene: Toneprano\_60 Start: 50487, Stop: 50861, Start Num: 13

Candidate Starts for Toneprano\_60:

(1, 50226), (6, 50454), (Start: 13 @50487 has 10 MA's), (29, 50613), (31, 50637), (37, 50694), (38, 50697), (46, 50784), (52, 50829), (54, 50838), (55, 50847), (56, 50853),

Gene: TrixiePhattel\_72 Start: 44033, Stop: 44473, Start Num: 15

Candidate Starts for TrixiePhattel\_72:

(5, 43988), (Start: 15 @44033 has 11 MA's), (22, 44084), (51, 44345), (52, 44360),

Gene: Twin\_60 Start: 50472, Stop: 50846, Start Num: 13

Candidate Starts for Twin\_60:

(1, 50211), (6, 50439), (Start: 13 @50472 has 10 MA's), (29, 50598), (31, 50622), (37, 50679), (38, 50682), (46, 50769), (52, 50814), (54, 50823), (55, 50832), (56, 50838),

Gene: UBSmoodge\_64 Start: 53863, Stop: 54237, Start Num: 13

Candidate Starts for UBSmoodge\_64:

(6, 53830), (Start: 13 @53863 has 10 MA's), (29, 53989), (30, 54004), (31, 54013), (38, 54073), (49, 54178), (52, 54205), (54, 54214), (55, 54223), (56, 54229),

Gene: Uzumaki\_67 Start: 43739, Stop: 44179, Start Num: 15

Candidate Starts for Uzumaki\_67:

(4, 43664), (10, 43709), (11, 43715), (Start: 15 @43739 has 11 MA's), (17, 43745), (23, 43793), (24, 43799), (31, 43877), (39, 43940), (59, 44129),

Gene: Xenomorph\_87 Start: 52772, Stop: 53200, Start Num: 9

Candidate Starts for Xenomorph\_87:

(Start: 9 @52772 has 1 MA's), (Start: 15 @52802 has 11 MA's), (20, 52826), (27, 52877), (53, 53123), (57, 53153),

Gene: Zeina\_73 Start: 44539, Stop: 44982, Start Num: 15

Candidate Starts for Zeina\_73:

(5, 44494), (Start: 15 @44539 has 11 MA's), (20, 44569), (31, 44677), (50, 44845), (51, 44848), (52, 44863),