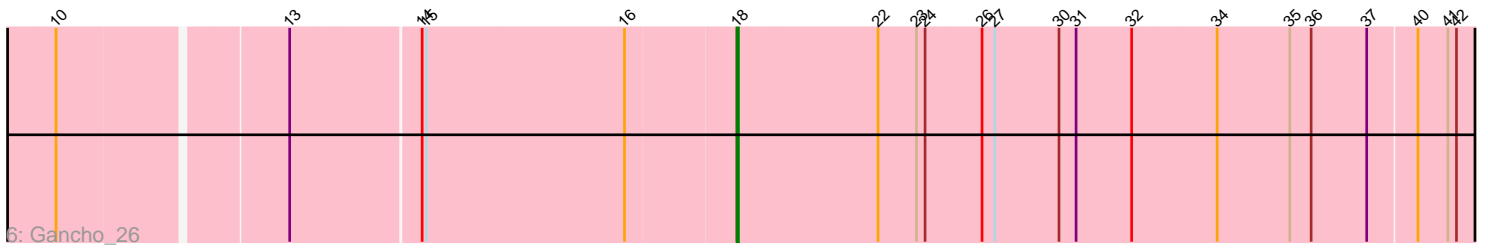
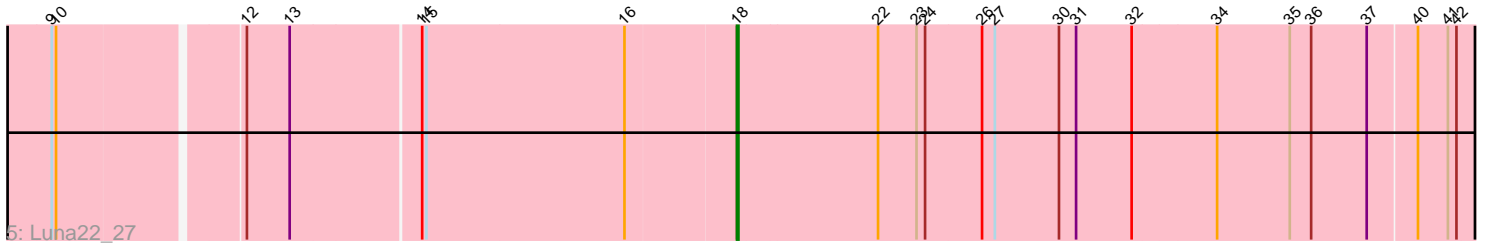
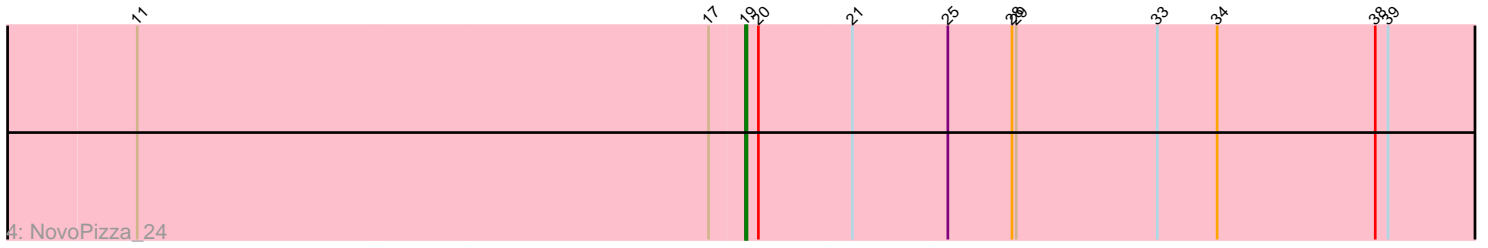
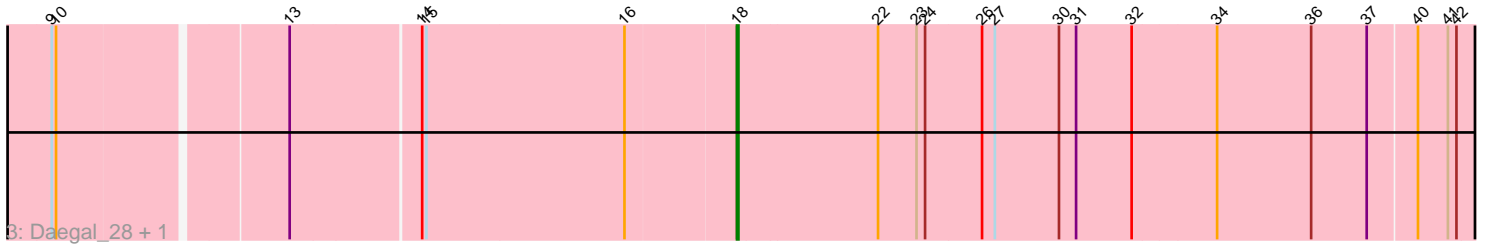
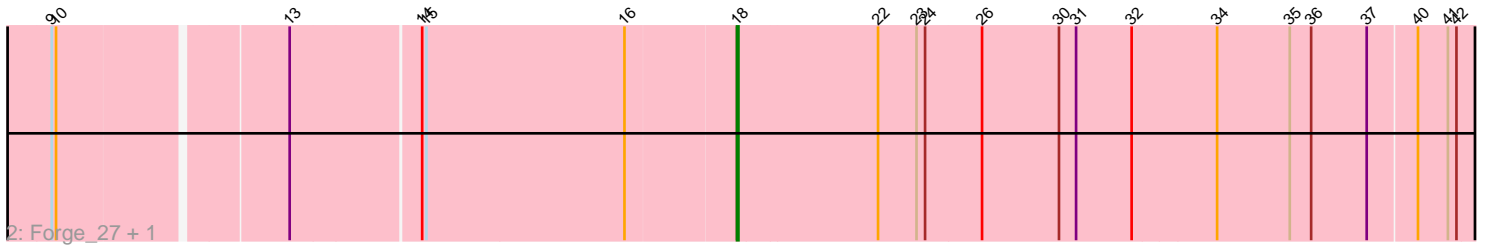
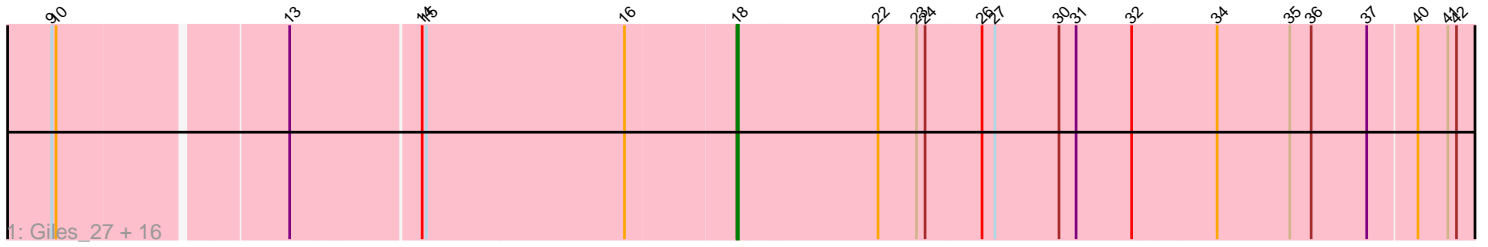


# Zoomed Pham 305283



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 305283 Report

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

Pham number 305283 has 24 members, 1 are drafts.

Phages represented in each track:

- Track 1 : Giles\_27, HH92\_27, OBUpride\_27, Wishmaker\_27, Dewey\_27, LilHazelnut\_27, Ubuntu\_27, Hail\_27, Kinbote\_27, Gravaillia\_27, Evanesce\_27, BloominB\_27, Hadrien\_27, Webster2\_27, DeepSoil15\_27, Amymech\_27, Ein37\_27
- Track 2 : Forge\_27, Luke\_27
- Track 3 : Daegal\_28, Amochick\_27
- Track 4 : NovoPizza\_24
- Track 5 : Luna22\_27
- Track 6 : Gancho\_26

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

The start number called the most often in the published annotations is 18, it was called in 22 of the 23 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Amochick\_27, Amymech\_27, BloominB\_27, Daegal\_28, DeepSoil15\_27, Dewey\_27, Ein37\_27, Evanesce\_27, Forge\_27, Gancho\_26, Giles\_27, Gravaillia\_27, HH92\_27, Hadrien\_27, Hail\_27, Kinbote\_27, LilHazelnut\_27, Luke\_27, Luna22\_27, OBUpride\_27, Ubuntu\_27, Webster2\_27, Wishmaker\_27,

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

- 

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

- NovoPizza\_24,

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

Start 18:

- Found in 23 of 24 ( 95.8% ) of genes in pham
- Manual Annotations of this start: 22 of 23
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Amochick\_27 (Q), Amymech\_27 (Q), BloominB\_27 (Q), Daegal\_28 (Q), DeepSoil15\_27 (Q), Dewey\_27 (Q), Ein37\_27 (Q),

Evanesce\_27 (Q), Forge\_27 (Q), Gancho\_26 (Q), Giles\_27 (Q), Gravaillia\_27 (Q), HH92\_27 (Q), Hadrien\_27 (Q), Hail\_27 (Q), Kinbote\_27 (Q), LilHazelNut\_27 (Q), Luke\_27 (Q), Luna22\_27 (Q), OBUpride\_27 (Q), Ubuntu\_27 (Q), Webster2\_27 (Q), Wishmaker\_27 (Q),

Start 19:

- Found in 1 of 24 ( 4.2% ) of genes in pham
- Manual Annotations of this start: 1 of 23
- Called 100.0% of time when present
- Phage (with cluster) where this start called: NovoPizza\_24 (Q),

### Summary by clusters:

There is one cluster represented in this pham: Q

Info for manual annotations of cluster Q:

- Start number 18 was manually annotated 22 times for cluster Q.
- Start number 19 was manually annotated 1 time for cluster Q.

### Gene Information:

Gene: Amochick\_27 Start: 23377, Stop: 24615, Start Num: 18

Candidate Starts for Amochick\_27:

(5, 22765), (6, 22831), (9, 22921), (10, 22924), (13, 23074), (14, 23161), (15, 23164), (16, 23302), (Start: 18 @23377 has 22 MA's), (22, 23473), (23, 23500), (24, 23506), (26, 23545), (27, 23554), (30, 23599), (31, 23611), (32, 23650), (34, 23707), (36, 23773), (37, 23812), (40, 23845), (41, 23866), (42, 23872), (43, 23908), (44, 23920), (45, 23923), (47, 23971), (48, 23977), (49, 23980), (50, 23989), (53, 24127), (54, 24220), (57, 24277), (58, 24283), (60, 24367), (61, 24382), (62, 24385), (63, 24451), (64, 24484),

Gene: Amymech\_27 Start: 23371, Stop: 24609, Start Num: 18

Candidate Starts for Amymech\_27:

(5, 22759), (6, 22825), (9, 22915), (10, 22918), (13, 23068), (14, 23155), (15, 23158), (16, 23296), (Start: 18 @23371 has 22 MA's), (22, 23467), (23, 23494), (24, 23500), (26, 23539), (27, 23548), (30, 23593), (31, 23605), (32, 23644), (34, 23701), (35, 23752), (36, 23767), (37, 23806), (40, 23839), (41, 23860), (42, 23866), (43, 23902), (44, 23914), (45, 23917), (47, 23965), (48, 23971), (49, 23974), (50, 23983), (53, 24121), (54, 24214), (57, 24271), (58, 24277), (60, 24361), (61, 24376), (62, 24379), (63, 24445), (64, 24478),

Gene: BloominB\_27 Start: 23371, Stop: 24609, Start Num: 18

Candidate Starts for BloominB\_27:

(5, 22759), (6, 22825), (9, 22915), (10, 22918), (13, 23068), (14, 23155), (15, 23158), (16, 23296), (Start: 18 @23371 has 22 MA's), (22, 23467), (23, 23494), (24, 23500), (26, 23539), (27, 23548), (30, 23593), (31, 23605), (32, 23644), (34, 23701), (35, 23752), (36, 23767), (37, 23806), (40, 23839), (41, 23860), (42, 23866), (43, 23902), (44, 23914), (45, 23917), (47, 23965), (48, 23971), (49, 23974), (50, 23983), (53, 24121), (54, 24214), (57, 24271), (58, 24277), (60, 24361), (61, 24376), (62, 24379), (63, 24445), (64, 24478),

Gene: Daegal\_28 Start: 23665, Stop: 24903, Start Num: 18

Candidate Starts for Daegal\_28:

(5, 23053), (6, 23119), (9, 23209), (10, 23212), (13, 23362), (14, 23449), (15, 23452), (16, 23590), (Start: 18 @23665 has 22 MA's), (22, 23761), (23, 23788), (24, 23794), (26, 23833), (27, 23842), (30, 23887), (31, 23899), (32, 23938), (34, 23995), (36, 24061), (37, 24100), (40, 24133), (41, 24154), (42, 24160), (43, 24196), (44, 24208), (45, 24211), (47, 24259), (48, 24265), (49, 24268), (50, 24277), (53, 24415), (54, 24508), (57, 24565), (58, 24571), (60, 24655), (61, 24670), (62, 24673), (63, 24739), (64, 24772),

Gene: DeepSoil15\_27 Start: 23371, Stop: 24609, Start Num: 18

Candidate Starts for DeepSoil15\_27:

(5, 22759), (6, 22825), (9, 22915), (10, 22918), (13, 23068), (14, 23155), (15, 23158), (16, 23296), (Start: 18 @23371 has 22 MA's), (22, 23467), (23, 23494), (24, 23500), (26, 23539), (27, 23548), (30, 23593), (31, 23605), (32, 23644), (34, 23701), (35, 23752), (36, 23767), (37, 23806), (40, 23839), (41, 23860), (42, 23866), (43, 23902), (44, 23914), (45, 23917), (47, 23965), (48, 23971), (49, 23974), (50, 23983), (53, 24121), (54, 24214), (57, 24271), (58, 24277), (60, 24361), (61, 24376), (62, 24379), (63, 24445), (64, 24478),

Gene: Dewey\_27 Start: 23371, Stop: 24609, Start Num: 18

Candidate Starts for Dewey\_27:

(5, 22759), (6, 22825), (9, 22915), (10, 22918), (13, 23068), (14, 23155), (15, 23158), (16, 23296), (Start: 18 @23371 has 22 MA's), (22, 23467), (23, 23494), (24, 23500), (26, 23539), (27, 23548), (30, 23593), (31, 23605), (32, 23644), (34, 23701), (35, 23752), (36, 23767), (37, 23806), (40, 23839), (41, 23860), (42, 23866), (43, 23902), (44, 23914), (45, 23917), (47, 23965), (48, 23971), (49, 23974), (50, 23983), (53, 24121), (54, 24214), (57, 24271), (58, 24277), (60, 24361), (61, 24376), (62, 24379), (63, 24445), (64, 24478),

Gene: Ein37\_27 Start: 23371, Stop: 24609, Start Num: 18

Candidate Starts for Ein37\_27:

(5, 22759), (6, 22825), (9, 22915), (10, 22918), (13, 23068), (14, 23155), (15, 23158), (16, 23296), (Start: 18 @23371 has 22 MA's), (22, 23467), (23, 23494), (24, 23500), (26, 23539), (27, 23548), (30, 23593), (31, 23605), (32, 23644), (34, 23701), (35, 23752), (36, 23767), (37, 23806), (40, 23839), (41, 23860), (42, 23866), (43, 23902), (44, 23914), (45, 23917), (47, 23965), (48, 23971), (49, 23974), (50, 23983), (53, 24121), (54, 24214), (57, 24271), (58, 24277), (60, 24361), (61, 24376), (62, 24379), (63, 24445), (64, 24478),

Gene: Evanesce\_27 Start: 23371, Stop: 24609, Start Num: 18

Candidate Starts for Evanesce\_27:

(5, 22759), (6, 22825), (9, 22915), (10, 22918), (13, 23068), (14, 23155), (15, 23158), (16, 23296), (Start: 18 @23371 has 22 MA's), (22, 23467), (23, 23494), (24, 23500), (26, 23539), (27, 23548), (30, 23593), (31, 23605), (32, 23644), (34, 23701), (35, 23752), (36, 23767), (37, 23806), (40, 23839), (41, 23860), (42, 23866), (43, 23902), (44, 23914), (45, 23917), (47, 23965), (48, 23971), (49, 23974), (50, 23983), (53, 24121), (54, 24214), (57, 24271), (58, 24277), (60, 24361), (61, 24376), (62, 24379), (63, 24445), (64, 24478),

Gene: Forge\_27 Start: 23371, Stop: 24609, Start Num: 18

Candidate Starts for Forge\_27:

(5, 22759), (6, 22825), (9, 22915), (10, 22918), (13, 23068), (14, 23155), (15, 23158), (16, 23296), (Start: 18 @23371 has 22 MA's), (22, 23467), (23, 23494), (24, 23500), (26, 23539), (30, 23593), (31, 23605), (32, 23644), (34, 23701), (35, 23752), (36, 23767), (37, 23806), (40, 23839), (41, 23860), (42, 23866), (43, 23902), (44, 23914), (45, 23917), (47, 23965), (48, 23971), (49, 23974), (50, 23983), (53, 24121), (54, 24214), (57, 24271), (58, 24277), (60, 24361), (61, 24376), (62, 24379), (63, 24445), (64, 24478),

Gene: Gancho\_26 Start: 23095, Stop: 24333, Start Num: 18

Candidate Starts for Gancho\_26:

(5, 22483), (6, 22549), (10, 22642), (13, 22792), (14, 22879), (15, 22882), (16, 23020), (Start: 18 @23095 has 22 MA's), (22, 23191), (23, 23218), (24, 23224), (26, 23263), (27, 23272), (30, 23317), (31, 23329), (32, 23368), (34, 23425), (35, 23476), (36, 23491), (37, 23530), (40, 23563), (41, 23584), (42, 23590), (43, 23626), (44, 23638), (45, 23641), (47, 23689), (48, 23695), (49, 23698), (50, 23707), (53, 23845), (54, 23938), (57, 23995), (58, 24001), (60, 24085), (61, 24100), (62, 24103), (63, 24169), (64, 24202),

Gene: Giles\_27 Start: 23371, Stop: 24609, Start Num: 18

Candidate Starts for Giles\_27:

(5, 22759), (6, 22825), (9, 22915), (10, 22918), (13, 23068), (14, 23155), (15, 23158), (16, 23296), (Start: 18 @23371 has 22 MA's), (22, 23467), (23, 23494), (24, 23500), (26, 23539), (27, 23548), (30, 23593), (31, 23605), (32, 23644), (34, 23701), (35, 23752), (36, 23767), (37, 23806), (40, 23839), (41, 23860), (42, 23866), (43, 23902), (44, 23914), (45, 23917), (47, 23965), (48, 23971), (49, 23974), (50, 23983), (53, 24121), (54, 24214), (57, 24271), (58, 24277), (60, 24361), (61, 24376), (62, 24379), (63, 24445), (64, 24478),

Gene: Gravaillia\_27 Start: 23101, Stop: 24339, Start Num: 18

Candidate Starts for Gravaillia\_27:

(5, 22489), (6, 22555), (9, 22645), (10, 22648), (13, 22798), (14, 22885), (15, 22888), (16, 23026), (Start: 18 @23101 has 22 MA's), (22, 23197), (23, 23224), (24, 23230), (26, 23269), (27, 23278), (30, 23323), (31, 23335), (32, 23374), (34, 23431), (35, 23482), (36, 23497), (37, 23536), (40, 23569), (41, 23590), (42, 23596), (43, 23632), (44, 23644), (45, 23647), (47, 23695), (48, 23701), (49, 23704), (50, 23713), (53, 23851), (54, 23944), (57, 24001), (58, 24007), (60, 24091), (61, 24106), (62, 24109), (63, 24175), (64, 24208),

Gene: HH92\_27 Start: 23371, Stop: 24609, Start Num: 18

Candidate Starts for HH92\_27:

(5, 22759), (6, 22825), (9, 22915), (10, 22918), (13, 23068), (14, 23155), (15, 23158), (16, 23296), (Start: 18 @23371 has 22 MA's), (22, 23467), (23, 23494), (24, 23500), (26, 23539), (27, 23548), (30, 23593), (31, 23605), (32, 23644), (34, 23701), (35, 23752), (36, 23767), (37, 23806), (40, 23839), (41, 23860), (42, 23866), (43, 23902), (44, 23914), (45, 23917), (47, 23965), (48, 23971), (49, 23974), (50, 23983), (53, 24121), (54, 24214), (57, 24271), (58, 24277), (60, 24361), (61, 24376), (62, 24379), (63, 24445), (64, 24478),

Gene: Hadrien\_27 Start: 23371, Stop: 24609, Start Num: 18

Candidate Starts for Hadrien\_27:

(5, 22759), (6, 22825), (9, 22915), (10, 22918), (13, 23068), (14, 23155), (15, 23158), (16, 23296), (Start: 18 @23371 has 22 MA's), (22, 23467), (23, 23494), (24, 23500), (26, 23539), (27, 23548), (30, 23593), (31, 23605), (32, 23644), (34, 23701), (35, 23752), (36, 23767), (37, 23806), (40, 23839), (41, 23860), (42, 23866), (43, 23902), (44, 23914), (45, 23917), (47, 23965), (48, 23971), (49, 23974), (50, 23983), (53, 24121), (54, 24214), (57, 24271), (58, 24277), (60, 24361), (61, 24376), (62, 24379), (63, 24445), (64, 24478),

Gene: Hail\_27 Start: 23371, Stop: 24609, Start Num: 18

Candidate Starts for Hail\_27:

(5, 22759), (6, 22825), (9, 22915), (10, 22918), (13, 23068), (14, 23155), (15, 23158), (16, 23296), (Start: 18 @23371 has 22 MA's), (22, 23467), (23, 23494), (24, 23500), (26, 23539), (27, 23548), (30, 23593), (31, 23605), (32, 23644), (34, 23701), (35, 23752), (36, 23767), (37, 23806), (40, 23839), (41, 23860), (42, 23866), (43, 23902), (44, 23914), (45, 23917), (47, 23965), (48, 23971), (49, 23974), (50, 23983), (53, 24121), (54, 24214), (57, 24271), (58, 24277), (60, 24361), (61, 24376), (62, 24379), (63, 24445), (64, 24478),

Gene: Kinbote\_27 Start: 23371, Stop: 24609, Start Num: 18

Candidate Starts for Kinbote\_27:

(5, 22759), (6, 22825), (9, 22915), (10, 22918), (13, 23068), (14, 23155), (15, 23158), (16, 23296), (Start: 18 @23371 has 22 MA's), (22, 23467), (23, 23494), (24, 23500), (26, 23539), (27, 23548), (30, 23593), (31, 23605), (32, 23644), (34, 23701), (35, 23752), (36, 23767), (37, 23806), (40, 23839), (41, 23860), (42, 23866), (43, 23902), (44, 23914), (45, 23917), (47, 23965), (48, 23971), (49, 23974), (50, 23983), (53, 24121), (54, 24214), (57, 24271), (58, 24277), (60, 24361), (61, 24376), (62, 24379), (63, 24445), (64, 24478),

Gene: LilHazelnut\_27 Start: 23371, Stop: 24609, Start Num: 18

Candidate Starts for LilHazelnut\_27:

(5, 22759), (6, 22825), (9, 22915), (10, 22918), (13, 23068), (14, 23155), (15, 23158), (16, 23296), (Start: 18 @23371 has 22 MA's), (22, 23467), (23, 23494), (24, 23500), (26, 23539), (27, 23548), (30, 23593), (31, 23605), (32, 23644), (34, 23701), (35, 23752), (36, 23767), (37, 23806), (40, 23839), (41, 23860), (42, 23866), (43, 23902), (44, 23914), (45, 23917), (47, 23965), (48, 23971), (49, 23974), (50, 23983), (53, 24121), (54, 24214), (57, 24271), (58, 24277), (60, 24361), (61, 24376), (62, 24379), (63, 24445), (64, 24478),

Gene: Luke\_27 Start: 23371, Stop: 24564, Start Num: 18

Candidate Starts for Luke\_27:

(5, 22759), (6, 22825), (9, 22915), (10, 22918), (13, 23068), (14, 23155), (15, 23158), (16, 23296), (Start: 18 @23371 has 22 MA's), (22, 23467), (23, 23494), (24, 23500), (26, 23539), (30, 23548), (31, 23560), (32, 23599), (34, 23656), (35, 23707), (36, 23722), (37, 23761), (40, 23794), (41, 23815), (42, 23821), (43, 23857), (44, 23869), (45, 23872), (47, 23920), (48, 23926), (49, 23929), (50, 23938), (53, 24076), (54, 24169), (57, 24226), (58, 24232), (60, 24316), (61, 24331), (62, 24334), (63, 24400), (64, 24433),

Gene: Luna22\_27 Start: 23371, Stop: 24609, Start Num: 18

Candidate Starts for Luna22\_27:

(5, 22759), (6, 22825), (9, 22915), (10, 22918), (12, 23038), (13, 23068), (14, 23155), (15, 23158), (16, 23296), (Start: 18 @23371 has 22 MA's), (22, 23467), (23, 23494), (24, 23500), (26, 23539), (27, 23548), (30, 23593), (31, 23605), (32, 23644), (34, 23701), (35, 23752), (36, 23767), (37, 23806), (40, 23839), (41, 23860), (42, 23866), (43, 23902), (44, 23914), (45, 23917), (47, 23965), (48, 23971), (49, 23974), (50, 23983), (53, 24121), (54, 24214), (57, 24271), (58, 24277), (60, 24361), (61, 24376), (62, 24379), (63, 24445), (64, 24478),

Gene: NovoPizza\_24 Start: 24478, Stop: 25725, Start Num: 19

Candidate Starts for NovoPizza\_24:

(1, 22918), (2, 23035), (3, 23296), (4, 23614), (7, 23929), (8, 23953), (11, 24055), (17, 24454), (Start: 19 @24478 has 1 MA's), (20, 24487), (21, 24550), (25, 24616), (28, 24661), (29, 24664), (33, 24763), (34, 24805), (38, 24916), (39, 24925), (46, 25054), (51, 25195), (52, 25216), (54, 25321), (55, 25324), (56, 25348), (59, 25462), (65, 25615), (66, 25705),

Gene: OBUpride\_27 Start: 23365, Stop: 24603, Start Num: 18

Candidate Starts for OBUpride\_27:

(5, 22753), (6, 22819), (9, 22909), (10, 22912), (13, 23062), (14, 23149), (15, 23152), (16, 23290), (Start: 18 @23365 has 22 MA's), (22, 23461), (23, 23488), (24, 23494), (26, 23533), (27, 23542), (30, 23587), (31, 23599), (32, 23638), (34, 23695), (35, 23746), (36, 23761), (37, 23800), (40, 23833), (41, 23854), (42, 23860), (43, 23896), (44, 23908), (45, 23911), (47, 23959), (48, 23965), (49, 23968), (50, 23977), (53, 24115), (54, 24208), (57, 24265), (58, 24271), (60, 24355), (61, 24370), (62, 24373), (63, 24439), (64, 24472),

Gene: Ubuntu\_27 Start: 23371, Stop: 24609, Start Num: 18

Candidate Starts for Ubuntu\_27:

(5, 22759), (6, 22825), (9, 22915), (10, 22918), (13, 23068), (14, 23155), (15, 23158), (16, 23296), (Start: 18 @23371 has 22 MA's), (22, 23467), (23, 23494), (24, 23500), (26, 23539), (27, 23548), (30, 23593), (31, 23605), (32, 23644), (34, 23701), (35, 23752), (36, 23767), (37, 23806), (40, 23839), (41, 23860), (42, 23866), (43, 23902), (44, 23914), (45, 23917), (47, 23965), (48, 23971), (49, 23974), (50, 23983), (53, 24121), (54, 24214), (57, 24271), (58, 24277), (60, 24361), (61, 24376), (62, 24379), (63, 24445), (64, 24478),

Gene: Webster2\_27 Start: 23371, Stop: 24609, Start Num: 18

Candidate Starts for Webster2\_27:

(5, 22759), (6, 22825), (9, 22915), (10, 22918), (13, 23068), (14, 23155), (15, 23158), (16, 23296), (Start: 18 @23371 has 22 MA's), (22, 23467), (23, 23494), (24, 23500), (26, 23539), (27, 23548), (30, 23593), (31, 23605), (32, 23644), (34, 23701), (35, 23752), (36, 23767), (37, 23806), (40, 23839), (41, 23860), (42, 23866), (43, 23902), (44, 23914), (45, 23917), (47, 23965), (48, 23971), (49, 23974), (50, 23983), (53, 24121), (54, 24214), (57, 24271), (58, 24277), (60, 24361), (61, 24376), (62, 24379), (63, 24445), (64, 24478),

Gene: Wishmaker\_27 Start: 23371, Stop: 24609, Start Num: 18

Candidate Starts for Wishmaker\_27:

(5, 22759), (6, 22825), (9, 22915), (10, 22918), (13, 23068), (14, 23155), (15, 23158), (16, 23296), (Start: 18 @23371 has 22 MA's), (22, 23467), (23, 23494), (24, 23500), (26, 23539), (27, 23548), (30, 23593), (31, 23605), (32, 23644), (34, 23701), (35, 23752), (36, 23767), (37, 23806), (40, 23839), (41, 23860), (42, 23866), (43, 23902), (44, 23914), (45, 23917), (47, 23965), (48, 23971), (49, 23974), (50, 23983), (53, 24121), (54, 24214), (57, 24271), (58, 24277), (60, 24361), (61, 24376), (62, 24379), (63, 24445), (64, 24478),