



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 86058 Report

This analysis was run 04/28/24 on database version 559.

Pham number 86058 has 38 members, 3 are drafts.

Phages represented in each track:

- Track 1 : Kronus\_86
- Track 2 : Audrey\_86, LestyG\_84, Nozo\_86, GlenHope\_87, Compostia\_85, Mortcellus\_86, ChaChing\_86, Heathcliff\_86, SynergyX\_86, Baloo\_85, Halfpint\_86, Briakila\_86, Obutu\_88, Akoma\_86, Phlyer\_86, Phayeta\_89, Ben11\_86, Jackstina\_80, Tydolla\_82, Chandler\_86, Devonte\_84, Athena\_88, RomaT\_86, Deenasa\_86, RagingRooster\_85, Daisy\_85, Phaedrus\_81, Kamiyu\_86, Gervas\_87, Rita1961\_87, Corofin\_86, Yahalom\_84, OrangeOswald\_85, Abinghost\_86, Casbah\_86, SlippinJimmy\_89
- Track 3 : MmasiCarm\_87

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

The start number called the most often in the published annotations is 2, it was called in 34 of the 35 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Abinghost\_86, Akoma\_86, Athena\_88, Audrey\_86, Baloo\_85, Ben11\_86, Briakila\_86, Casbah\_86, ChaChing\_86, Chandler\_86, Compostia\_85, Corofin\_86, Daisy\_85, Deenasa\_86, Devonte\_84, Gervas\_87, GlenHope\_87, Halfpint\_86, Heathcliff\_86, Jackstina\_80, Kamiyu\_86, LestyG\_84, MmasiCarm\_87, Mortcellus\_86, Nozo\_86, Obutu\_88, OrangeOswald\_85, Phaedrus\_81, Phayeta\_89, Phlyer\_86, RagingRooster\_85, Rita1961\_87, RomaT\_86, SlippinJimmy\_89, SynergyX\_86, Tydolla\_82, Yahalom\_84,

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

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

- Kronus\_86,

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

Start 2:

- Found in 37 of 38 ( 97.4% ) of genes in pham

- Manual Annotations of this start: 34 of 35
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Abinghost\_86 (B3), Akoma\_86 (B3), Athena\_88 (B3), Audrey\_86 (B3), Baloo\_85 (B3), Ben11\_86 (B3), Briakila\_86 (B3), Casbah\_86 (B3), ChaChing\_86 (B3), Chandler\_86 (B3), Compostia\_85 (B3), Corofin\_86 (B3), Daisy\_85 (B3), Deenasa\_86 (B3), Devonte\_84 (B3), Gervas\_87 (B3), GlenHope\_87 (B3), Halfpint\_86 (B3), Heathcliff\_86 (B3), Jackstina\_80 (B3), Kamiyu\_86 (B3), LestyG\_84 (B3), MmasiCarm\_87 (B3), Mortcellus\_86 (B3), Nozo\_86 (B3), Obutu\_88 (B3), OrangeOswald\_85 (B3), Phaedruss\_81 (B3), Phayeta\_89 (B3), Phlyer\_86 (B3), RagingRooster\_85 (B3), Rita1961\_87 (B3), RomaT\_86 (B3), SlippinJimmy\_89 (B3), SynergyX\_86 (B3), Tydolla\_82 (B3), Yahalom\_84 (B3),

Start 3:

- Found in 38 of 38 ( 100.0% ) of genes in pham
- Manual Annotations of this start: 1 of 35
- Called 2.6% of time when present
- Phage (with cluster) where this start called: Kronus\_86 (B3),

### Summary by clusters:

There is one cluster represented in this pham: B3

Info for manual annotations of cluster B3:

- Start number 2 was manually annotated 34 times for cluster B3.
- Start number 3 was manually annotated 1 time for cluster B3.

### Gene Information:

Gene: Abinghost\_86 Start: 62487, Stop: 62155, Start Num: 2

Candidate Starts for Abinghost\_86:

(1, 62535), (Start: 2 @62487 has 34 MA's), (Start: 3 @62457 has 1 MA's), (4, 62424), (5, 62343), (6, 62319), (7, 62283), (8, 62238), (9, 62235), (10, 62178), (11, 62166),

Gene: Akoma\_86 Start: 62527, Stop: 62195, Start Num: 2

Candidate Starts for Akoma\_86:

(1, 62575), (Start: 2 @62527 has 34 MA's), (Start: 3 @62497 has 1 MA's), (4, 62464), (5, 62383), (6, 62359), (7, 62323), (8, 62278), (9, 62275), (10, 62218), (11, 62206),

Gene: Athena\_88 Start: 63262, Stop: 62930, Start Num: 2

Candidate Starts for Athena\_88:

(1, 63310), (Start: 2 @63262 has 34 MA's), (Start: 3 @63232 has 1 MA's), (4, 63199), (5, 63118), (6, 63094), (7, 63058), (8, 63013), (9, 63010), (10, 62953), (11, 62941),

Gene: Audrey\_86 Start: 62516, Stop: 62184, Start Num: 2

Candidate Starts for Audrey\_86:

(1, 62564), (Start: 2 @62516 has 34 MA's), (Start: 3 @62486 has 1 MA's), (4, 62453), (5, 62372), (6, 62348), (7, 62312), (8, 62267), (9, 62264), (10, 62207), (11, 62195),

Gene: Baloo\_85 Start: 62368, Stop: 62036, Start Num: 2

Candidate Starts for Baloo\_85:

(1, 62416), (Start: 2 @62368 has 34 MA's), (Start: 3 @62338 has 1 MA's), (4, 62305), (5, 62224), (6, 62200), (7, 62164), (8, 62119), (9, 62116), (10, 62059), (11, 62047),

Gene: Ben11\_86 Start: 62743, Stop: 62411, Start Num: 2

Candidate Starts for Ben11\_86:

(1, 62791), (Start: 2 @62743 has 34 MA's), (Start: 3 @62713 has 1 MA's), (4, 62680), (5, 62599), (6, 62575), (7, 62539), (8, 62494), (9, 62491), (10, 62434), (11, 62422),

Gene: Briakila\_86 Start: 62714, Stop: 62382, Start Num: 2

Candidate Starts for Briakila\_86:

(1, 62762), (Start: 2 @62714 has 34 MA's), (Start: 3 @62684 has 1 MA's), (4, 62651), (5, 62570), (6, 62546), (7, 62510), (8, 62465), (9, 62462), (10, 62405), (11, 62393),

Gene: Casbah\_86 Start: 62827, Stop: 62495, Start Num: 2

Candidate Starts for Casbah\_86:

(1, 62875), (Start: 2 @62827 has 34 MA's), (Start: 3 @62797 has 1 MA's), (4, 62764), (5, 62683), (6, 62659), (7, 62623), (8, 62578), (9, 62575), (10, 62518), (11, 62506),

Gene: ChaChing\_86 Start: 62529, Stop: 62197, Start Num: 2

Candidate Starts for ChaChing\_86:

(1, 62577), (Start: 2 @62529 has 34 MA's), (Start: 3 @62499 has 1 MA's), (4, 62466), (5, 62385), (6, 62361), (7, 62325), (8, 62280), (9, 62277), (10, 62220), (11, 62208),

Gene: Chandler\_86 Start: 63303, Stop: 62971, Start Num: 2

Candidate Starts for Chandler\_86:

(1, 63351), (Start: 2 @63303 has 34 MA's), (Start: 3 @63273 has 1 MA's), (4, 63240), (5, 63159), (6, 63135), (7, 63099), (8, 63054), (9, 63051), (10, 62994), (11, 62982),

Gene: Compostia\_85 Start: 62969, Stop: 62637, Start Num: 2

Candidate Starts for Compostia\_85:

(1, 63017), (Start: 2 @62969 has 34 MA's), (Start: 3 @62939 has 1 MA's), (4, 62906), (5, 62825), (6, 62801), (7, 62765), (8, 62720), (9, 62717), (10, 62660), (11, 62648),

Gene: Corofin\_86 Start: 62538, Stop: 62206, Start Num: 2

Candidate Starts for Corofin\_86:

(1, 62586), (Start: 2 @62538 has 34 MA's), (Start: 3 @62508 has 1 MA's), (4, 62475), (5, 62394), (6, 62370), (7, 62334), (8, 62289), (9, 62286), (10, 62229), (11, 62217),

Gene: Daisy\_85 Start: 62089, Stop: 61757, Start Num: 2

Candidate Starts for Daisy\_85:

(1, 62137), (Start: 2 @62089 has 34 MA's), (Start: 3 @62059 has 1 MA's), (4, 62026), (5, 61945), (6, 61921), (7, 61885), (8, 61840), (9, 61837), (10, 61780), (11, 61768),

Gene: Deenasa\_86 Start: 63438, Stop: 63106, Start Num: 2

Candidate Starts for Deenasa\_86:

(1, 63486), (Start: 2 @63438 has 34 MA's), (Start: 3 @63408 has 1 MA's), (4, 63375), (5, 63294), (6, 63270), (7, 63234), (8, 63189), (9, 63186), (10, 63129), (11, 63117),

Gene: Devonte\_84 Start: 62155, Stop: 61823, Start Num: 2

Candidate Starts for Devonte\_84:

(1, 62203), (Start: 2 @62155 has 34 MA's), (Start: 3 @62125 has 1 MA's), (4, 62092), (5, 62011), (6, 61987), (7, 61951), (8, 61906), (9, 61903), (10, 61846), (11, 61834),

Gene: Gervas\_87 Start: 62983, Stop: 62651, Start Num: 2

Candidate Starts for Gervas\_87:

(1, 63031), (Start: 2 @62983 has 34 MA's), (Start: 3 @62953 has 1 MA's), (4, 62920), (5, 62839), (6, 62815), (7, 62779), (8, 62734), (9, 62731), (10, 62674), (11, 62662),

Gene: GlenHope\_87 Start: 62559, Stop: 62227, Start Num: 2

Candidate Starts for GlenHope\_87:

(1, 62607), (Start: 2 @62559 has 34 MA's), (Start: 3 @62529 has 1 MA's), (4, 62496), (5, 62415), (6, 62391), (7, 62355), (8, 62310), (9, 62307), (10, 62250), (11, 62238),

Gene: Halfpint\_86 Start: 62301, Stop: 61969, Start Num: 2

Candidate Starts for Halfpint\_86:

(1, 62349), (Start: 2 @62301 has 34 MA's), (Start: 3 @62271 has 1 MA's), (4, 62238), (5, 62157), (6, 62133), (7, 62097), (8, 62052), (9, 62049), (10, 61992), (11, 61980),

Gene: Heathcliff\_86 Start: 62483, Stop: 62151, Start Num: 2

Candidate Starts for Heathcliff\_86:

(1, 62531), (Start: 2 @62483 has 34 MA's), (Start: 3 @62453 has 1 MA's), (4, 62420), (5, 62339), (6, 62315), (7, 62279), (8, 62234), (9, 62231), (10, 62174), (11, 62162),

Gene: Jackstina\_80 Start: 62397, Stop: 62065, Start Num: 2

Candidate Starts for Jackstina\_80:

(1, 62445), (Start: 2 @62397 has 34 MA's), (Start: 3 @62367 has 1 MA's), (4, 62334), (5, 62253), (6, 62229), (7, 62193), (8, 62148), (9, 62145), (10, 62088), (11, 62076),

Gene: Kamiyu\_86 Start: 62486, Stop: 62154, Start Num: 2

Candidate Starts for Kamiyu\_86:

(1, 62534), (Start: 2 @62486 has 34 MA's), (Start: 3 @62456 has 1 MA's), (4, 62423), (5, 62342), (6, 62318), (7, 62282), (8, 62237), (9, 62234), (10, 62177), (11, 62165),

Gene: Kronus\_86 Start: 63540, Stop: 63238, Start Num: 3

Candidate Starts for Kronus\_86:

(1, 63618), (Start: 3 @63540 has 1 MA's), (4, 63507), (5, 63426), (6, 63402), (7, 63366), (8, 63321), (9, 63318), (10, 63261), (11, 63249),

Gene: LestyG\_84 Start: 62056, Stop: 61724, Start Num: 2

Candidate Starts for LestyG\_84:

(1, 62104), (Start: 2 @62056 has 34 MA's), (Start: 3 @62026 has 1 MA's), (4, 61993), (5, 61912), (6, 61888), (7, 61852), (8, 61807), (9, 61804), (10, 61747), (11, 61735),

Gene: MmasiCarm\_87 Start: 62913, Stop: 62581, Start Num: 2

Candidate Starts for MmasiCarm\_87:

(1, 62961), (Start: 2 @62913 has 34 MA's), (Start: 3 @62883 has 1 MA's), (4, 62850), (5, 62769), (6, 62745), (7, 62709), (8, 62664), (9, 62661), (10, 62604),

Gene: Mortcellus\_86 Start: 63651, Stop: 63319, Start Num: 2

Candidate Starts for Mortcellus\_86:

(1, 63699), (Start: 2 @63651 has 34 MA's), (Start: 3 @63621 has 1 MA's), (4, 63588), (5, 63507), (6, 63483), (7, 63447), (8, 63402), (9, 63399), (10, 63342), (11, 63330),

Gene: Nozo\_86 Start: 63293, Stop: 62961, Start Num: 2

Candidate Starts for Nozo\_86:

(1, 63341), (Start: 2 @63293 has 34 MA's), (Start: 3 @63263 has 1 MA's), (4, 63230), (5, 63149), (6, 63125), (7, 63089), (8, 63044), (9, 63041), (10, 62984), (11, 62972),

Gene: Obutu\_88 Start: 63096, Stop: 62764, Start Num: 2

Candidate Starts for Obutu\_88:

(1, 63144), (Start: 2 @63096 has 34 MA's), (Start: 3 @63066 has 1 MA's), (4, 63033), (5, 62952), (6, 62928), (7, 62892), (8, 62847), (9, 62844), (10, 62787), (11, 62775),

Gene: OrangeOswald\_85 Start: 62528, Stop: 62196, Start Num: 2

Candidate Starts for OrangeOswald\_85:

(1, 62576), (Start: 2 @62528 has 34 MA's), (Start: 3 @62498 has 1 MA's), (4, 62465), (5, 62384), (6, 62360), (7, 62324), (8, 62279), (9, 62276), (10, 62219), (11, 62207),

Gene: Phaedrus\_81 Start: 61944, Stop: 61612, Start Num: 2

Candidate Starts for Phaedrus\_81:

(1, 61992), (Start: 2 @61944 has 34 MA's), (Start: 3 @61914 has 1 MA's), (4, 61881), (5, 61800), (6, 61776), (7, 61740), (8, 61695), (9, 61692), (10, 61635), (11, 61623),

Gene: Phayeta\_89 Start: 63013, Stop: 62681, Start Num: 2

Candidate Starts for Phayeta\_89:

(1, 63061), (Start: 2 @63013 has 34 MA's), (Start: 3 @62983 has 1 MA's), (4, 62950), (5, 62869), (6, 62845), (7, 62809), (8, 62764), (9, 62761), (10, 62704), (11, 62692),

Gene: Phlyer\_86 Start: 63239, Stop: 62907, Start Num: 2

Candidate Starts for Phlyer\_86:

(1, 63287), (Start: 2 @63239 has 34 MA's), (Start: 3 @63209 has 1 MA's), (4, 63176), (5, 63095), (6, 63071), (7, 63035), (8, 62990), (9, 62987), (10, 62930), (11, 62918),

Gene: RagingRooster\_85 Start: 62219, Stop: 61887, Start Num: 2

Candidate Starts for RagingRooster\_85:

(1, 62267), (Start: 2 @62219 has 34 MA's), (Start: 3 @62189 has 1 MA's), (4, 62156), (5, 62075), (6, 62051), (7, 62015), (8, 61970), (9, 61967), (10, 61910), (11, 61898),

Gene: Rita1961\_87 Start: 62870, Stop: 62538, Start Num: 2

Candidate Starts for Rita1961\_87:

(1, 62918), (Start: 2 @62870 has 34 MA's), (Start: 3 @62840 has 1 MA's), (4, 62807), (5, 62726), (6, 62702), (7, 62666), (8, 62621), (9, 62618), (10, 62561), (11, 62549),

Gene: RomaT\_86 Start: 63093, Stop: 62761, Start Num: 2

Candidate Starts for RomaT\_86:

(1, 63141), (Start: 2 @63093 has 34 MA's), (Start: 3 @63063 has 1 MA's), (4, 63030), (5, 62949), (6, 62925), (7, 62889), (8, 62844), (9, 62841), (10, 62784), (11, 62772),

Gene: SlippinJimmy\_89 Start: 63903, Stop: 63571, Start Num: 2

Candidate Starts for SlippinJimmy\_89:

(1, 63951), (Start: 2 @63903 has 34 MA's), (Start: 3 @63873 has 1 MA's), (4, 63840), (5, 63759), (6, 63735), (7, 63699), (8, 63654), (9, 63651), (10, 63594), (11, 63582),

Gene: SynergyX\_86 Start: 62530, Stop: 62198, Start Num: 2

Candidate Starts for SynergyX\_86:

(1, 62578), (Start: 2 @62530 has 34 MA's), (Start: 3 @62500 has 1 MA's), (4, 62467), (5, 62386), (6, 62362), (7, 62326), (8, 62281), (9, 62278), (10, 62221), (11, 62209),

Gene: Tydolla\_82 Start: 62509, Stop: 62177, Start Num: 2

Candidate Starts for Tydolla\_82:

(1, 62557), (Start: 2 @62509 has 34 MA's), (Start: 3 @62479 has 1 MA's), (4, 62446), (5, 62365), (6, 62341), (7, 62305), (8, 62260), (9, 62257), (10, 62200), (11, 62188),

Gene: Yahalom\_84 Start: 62336, Stop: 62004, Start Num: 2

Candidate Starts for Yahalom\_84:

(1, 62384), (Start: 2 @62336 has 34 MA's), (Start: 3 @62306 has 1 MA's), (4, 62273), (5, 62192), (6, 62168), (7, 62132), (8, 62087), (9, 62084), (10, 62027), (11, 62015),