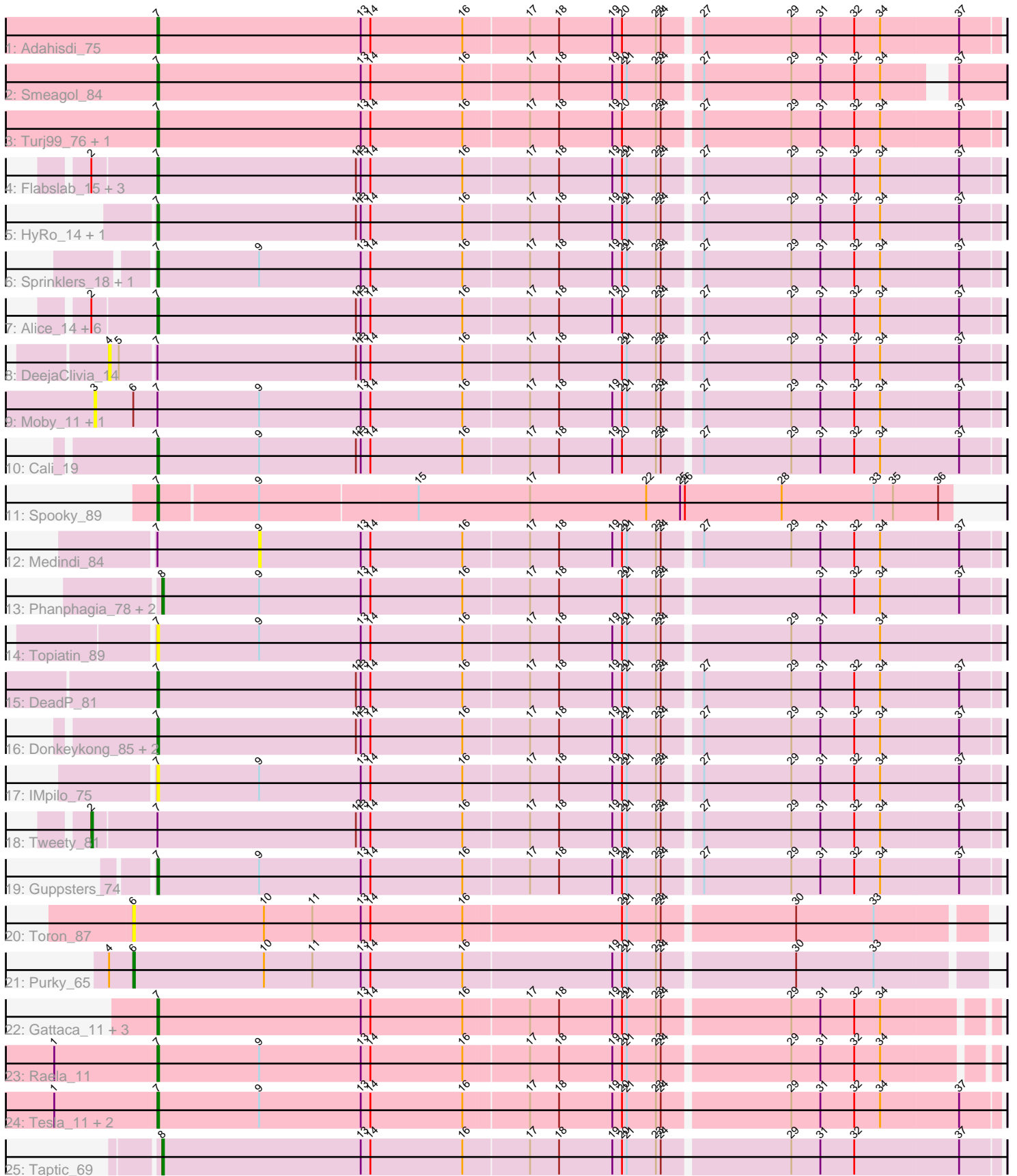


# Pham 308791



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 308791 Report

This analysis was run 06/27/26 on database version 652.

Pham number 308791 has 47 members, 10 are drafts.

Phages represented in each track:

- Track 1 : Adahisdi\_75
- Track 2 : Smeagol\_84
- Track 3 : Turj99\_76, Magnito\_79
- Track 4 : Flabslab\_15, ET08\_14, Rabinovish\_13, Bezza\_12
- Track 5 : HyRo\_14, Shifa\_13
- Track 6 : Sprinklers\_18, BadAgartude\_19
- Track 7 : Alice\_14, Duckfeet\_16, CharlieB\_17, Yassified\_15, Phox\_16, Blackdragon\_14, LRRHood\_16
- Track 8 : DeejaClivia\_14
- Track 9 : Moby\_11, Moiqah\_11
- Track 10 : Cali\_19
- Track 11 : Spooky\_89
- Track 12 : Medindi\_84
- Track 13 : Phanphagia\_78, Shauna1\_79, Kingsley\_83
- Track 14 : Topiatin\_89
- Track 15 : DeadP\_81
- Track 16 : Donkeykong\_85, Taj\_87, Wee\_86
- Track 17 : IMpilo\_75
- Track 18 : Tweety\_81
- Track 19 : Guppsters\_74
- Track 20 : Toron\_87
- Track 21 : Purky\_65
- Track 22 : Gattaca\_11, Firehouse51\_77, GoongGoong\_10, MosMoris\_11
- Track 23 : Raela\_11
- Track 24 : Tesla\_11, Poise\_11, Blackbeetle\_11
- Track 25 : Taptic\_69

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

The start number called the most often in the published annotations is 7, it was called in 31 of the 37 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Adahisdi\_75, Alice\_14, BadAgartude\_19, Bezza\_12, Blackbeetle\_11, Blackdragon\_14, Cali\_19, CharlieB\_17, DeadP\_81, Donkeykong\_85, Duckfeet\_16, ET08\_14, Firehouse51\_77, Flabslab\_15, Gattaca\_11, GoongGoong\_10, Guppsters\_74, HyRo\_14, IMpilo\_75, LRRHood\_16, Magnito\_79, MosMoris\_11, Phox\_16, Poise\_11, Rabinovish\_13, Raela\_11, Shifa\_13, Smeagol\_84, Spooky\_89, Sprinklers\_18, Taj\_87, Tesla\_11, Topiatin\_89, Turj99\_76, Wee\_86, Yassified\_15,

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

- DeejaClivia\_14, Medindi\_84, Moby\_11, Moiqah\_11, Tweety\_81,

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

- Kingsley\_83, Phanphagia\_78, Purky\_65, Shauna1\_79, Taptic\_69, Toron\_87,

### Summary by start number:

Start 2:

- Found in 12 of 47 ( 25.5% ) of genes in pham
- Manual Annotations of this start: 1 of 37
- Called 8.3% of time when present
- Phage (with cluster) where this start called: Tweety\_81 (F1),

Start 3:

- Found in 2 of 47 ( 4.3% ) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Moby\_11 (C1), Moiqah\_11 (C1),

Start 4:

- Found in 2 of 47 ( 4.3% ) of genes in pham
- No Manual Annotations of this start.
- Called 50.0% of time when present
- Phage (with cluster) where this start called: DeejaClivia\_14 (C1),

Start 6:

- Found in 4 of 47 ( 8.5% ) of genes in pham
- Manual Annotations of this start: 1 of 37
- Called 50.0% of time when present
- Phage (with cluster) where this start called: Purky\_65 (P6), Toron\_87 (F6),

Start 7:

- Found in 41 of 47 ( 87.2% ) of genes in pham
- Manual Annotations of this start: 31 of 37
- Called 87.8% of time when present
- Phage (with cluster) where this start called: Adahisdi\_75 (A1), Alice\_14 (C1), BadAgartude\_19 (C1), Bezza\_12 (C1), Blackbeetle\_11 (S), Blackdragon\_14 (C1), Cali\_19 (C1), CharlieB\_17 (C1), DeadP\_81 (F1), Donkeykong\_85 (F1), Duckfeet\_16 (C1), ET08\_14 (C1), Firehouse51\_77 (F1), Flabslab\_15 (C1), Gattaca\_11 (S), GoongGoong\_10 (S), Guppsters\_74 (F1), HyRo\_14 (C1), IMpilo\_75 (F1), LRRHood\_16 (C1), Magnito\_79 (A1), MosMoris\_11 (S), Phox\_16 (C1), Poise\_11 (S), Rabinovish\_13 (C1), Raela\_11 (S), Shifa\_13 (C1), Smeagol\_84 (A1), Spooky\_89 (DN2), Sprinklers\_18 (C1), Taj\_87 (F1), Tesla\_11 (S), Topiatin\_89 (F1), Turj99\_76 (A1), Wee\_86 (F1), Yassified\_15 (C1),

Start 8:

- Found in 4 of 47 ( 8.5% ) of genes in pham
- Manual Annotations of this start: 4 of 37
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Kingsley\_83 (F1), Phanphagia\_78 (F1), Shauna1\_79 (F1), Taptic\_69 (W),

Start 9:

- Found in 17 of 47 ( 36.2% ) of genes in pham
- No Manual Annotations of this start.
- Called 5.9% of time when present
- Phage (with cluster) where this start called: Medindi\_84 (F1),

**Summary by clusters:**

There are 8 clusters represented in this pham: F1, P6, F6, A1, S, W, DN2, C1,

Info for manual annotations of cluster A1:

- Start number 7 was manually annotated 4 times for cluster A1.

Info for manual annotations of cluster C1:

- Start number 7 was manually annotated 13 times for cluster C1.

Info for manual annotations of cluster DN2:

- Start number 7 was manually annotated 1 time for cluster DN2.

Info for manual annotations of cluster F1:

- Start number 2 was manually annotated 1 time for cluster F1.
- Start number 7 was manually annotated 6 times for cluster F1.
- Start number 8 was manually annotated 3 times for cluster F1.

Info for manual annotations of cluster P6:

- Start number 6 was manually annotated 1 time for cluster P6.

Info for manual annotations of cluster S:

- Start number 7 was manually annotated 7 times for cluster S.

Info for manual annotations of cluster W:

- Start number 8 was manually annotated 1 time for cluster W.

**Gene Information:**

Gene: Adahisdi\_75 Start: 47810, Stop: 47301, Start Num: 7

Candidate Starts for Adahisdi\_75:

(Start: 7 @47810 has 31 MA's), (13, 47684), (14, 47678), (16, 47621), (17, 47582), (18, 47564), (19, 47531), (20, 47525), (23, 47504), (24, 47501), (27, 47480), (29, 47426), (31, 47408), (32, 47387), (34, 47372), (37, 47324),

Gene: Alice\_14 Start: 4912, Stop: 5421, Start Num: 7

Candidate Starts for Alice\_14:

(Start: 2 @4873 has 1 MA's), (Start: 7 @4912 has 31 MA's), (12, 5035), (13, 5038), (14, 5044), (16, 5101), (17, 5140), (18, 5158), (19, 5191), (20, 5197), (23, 5218), (24, 5221), (27, 5242), (29, 5296), (31, 5314), (32, 5335), (34, 5350), (37, 5398),

Gene: BadAgartude\_19 Start: 6150, Stop: 6659, Start Num: 7

Candidate Starts for BadAgartude\_19:

(Start: 7 @6150 has 31 MA's), (9, 6213), (13, 6276), (14, 6282), (16, 6339), (17, 6378), (18, 6396), (19, 6429), (20, 6435), (21, 6438), (23, 6456), (24, 6459), (27, 6480), (29, 6534), (31, 6552), (32, 6573), (34, 6588), (37, 6636),

Gene: Bezza\_12 Start: 4912, Stop: 5421, Start Num: 7

Candidate Starts for Bezza\_12:

(Start: 2 @4873 has 1 MA's), (Start: 7 @4912 has 31 MA's), (12, 5035), (13, 5038), (14, 5044), (16, 5101), (17, 5140), (18, 5158), (19, 5191), (20, 5197), (21, 5200), (23, 5218), (24, 5221), (27, 5242), (29, 5296), (31, 5314), (32, 5335), (34, 5350), (37, 5398),

Gene: Blackbeetle\_11 Start: 3312, Stop: 3821, Start Num: 7

Candidate Starts for Blackbeetle\_11:

(1, 3249), (Start: 7 @3312 has 31 MA's), (9, 3375), (13, 3438), (14, 3444), (16, 3501), (17, 3540), (18, 3558), (19, 3591), (20, 3597), (21, 3600), (23, 3618), (24, 3621), (29, 3696), (31, 3714), (32, 3735), (34, 3750), (37, 3798),

Gene: Blackdragon\_14 Start: 4559, Stop: 5068, Start Num: 7

Candidate Starts for Blackdragon\_14:

(Start: 2 @4520 has 1 MA's), (Start: 7 @4559 has 31 MA's), (12, 4682), (13, 4685), (14, 4691), (16, 4748), (17, 4787), (18, 4805), (19, 4838), (20, 4844), (23, 4865), (24, 4868), (27, 4889), (29, 4943), (31, 4961), (32, 4982), (34, 4997), (37, 5045),

Gene: Cali\_19 Start: 7126, Stop: 7635, Start Num: 7

Candidate Starts for Cali\_19:

(Start: 7 @7126 has 31 MA's), (9, 7189), (12, 7249), (13, 7252), (14, 7258), (16, 7315), (17, 7354), (18, 7372), (19, 7405), (20, 7411), (23, 7432), (24, 7435), (27, 7456), (29, 7510), (31, 7528), (32, 7549), (34, 7564), (37, 7612),

Gene: CharlieB\_17 Start: 5091, Stop: 5600, Start Num: 7

Candidate Starts for CharlieB\_17:

(Start: 2 @5052 has 1 MA's), (Start: 7 @5091 has 31 MA's), (12, 5214), (13, 5217), (14, 5223), (16, 5280), (17, 5319), (18, 5337), (19, 5370), (20, 5376), (23, 5397), (24, 5400), (27, 5421), (29, 5475), (31, 5493), (32, 5514), (34, 5529), (37, 5577),

Gene: DeadP\_81 Start: 47604, Stop: 48113, Start Num: 7

Candidate Starts for DeadP\_81:

(Start: 7 @47604 has 31 MA's), (12, 47727), (13, 47730), (14, 47736), (16, 47793), (17, 47832), (18, 47850), (19, 47883), (20, 47889), (21, 47892), (23, 47910), (24, 47913), (27, 47934), (29, 47988), (31, 48006), (32, 48027), (34, 48042), (37, 48090),

Gene: DeejaClivia\_14 Start: 4574, Stop: 5110, Start Num: 4

Candidate Starts for DeejaClivia\_14:

(4, 4574), (5, 4580), (Start: 7 @4601 has 31 MA's), (12, 4724), (13, 4727), (14, 4733), (16, 4790), (17, 4829), (18, 4847), (20, 4886), (21, 4889), (23, 4907), (24, 4910), (27, 4931), (29, 4985), (31, 5003), (32, 5024), (34, 5039), (37, 5087),

Gene: Donkeykong\_85 Start: 50218, Stop: 50727, Start Num: 7

Candidate Starts for Donkeykong\_85:

(Start: 7 @50218 has 31 MA's), (12, 50341), (13, 50344), (14, 50350), (16, 50407), (17, 50446), (18, 50464), (19, 50497), (20, 50503), (21, 50506), (23, 50524), (24, 50527), (27, 50548), (29, 50602), (31, 50620), (32, 50641), (34, 50656), (37, 50704),

Gene: Duckfeet\_16 Start: 5252, Stop: 5761, Start Num: 7

Candidate Starts for Duckfeet\_16:

(Start: 2 @5213 has 1 MA's), (Start: 7 @5252 has 31 MA's), (12, 5375), (13, 5378), (14, 5384), (16, 5441), (17, 5480), (18, 5498), (19, 5531), (20, 5537), (23, 5558), (24, 5561), (27, 5582), (29, 5636), (31, 5654), (32, 5675), (34, 5690), (37, 5738),

Gene: ET08\_14 Start: 5519, Stop: 6028, Start Num: 7

Candidate Starts for ET08\_14:

(Start: 2 @5480 has 1 MA's), (Start: 7 @5519 has 31 MA's), (12, 5642), (13, 5645), (14, 5651), (16, 5708), (17, 5747), (18, 5765), (19, 5798), (20, 5804), (21, 5807), (23, 5825), (24, 5828), (27, 5849), (29, 5903), (31, 5921), (32, 5942), (34, 5957), (37, 6005),

Gene: Firehouse51\_77 Start: 49726, Stop: 50226, Start Num: 7

Candidate Starts for Firehouse51\_77:

(Start: 7 @49726 has 31 MA's), (13, 49852), (14, 49858), (16, 49915), (17, 49954), (18, 49972), (19, 50005), (20, 50011), (21, 50014), (23, 50032), (24, 50035), (29, 50110), (31, 50128), (32, 50149), (34, 50164),

Gene: Flabslab\_15 Start: 4509, Stop: 5018, Start Num: 7

Candidate Starts for Flabslab\_15:

(Start: 2 @4470 has 1 MA's), (Start: 7 @4509 has 31 MA's), (12, 4632), (13, 4635), (14, 4641), (16, 4698), (17, 4737), (18, 4755), (19, 4788), (20, 4794), (21, 4797), (23, 4815), (24, 4818), (27, 4839), (29, 4893), (31, 4911), (32, 4932), (34, 4947), (37, 4995),

Gene: Gattaca\_11 Start: 3050, Stop: 3550, Start Num: 7

Candidate Starts for Gattaca\_11:

(Start: 7 @3050 has 31 MA's), (13, 3176), (14, 3182), (16, 3239), (17, 3278), (18, 3296), (19, 3329), (20, 3335), (21, 3338), (23, 3356), (24, 3359), (29, 3434), (31, 3452), (32, 3473), (34, 3488),

Gene: GoongGoong\_10 Start: 3063, Stop: 3563, Start Num: 7

Candidate Starts for GoongGoong\_10:

(Start: 7 @3063 has 31 MA's), (13, 3189), (14, 3195), (16, 3252), (17, 3291), (18, 3309), (19, 3342), (20, 3348), (21, 3351), (23, 3369), (24, 3372), (29, 3447), (31, 3465), (32, 3486), (34, 3501),

Gene: Guppsters\_74 Start: 46085, Stop: 46594, Start Num: 7

Candidate Starts for Guppsters\_74:

(Start: 7 @46085 has 31 MA's), (9, 46148), (13, 46211), (14, 46217), (16, 46274), (17, 46313), (18, 46331), (19, 46364), (20, 46370), (21, 46373), (23, 46391), (24, 46394), (27, 46415), (29, 46469), (31, 46487), (32, 46508), (34, 46523), (37, 46571),

Gene: HyRo\_14 Start: 5704, Stop: 6213, Start Num: 7

Candidate Starts for HyRo\_14:

(Start: 7 @5704 has 31 MA's), (12, 5827), (13, 5830), (14, 5836), (16, 5893), (17, 5932), (18, 5950), (19, 5983), (20, 5989), (21, 5992), (23, 6010), (24, 6013), (27, 6034), (29, 6088), (31, 6106), (32, 6127), (34, 6142), (37, 6190),

Gene: IMpilo\_75 Start: 46132, Stop: 46641, Start Num: 7

Candidate Starts for IMpilo\_75:

(Start: 7 @46132 has 31 MA's), (9, 46195), (13, 46258), (14, 46264), (16, 46321), (17, 46360), (18, 46378), (19, 46411), (20, 46417), (21, 46420), (23, 46438), (24, 46441), (27, 46462), (29, 46516), (31, 46534), (32, 46555), (34, 46570), (37, 46618),

Gene: Kingsley\_83 Start: 50834, Stop: 51340, Start Num: 8

Candidate Starts for Kingsley\_83:

(Start: 8 @50834 has 4 MA's), (9, 50894), (13, 50957), (14, 50963), (16, 51020), (17, 51059), (18, 51077), (20, 51116), (21, 51119), (23, 51137), (24, 51140), (31, 51233), (32, 51254), (34, 51269), (37, 51317),

Gene: LRRHood\_16 Start: 6230, Stop: 6739, Start Num: 7

Candidate Starts for LRRHood\_16:

(Start: 2 @6191 has 1 MA's), (Start: 7 @6230 has 31 MA's), (12, 6353), (13, 6356), (14, 6362), (16, 6419), (17, 6458), (18, 6476), (19, 6509), (20, 6515), (23, 6536), (24, 6539), (27, 6560), (29, 6614), (31, 6632), (32, 6653), (34, 6668), (37, 6716),

Gene: Magnito\_79 Start: 47374, Stop: 46865, Start Num: 7

Candidate Starts for Magnito\_79:

(Start: 7 @47374 has 31 MA's), (13, 47248), (14, 47242), (16, 47185), (17, 47146), (18, 47128), (19, 47095), (20, 47089), (23, 47068), (24, 47065), (27, 47044), (29, 46990), (31, 46972), (32, 46951), (34, 46936), (37, 46888),

Gene: Medindi\_84 Start: 49754, Stop: 50200, Start Num: 9

Candidate Starts for Medindi\_84:

(Start: 7 @49691 has 31 MA's), (9, 49754), (13, 49817), (14, 49823), (16, 49880), (17, 49919), (18, 49937), (19, 49970), (20, 49976), (21, 49979), (23, 49997), (24, 50000), (27, 50021), (29, 50075), (31, 50093), (32, 50114), (34, 50129), (37, 50177),

Gene: Moby\_11 Start: 2992, Stop: 3540, Start Num: 3

Candidate Starts for Moby\_11:

(3, 2992), (Start: 6 @3016 has 1 MA's), (Start: 7 @3031 has 31 MA's), (9, 3094), (13, 3157), (14, 3163), (16, 3220), (17, 3259), (18, 3277), (19, 3310), (20, 3316), (21, 3319), (23, 3337), (24, 3340), (27, 3361), (29, 3415), (31, 3433), (32, 3454), (34, 3469), (37, 3517),

Gene: Moiqah\_11 Start: 2992, Stop: 3540, Start Num: 3

Candidate Starts for Moiqah\_11:

(3, 2992), (Start: 6 @3016 has 1 MA's), (Start: 7 @3031 has 31 MA's), (9, 3094), (13, 3157), (14, 3163), (16, 3220), (17, 3259), (18, 3277), (19, 3310), (20, 3316), (21, 3319), (23, 3337), (24, 3340), (27, 3361), (29, 3415), (31, 3433), (32, 3454), (34, 3469), (37, 3517),

Gene: MosMoris\_11 Start: 3050, Stop: 3550, Start Num: 7

Candidate Starts for MosMoris\_11:

(Start: 7 @3050 has 31 MA's), (13, 3176), (14, 3182), (16, 3239), (17, 3278), (18, 3296), (19, 3329), (20, 3335), (21, 3338), (23, 3356), (24, 3359), (29, 3434), (31, 3452), (32, 3473), (34, 3488),

Gene: Phanphagia\_78 Start: 48630, Stop: 49136, Start Num: 8

Candidate Starts for Phanphagia\_78:

(Start: 8 @48630 has 4 MA's), (9, 48690), (13, 48753), (14, 48759), (16, 48816), (17, 48855), (18, 48873), (20, 48912), (21, 48915), (23, 48933), (24, 48936), (31, 49029), (32, 49050), (34, 49065), (37, 49113),

Gene: Phox\_16 Start: 6227, Stop: 6736, Start Num: 7

Candidate Starts for Phox\_16:

(Start: 2 @6188 has 1 MA's), (Start: 7 @6227 has 31 MA's), (12, 6350), (13, 6353), (14, 6359), (16, 6416), (17, 6455), (18, 6473), (19, 6506), (20, 6512), (23, 6533), (24, 6536), (27, 6557), (29, 6611), (31, 6629), (32, 6650), (34, 6665), (37, 6713),

Gene: Poise\_11 Start: 3312, Stop: 3821, Start Num: 7

Candidate Starts for Poise\_11:

(1, 3249), (Start: 7 @3312 has 31 MA's), (9, 3375), (13, 3438), (14, 3444), (16, 3501), (17, 3540), (18, 3558), (19, 3591), (20, 3597), (21, 3600), (23, 3618), (24, 3621), (29, 3696), (31, 3714), (32, 3735), (34, 3750), (37, 3798),

Gene: Purky\_65 Start: 41855, Stop: 42367, Start Num: 6

Candidate Starts for Purky\_65:

(4, 41840), (Start: 6 @41855 has 1 MA's), (10, 41936), (11, 41966), (13, 41996), (14, 42002), (16, 42059), (19, 42149), (20, 42155), (21, 42158), (23, 42176), (24, 42179), (30, 42257), (33, 42305),

Gene: Rabinovish\_13 Start: 5283, Stop: 5792, Start Num: 7

Candidate Starts for Rabinovish\_13:

(Start: 2 @5244 has 1 MA's), (Start: 7 @5283 has 31 MA's), (12, 5406), (13, 5409), (14, 5415), (16, 5472), (17, 5511), (18, 5529), (19, 5562), (20, 5568), (21, 5571), (23, 5589), (24, 5592), (27, 5613), (29, 5667), (31, 5685), (32, 5706), (34, 5721), (37, 5769),

Gene: Raela\_11 Start: 3716, Stop: 4216, Start Num: 7

Candidate Starts for Raela\_11:

(1, 3653), (Start: 7 @3716 has 31 MA's), (9, 3779), (13, 3842), (14, 3848), (16, 3905), (17, 3944), (18, 3962), (19, 3995), (20, 4001), (21, 4004), (23, 4022), (24, 4025), (29, 4100), (31, 4118), (32, 4139), (34, 4154),

Gene: Shauna1\_79 Start: 48880, Stop: 49386, Start Num: 8

Candidate Starts for Shauna1\_79:

(Start: 8 @48880 has 4 MA's), (9, 48940), (13, 49003), (14, 49009), (16, 49066), (17, 49105), (18, 49123), (20, 49162), (21, 49165), (23, 49183), (24, 49186), (31, 49279), (32, 49300), (34, 49315), (37, 49363),

Gene: Shifa\_13 Start: 5135, Stop: 5644, Start Num: 7

Candidate Starts for Shifa\_13:

(Start: 7 @5135 has 31 MA's), (12, 5258), (13, 5261), (14, 5267), (16, 5324), (17, 5363), (18, 5381), (19, 5414), (20, 5420), (21, 5423), (23, 5441), (24, 5444), (27, 5465), (29, 5519), (31, 5537), (32, 5558), (34, 5573), (37, 5621),

Gene: Smeagol\_84 Start: 50857, Stop: 50357, Start Num: 7

Candidate Starts for Smeagol\_84:

(Start: 7 @50857 has 31 MA's), (13, 50731), (14, 50725), (16, 50668), (17, 50629), (18, 50611), (19, 50578), (20, 50572), (21, 50569), (23, 50551), (24, 50548), (27, 50527), (29, 50473), (31, 50455), (32, 50434), (34, 50419), (37, 50386),

Gene: Spooky\_89 Start: 49581, Stop: 50066, Start Num: 7

Candidate Starts for Spooky\_89:

(Start: 7 @49581 has 31 MA's), (9, 49641), (15, 49737), (17, 49806), (22, 49878), (25, 49899), (26, 49902), (28, 49962), (33, 50019), (35, 50031), (36, 50058),

Gene: Sprinklers\_18 Start: 5552, Stop: 6061, Start Num: 7

Candidate Starts for Sprinklers\_18:

(Start: 7 @5552 has 31 MA's), (9, 5615), (13, 5678), (14, 5684), (16, 5741), (17, 5780), (18, 5798), (19, 5831), (20, 5837), (21, 5840), (23, 5858), (24, 5861), (27, 5882), (29, 5936), (31, 5954), (32, 5975), (34, 5990), (37, 6038),

Gene: Taj\_87 Start: 50441, Stop: 50950, Start Num: 7

Candidate Starts for Taj\_87:

(Start: 7 @50441 has 31 MA's), (12, 50564), (13, 50567), (14, 50573), (16, 50630), (17, 50669), (18, 50687), (19, 50720), (20, 50726), (21, 50729), (23, 50747), (24, 50750), (27, 50771), (29, 50825), (31, 50843), (32, 50864), (34, 50879), (37, 50927),

Gene: Taptic\_69 Start: 49940, Stop: 50446, Start Num: 8

Candidate Starts for Taptic\_69:

(Start: 8 @49940 has 4 MA's), (13, 50063), (14, 50069), (16, 50126), (17, 50165), (18, 50183), (19, 50216), (20, 50222), (21, 50225), (23, 50243), (24, 50246), (29, 50321), (31, 50339), (32, 50360), (37, 50423),

Gene: Tesla\_11 Start: 3303, Stop: 3812, Start Num: 7

Candidate Starts for Tesla\_11:

(1, 3240), (Start: 7 @3303 has 31 MA's), (9, 3366), (13, 3429), (14, 3435), (16, 3492), (17, 3531), (18, 3549), (19, 3582), (20, 3588), (21, 3591), (23, 3609), (24, 3612), (29, 3687), (31, 3705), (32, 3726), (34, 3741), (37, 3789),

Gene: Topiatin\_89 Start: 51040, Stop: 51549, Start Num: 7

Candidate Starts for Topiatin\_89:

(Start: 7 @51040 has 31 MA's), (9, 51103), (13, 51166), (14, 51172), (16, 51229), (17, 51268), (18, 51286), (19, 51319), (20, 51325), (21, 51328), (23, 51346), (24, 51349), (29, 51424), (31, 51442), (34, 51478),

Gene: Toron\_87 Start: 51628, Stop: 52140, Start Num: 6

Candidate Starts for Toron\_87:

(Start: 6 @51628 has 1 MA's), (10, 51709), (11, 51739), (13, 51769), (14, 51775), (16, 51832), (20, 51928), (21, 51931), (23, 51949), (24, 51952), (30, 52030), (33, 52078),

Gene: Turj99\_76 Start: 47985, Stop: 47476, Start Num: 7

Candidate Starts for Turj99\_76:

(Start: 7 @47985 has 31 MA's), (13, 47859), (14, 47853), (16, 47796), (17, 47757), (18, 47739), (19, 47706), (20, 47700), (23, 47679), (24, 47676), (27, 47655), (29, 47601), (31, 47583), (32, 47562), (34, 47547), (37, 47499),

Gene: Tweety\_81 Start: 49480, Stop: 50028, Start Num: 2

Candidate Starts for Tweety\_81:

(Start: 2 @49480 has 1 MA's), (Start: 7 @49519 has 31 MA's), (12, 49642), (13, 49645), (14, 49651), (16, 49708), (17, 49747), (18, 49765), (19, 49798), (20, 49804), (21, 49807), (23, 49825), (24, 49828), (27, 49849), (29, 49903), (31, 49921), (32, 49942), (34, 49957), (37, 50005),

Gene: Wee\_86 Start: 50517, Stop: 51026, Start Num: 7

Candidate Starts for Wee\_86:

(Start: 7 @50517 has 31 MA's), (12, 50640), (13, 50643), (14, 50649), (16, 50706), (17, 50745), (18, 50763), (19, 50796), (20, 50802), (21, 50805), (23, 50823), (24, 50826), (27, 50847), (29, 50901), (31, 50919), (32, 50940), (34, 50955), (37, 51003),

Gene: Yassified\_15 Start: 4715, Stop: 5224, Start Num: 7

Candidate Starts for Yassified\_15:

(Start: 2 @4676 has 1 MA's), (Start: 7 @4715 has 31 MA's), (12, 4838), (13, 4841), (14, 4847), (16, 4904), (17, 4943), (18, 4961), (19, 4994), (20, 5000), (23, 5021), (24, 5024), (27, 5045), (29, 5099), (31, 5117), (32, 5138), (34, 5153), (37, 5201),