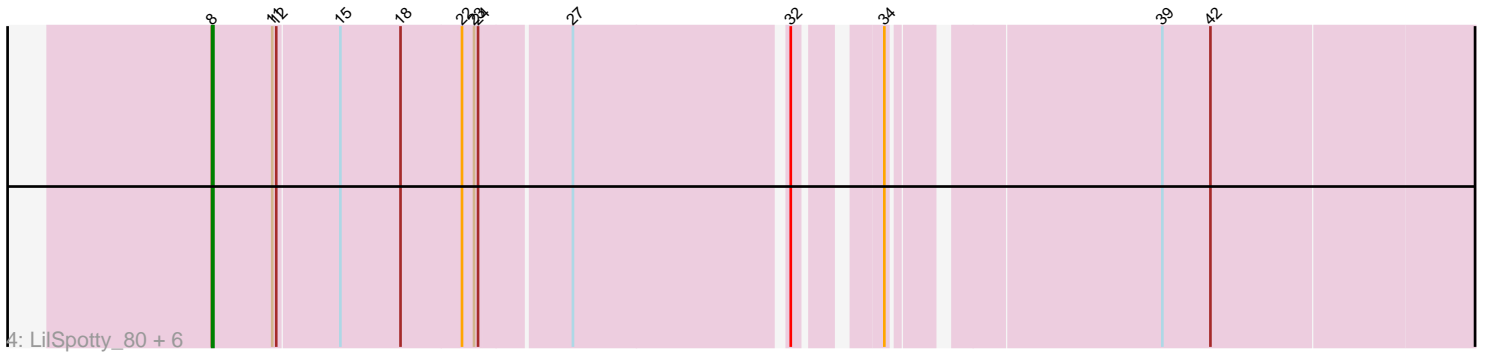
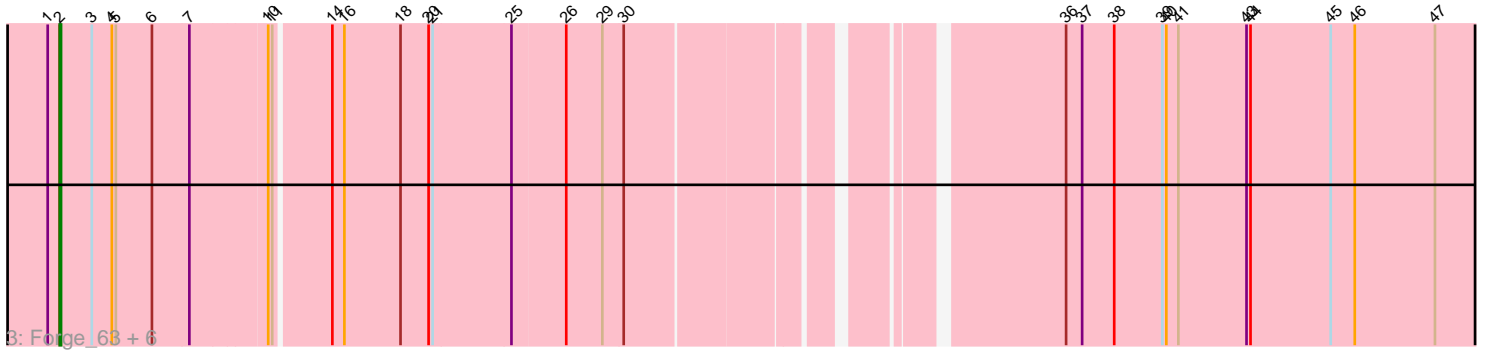
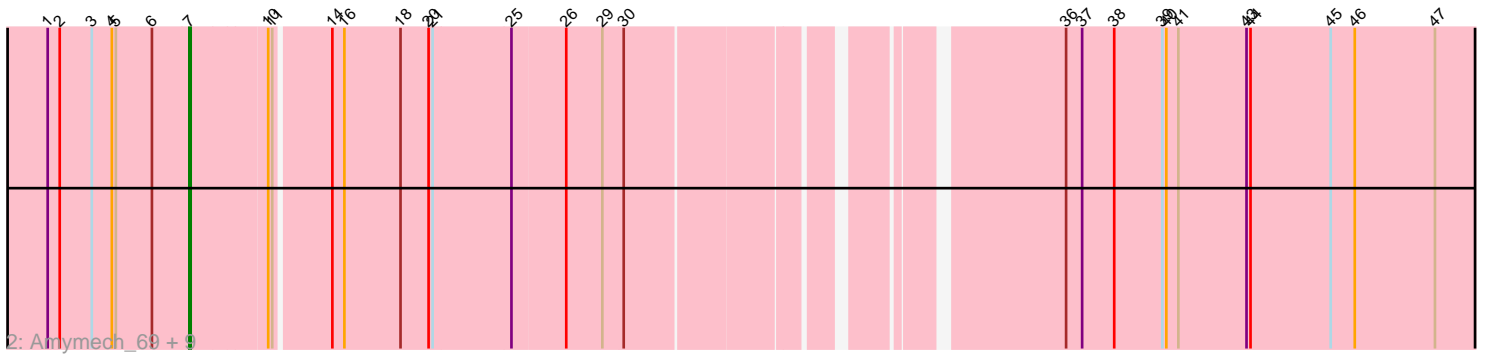
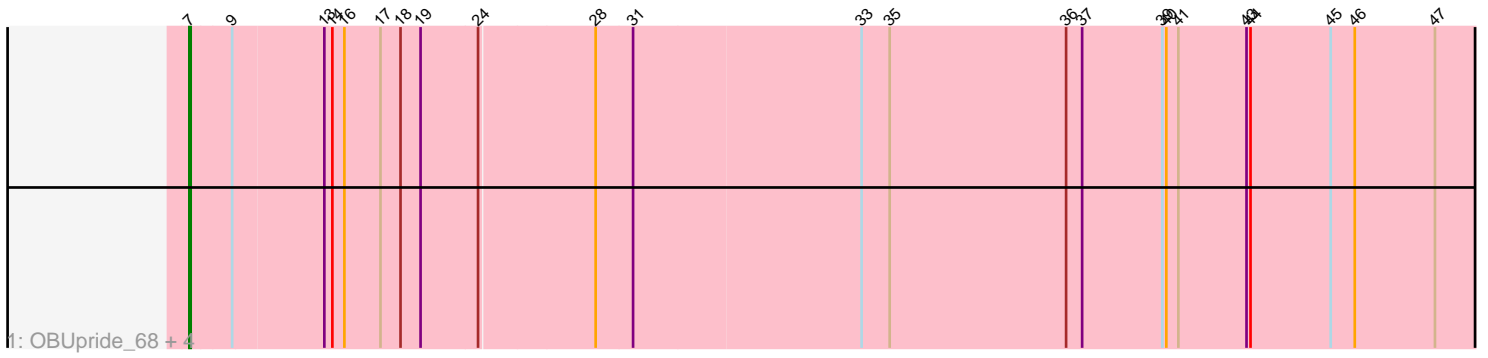


# Pham 216438



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 216438 Report

This analysis was run 02/22/25 on database version 588.

Pham number 216438 has 29 members, 2 are drafts.

Phages represented in each track:

- Track 1 : OBUpride\_68, Gravaillia\_64, Amochick\_70, Gancho\_68, Daegal\_72
- Track 2 : Amymech\_69, Ein37\_69, HH92\_68, Ubuntu\_69, Kinbote\_67, Luna22\_63, LilHazelnut\_69, Evanesce\_68, Webster2\_69, DeepSoil15\_69
- Track 3 : Forge\_63, Luke\_67, Dewey\_63, Wishmaker\_63, Hail\_63, Hadrien\_67, Giles\_63
- Track 4 : LilSpotty\_80, TootsiePop\_84, Misha28\_84, Awesomesauce\_85, Aloeri\_88, ChickenDinner\_88, DocMcStuffins\_82

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

The start number called the most often in the published annotations is 7, it was called in 15 of the 27 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Amochick\_70, Amymech\_69, Daegal\_72, DeepSoil15\_69, Ein37\_69, Evanesce\_68, Gancho\_68, Gravaillia\_64, HH92\_68, Kinbote\_67, LilHazelnut\_69, Luna22\_63, OBUpride\_68, Ubuntu\_69, Webster2\_69,

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

- Dewey\_63, Forge\_63, Giles\_63, Hadrien\_67, Hail\_63, Luke\_67, Wishmaker\_63,

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

- Aloeri\_88, Awesomesauce\_85, ChickenDinner\_88, DocMcStuffins\_82, LilSpotty\_80, Misha28\_84, TootsiePop\_84,

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

Start 2:

- Found in 17 of 29 ( 58.6% ) of genes in pham
- Manual Annotations of this start: 7 of 27
- Called 41.2% of time when present
- Phage (with cluster) where this start called: Dewey\_63 (Q), Forge\_63 (Q), Giles\_63 (Q), Hadrien\_67 (Q), Hail\_63 (Q), Luke\_67 (Q), Wishmaker\_63 (Q),

#### Start 7:

- Found in 22 of 29 ( 75.9% ) of genes in pham
- Manual Annotations of this start: 15 of 27
- Called 68.2% of time when present
- Phage (with cluster) where this start called: Amochick\_70 (Q), Amymech\_69 (Q), Daegal\_72 (Q), DeepSoil15\_69 (Q), Ein37\_69 (Q), Evanesce\_68 (Q), Gancho\_68 (Q), Gravallia\_64 (Q), HH92\_68 (Q), Kinbote\_67 (Q), LilHazelNut\_69 (Q), Luna22\_63 (Q), OBUpride\_68 (Q), Ubuntu\_69 (Q), Webster2\_69 (Q),

#### Start 8:

- Found in 7 of 29 ( 24.1% ) of genes in pham
- Manual Annotations of this start: 5 of 27
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Aloeri\_88 (F1), Awesomesauce\_85 (F1), ChickenDinner\_88 (F1), DocMcStuffins\_82 (F1), LilSpotty\_80 (singleton), Misha28\_84 (F1), TootsiePop\_84 (F1),

### Summary by clusters:

There are 3 clusters represented in this pham: Q, F1, singleton,

Info for manual annotations of cluster F1:

- Start number 8 was manually annotated 4 times for cluster F1.

Info for manual annotations of cluster Q:

- Start number 2 was manually annotated 7 times for cluster Q.
- Start number 7 was manually annotated 15 times for cluster Q.

### Gene Information:

Gene: Aloeri\_88 Start: 50555, Stop: 51472, Start Num: 8

Candidate Starts for Aloeri\_88:

(Start: 8 @50555 has 5 MA's), (11, 50600), (12, 50603), (15, 50648), (18, 50693), (22, 50738), (23, 50747), (24, 50750), (27, 50813), (32, 50963), (34, 51011), (39, 51194), (42, 51230),

Gene: Amochick\_70 Start: 46259, Stop: 47293, Start Num: 7

Candidate Starts for Amochick\_70:

(Start: 7 @46259 has 15 MA's), (9, 46289), (13, 46355), (14, 46361), (16, 46370), (17, 46397), (18, 46412), (19, 46427), (24, 46469), (28, 46550), (31, 46577), (33, 46745), (35, 46766), (36, 46898), (37, 46910), (39, 46970), (40, 46973), (41, 46982), (43, 47033), (44, 47036), (45, 47096), (46, 47114), (47, 47174),

Gene: Amymech\_69 Start: 45763, Stop: 46746, Start Num: 7

Candidate Starts for Amymech\_69:

(1, 45658), (Start: 2 @45667 has 7 MA's), (3, 45691), (4, 45706), (5, 45709), (6, 45736), (Start: 7 @45763 has 15 MA's), (10, 45817), (11, 45820), (14, 45859), (16, 45868), (18, 45910), (20, 45931), (21, 45934), (25, 45991), (26, 46030), (29, 46057), (30, 46072), (36, 46354), (37, 46366), (38, 46390), (39, 46426), (40, 46429), (41, 46438), (43, 46489), (44, 46492), (45, 46552), (46, 46570), (47, 46630),

Gene: Awesomesauce\_85 Start: 50791, Stop: 51708, Start Num: 8

Candidate Starts for Awesomesauce\_85:

(Start: 8 @50791 has 5 MA's), (11, 50836), (12, 50839), (15, 50884), (18, 50929), (22, 50974), (23, 50983), (24, 50986), (27, 51049), (32, 51199), (34, 51247), (39, 51430), (42, 51466),

Gene: ChickenDinner\_88 Start: 50555, Stop: 51472, Start Num: 8

Candidate Starts for ChickenDinner\_88:

(Start: 8 @50555 has 5 MA's), (11, 50600), (12, 50603), (15, 50648), (18, 50693), (22, 50738), (23, 50747), (24, 50750), (27, 50813), (32, 50963), (34, 51011), (39, 51194), (42, 51230),

Gene: Daegal\_72 Start: 46821, Stop: 47852, Start Num: 7

Candidate Starts for Daegal\_72:

(Start: 7 @46821 has 15 MA's), (9, 46851), (13, 46917), (14, 46923), (16, 46932), (17, 46959), (18, 46974), (19, 46989), (24, 47031), (28, 47112), (31, 47139), (33, 47307), (35, 47328), (36, 47460), (37, 47472), (39, 47532), (40, 47535), (41, 47544), (43, 47595), (44, 47598), (45, 47658), (46, 47676), (47, 47736),

Gene: DeepSoil15\_69 Start: 45763, Stop: 46746, Start Num: 7

Candidate Starts for DeepSoil15\_69:

(1, 45658), (Start: 2 @45667 has 7 MA's), (3, 45691), (4, 45706), (5, 45709), (6, 45736), (Start: 7 @45763 has 15 MA's), (10, 45817), (11, 45820), (14, 45859), (16, 45868), (18, 45910), (20, 45931), (21, 45934), (25, 45991), (26, 46030), (29, 46057), (30, 46072), (36, 46354), (37, 46366), (38, 46390), (39, 46426), (40, 46429), (41, 46438), (43, 46489), (44, 46492), (45, 46552), (46, 46570), (47, 46630),

Gene: Dewey\_63 Start: 45667, Stop: 46746, Start Num: 2

Candidate Starts for Dewey\_63:

(1, 45658), (Start: 2 @45667 has 7 MA's), (3, 45691), (4, 45706), (5, 45709), (6, 45736), (Start: 7 @45763 has 15 MA's), (10, 45817), (11, 45820), (14, 45859), (16, 45868), (18, 45910), (20, 45931), (21, 45934), (25, 45991), (26, 46030), (29, 46057), (30, 46072), (36, 46354), (37, 46366), (38, 46390), (39, 46426), (40, 46429), (41, 46438), (43, 46489), (44, 46492), (45, 46552), (46, 46570), (47, 46630),

Gene: DocMcStuffins\_82 Start: 52185, Stop: 53102, Start Num: 8

Candidate Starts for DocMcStuffins\_82:

(Start: 8 @52185 has 5 MA's), (11, 52230), (12, 52233), (15, 52278), (18, 52323), (22, 52368), (23, 52377), (24, 52380), (27, 52443), (32, 52593), (34, 52641), (39, 52824), (42, 52860),

Gene: Ein37\_69 Start: 45763, Stop: 46746, Start Num: 7

Candidate Starts for Ein37\_69:

(1, 45658), (Start: 2 @45667 has 7 MA's), (3, 45691), (4, 45706), (5, 45709), (6, 45736), (Start: 7 @45763 has 15 MA's), (10, 45817), (11, 45820), (14, 45859), (16, 45868), (18, 45910), (20, 45931), (21, 45934), (25, 45991), (26, 46030), (29, 46057), (30, 46072), (36, 46354), (37, 46366), (38, 46390), (39, 46426), (40, 46429), (41, 46438), (43, 46489), (44, 46492), (45, 46552), (46, 46570), (47, 46630),

Gene: Evanesce\_68 Start: 45763, Stop: 46746, Start Num: 7

Candidate Starts for Evanesce\_68:

(1, 45658), (Start: 2 @45667 has 7 MA's), (3, 45691), (4, 45706), (5, 45709), (6, 45736), (Start: 7 @45763 has 15 MA's), (10, 45817), (11, 45820), (14, 45859), (16, 45868), (18, 45910), (20, 45931), (21, 45934), (25, 45991), (26, 46030), (29, 46057), (30, 46072), (36, 46354), (37, 46366), (38, 46390), (39, 46426), (40, 46429), (41, 46438), (43, 46489), (44, 46492), (45, 46552), (46, 46570), (47, 46630),

Gene: Forge\_63 Start: 45667, Stop: 46746, Start Num: 2

Candidate Starts for Forge\_63:

(1, 45658), (Start: 2 @45667 has 7 MA's), (3, 45691), (4, 45706), (5, 45709), (6, 45736), (Start: 7 @45763 has 15 MA's), (10, 45817), (11, 45820), (14, 45859), (16, 45868), (18, 45910), (20, 45931), (21, 45934), (25, 45991), (26, 46030), (29, 46057), (30, 46072), (36, 46354), (37, 46366), (38, 46390),

(39, 46426), (40, 46429), (41, 46438), (43, 46489), (44, 46492), (45, 46552), (46, 46570), (47, 46630),

Gene: Gancho\_68 Start: 45490, Stop: 46521, Start Num: 7

Candidate Starts for Gancho\_68:

(Start: 7 @45490 has 15 MA's), (9, 45520), (13, 45586), (14, 45592), (16, 45601), (17, 45628), (18, 45643), (19, 45658), (24, 45700), (28, 45781), (31, 45808), (33, 45976), (35, 45997), (36, 46129), (37, 46141), (39, 46201), (40, 46204), (41, 46213), (43, 46264), (44, 46267), (45, 46327), (46, 46345), (47, 46405),

Gene: Giles\_63 Start: 45667, Stop: 46746, Start Num: 2

Candidate Starts for Giles\_63:

(1, 45658), (Start: 2 @45667 has 7 MA's), (3, 45691), (4, 45706), (5, 45709), (6, 45736), (Start: 7 @45763 has 15 MA's), (10, 45817), (11, 45820), (14, 45859), (16, 45868), (18, 45910), (20, 45931), (21, 45934), (25, 45991), (26, 46030), (29, 46057), (30, 46072), (36, 46354), (37, 46366), (38, 46390), (39, 46426), (40, 46429), (41, 46438), (43, 46489), (44, 46492), (45, 46552), (46, 46570), (47, 46630),

Gene: Gravaillia\_64 Start: 45771, Stop: 46802, Start Num: 7

Candidate Starts for Gravaillia\_64:

(Start: 7 @45771 has 15 MA's), (9, 45801), (13, 45867), (14, 45873), (16, 45882), (17, 45909), (18, 45924), (19, 45939), (24, 45981), (28, 46062), (31, 46089), (33, 46257), (35, 46278), (36, 46410), (37, 46422), (39, 46482), (40, 46485), (41, 46494), (43, 46545), (44, 46548), (45, 46608), (46, 46626), (47, 46686),

Gene: HH92\_68 Start: 45763, Stop: 46746, Start Num: 7

Candidate Starts for HH92\_68:

(1, 45658), (Start: 2 @45667 has 7 MA's), (3, 45691), (4, 45706), (5, 45709), (6, 45736), (Start: 7 @45763 has 15 MA's), (10, 45817), (11, 45820), (14, 45859), (16, 45868), (18, 45910), (20, 45931), (21, 45934), (25, 45991), (26, 46030), (29, 46057), (30, 46072), (36, 46354), (37, 46366), (38, 46390), (39, 46426), (40, 46429), (41, 46438), (43, 46489), (44, 46492), (45, 46552), (46, 46570), (47, 46630),

Gene: Hadrien\_67 Start: 45667, Stop: 46746, Start Num: 2

Candidate Starts for Hadrien\_67:

(1, 45658), (Start: 2 @45667 has 7 MA's), (3, 45691), (4, 45706), (5, 45709), (6, 45736), (Start: 7 @45763 has 15 MA's), (10, 45817), (11, 45820), (14, 45859), (16, 45868), (18, 45910), (20, 45931), (21, 45934), (25, 45991), (26, 46030), (29, 46057), (30, 46072), (36, 46354), (37, 46366), (38, 46390), (39, 46426), (40, 46429), (41, 46438), (43, 46489), (44, 46492), (45, 46552), (46, 46570), (47, 46630),

Gene: Hail\_63 Start: 45667, Stop: 46746, Start Num: 2

Candidate Starts for Hail\_63:

(1, 45658), (Start: 2 @45667 has 7 MA's), (3, 45691), (4, 45706), (5, 45709), (6, 45736), (Start: 7 @45763 has 15 MA's), (10, 45817), (11, 45820), (14, 45859), (16, 45868), (18, 45910), (20, 45931), (21, 45934), (25, 45991), (26, 46030), (29, 46057), (30, 46072), (36, 46354), (37, 46366), (38, 46390), (39, 46426), (40, 46429), (41, 46438), (43, 46489), (44, 46492), (45, 46552), (46, 46570), (47, 46630),

Gene: Kinbote\_67 Start: 45763, Stop: 46746, Start Num: 7

Candidate Starts for Kinbote\_67:

(1, 45658), (Start: 2 @45667 has 7 MA's), (3, 45691), (4, 45706), (5, 45709), (6, 45736), (Start: 7 @45763 has 15 MA's), (10, 45817), (11, 45820), (14, 45859), (16, 45868), (18, 45910), (20, 45931), (21, 45934), (25, 45991), (26, 46030), (29, 46057), (30, 46072), (36, 46354), (37, 46366), (38, 46390), (39, 46426), (40, 46429), (41, 46438), (43, 46489), (44, 46492), (45, 46552), (46, 46570), (47, 46630),

Gene: LilHazelnut\_69 Start: 45763, Stop: 46746, Start Num: 7

Candidate Starts for LilHazelnut\_69:

(1, 45658), (Start: 2 @45667 has 7 MA's), (3, 45691), (4, 45706), (5, 45709), (6, 45736), (Start: 7 @45763 has 15 MA's), (10, 45817), (11, 45820), (14, 45859), (16, 45868), (18, 45910), (20, 45931), (21, 45934), (25, 45991), (26, 46030), (29, 46057), (30, 46072), (36, 46354), (37, 46366), (38, 46390), (39, 46426), (40, 46429), (41, 46438), (43, 46489), (44, 46492), (45, 46552), (46, 46570), (47, 46630),

Gene: LilSpotty\_80 Start: 46231, Stop: 47148, Start Num: 8

Candidate Starts for LilSpotty\_80:

(Start: 8 @46231 has 5 MA's), (11, 46276), (12, 46279), (15, 46324), (18, 46369), (22, 46414), (23, 46423), (24, 46426), (27, 46489), (32, 46639), (34, 46687), (39, 46870), (42, 46906),

Gene: Luke\_67 Start: 45622, Stop: 46701, Start Num: 2

Candidate Starts for Luke\_67:

(1, 45613), (Start: 2 @45622 has 7 MA's), (3, 45646), (4, 45661), (5, 45664), (6, 45691), (Start: 7 @45718 has 15 MA's), (10, 45772), (11, 45775), (14, 45814), (16, 45823), (18, 45865), (20, 45886), (21, 45889), (25, 45946), (26, 45985), (29, 46012), (30, 46027), (36, 46309), (37, 46321), (38, 46345), (39, 46381), (40, 46384), (41, 46393), (43, 46444), (44, 46447), (45, 46507), (46, 46525), (47, 46585),

Gene: Luna22\_63 Start: 45747, Stop: 46730, Start Num: 7

Candidate Starts for Luna22\_63:

(1, 45642), (Start: 2 @45651 has 7 MA's), (3, 45675), (4, 45690), (5, 45693), (6, 45720), (Start: 7 @45747 has 15 MA's), (10, 45801), (11, 45804), (14, 45843), (16, 45852), (18, 45894), (20, 45915), (21, 45918), (25, 45975), (26, 46014), (29, 46041), (30, 46056), (36, 46338), (37, 46350), (38, 46374), (39, 46410), (40, 46413), (41, 46422), (43, 46473), (44, 46476), (45, 46536), (46, 46554), (47, 46614),

Gene: Misha28\_84 Start: 51490, Stop: 52407, Start Num: 8

Candidate Starts for Misha28\_84:

(Start: 8 @51490 has 5 MA's), (11, 51535), (12, 51538), (15, 51583), (18, 51628), (22, 51673), (23, 51682), (24, 51685), (27, 51748), (32, 51898), (34, 51946), (39, 52129), (42, 52165),

Gene: OBUpride\_68 Start: 45759, Stop: 46790, Start Num: 7

Candidate Starts for OBUpride\_68:

(Start: 7 @45759 has 15 MA's), (9, 45789), (13, 45855), (14, 45861), (16, 45870), (17, 45897), (18, 45912), (19, 45927), (24, 45969), (28, 46050), (31, 46077), (33, 46245), (35, 46266), (36, 46398), (37, 46410), (39, 46470), (40, 46473), (41, 46482), (43, 46533), (44, 46536), (45, 46596), (46, 46614), (47, 46674),

Gene: TootsiePop\_84 Start: 51490, Stop: 52407, Start Num: 8

Candidate Starts for TootsiePop\_84:

(Start: 8 @51490 has 5 MA's), (11, 51535), (12, 51538), (15, 51583), (18, 51628), (22, 51673), (23, 51682), (24, 51685), (27, 51748), (32, 51898), (34, 51946), (39, 52129), (42, 52165),

Gene: Ubuntu\_69 Start: 45763, Stop: 46746, Start Num: 7

Candidate Starts for Ubuntu\_69:

(1, 45658), (Start: 2 @45667 has 7 MA's), (3, 45691), (4, 45706), (5, 45709), (6, 45736), (Start: 7 @45763 has 15 MA's), (10, 45817), (11, 45820), (14, 45859), (16, 45868), (18, 45910), (20, 45931), (21, 45934), (25, 45991), (26, 46030), (29, 46057), (30, 46072), (36, 46354), (37, 46366), (38, 46390), (39, 46426), (40, 46429), (41, 46438), (43, 46489), (44, 46492), (45, 46552), (46, 46570), (47, 46630),

Gene: Webster2\_69 Start: 45763, Stop: 46746, Start Num: 7

Candidate Starts for Webster2\_69:

(1, 45658), (Start: 2 @45667 has 7 MA's), (3, 45691), (4, 45706), (5, 45709), (6, 45736), (Start: 7 @45763 has 15 MA's), (10, 45817), (11, 45820), (14, 45859), (16, 45868), (18, 45910), (20, 45931), (21, 45934), (25, 45991), (26, 46030), (29, 46057), (30, 46072), (36, 46354), (37, 46366), (38, 46390),

(39, 46426), (40, 46429), (41, 46438), (43, 46489), (44, 46492), (45, 46552), (46, 46570), (47, 46630),

Gene: Wishmaker\_63 Start: 45667, Stop: 46746, Start Num: 2

Candidate Starts for Wishmaker\_63:

(1, 45658), (Start: 2 @45667 has 7 MA's), (3, 45691), (4, 45706), (5, 45709), (6, 45736), (Start: 7 @45763 has 15 MA's), (10, 45817), (11, 45820), (14, 45859), (16, 45868), (18, 45910), (20, 45931), (21, 45934), (25, 45991), (26, 46030), (29, 46057), (30, 46072), (36, 46354), (37, 46366), (38, 46390), (39, 46426), (40, 46429), (41, 46438), (43, 46489), (44, 46492), (45, 46552), (46, 46570), (47, 46630),