



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 289432 Report

This analysis was run 03/28/26 on database version 641.

Pham number 289432 has 58 members, 8 are drafts.

Phages represented in each track:

- Track 1 : Romm\_15, RobinRose\_15, Pepe25\_14, Kelcole\_13, OneinaGillian\_14, KillerQueen\_15, Tempo\_14
- Track 2 : BirdInFrench\_15, Fregley\_15, Marcie\_19, CandC\_13, Wilca\_15
- Track 3 : DonaldDuck\_14
- Track 4 : BaconCheese\_18, WheelerS25\_20, Judebell\_17, Phabia\_15, Tissue\_14, Lonelysoil\_14, Viceroy\_14, SallyK\_16, Namago\_15, Mashley\_12, Hyperion\_13, MorillMayhem\_13, Zagie\_15, BabyDotz\_14, Rudy\_13, Casend\_16, Wheelie\_14, EverythinBagel\_14, Wayne3\_16, AluminumJesus\_13, Quammi\_13, Mentos\_20, Kyva\_17, Teehee\_17, Jehoshaphat\_17, Squash\_17, Rowlf\_11, Blab\_13, Llemily\_14, FrankDeliGuy\_13, Gazebo\_14, Statler\_15, StrawberryJamm\_17, Zhafia\_17, Sillytadpoles\_14
- Track 5 : Phinky\_20
- Track 6 : Fransoyer\_16, SadLad\_17, RubyRalph\_16
- Track 7 : Altheas\_17
- Track 8 : SlySloth\_18, Grassboy\_16
- Track 9 : Fizzles\_15
- Track 10 : Mila11\_17, Nike\_16

### ***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 42 of the 50 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Altheas\_17, AluminumJesus\_13, BabyDotz\_14, BaconCheese\_18, BirdInFrench\_15, Blab\_13, CandC\_13, Casend\_16, DonaldDuck\_14, EverythinBagel\_14, Fizzles\_15, FrankDeliGuy\_13, Fransoyer\_16, Fregley\_15, Gazebo\_14, Hyperion\_13, Jehoshaphat\_17, Judebell\_17, Kyva\_17, Llemily\_14, Lonelysoil\_14, Marcie\_19, Mashley\_12, Mentos\_20, MorillMayhem\_13, Namago\_15, Phabia\_15, Phinky\_20, Quammi\_13, Rowlf\_11, RubyRalph\_16, Rudy\_13, SadLad\_17, SallyK\_16, Sillytadpoles\_14, Squash\_17, Statler\_15, StrawberryJamm\_17, Teehee\_17, Tissue\_14, Viceroy\_14, Wayne3\_16, WheelerS25\_20, Wheelie\_14, Wilca\_15, Zagie\_15, Zhafia\_17,

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

- Grassboy\_16, Kelcole\_13, KillerQueen\_15, Mila11\_17, Nike\_16, OneinaGillian\_14, Pepe25\_14, RobinRose\_15, Romm\_15, SlySloth\_18, Tempo\_14,

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

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### Summary by start number:

Start 1:

- Found in 58 of 58 ( 100.0% ) of genes in pham
- Manual Annotations of this start: 42 of 50
- Called 81.0% of time when present
- Phage (with cluster) where this start called: Altheas\_17 (EG), AluminumJesus\_13 (EG), BabyDotz\_14 (EG), BaconCheese\_18 (EG), BirdInFrench\_15 (EG), Blab\_13 (EG), CandC\_13 (EG), Casend\_16 (EG), DonaldDuck\_14 (EG), EverythinBagel\_14 (EG), Fizzles\_15 (EG), FrankDeliGuy\_13 (EG), Fransoyer\_16 (EG), Fregley\_15 (EG), Gazebo\_14 (EG), Hyperion\_13 (EG), Jehoshaphat\_17 (EG), Judebell\_17 (EG), Kyva\_17 (EG), Llemily\_14 (EG), Lonelysoil\_14 (EG), Marcie\_19 (EG), Mashley\_12 (EG), Mentos\_20 (EG), MorillMayhem\_13 (EG), Namago\_15 (EG), Phabia\_15 (EG), Phinky\_20 (EG), Quammi\_13 (EG), Rowlf\_11 (EG), RubyRalph\_16 (EG), Rudy\_13 (EG), SadLad\_17 (EG), SallyK\_16 (EG), Sillytadpoles\_14 (EG), Squash\_17 (EG), Statler\_15 (EG), StrawberryJamm\_17 (EG), Teehee\_17 (EG), Tissue\_14 (EG), Viceroy\_14 (EG), Wayne3\_16 (EG), WheelerS25\_20 (EG), Wheelie\_14 (EG), Wilca\_15 (EG), Zagie\_15 (EG), Zhafia\_17 (EG),

Start 2:

- Found in 41 of 58 ( 70.7% ) of genes in pham
- Manual Annotations of this start: 1 of 50
- Called 4.9% of time when present
- Phage (with cluster) where this start called: Grassboy\_16 (EG), SlySloth\_18 (EG),

Start 4:

- Found in 53 of 58 ( 91.4% ) of genes in pham
- Manual Annotations of this start: 7 of 50
- Called 17.0% of time when present
- Phage (with cluster) where this start called: Kelcole\_13 (EG), KillerQueen\_15 (EG), Mila11\_17 (EG), Nike\_16 (EG), OneinaGillian\_14 (EG), Pepe25\_14 (EG), RobinRose\_15 (EG), Romm\_15 (EG), Tempo\_14 (EG),

### Summary by clusters:

There is one cluster represented in this pham: EG

Info for manual annotations of cluster EG:

- Start number 1 was manually annotated 42 times for cluster EG.
- Start number 2 was manually annotated 1 time for cluster EG.
- Start number 4 was manually annotated 7 times for cluster EG.

### Gene Information:

Gene: Altheas\_17 Start: 5429, Stop: 5584, Start Num: 1  
Candidate Starts for Altheas\_17:  
(Start: 1 @5429 has 42 MA's), (Start: 2 @5453 has 1 MA's), (7, 5504),

Gene: AluminumJesus\_13 Start: 4629, Stop: 4784, Start Num: 1  
Candidate Starts for AluminumJesus\_13:  
(Start: 1 @4629 has 42 MA's), (Start: 2 @4653 has 1 MA's), (Start: 4 @4671 has 7 MA's), (7, 4704),

Gene: BabyDotz\_14 Start: 5086, Stop: 5241, Start Num: 1  
Candidate Starts for BabyDotz\_14:  
(Start: 1 @5086 has 42 MA's), (Start: 2 @5110 has 1 MA's), (Start: 4 @5128 has 7 MA's), (7, 5161),

Gene: BaconCheese\_18 Start: 5783, Stop: 5938, Start Num: 1  
Candidate Starts for BaconCheese\_18:  
(Start: 1 @5783 has 42 MA's), (Start: 2 @5807 has 1 MA's), (Start: 4 @5825 has 7 MA's), (7, 5858),

Gene: BirdInFrench\_15 Start: 4141, Stop: 4311, Start Num: 1  
Candidate Starts for BirdInFrench\_15:  
(Start: 1 @4141 has 42 MA's), (Start: 4 @4183 has 7 MA's),

Gene: Blab\_13 Start: 4411, Stop: 4566, Start Num: 1  
Candidate Starts for Blab\_13:  
(Start: 1 @4411 has 42 MA's), (Start: 2 @4435 has 1 MA's), (Start: 4 @4453 has 7 MA's), (7, 4486),

Gene: CandC\_13 Start: 3645, Stop: 3815, Start Num: 1  
Candidate Starts for CandC\_13:  
(Start: 1 @3645 has 42 MA's), (Start: 4 @3687 has 7 MA's),

Gene: Casend\_16 Start: 5383, Stop: 5538, Start Num: 1  
Candidate Starts for Casend\_16:  
(Start: 1 @5383 has 42 MA's), (Start: 2 @5407 has 1 MA's), (Start: 4 @5425 has 7 MA's), (7, 5458),

Gene: DonaldDuck\_14 Start: 4729, Stop: 4884, Start Num: 1  
Candidate Starts for DonaldDuck\_14:  
(Start: 1 @4729 has 42 MA's), (Start: 2 @4753 has 1 MA's), (Start: 4 @4771 has 7 MA's), (6, 4789), (7, 4804),

Gene: EverythinBagel\_14 Start: 5157, Stop: 5312, Start Num: 1  
Candidate Starts for EverythinBagel\_14:  
(Start: 1 @5157 has 42 MA's), (Start: 2 @5181 has 1 MA's), (Start: 4 @5199 has 7 MA's), (7, 5232),

Gene: Fizzles\_15 Start: 4801, Stop: 4956, Start Num: 1  
Candidate Starts for Fizzles\_15:  
(Start: 1 @4801 has 42 MA's), (Start: 4 @4843 has 7 MA's), (7, 4876), (9, 4936),

Gene: FrankDeliGuy\_13 Start: 4615, Stop: 4770, Start Num: 1  
Candidate Starts for FrankDeliGuy\_13:  
(Start: 1 @4615 has 42 MA's), (Start: 2 @4639 has 1 MA's), (Start: 4 @4657 has 7 MA's), (7, 4690),

Gene: Fransoyer\_16 Start: 4929, Stop: 5096, Start Num: 1  
Candidate Starts for Fransoyer\_16:  
(Start: 1 @4929 has 42 MA's), (8, 5034), (9, 5064),

Gene: Fregley\_15 Start: 4183, Stop: 4353, Start Num: 1  
Candidate Starts for Fregley\_15:  
(Start: 1 @4183 has 42 MA's), (Start: 4 @4225 has 7 MA's),

Gene: Gazebo\_14 Start: 4977, Stop: 5132, Start Num: 1  
Candidate Starts for Gazebo\_14:  
(Start: 1 @4977 has 42 MA's), (Start: 2 @5001 has 1 MA's), (Start: 4 @5019 has 7 MA's), (7, 5052),

Gene: Grassboy\_16 Start: 5441, Stop: 5572, Start Num: 2  
Candidate Starts for Grassboy\_16:  
(Start: 1 @5417 has 42 MA's), (Start: 2 @5441 has 1 MA's), (Start: 4 @5459 has 7 MA's), (7, 5492),

Gene: Hyperion\_13 Start: 4674, Stop: 4829, Start Num: 1  
Candidate Starts for Hyperion\_13:  
(Start: 1 @4674 has 42 MA's), (Start: 2 @4698 has 1 MA's), (Start: 4 @4716 has 7 MA's), (7, 4749),

Gene: Jehoshaphat\_17 Start: 5675, Stop: 5830, Start Num: 1  
Candidate Starts for Jehoshaphat\_17:  
(Start: 1 @5675 has 42 MA's), (Start: 2 @5699 has 1 MA's), (Start: 4 @5717 has 7 MA's), (7, 5750),

Gene: Judebell\_17 Start: 5201, Stop: 5356, Start Num: 1  
Candidate Starts for Judebell\_17:  
(Start: 1 @5201 has 42 MA's), (Start: 2 @5225 has 1 MA's), (Start: 4 @5243 has 7 MA's), (7, 5276),

Gene: Kelcole\_13 Start: 4081, Stop: 4206, Start Num: 4  
Candidate Starts for Kelcole\_13:  
(Start: 1 @4039 has 42 MA's), (Start: 4 @4081 has 7 MA's),

Gene: KillerQueen\_15 Start: 3894, Stop: 4022, Start Num: 4  
Candidate Starts for KillerQueen\_15:  
(Start: 1 @3852 has 42 MA's), (Start: 4 @3894 has 7 MA's),

Gene: Kyva\_17 Start: 5452, Stop: 5607, Start Num: 1  
Candidate Starts for Kyva\_17:  
(Start: 1 @5452 has 42 MA's), (Start: 2 @5476 has 1 MA's), (Start: 4 @5494 has 7 MA's), (7, 5527),

Gene: Llemily\_14 Start: 4451, Stop: 4606, Start Num: 1  
Candidate Starts for Llemily\_14:  
(Start: 1 @4451 has 42 MA's), (Start: 2 @4475 has 1 MA's), (Start: 4 @4493 has 7 MA's), (7, 4526),

Gene: Lonelysoil\_14 Start: 4696, Stop: 4851, Start Num: 1  
Candidate Starts for Lonelysoil\_14:  
(Start: 1 @4696 has 42 MA's), (Start: 2 @4720 has 1 MA's), (Start: 4 @4738 has 7 MA's), (7, 4771),

Gene: Marcie\_19 Start: 4741, Stop: 4911, Start Num: 1  
Candidate Starts for Marcie\_19:  
(Start: 1 @4741 has 42 MA's), (Start: 4 @4783 has 7 MA's),

Gene: Mashley\_12 Start: 4491, Stop: 4646, Start Num: 1  
Candidate Starts for Mashley\_12:  
(Start: 1 @4491 has 42 MA's), (Start: 2 @4515 has 1 MA's), (Start: 4 @4533 has 7 MA's), (7, 4566),

Gene: Mentos\_20 Start: 6030, Stop: 6185, Start Num: 1

Candidate Starts for Mentos\_20:

(Start: 1 @6030 has 42 MA's), (Start: 2 @6054 has 1 MA's), (Start: 4 @6072 has 7 MA's), (7, 6105),

Gene: Mila11\_17 Start: 5608, Stop: 5721, Start Num: 4

Candidate Starts for Mila11\_17:

(Start: 1 @5566 has 42 MA's), (Start: 2 @5590 has 1 MA's), (Start: 4 @5608 has 7 MA's), (7, 5641),

Gene: MorillMayhem\_13 Start: 4499, Stop: 4654, Start Num: 1

Candidate Starts for MorillMayhem\_13:

(Start: 1 @4499 has 42 MA's), (Start: 2 @4523 has 1 MA's), (Start: 4 @4541 has 7 MA's), (7, 4574),

Gene: Namago\_15 Start: 4508, Stop: 4663, Start Num: 1

Candidate Starts for Namago\_15:

(Start: 1 @4508 has 42 MA's), (Start: 2 @4532 has 1 MA's), (Start: 4 @4550 has 7 MA's), (7, 4583),

Gene: Nike\_16 Start: 5441, Stop: 5554, Start Num: 4

Candidate Starts for Nike\_16:

(Start: 1 @5399 has 42 MA's), (Start: 2 @5423 has 1 MA's), (Start: 4 @5441 has 7 MA's), (7, 5474),

Gene: OneinaGillian\_14 Start: 3757, Stop: 3885, Start Num: 4

Candidate Starts for OneinaGillian\_14:

(Start: 1 @3715 has 42 MA's), (Start: 4 @3757 has 7 MA's),

Gene: Pepe25\_14 Start: 4183, Stop: 4311, Start Num: 4

Candidate Starts for Pepe25\_14:

(Start: 1 @4141 has 42 MA's), (Start: 4 @4183 has 7 MA's),

Gene: Phabia\_15 Start: 4866, Stop: 5021, Start Num: 1

Candidate Starts for Phabia\_15:

(Start: 1 @4866 has 42 MA's), (Start: 2 @4890 has 1 MA's), (Start: 4 @4908 has 7 MA's), (7, 4941),

Gene: Phinky\_20 Start: 5491, Stop: 5649, Start Num: 1

Candidate Starts for Phinky\_20:

(Start: 1 @5491 has 42 MA's), (3, 5524), (5, 5539), (9, 5629),

Gene: Quammi\_13 Start: 4440, Stop: 4595, Start Num: 1

Candidate Starts for Quammi\_13:

(Start: 1 @4440 has 42 MA's), (Start: 2 @4464 has 1 MA's), (Start: 4 @4482 has 7 MA's), (7, 4515),

Gene: RobinRose\_15 Start: 3910, Stop: 4038, Start Num: 4

Candidate Starts for RobinRose\_15:

(Start: 1 @3868 has 42 MA's), (Start: 4 @3910 has 7 MA's),

Gene: Romm\_15 Start: 3910, Stop: 4038, Start Num: 4

Candidate Starts for Romm\_15:

(Start: 1 @3868 has 42 MA's), (Start: 4 @3910 has 7 MA's),

Gene: Rowlf\_11 Start: 4206, Stop: 4361, Start Num: 1

Candidate Starts for Rowlf\_11:

(Start: 1 @4206 has 42 MA's), (Start: 2 @4230 has 1 MA's), (Start: 4 @4248 has 7 MA's), (7, 4281),

Gene: RubyRalph\_16 Start: 4863, Stop: 5030, Start Num: 1

Candidate Starts for RubyRalph\_16:

(Start: 1 @4863 has 42 MA's), (8, 4968), (9, 4998),

Gene: Rudy\_13 Start: 4440, Stop: 4595, Start Num: 1

Candidate Starts for Rudy\_13:

(Start: 1 @4440 has 42 MA's), (Start: 2 @4464 has 1 MA's), (Start: 4 @4482 has 7 MA's), (7, 4515),

Gene: SadLad\_17 Start: 5320, Stop: 5487, Start Num: 1

Candidate Starts for SadLad\_17:

(Start: 1 @5320 has 42 MA's), (8, 5425), (9, 5455),

Gene: SallyK\_16 Start: 5601, Stop: 5756, Start Num: 1

Candidate Starts for SallyK\_16:

(Start: 1 @5601 has 42 MA's), (Start: 2 @5625 has 1 MA's), (Start: 4 @5643 has 7 MA's), (7, 5676),

Gene: Sillytadpoles\_14 Start: 4438, Stop: 4593, Start Num: 1

Candidate Starts for Sillytadpoles\_14:

(Start: 1 @4438 has 42 MA's), (Start: 2 @4462 has 1 MA's), (Start: 4 @4480 has 7 MA's), (7, 4513),

Gene: SlySloth\_18 Start: 5416, Stop: 5547, Start Num: 2

Candidate Starts for SlySloth\_18:

(Start: 1 @5392 has 42 MA's), (Start: 2 @5416 has 1 MA's), (Start: 4 @5434 has 7 MA's), (7, 5467),

Gene: Squash\_17 Start: 5454, Stop: 5609, Start Num: 1

Candidate Starts for Squash\_17:

(Start: 1 @5454 has 42 MA's), (Start: 2 @5478 has 1 MA's), (Start: 4 @5496 has 7 MA's), (7, 5529),

Gene: Statler\_15 Start: 4974, Stop: 5129, Start Num: 1

Candidate Starts for Statler\_15:

(Start: 1 @4974 has 42 MA's), (Start: 2 @4998 has 1 MA's), (Start: 4 @5016 has 7 MA's), (7, 5049),

Gene: StrawberryJamm\_17 Start: 4740, Stop: 4895, Start Num: 1

Candidate Starts for StrawberryJamm\_17:

(Start: 1 @4740 has 42 MA's), (Start: 2 @4764 has 1 MA's), (Start: 4 @4782 has 7 MA's), (7, 4815),

Gene: Teehee\_17 Start: 5675, Stop: 5830, Start Num: 1

Candidate Starts for Teehee\_17:

(Start: 1 @5675 has 42 MA's), (Start: 2 @5699 has 1 MA's), (Start: 4 @5717 has 7 MA's), (7, 5750),

Gene: Tempo\_14 Start: 4105, Stop: 4233, Start Num: 4

Candidate Starts for Tempo\_14:

(Start: 1 @4063 has 42 MA's), (Start: 4 @4105 has 7 MA's),

Gene: Tissue\_14 Start: 4806, Stop: 4961, Start Num: 1

Candidate Starts for Tissue\_14:

(Start: 1 @4806 has 42 MA's), (Start: 2 @4830 has 1 MA's), (Start: 4 @4848 has 7 MA's), (7, 4881),

Gene: Viceroy\_14 Start: 4440, Stop: 4595, Start Num: 1

Candidate Starts for Viceroy\_14:

(Start: 1 @4440 has 42 MA's), (Start: 2 @4464 has 1 MA's), (Start: 4 @4482 has 7 MA's), (7, 4515),

Gene: Wayne3\_16 Start: 5378, Stop: 5533, Start Num: 1

Candidate Starts for Wayne3\_16:

(Start: 1 @5378 has 42 MA's), (Start: 2 @5402 has 1 MA's), (Start: 4 @5420 has 7 MA's), (7, 5453),

Gene: WheelerS25\_20 Start: 6179, Stop: 6334, Start Num: 1

Candidate Starts for WheelerS25\_20:

(Start: 1 @6179 has 42 MA's), (Start: 2 @6203 has 1 MA's), (Start: 4 @6221 has 7 MA's), (7, 6254),

Gene: Wheelie\_14 Start: 4729, Stop: 4884, Start Num: 1

Candidate Starts for Wheelie\_14:

(Start: 1 @4729 has 42 MA's), (Start: 2 @4753 has 1 MA's), (Start: 4 @4771 has 7 MA's), (7, 4804),

Gene: Wilca\_15 Start: 4141, Stop: 4311, Start Num: 1

Candidate Starts for Wilca\_15:

(Start: 1 @4141 has 42 MA's), (Start: 4 @4183 has 7 MA's),

Gene: Zagie\_15 Start: 4943, Stop: 5098, Start Num: 1

Candidate Starts for Zagie\_15:

(Start: 1 @4943 has 42 MA's), (Start: 2 @4967 has 1 MA's), (Start: 4 @4985 has 7 MA's), (7, 5018),

Gene: Zhafia\_17 Start: 5178, Stop: 5333, Start Num: 1

Candidate Starts for Zhafia\_17:

(Start: 1 @5178 has 42 MA's), (Start: 2 @5202 has 1 MA's), (Start: 4 @5220 has 7 MA's), (7, 5253),