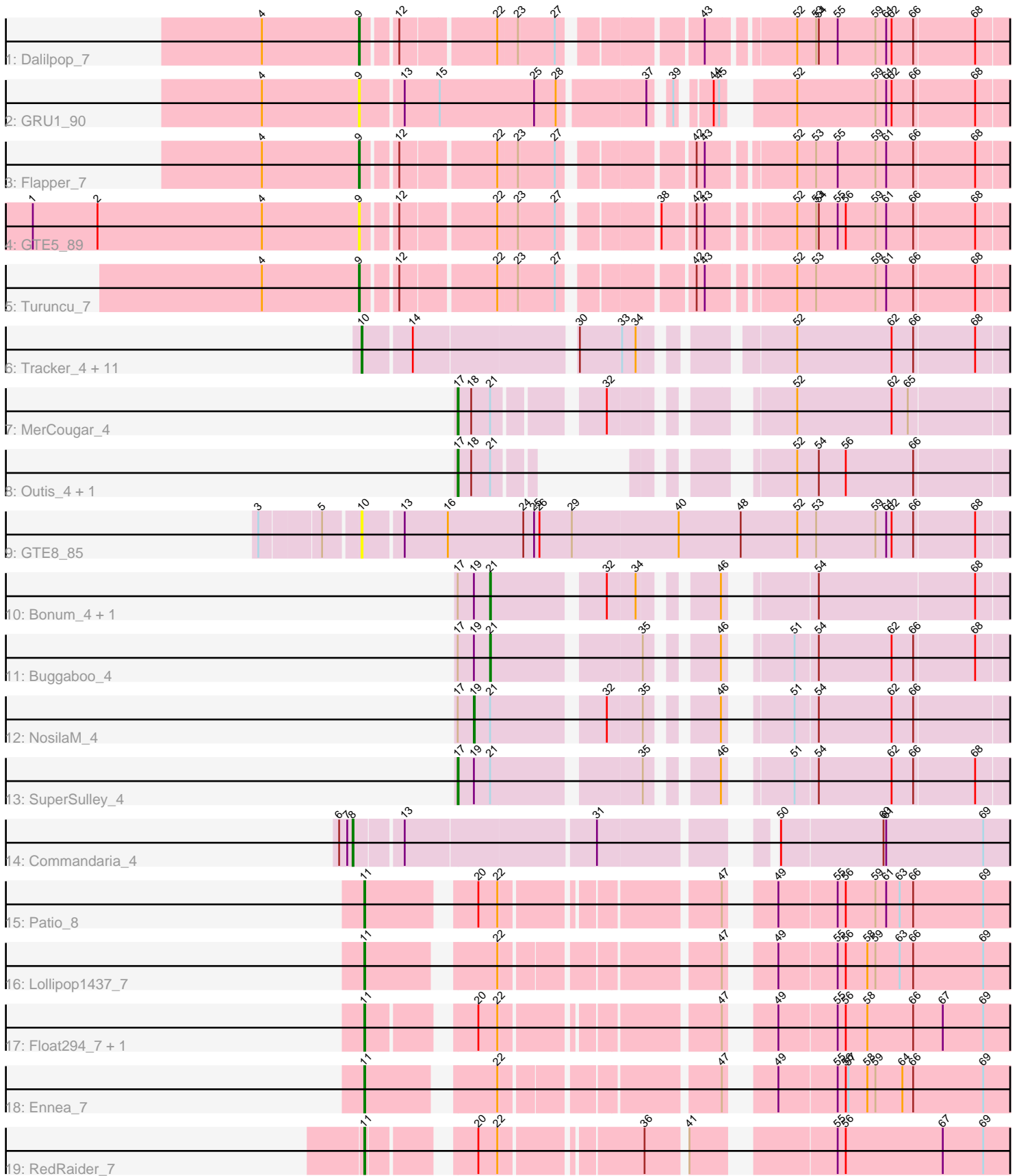


Pham 296784



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 296784 Report

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

Pham number 296784 has 33 members, 3 are drafts.

Phages represented in each track:

- Track 1 : Dalilpop\_7
- Track 2 : GRU1\_90
- Track 3 : Flapper\_7
- Track 4 : GTE5\_89
- Track 5 : Turuncu\_7
- Track 6 : Tracker\_4, Wheezy\_4, GrootJr\_6, Kurt\_4, NatB6\_5, Arti\_4, Foxboro\_4, NovumRegina\_5, Phomeo\_4, KidneyBean\_4, Emianna\_4, Jifall16\_4
- Track 7 : MerCougar\_4
- Track 8 : Outis\_4, StarStruck\_4
- Track 9 : GTE8\_85
- Track 10 : Bonum\_4, Kabluna\_4
- Track 11 : Buggaboo\_4
- Track 12 : NosilaM\_4
- Track 13 : SuperSulley\_4
- Track 14 : Commandaria\_4
- Track 15 : Patio\_8
- Track 16 : Lollipop1437\_7
- Track 17 : Float294\_7, Skysand\_7
- Track 18 : Ennea\_7
- Track 19 : RedRaider\_7

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

The start number called the most often in the published annotations is 10, it was called in 12 of the 30 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Arti\_4, Emianna\_4, Foxboro\_4, GTE8\_85, GrootJr\_6, Jifall16\_4, KidneyBean\_4, Kurt\_4, NatB6\_5, NovumRegina\_5, Phomeo\_4, Tracker\_4, Wheezy\_4,

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

- 

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

- Bonum\_4, Buggaboo\_4, Commandaria\_4, Dalilpop\_7, Ennea\_7, Flapper\_7, Float294\_7, GRU1\_90, GTE5\_89, Kabluna\_4, Lollipop1437\_7, MerCougar\_4, NosilaM\_4, Outis\_4, Patio\_8, RedRaider\_7, Skysand\_7, StarStruck\_4, SuperSulley\_4, Turuncu\_7,

### Summary by start number:

#### Start 8:

- Found in 1 of 33 ( 3.0% ) of genes in pham
- Manual Annotations of this start: 1 of 30
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Commandaria\_4 (CR2),

#### Start 9:

- Found in 5 of 33 ( 15.2% ) of genes in pham
- Manual Annotations of this start: 3 of 30
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Dalilpop\_7 (CR1), Flapper\_7 (CR1), GRU1\_90 (CR1), GTE5\_89 (CR1), Turuncu\_7 (CR1),

#### Start 10:

- Found in 13 of 33 ( 39.4% ) of genes in pham
- Manual Annotations of this start: 12 of 30
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Arti\_4 (CR2), Emianna\_4 (CR2), Foxboro\_4 (CR2), GTE8\_85 (CR2), GrootJr\_6 (CR2), Jifall16\_4 (CR2), KidneyBean\_4 (CR2), Kurt\_4 (CR2), NatB6\_5 (CR2), NovumRegina\_5 (CR2), Phomeo\_4 (CR2), Tracker\_4 (CR2), Wheezy\_4 (CR2),

#### Start 11:

- Found in 6 of 33 ( 18.2% ) of genes in pham
- Manual Annotations of this start: 6 of 30
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Ennea\_7 (CR3), Float294\_7 (CR3), Lollipop1437\_7 (CR3), Patio\_8 (CR3), RedRaider\_7 (CR3), Skysand\_7 (CR3),

#### Start 17:

- Found in 8 of 33 ( 24.2% ) of genes in pham
- Manual Annotations of this start: 4 of 30
- Called 50.0% of time when present
- Phage (with cluster) where this start called: MerCougar\_4 (CR2), Outis\_4 (CR2), StarStruck\_4 (CR2), SuperSulley\_4 (CR2),

#### Start 19:

- Found in 5 of 33 ( 15.2% ) of genes in pham
- Manual Annotations of this start: 1 of 30
- Called 20.0% of time when present
- Phage (with cluster) where this start called: NosilaM\_4 (CR2),

#### Start 21:

- Found in 8 of 33 ( 24.2% ) of genes in pham
- Manual Annotations of this start: 3 of 30
- Called 37.5% of time when present

- Phage (with cluster) where this start called: Bonum\_4 (CR2), Buggaboo\_4 (CR2), Kabluna\_4 (CR2),

### **Summary by clusters:**

There are 3 clusters represented in this pham: CR2, CR3, CR1,

Info for manual annotations of cluster CR1:

- Start number 9 was manually annotated 3 times for cluster CR1.

Info for manual annotations of cluster CR2:

- Start number 8 was manually annotated 1 time for cluster CR2.
- Start number 10 was manually annotated 12 times for cluster CR2.
- Start number 17 was manually annotated 4 times for cluster CR2.
- Start number 19 was manually annotated 1 time for cluster CR2.
- Start number 21 was manually annotated 3 times for cluster CR2.

Info for manual annotations of cluster CR3:

- Start number 11 was manually annotated 6 times for cluster CR3.

### **Gene Information:**

Gene: Arti\_4 Start: 3769, Stop: 4416, Start Num: 10

Candidate Starts for Arti\_4:

(Start: 10 @3769 has 12 MA's), (14, 3820), (30, 3985), (33, 4030), (34, 4045), (52, 4177), (62, 4282), (66, 4306), (68, 4372),

Gene: Bonum\_4 Start: 3830, Stop: 4321, Start Num: 21

Candidate Starts for Bonum\_4:

(Start: 17 @3794 has 4 MA's), (Start: 19 @3812 has 1 MA's), (Start: 21 @3830 has 3 MA's), (32, 3941), (34, 3971), (46, 4034), (54, 4106), (68, 4277),

Gene: Buggaboo\_4 Start: 3485, Stop: 3976, Start Num: 21

Candidate Starts for Buggaboo\_4:

(Start: 17 @3449 has 4 MA's), (Start: 19 @3467 has 1 MA's), (Start: 21 @3485 has 3 MA's), (35, 3632), (46, 3689), (51, 3737), (54, 3761), (62, 3842), (66, 3866), (68, 3932),

Gene: Commandaria\_4 Start: 2892, Stop: 3551, Start Num: 8

Candidate Starts for Commandaria\_4:

(6, 2877), (7, 2886), (Start: 8 @2892 has 1 MA's), (13, 2940), (31, 3141), (50, 3291), (60, 3402), (61, 3405), (69, 3513),

Gene: Dalilpop\_7 Start: 4787, Stop: 5428, Start Num: 9

Candidate Starts for Dalilpop\_7:

(4, 4679), (Start: 9 @4787 has 3 MA's), (12, 4820), (22, 4916), (23, 4937), (27, 4976), (43, 5105), (52, 5189), (53, 5210), (54, 5213), (55, 5234), (59, 5276), (61, 5288), (62, 5294), (66, 5318), (68, 5384),

Gene: Emianna\_4 Start: 3551, Stop: 4198, Start Num: 10

Candidate Starts for Emianna\_4:

(Start: 10 @3551 has 12 MA's), (14, 3602), (30, 3767), (33, 3812), (34, 3827), (52, 3959), (62, 4064), (66, 4088), (68, 4154),

Gene: Ennea\_7 Start: 4584, Stop: 5213, Start Num: 11

Candidate Starts for Ennea\_7:

(Start: 11 @4584 has 6 MA's), (22, 4704), (47, 4914), (49, 4947), (55, 5010), (56, 5019), (57, 5022), (58, 5043), (59, 5052), (64, 5082), (66, 5094), (69, 5172),

Gene: Flapper\_7 Start: 4082, Stop: 4723, Start Num: 9

Candidate Starts for Flapper\_7:

(4, 3974), (Start: 9 @4082 has 3 MA's), (12, 4115), (22, 4211), (23, 4232), (27, 4271), (42, 4391), (43, 4400), (52, 4484), (53, 4505), (55, 4529), (59, 4571), (61, 4583), (66, 4613), (68, 4679),

Gene: Float294\_7 Start: 4570, Stop: 5193, Start Num: 11

Candidate Starts for Float294\_7:

(Start: 11 @4570 has 6 MA's), (20, 4666), (22, 4687), (47, 4894), (49, 4927), (55, 4990), (56, 4999), (58, 5023), (66, 5074), (67, 5107), (69, 5152),

Gene: Foxboro\_4 Start: 3562, Stop: 4209, Start Num: 10

Candidate Starts for Foxboro\_4:

(Start: 10 @3562 has 12 MA's), (14, 3613), (30, 3778), (33, 3823), (34, 3838), (52, 3970), (62, 4075), (66, 4099), (68, 4165),

Gene: GRU1\_90 Start: 63100, Stop: 63744, Start Num: 9

Candidate Starts for GRU1\_90:

(4, 62992), (Start: 9 @63100 has 3 MA's), (13, 63145), (15, 63184), (25, 63289), (28, 63313), (37, 63403), (39, 63418), (44, 63445), (45, 63451), (52, 63505), (59, 63592), (61, 63604), (62, 63610), (66, 63634), (68, 63700),

Gene: GTE5\_89 Start: 63995, Stop: 64636, Start Num: 9

Candidate Starts for GTE5\_89:

(1, 63632), (2, 63704), (4, 63887), (Start: 9 @63995 has 3 MA's), (12, 64028), (22, 64124), (23, 64145), (27, 64184), (38, 64271), (42, 64304), (43, 64313), (52, 64397), (53, 64418), (54, 64421), (55, 64442), (56, 64451), (59, 64484), (61, 64496), (66, 64526), (68, 64592),

Gene: GTE8\_85 Start: 63971, Stop: 64687, Start Num: 10

Candidate Starts for GTE8\_85:

(3, 63872), (5, 63935), (Start: 10 @63971 has 12 MA's), (13, 64013), (16, 64061), (24, 64145), (25, 64157), (26, 64163), (29, 64199), (40, 64316), (48, 64385), (52, 64448), (53, 64469), (59, 64535), (61, 64547), (62, 64553), (66, 64577), (68, 64643),

Gene: GrootJr\_6 Start: 4164, Stop: 4811, Start Num: 10

Candidate Starts for GrootJr\_6:

(Start: 10 @4164 has 12 MA's), (14, 4215), (30, 4380), (33, 4425), (34, 4440), (52, 4572), (62, 4677), (66, 4701), (68, 4767),

Gene: Jifall16\_4 Start: 3562, Stop: 4209, Start Num: 10

Candidate Starts for Jifall16\_4:

(Start: 10 @3562 has 12 MA's), (14, 3613), (30, 3778), (33, 3823), (34, 3838), (52, 3970), (62, 4075), (66, 4099), (68, 4165),

Gene: Kabluna\_4 Start: 3221, Stop: 3712, Start Num: 21

Candidate Starts for Kabluna\_4:

(Start: 17 @3185 has 4 MA's), (Start: 19 @3203 has 1 MA's), (Start: 21 @3221 has 3 MA's), (32, 3332), (34, 3362), (46, 3425), (54, 3497), (68, 3668),

Gene: KidneyBean\_4 Start: 3560, Stop: 4207, Start Num: 10

Candidate Starts for KidneyBean\_4:

(Start: 10 @3560 has 12 MA's), (14, 3611), (30, 3776), (33, 3821), (34, 3836), (52, 3968), (62, 4073), (66, 4097), (68, 4163),

Gene: Kurt\_4 Start: 3551, Stop: 4198, Start Num: 10

Candidate Starts for Kurt\_4:

(Start: 10 @3551 has 12 MA's), (14, 3602), (30, 3767), (33, 3812), (34, 3827), (52, 3959), (62, 4064), (66, 4088), (68, 4154),

Gene: Lollipop1437\_7 Start: 4572, Stop: 5201, Start Num: 11

Candidate Starts for Lollipop1437\_7:

(Start: 11 @4572 has 6 MA's), (22, 4692), (47, 4902), (49, 4935), (55, 4998), (56, 5007), (58, 5031), (59, 5040), (63, 5067), (66, 5082), (69, 5160),

Gene: MerCougar\_4 Start: 3823, Stop: 4344, Start Num: 17

Candidate Starts for MerCougar\_4:

(Start: 17 @3823 has 4 MA's), (18, 3838), (Start: 21 @3859 has 3 MA's), (32, 3958), (52, 4105), (62, 4210), (65, 4228),

Gene: NatB6\_5 Start: 4169, Stop: 4816, Start Num: 10

Candidate Starts for NatB6\_5:

(Start: 10 @4169 has 12 MA's), (14, 4220), (30, 4385), (33, 4430), (34, 4445), (52, 4577), (62, 4682), (66, 4706), (68, 4772),

Gene: NosilaM\_4 Start: 4091, Stop: 4600, Start Num: 19

Candidate Starts for NosilaM\_4:

(Start: 17 @4073 has 4 MA's), (Start: 19 @4091 has 1 MA's), (Start: 21 @4109 has 3 MA's), (32, 4220), (35, 4256), (46, 4313), (51, 4361), (54, 4385), (62, 4466), (66, 4490),

Gene: NovumRegina\_5 Start: 4164, Stop: 4811, Start Num: 10

Candidate Starts for NovumRegina\_5:

(Start: 10 @4164 has 12 MA's), (14, 4215), (30, 4380), (33, 4425), (34, 4440), (52, 4572), (62, 4677), (66, 4701), (68, 4767),

Gene: Outis\_4 Start: 3598, Stop: 4035, Start Num: 17

Candidate Starts for Outis\_4:

(Start: 17 @3598 has 4 MA's), (18, 3613), (Start: 21 @3634 has 3 MA's), (52, 3796), (54, 3820), (56, 3850), (66, 3925),

Gene: Patio\_8 Start: 5240, Stop: 5869, Start Num: 11

Candidate Starts for Patio\_8:

(Start: 11 @5240 has 6 MA's), (20, 5342), (22, 5363), (47, 5570), (49, 5603), (55, 5666), (56, 5675), (59, 5708), (61, 5720), (63, 5735), (66, 5750), (69, 5828),

Gene: Phomeo\_4 Start: 3551, Stop: 4198, Start Num: 10

Candidate Starts for Phomeo\_4:

(Start: 10 @3551 has 12 MA's), (14, 3602), (30, 3767), (33, 3812), (34, 3827), (52, 3959), (62, 4064), (66, 4088), (68, 4154),

Gene: RedRaider\_7 Start: 4511, Stop: 5137, Start Num: 11

Candidate Starts for RedRaider\_7:

(Start: 11 @4511 has 6 MA's), (20, 4604), (22, 4625), (36, 4763), (41, 4802), (55, 4934), (56, 4943), (67, 5051), (69, 5096),

Gene: Skysand\_7 Start: 4572, Stop: 5195, Start Num: 11

Candidate Starts for Skysand\_7:

(Start: 11 @4572 has 6 MA's), (20, 4668), (22, 4689), (47, 4896), (49, 4929), (55, 4992), (56, 5001), (58, 5025), (66, 5076), (67, 5109), (69, 5154),

Gene: StarStruck\_4 Start: 3598, Stop: 4035, Start Num: 17

Candidate Starts for StarStruck\_4:

(Start: 17 @3598 has 4 MA's), (18, 3613), (Start: 21 @3634 has 3 MA's), (52, 3796), (54, 3820), (56, 3850), (66, 3925),

Gene: SuperSulley\_4 Start: 3449, Stop: 3976, Start Num: 17

Candidate Starts for SuperSulley\_4:

(Start: 17 @3449 has 4 MA's), (Start: 19 @3467 has 1 MA's), (Start: 21 @3485 has 3 MA's), (35, 3632), (46, 3689), (51, 3737), (54, 3761), (62, 3842), (66, 3866), (68, 3932),

Gene: Tracker\_4 Start: 3535, Stop: 4182, Start Num: 10

Candidate Starts for Tracker\_4:

(Start: 10 @3535 has 12 MA's), (14, 3586), (30, 3751), (33, 3796), (34, 3811), (52, 3943), (62, 4048), (66, 4072), (68, 4138),

Gene: Turuncu\_7 Start: 3978, Stop: 4619, Start Num: 9

Candidate Starts for Turuncu\_7:

(4, 3870), (Start: 9 @3978 has 3 MA's), (12, 4011), (22, 4107), (23, 4128), (27, 4167), (42, 4287), (43, 4296), (52, 4380), (53, 4401), (59, 4467), (61, 4479), (66, 4509), (68, 4575),

Gene: Wheezy\_4 Start: 3781, Stop: 4428, Start Num: 10

Candidate Starts for Wheezy\_4:

(Start: 10 @3781 has 12 MA's), (14, 3832), (30, 3997), (33, 4042), (34, 4057), (52, 4189), (62, 4294), (66, 4318), (68, 4384),