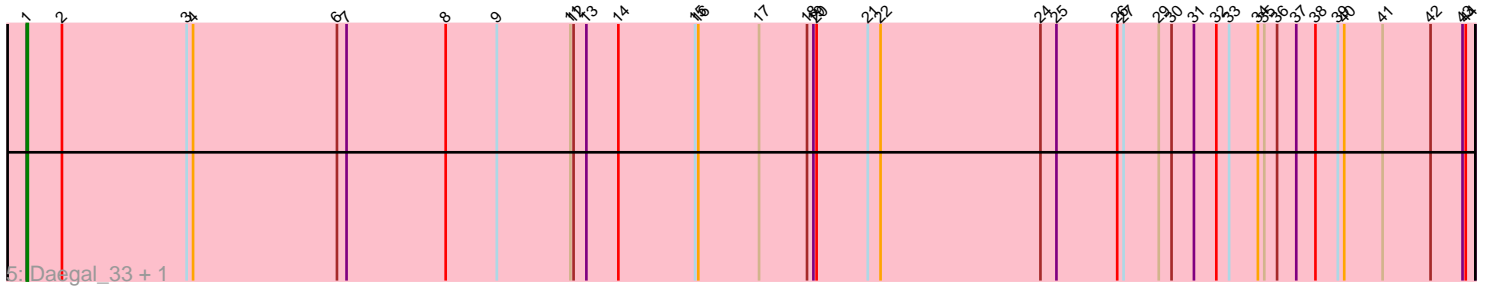
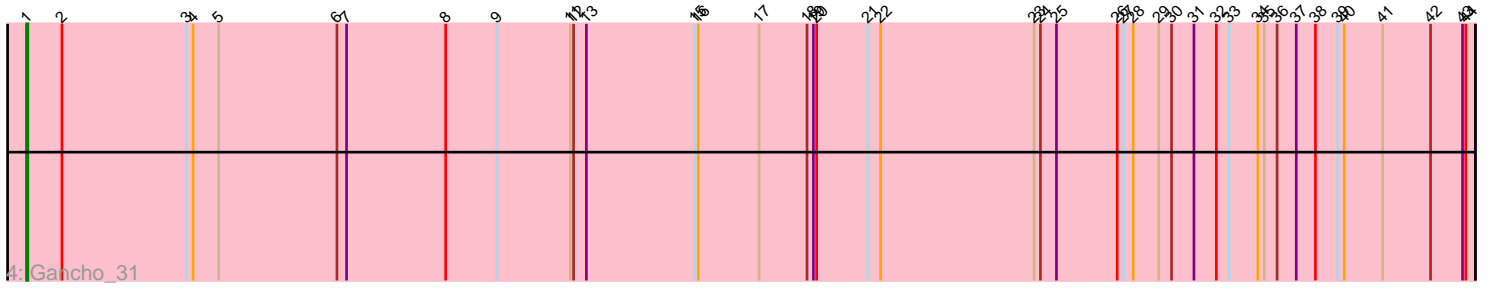
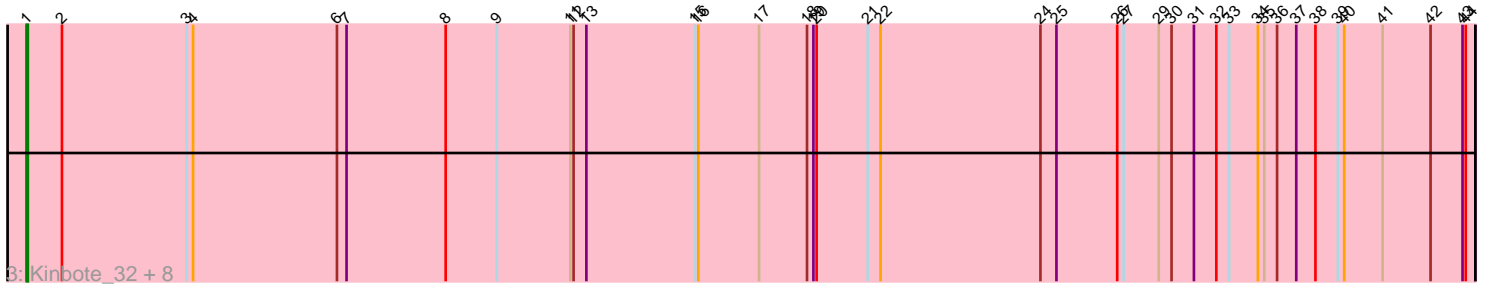
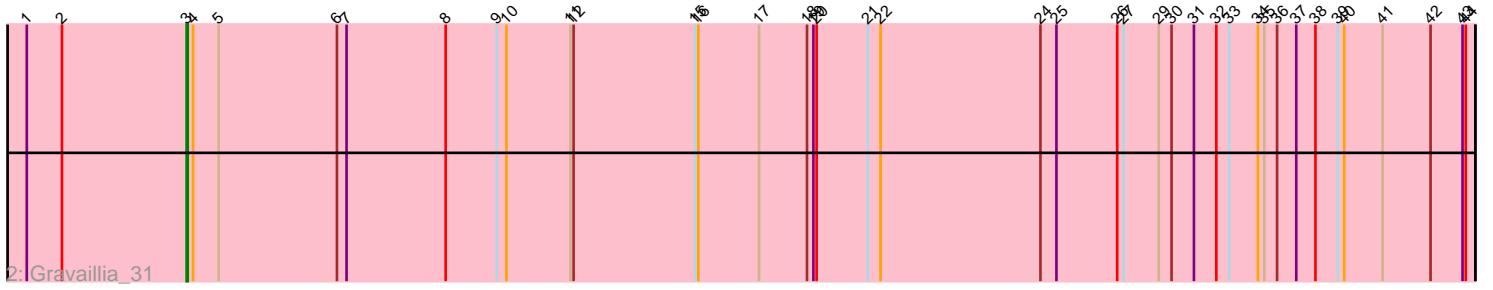
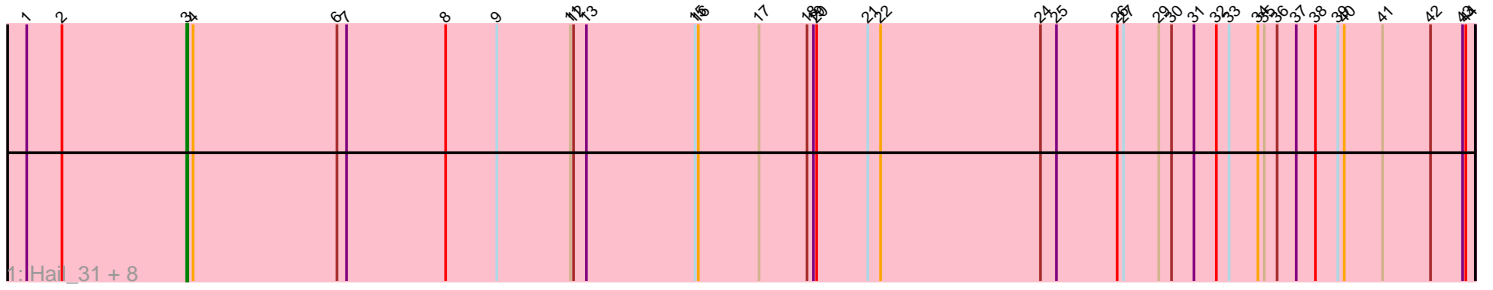


Pham 216554



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 216554 Report

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

Pham number 216554 has 22 members, 0 are drafts.

Phages represented in each track:

- Track 1 : Hail\_31, Hadrien\_32, Giles\_31, Wishmaker\_31, Dewey\_31, Forge\_31, Luke\_32, Ubuntu\_32, Luna22\_31
- Track 2 : Gravaillia\_31
- Track 3 : Kinbote\_32, Evanesce\_31, Webster2\_32, DeepSoil15\_32, Amymech\_32, Ein37\_32, HH92\_31, OBUpride\_32, LilHazelNut\_32
- Track 4 : Gancho\_31
- Track 5 : Daegal\_33, Amochick\_32

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

The start number called the most often in the published annotations is 1, it was called in 12 of the 22 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Amochick\_32, Amymech\_32, Daegal\_33, DeepSoil15\_32, Ein37\_32, Evanesce\_31, Gancho\_31, HH92\_31, Kinbote\_32, LilHazelNut\_32, OBUpride\_32, Webster2\_32,

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

- Dewey\_31, Forge\_31, Giles\_31, Gravaillia\_31, Hadrien\_32, Hail\_31, Luke\_32, Luna22\_31, Ubuntu\_32, Wishmaker\_31,

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

- 

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

Start 1:

- Found in 22 of 22 ( 100.0% ) of genes in pham
- Manual Annotations of this start: 12 of 22
- Called 54.5% of time when present
- Phage (with cluster) where this start called: Amochick\_32 (Q), Amymech\_32 (Q), Daegal\_33 (Q), DeepSoil15\_32 (Q), Ein37\_32 (Q), Evanesce\_31 (Q), Gancho\_31 (Q), HH92\_31 (Q), Kinbote\_32 (Q), LilHazelNut\_32 (Q), OBUpride\_32 (Q), Webster2\_32 (Q),

Start 3:

- Found in 22 of 22 ( 100.0% ) of genes in pham
- Manual Annotations of this start: 10 of 22
- Called 45.5% of time when present
- Phage (with cluster) where this start called: Dewey\_31 (Q), Forge\_31 (Q), Giles\_31 (Q), Gravaillia\_31 (Q), Hadrien\_32 (Q), Hail\_31 (Q), Luke\_32 (Q), Luna22\_31 (Q), Ubuntu\_32 (Q), Wishmaker\_31 (Q),

**Summary by clusters:**

There is one cluster represented in this pham: Q

Info for manual annotations of cluster Q:

- Start number 1 was manually annotated 12 times for cluster Q.
- Start number 3 was manually annotated 10 times for cluster Q.

**Gene Information:**

Gene: Amochick\_32 Start: 26987, Stop: 28345, Start Num: 1

Candidate Starts for Amochick\_32:

(Start: 1 @26987 has 12 MA's), (2, 27020), (Start: 3 @27137 has 10 MA's), (4, 27143), (6, 27278), (7, 27287), (8, 27380), (9, 27428), (11, 27497), (12, 27500), (13, 27512), (14, 27542), (15, 27614), (16, 27617), (17, 27674), (18, 27719), (19, 27725), (20, 27728), (21, 27776), (22, 27788), (24, 27938), (25, 27953), (26, 28010), (27, 28016), (29, 28049), (30, 28061), (31, 28082), (32, 28103), (33, 28115), (34, 28142), (35, 28148), (36, 28160), (37, 28178), (38, 28196), (39, 28217), (40, 28223), (41, 28259), (42, 28304), (43, 28334), (44, 28337),

Gene: Amymech\_32 Start: 26981, Stop: 28339, Start Num: 1

Candidate Starts for Amymech\_32:

(Start: 1 @26981 has 12 MA's), (2, 27014), (Start: 3 @27131 has 10 MA's), (4, 27137), (6, 27272), (7, 27281), (8, 27374), (9, 27422), (11, 27491), (12, 27494), (13, 27506), (15, 27608), (16, 27611), (17, 27668), (18, 27713), (19, 27719), (20, 27722), (21, 27770), (22, 27782), (24, 27932), (25, 27947), (26, 28004), (27, 28010), (29, 28043), (30, 28055), (31, 28076), (32, 28097), (33, 28109), (34, 28136), (35, 28142), (36, 28154), (37, 28172), (38, 28190), (39, 28211), (40, 28217), (41, 28253), (42, 28298), (43, 28328), (44, 28331),

Gene: Daegal\_33 Start: 27275, Stop: 28633, Start Num: 1

Candidate Starts for Daegal\_33:

(Start: 1 @27275 has 12 MA's), (2, 27308), (Start: 3 @27425 has 10 MA's), (4, 27431), (6, 27566), (7, 27575), (8, 27668), (9, 27716), (11, 27785), (12, 27788), (13, 27800), (14, 27830), (15, 27902), (16, 27905), (17, 27962), (18, 28007), (19, 28013), (20, 28016), (21, 28064), (22, 28076), (24, 28226), (25, 28241), (26, 28298), (27, 28304), (29, 28337), (30, 28349), (31, 28370), (32, 28391), (33, 28403), (34, 28430), (35, 28436), (36, 28448), (37, 28466), (38, 28484), (39, 28505), (40, 28511), (41, 28547), (42, 28592), (43, 28622), (44, 28625),

Gene: DeepSoil15\_32 Start: 26981, Stop: 28339, Start Num: 1

Candidate Starts for DeepSoil15\_32:

(Start: 1 @26981 has 12 MA's), (2, 27014), (Start: 3 @27131 has 10 MA's), (4, 27137), (6, 27272), (7, 27281), (8, 27374), (9, 27422), (11, 27491), (12, 27494), (13, 27506), (15, 27608), (16, 27611), (17, 27668), (18, 27713), (19, 27719), (20, 27722), (21, 27770), (22, 27782), (24, 27932), (25, 27947), (26,

28004), (27, 28010), (29, 28043), (30, 28055), (31, 28076), (32, 28097), (33, 28109), (34, 28136), (35, 28142), (36, 28154), (37, 28172), (38, 28190), (39, 28211), (40, 28217), (41, 28253), (42, 28298), (43, 28328), (44, 28331),

Gene: Dewey\_31 Start: 27131, Stop: 28339, Start Num: 3

Candidate Starts for Dewey\_31:

(Start: 1 @26981 has 12 MA's), (2, 27014), (Start: 3 @27131 has 10 MA's), (4, 27137), (6, 27272), (7, 27281), (8, 27374), (9, 27422), (11, 27491), (12, 27494), (13, 27506), (15, 27608), (16, 27611), (17, 27668), (18, 27713), (19, 27719), (20, 27722), (21, 27770), (22, 27782), (24, 27932), (25, 27947), (26, 28004), (27, 28010), (29, 28043), (30, 28055), (31, 28076), (32, 28097), (33, 28109), (34, 28136), (35, 28142), (36, 28154), (37, 28172), (38, 28190), (39, 28211), (40, 28217), (41, 28253), (42, 28298), (43, 28328), (44, 28331),

Gene: Ein37\_32 Start: 26981, Stop: 28339, Start Num: 1

Candidate Starts for Ein37\_32:

(Start: 1 @26981 has 12 MA's), (2, 27014), (Start: 3 @27131 has 10 MA's), (4, 27137), (6, 27272), (7, 27281), (8, 27374), (9, 27422), (11, 27491), (12, 27494), (13, 27506), (15, 27608), (16, 27611), (17, 27668), (18, 27713), (19, 27719), (20, 27722), (21, 27770), (22, 27782), (24, 27932), (25, 27947), (26, 28004), (27, 28010), (29, 28043), (30, 28055), (31, 28076), (32, 28097), (33, 28109), (34, 28136), (35, 28142), (36, 28154), (37, 28172), (38, 28190), (39, 28211), (40, 28217), (41, 28253), (42, 28298), (43, 28328), (44, 28331),

Gene: Evanesce\_31 Start: 26981, Stop: 28339, Start Num: 1

Candidate Starts for Evanesce\_31:

(Start: 1 @26981 has 12 MA's), (2, 27014), (Start: 3 @27131 has 10 MA's), (4, 27137), (6, 27272), (7, 27281), (8, 27374), (9, 27422), (11, 27491), (12, 27494), (13, 27506), (15, 27608), (16, 27611), (17, 27668), (18, 27713), (19, 27719), (20, 27722), (21, 27770), (22, 27782), (24, 27932), (25, 27947), (26, 28004), (27, 28010), (29, 28043), (30, 28055), (31, 28076), (32, 28097), (33, 28109), (34, 28136), (35, 28142), (36, 28154), (37, 28172), (38, 28190), (39, 28211), (40, 28217), (41, 28253), (42, 28298), (43, 28328), (44, 28331),

Gene: Forge\_31 Start: 27131, Stop: 28339, Start Num: 3

Candidate Starts for Forge\_31:

(Start: 1 @26981 has 12 MA's), (2, 27014), (Start: 3 @27131 has 10 MA's), (4, 27137), (6, 27272), (7, 27281), (8, 27374), (9, 27422), (11, 27491), (12, 27494), (13, 27506), (15, 27608), (16, 27611), (17, 27668), (18, 27713), (19, 27719), (20, 27722), (21, 27770), (22, 27782), (24, 27932), (25, 27947), (26, 28004), (27, 28010), (29, 28043), (30, 28055), (31, 28076), (32, 28097), (33, 28109), (34, 28136), (35, 28142), (36, 28154), (37, 28172), (38, 28190), (39, 28211), (40, 28217), (41, 28253), (42, 28298), (43, 28328), (44, 28331),

Gene: Gancho\_31 Start: 26704, Stop: 28062, Start Num: 1

Candidate Starts for Gancho\_31:

(Start: 1 @26704 has 12 MA's), (2, 26737), (Start: 3 @26854 has 10 MA's), (4, 26860), (5, 26884), (6, 26995), (7, 27004), (8, 27097), (9, 27145), (11, 27214), (12, 27217), (13, 27229), (15, 27331), (16, 27334), (17, 27391), (18, 27436), (19, 27442), (20, 27445), (21, 27493), (22, 27505), (23, 27649), (24, 27655), (25, 27670), (26, 27727), (27, 27733), (28, 27742), (29, 27766), (30, 27778), (31, 27799), (32, 27820), (33, 27832), (34, 27859), (35, 27865), (36, 27877), (37, 27895), (38, 27913), (39, 27934), (40, 27940), (41, 27976), (42, 28021), (43, 28051), (44, 28054),

Gene: Giles\_31 Start: 27131, Stop: 28339, Start Num: 3

Candidate Starts for Giles\_31:

(Start: 1 @26981 has 12 MA's), (2, 27014), (Start: 3 @27131 has 10 MA's), (4, 27137), (6, 27272), (7, 27281), (8, 27374), (9, 27422), (11, 27491), (12, 27494), (13, 27506), (15, 27608), (16, 27611), (17,

27668), (18, 27713), (19, 27719), (20, 27722), (21, 27770), (22, 27782), (24, 27932), (25, 27947), (26, 28004), (27, 28010), (29, 28043), (30, 28055), (31, 28076), (32, 28097), (33, 28109), (34, 28136), (35, 28142), (36, 28154), (37, 28172), (38, 28190), (39, 28211), (40, 28217), (41, 28253), (42, 28298), (43, 28328), (44, 28331),

Gene: Gravaillia\_31 Start: 26860, Stop: 28068, Start Num: 3

Candidate Starts for Gravaillia\_31:

(Start: 1 @26710 has 12 MA's), (2, 26743), (Start: 3 @26860 has 10 MA's), (4, 26866), (5, 26890), (6, 27001), (7, 27010), (8, 27103), (9, 27151), (10, 27160), (11, 27220), (12, 27223), (15, 27337), (16, 27340), (17, 27397), (18, 27442), (19, 27448), (20, 27451), (21, 27499), (22, 27511), (24, 27661), (25, 27676), (26, 27733), (27, 27739), (29, 27772), (30, 27784), (31, 27805), (32, 27826), (33, 27838), (34, 27865), (35, 27871), (36, 27883), (37, 27901), (38, 27919), (39, 27940), (40, 27946), (41, 27982), (42, 28027), (43, 28057), (44, 28060),

Gene: HH92\_31 Start: 26981, Stop: 28339, Start Num: 1

Candidate Starts for HH92\_31:

(Start: 1 @26981 has 12 MA's), (2, 27014), (Start: 3 @27131 has 10 MA's), (4, 27137), (6, 27272), (7, 27281), (8, 27374), (9, 27422), (11, 27491), (12, 27494), (13, 27506), (15, 27608), (16, 27611), (17, 27668), (18, 27713), (19, 27719), (20, 27722), (21, 27770), (22, 27782), (24, 27932), (25, 27947), (26, 28004), (27, 28010), (29, 28043), (30, 28055), (31, 28076), (32, 28097), (33, 28109), (34, 28136), (35, 28142), (36, 28154), (37, 28172), (38, 28190), (39, 28211), (40, 28217), (41, 28253), (42, 28298), (43, 28328), (44, 28331),

Gene: Hadrien\_32 Start: 27131, Stop: 28339, Start Num: 3

Candidate Starts for Hadrien\_32:

(Start: 1 @26981 has 12 MA's), (2, 27014), (Start: 3 @27131 has 10 MA's), (4, 27137), (6, 27272), (7, 27281), (8, 27374), (9, 27422), (11, 27491), (12, 27494), (13, 27506), (15, 27608), (16, 27611), (17, 27668), (18, 27713), (19, 27719), (20, 27722), (21, 27770), (22, 27782), (24, 27932), (25, 27947), (26, 28004), (27, 28010), (29, 28043), (30, 28055), (31, 28076), (32, 28097), (33, 28109), (34, 28136), (35, 28142), (36, 28154), (37, 28172), (38, 28190), (39, 28211), (40, 28217), (41, 28253), (42, 28298), (43, 28328), (44, 28331),

Gene: Hail\_31 Start: 27131, Stop: 28339, Start Num: 3

Candidate Starts for Hail\_31:

(Start: 1 @26981 has 12 MA's), (2, 27014), (Start: 3 @27131 has 10 MA's), (4, 27137), (6, 27272), (7, 27281), (8, 27374), (9, 27422), (11, 27491), (12, 27494), (13, 27506), (15, 27608), (16, 27611), (17, 27668), (18, 27713), (19, 27719), (20, 27722), (21, 27770), (22, 27782), (24, 27932), (25, 27947), (26, 28004), (27, 28010), (29, 28043), (30, 28055), (31, 28076), (32, 28097), (33, 28109), (34, 28136), (35, 28142), (36, 28154), (37, 28172), (38, 28190), (39, 28211), (40, 28217), (41, 28253), (42, 28298), (43, 28328), (44, 28331),

Gene: Kinbote\_32 Start: 26981, Stop: 28339, Start Num: 1

Candidate Starts for Kinbote\_32:

(Start: 1 @26981 has 12 MA's), (2, 27014), (Start: 3 @27131 has 10 MA's), (4, 27137), (6, 27272), (7, 27281), (8, 27374), (9, 27422), (11, 27491), (12, 27494), (13, 27506), (15, 27608), (16, 27611), (17, 27668), (18, 27713), (19, 27719), (20, 27722), (21, 27770), (22, 27782), (24, 27932), (25, 27947), (26, 28004), (27, 28010), (29, 28043), (30, 28055), (31, 28076), (32, 28097), (33, 28109), (34, 28136), (35, 28142), (36, 28154), (37, 28172), (38, 28190), (39, 28211), (40, 28217), (41, 28253), (42, 28298), (43, 28328), (44, 28331),

Gene: LilHazelnut\_32 Start: 26981, Stop: 28339, Start Num: 1

Candidate Starts for LilHazelnut\_32:

(Start: 1 @26981 has 12 MA's), (2, 27014), (Start: 3 @27131 has 10 MA's), (4, 27137), (6, 27272), (7, 27281), (8, 27374), (9, 27422), (11, 27491), (12, 27494), (13, 27506), (15, 27608), (16, 27611), (17, 27668), (18, 27713), (19, 27719), (20, 27722), (21, 27770), (22, 27782), (24, 27932), (25, 27947), (26, 28004), (27, 28010), (29, 28043), (30, 28055), (31, 28076), (32, 28097), (33, 28109), (34, 28136), (35, 28142), (36, 28154), (37, 28172), (38, 28190), (39, 28211), (40, 28217), (41, 28253), (42, 28298), (43, 28328), (44, 28331),

Gene: Luke\_32 Start: 27086, Stop: 28294, Start Num: 3

Candidate Starts for Luke\_32:

(Start: 1 @26936 has 12 MA's), (2, 26969), (Start: 3 @27086 has 10 MA's), (4, 27092), (6, 27227), (7, 27236), (8, 27329), (9, 27377), (11, 27446), (12, 27449), (13, 27461), (15, 27563), (16, 27566), (17, 27623), (18, 27668), (19, 27674), (20, 27677), (21, 27725), (22, 27737), (24, 27887), (25, 27902), (26, 27959), (27, 27965), (29, 27998), (30, 28010), (31, 28031), (32, 28052), (33, 28064), (34, 28091), (35, 28097), (36, 28109), (37, 28127), (38, 28145), (39, 28166), (40, 28172), (41, 28208), (42, 28253), (43, 28283), (44, 28286),

Gene: Luna22\_31 Start: 27131, Stop: 28339, Start Num: 3

Candidate Starts for Luna22\_31:

(Start: 1 @26981 has 12 MA's), (2, 27014), (Start: 3 @27131 has 10 MA's), (4, 27137), (6, 27272), (7, 27281), (8, 27374), (9, 27422), (11, 27491), (12, 27494), (13, 27506), (15, 27608), (16, 27611), (17, 27668), (18, 27713), (19, 27719), (20, 27722), (21, 27770), (22, 27782), (24, 27932), (25, 27947), (26, 28004), (27, 28010), (29, 28043), (30, 28055), (31, 28076), (32, 28097), (33, 28109), (34, 28136), (35, 28142), (36, 28154), (37, 28172), (38, 28190), (39, 28211), (40, 28217), (41, 28253), (42, 28298), (43, 28328), (44, 28331),

Gene: OBUpride\_32 Start: 26975, Stop: 28333, Start Num: 1

Candidate Starts for OBUpride\_32:

(Start: 1 @26975 has 12 MA's), (2, 27008), (Start: 3 @27125 has 10 MA's), (4, 27131), (6, 27266), (7, 27275), (8, 27368), (9, 27416), (11, 27485), (12, 27488), (13, 27500), (15, 27602), (16, 27605), (17, 27662), (18, 27707), (19, 27713), (20, 27716), (21, 27764), (22, 27776), (24, 27926), (25, 27941), (26, 27998), (27, 28004), (29, 28037), (30, 28049), (31, 28070), (32, 28091), (33, 28103), (34, 28130), (35, 28136), (36, 28148), (37, 28166), (38, 28184), (39, 28205), (40, 28211), (41, 28247), (42, 28292), (43, 28322), (44, 28325),

Gene: Ubuntu\_32 Start: 27131, Stop: 28339, Start Num: 3

Candidate Starts for Ubuntu\_32:

(Start: 1 @26981 has 12 MA's), (2, 27014), (Start: 3 @27131 has 10 MA's), (4, 27137), (6, 27272), (7, 27281), (8, 27374), (9, 27422), (11, 27491), (12, 27494), (13, 27506), (15, 27608), (16, 27611), (17, 27668), (18, 27713), (19, 27719), (20, 27722), (21, 27770), (22, 27782), (24, 27932), (25, 27947), (26, 28004), (27, 28010), (29, 28043), (30, 28055), (31, 28076), (32, 28097), (33, 28109), (34, 28136), (35, 28142), (36, 28154), (37, 28172), (38, 28190), (39, 28211), (40, 28217), (41, 28253), (42, 28298), (43, 28328), (44, 28331),

Gene: Webster2\_32 Start: 26981, Stop: 28339, Start Num: 1

Candidate Starts for Webster2\_32:

(Start: 1 @26981 has 12 MA's), (2, 27014), (Start: 3 @27131 has 10 MA's), (4, 27137), (6, 27272), (7, 27281), (8, 27374), (9, 27422), (11, 27491), (12, 27494), (13, 27506), (15, 27608), (16, 27611), (17, 27668), (18, 27713), (19, 27719), (20, 27722), (21, 27770), (22, 27782), (24, 27932), (25, 27947), (26, 28004), (27, 28010), (29, 28043), (30, 28055), (31, 28076), (32, 28097), (33, 28109), (34, 28136), (35, 28142), (36, 28154), (37, 28172), (38, 28190), (39, 28211), (40, 28217), (41, 28253), (42, 28298), (43, 28328), (44, 28331),

Gene: Wishmaker\_31 Start: 27131, Stop: 28339, Start Num: 3

Candidate Starts for Wishmaker\_31:

(Start: 1 @26981 has 12 MA's), (2, 27014), (Start: 3 @27131 has 10 MA's), (4, 27137), (6, 27272), (7, 27281), (8, 27374), (9, 27422), (11, 27491), (12, 27494), (13, 27506), (15, 27608), (16, 27611), (17, 27668), (18, 27713), (19, 27719), (20, 27722), (21, 27770), (22, 27782), (24, 27932), (25, 27947), (26, 28004), (27, 28010), (29, 28043), (30, 28055), (31, 28076), (32, 28097), (33, 28109), (34, 28136), (35, 28142), (36, 28154), (37, 28172), (38, 28190), (39, 28211), (40, 28217), (41, 28253), (42, 28298), (43, 28328), (44, 28331),