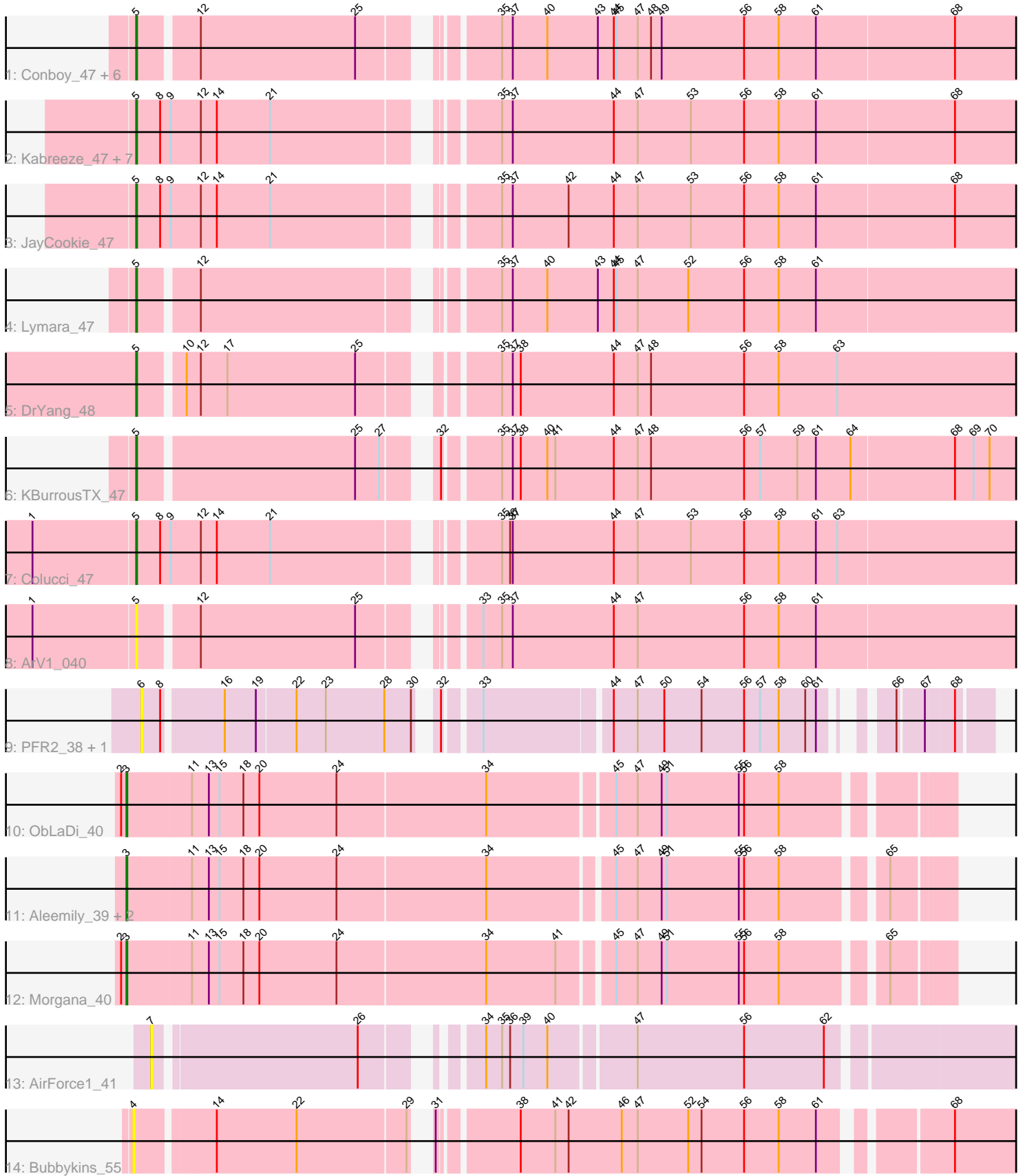


Pham 305220



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 305220 Report

This analysis was run 06/08/26 on database version 649.

Pham number 305220 has 30 members, 6 are drafts.

Phages represented in each track:

- Track 1 : Conboy\_47, Chocolat\_47, PrincessTrina\_47, Chubster\_47, MoyaNatalis\_47, EdgarPoe\_47, Linus\_47
- Track 2 : Kabreeze\_47, Scavito\_47, JaNo\_47, Mordred\_47, Chipper1996\_470, RosiePosie\_47, Tophat\_47, HumptyDumpty\_47
- Track 3 : JayCookie\_47
- Track 4 : Lymara\_47
- Track 5 : DrYang\_48
- Track 6 : KBurroustX\_47
- Track 7 : Colucci\_47
- Track 8 : ArV1\_040
- Track 9 : PFR2\_38, PFR1\_36
- Track 10 : ObLaDi\_40
- Track 11 : Aleemily\_39, Cafasso\_40, ModicumRichard\_40
- Track 12 : Morgana\_40
- Track 13 : AirForce1\_41
- Track 14 : Bubbykins\_55

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

The start number called the most often in the published annotations is 5, it was called in 19 of the 24 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- ArV1\_040, Chipper1996\_470, Chocolat\_47, Chubster\_47, Colucci\_47, Conboy\_47, DrYang\_48, EdgarPoe\_47, HumptyDumpty\_47, JaNo\_47, JayCookie\_47, KBurroustX\_47, Kabreeze\_47, Linus\_47, Lymara\_47, Mordred\_47, MoyaNatalis\_47, PrincessTrina\_47, RosiePosie\_47, Scavito\_47, Tophat\_47,

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

- 

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

- AirForce1\_41, Aleemily\_39, Bubbykins\_55, Cafasso\_40, ModicumRichard\_40, Morgana\_40, ObLaDi\_40, PFR1\_36, PFR2\_38,

### Summary by start number:

#### Start 3:

- Found in 5 of 30 ( 16.7% ) of genes in pham
- Manual Annotations of this start: 5 of 24
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Aleemily\_39 (DZ), Cafasso\_40 (DZ), ModicumRichard\_40 (DZ), Morgana\_40 (DZ), ObLaDi\_40 (DZ),

#### Start 4:

- Found in 1 of 30 ( 3.3% ) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Bubbykins\_55 (UNK),

#### Start 5:

- Found in 21 of 30 ( 70.0% ) of genes in pham
- Manual Annotations of this start: 19 of 24
- Called 100.0% of time when present
- Phage (with cluster) where this start called: ArV1\_040 (AR), Chipper1996\_470 (AR), Chocolat\_47 (AR), Chubster\_47 (AR), Colucci\_47 (AR), Conboy\_47 (AR), DrYang\_48 (AR), EdgarPoe\_47 (AR), HumptyDumpty\_47 (AR), JaNo\_47 (AR), JayCookie\_47 (AR), KBurrousTX\_47 (AR), Kabreeze\_47 (AR), Linus\_47 (AR), Lymara\_47 (AR), Mordred\_47 (AR), MoyaNatalis\_47 (AR), PrincessTrina\_47 (AR), RosiePosie\_47 (AR), Scavito\_47 (AR), Tophat\_47 (AR),

#### Start 6:

- Found in 2 of 30 ( 6.7% ) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: PFR1\_36 (BX), PFR2\_38 (BX),

#### Start 7:

- Found in 1 of 30 ( 3.3% ) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: AirForce1\_41 (FL),

### Summary by clusters:

There are 5 clusters represented in this pham: FL, UNK, AR, DZ, BX,

Info for manual annotations of cluster AR:

- Start number 5 was manually annotated 19 times for cluster AR.

Info for manual annotations of cluster DZ:

- Start number 3 was manually annotated 5 times for cluster DZ.

### **Gene Information:**

Gene: AirForce1\_41 Start: 31193, Stop: 32080, Start Num: 7

Candidate Starts for AirForce1\_41:

(7, 31193), (26, 31409), (34, 31502), (35, 31520), (36, 31529), (39, 31544), (40, 31571), (47, 31661), (56, 31781), (62, 31871),

Gene: Aleemily\_39 Start: 32837, Stop: 33721, Start Num: 3

Candidate Starts for Aleemily\_39:

(Start: 3 @32837 has 5 MA's), (11, 32909), (13, 32927), (15, 32939), (18, 32966), (20, 32984), (24, 33071), (34, 33236), (45, 33368), (47, 33392), (49, 33419), (51, 33425), (55, 33506), (56, 33512), (58, 33551), (65, 33653),

Gene: ArV1\_040 Start: 35856, Stop: 36800, Start Num: 5

Candidate Starts for ArV1\_040:

(1, 35742), (Start: 5 @35856 has 19 MA's), (12, 35916), (25, 36090), (33, 36186), (35, 36207), (37, 36219), (44, 36333), (47, 36360), (56, 36480), (58, 36519), (61, 36561),

Gene: Bubbykins\_55 Start: 42381, Stop: 43304, Start Num: 4

Candidate Starts for Bubbykins\_55:

(4, 42381), (14, 42462), (22, 42552), (29, 42672), (31, 42678), (38, 42756), (41, 42795), (42, 42810), (46, 42870), (47, 42888), (52, 42945), (54, 42960), (56, 43008), (58, 43047), (61, 43089), (68, 43209),

Gene: Cafasso\_40 Start: 33411, Stop: 34295, Start Num: 3

Candidate Starts for Cafasso\_40:

(Start: 3 @33411 has 5 MA's), (11, 33483), (13, 33501), (15, 33513), (18, 33540), (20, 33558), (24, 33645), (34, 33810), (45, 33942), (47, 33966), (49, 33993), (51, 33999), (55, 34080), (56, 34086), (58, 34125), (65, 34227),

Gene: Chipper1996\_470 Start: 37422, Stop: 38381, Start Num: 5

Candidate Starts for Chipper1996\_470:

(Start: 5 @37422 has 19 MA's), (8, 37449), (9, 37461), (12, 37494), (14, 37512), (21, 37572), (35, 37785), (37, 37797), (44, 37911), (47, 37938), (53, 37998), (56, 38058), (58, 38097), (61, 38139), (68, 38292),

Gene: Chocolat\_47 Start: 37414, Stop: 38361, Start Num: 5

Candidate Starts for Chocolat\_47:

(Start: 5 @37414 has 19 MA's), (12, 37474), (25, 37648), (35, 37765), (37, 37777), (40, 37816), (43, 37873), (44, 37891), (45, 37894), (47, 37918), (48, 37933), (49, 37945), (56, 38038), (58, 38077), (61, 38119), (68, 38272),

Gene: Chubster\_47 Start: 37334, Stop: 38281, Start Num: 5

Candidate Starts for Chubster\_47:

(Start: 5 @37334 has 19 MA's), (12, 37394), (25, 37568), (35, 37685), (37, 37697), (40, 37736), (43, 37793), (44, 37811), (45, 37814), (47, 37838), (48, 37853), (49, 37865), (56, 37958), (58, 37997), (61, 38039), (68, 38192),

Gene: Colucci\_47 Start: 37135, Stop: 38091, Start Num: 5

Candidate Starts for Colucci\_47:

(1, 37021), (Start: 5 @37135 has 19 MA's), (8, 37162), (9, 37174), (12, 37207), (14, 37225), (21, 37285), (35, 37498), (36, 37507), (37, 37510), (44, 37624), (47, 37651), (53, 37711), (56, 37771), (58, 37810), (61, 37852), (63, 37876),

Gene: Conboy\_47 Start: 37562, Stop: 38509, Start Num: 5

Candidate Starts for Conboy\_47:

(Start: 5 @37562 has 19 MA's), (12, 37622), (25, 37796), (35, 37913), (37, 37925), (40, 37964), (43, 38021), (44, 38039), (45, 38042), (47, 38066), (48, 38081), (49, 38093), (56, 38186), (58, 38225), (61, 38267), (68, 38420),

Gene: DrYang\_48 Start: 39485, Stop: 40438, Start Num: 5

Candidate Starts for DrYang\_48:

(Start: 5 @39485 has 19 MA's), (10, 39530), (12, 39545), (17, 39575), (25, 39719), (35, 39839), (37, 39851), (38, 39860), (44, 39965), (47, 39992), (48, 40007), (56, 40112), (58, 40151), (63, 40217),

Gene: EdgarPoe\_47 Start: 37562, Stop: 38509, Start Num: 5

Candidate Starts for EdgarPoe\_47:

(Start: 5 @37562 has 19 MA's), (12, 37622), (25, 37796), (35, 37913), (37, 37925), (40, 37964), (43, 38021), (44, 38039), (45, 38042), (47, 38066), (48, 38081), (49, 38093), (56, 38186), (58, 38225), (61, 38267), (68, 38420),

Gene: HumptyDumpty\_47 Start: 37420, Stop: 38379, Start Num: 5

Candidate Starts for HumptyDumpty\_47:

(Start: 5 @37420 has 19 MA's), (8, 37447), (9, 37459), (12, 37492), (14, 37510), (21, 37570), (35, 37783), (37, 37795), (44, 37909), (47, 37936), (53, 37996), (56, 38056), (58, 38095), (61, 38137), (68, 38290),

Gene: JaNo\_47 Start: 37420, Stop: 38379, Start Num: 5

Candidate Starts for JaNo\_47:

(Start: 5 @37420 has 19 MA's), (8, 37447), (9, 37459), (12, 37492), (14, 37510), (21, 37570), (35, 37783), (37, 37795), (44, 37909), (47, 37936), (53, 37996), (56, 38056), (58, 38095), (61, 38137), (68, 38290),

Gene: JayCookie\_47 Start: 37556, Stop: 38515, Start Num: 5

Candidate Starts for JayCookie\_47:

(Start: 5 @37556 has 19 MA's), (8, 37583), (9, 37595), (12, 37628), (14, 37646), (21, 37706), (35, 37919), (37, 37931), (42, 37994), (44, 38045), (47, 38072), (53, 38132), (56, 38192), (58, 38231), (61, 38273), (68, 38426),

Gene: KBurrousTX\_47 Start: 38672, Stop: 39619, Start Num: 5

Candidate Starts for KBurrousTX\_47:

(Start: 5 @38672 has 19 MA's), (25, 38906), (27, 38933), (32, 38972), (35, 39026), (37, 39038), (38, 39047), (40, 39077), (41, 39086), (44, 39152), (47, 39179), (48, 39194), (56, 39299), (57, 39317), (59, 39359), (61, 39380), (64, 39419), (68, 39533), (69, 39554), (70, 39572),

Gene: Kabreeze\_47 Start: 37420, Stop: 38379, Start Num: 5

Candidate Starts for Kabreeze\_47:

(Start: 5 @37420 has 19 MA's), (8, 37447), (9, 37459), (12, 37492), (14, 37510), (21, 37570), (35, 37783), (37, 37795), (44, 37909), (47, 37936), (53, 37996), (56, 38056), (58, 38095), (61, 38137), (68, 38290),

Gene: Linus\_47 Start: 37553, Stop: 38500, Start Num: 5

Candidate Starts for Linus\_47:

(Start: 5 @37553 has 19 MA's), (12, 37613), (25, 37787), (35, 37904), (37, 37916), (40, 37955), (43, 38012), (44, 38030), (45, 38033), (47, 38057), (48, 38072), (49, 38084), (56, 38177), (58, 38216), (61, 38258), (68, 38411),

Gene: Lymara\_47 Start: 37380, Stop: 38327, Start Num: 5

Candidate Starts for Lymara\_47:

(Start: 5 @37380 has 19 MA's), (12, 37440), (35, 37731), (37, 37743), (40, 37782), (43, 37839), (44, 37857), (45, 37860), (47, 37884), (52, 37941), (56, 38004), (58, 38043), (61, 38085),

Gene: ModicumRichard\_40 Start: 33410, Stop: 34294, Start Num: 3

Candidate Starts for ModicumRichard\_40:

(Start: 3 @33410 has 5 MA's), (11, 33482), (13, 33500), (15, 33512), (18, 33539), (20, 33557), (24, 33644), (34, 33809), (45, 33941), (47, 33965), (49, 33992), (51, 33998), (55, 34079), (56, 34085), (58, 34124), (65, 34226),

Gene: Mordred\_47 Start: 37420, Stop: 38379, Start Num: 5

Candidate Starts for Mordred\_47:

(Start: 5 @37420 has 19 MA's), (8, 37447), (9, 37459), (12, 37492), (14, 37510), (21, 37570), (35, 37783), (37, 37795), (44, 37909), (47, 37936), (53, 37996), (56, 38056), (58, 38095), (61, 38137), (68, 38290),

Gene: Morgana\_40 Start: 33361, Stop: 34245, Start Num: 3

Candidate Starts for Morgana\_40:

(2, 33355), (Start: 3 @33361 has 5 MA's), (11, 33433), (13, 33451), (15, 33463), (18, 33490), (20, 33508), (24, 33595), (34, 33760), (41, 33838), (45, 33892), (47, 33916), (49, 33943), (51, 33949), (55, 34030), (56, 34036), (58, 34075), (65, 34177),

Gene: MoyaNatalis\_47 Start: 37413, Stop: 38360, Start Num: 5

Candidate Starts for MoyaNatalis\_47:

(Start: 5 @37413 has 19 MA's), (12, 37473), (25, 37647), (35, 37764), (37, 37776), (40, 37815), (43, 37872), (44, 37890), (45, 37893), (47, 37917), (48, 37932), (49, 37944), (56, 38037), (58, 38076), (61, 38118), (68, 38271),

Gene: ObLaDi\_40 Start: 33395, Stop: 34282, Start Num: 3

Candidate Starts for ObLaDi\_40:

(2, 33389), (Start: 3 @33395 has 5 MA's), (11, 33467), (13, 33485), (15, 33497), (18, 33524), (20, 33542), (24, 33629), (34, 33794), (45, 33929), (47, 33953), (49, 33980), (51, 33986), (55, 34067), (56, 34073), (58, 34112),

Gene: PFR1\_36 Start: 27536, Stop: 28372, Start Num: 6

Candidate Starts for PFR1\_36:

(6, 27536), (8, 27557), (16, 27620), (19, 27653), (22, 27695), (23, 27728), (28, 27794), (30, 27824), (32, 27836), (33, 27869), (44, 28004), (47, 28031), (50, 28061), (54, 28103), (56, 28151), (57, 28169), (58, 28190), (60, 28220), (61, 28232), (66, 28277), (67, 28304), (68, 28334),

Gene: PFR2\_38 Start: 29105, Stop: 29941, Start Num: 6

Candidate Starts for PFR2\_38:

(6, 29105), (8, 29126), (16, 29189), (19, 29222), (22, 29264), (23, 29297), (28, 29363), (30, 29393), (32, 29405), (33, 29438), (44, 29573), (47, 29600), (50, 29630), (54, 29672), (56, 29720), (57, 29738), (58, 29759), (60, 29789), (61, 29801), (66, 29846), (67, 29873), (68, 29903),

Gene: PrincessTrina\_47 Start: 37556, Stop: 38503, Start Num: 5

Candidate Starts for PrincessTrina\_47:

(Start: 5 @37556 has 19 MA's), (12, 37616), (25, 37790), (35, 37907), (37, 37919), (40, 37958), (43, 38015), (44, 38033), (45, 38036), (47, 38060), (48, 38075), (49, 38087), (56, 38180), (58, 38219), (61, 38261), (68, 38414),

Gene: RosiePosie\_47 Start: 37423, Stop: 38382, Start Num: 5

Candidate Starts for RosiePosie\_47:

(Start: 5 @37423 has 19 MA's), (8, 37450), (9, 37462), (12, 37495), (14, 37513), (21, 37573), (35, 37786), (37, 37798), (44, 37912), (47, 37939), (53, 37999), (56, 38059), (58, 38098), (61, 38140), (68, 38293),

Gene: Scavito\_47 Start: 37421, Stop: 38380, Start Num: 5

Candidate Starts for Scavito\_47:

(Start: 5 @37421 has 19 MA's), (8, 37448), (9, 37460), (12, 37493), (14, 37511), (21, 37571), (35, 37784), (37, 37796), (44, 37910), (47, 37937), (53, 37997), (56, 38057), (58, 38096), (61, 38138), (68, 38291),

Gene: Tophat\_47 Start: 37422, Stop: 38381, Start Num: 5

Candidate Starts for Tophat\_47:

(Start: 5 @37422 has 19 MA's), (8, 37449), (9, 37461), (12, 37494), (14, 37512), (21, 37572), (35, 37785), (37, 37797), (44, 37911), (47, 37938), (53, 37998), (56, 38058), (58, 38097), (61, 38139), (68, 38292),