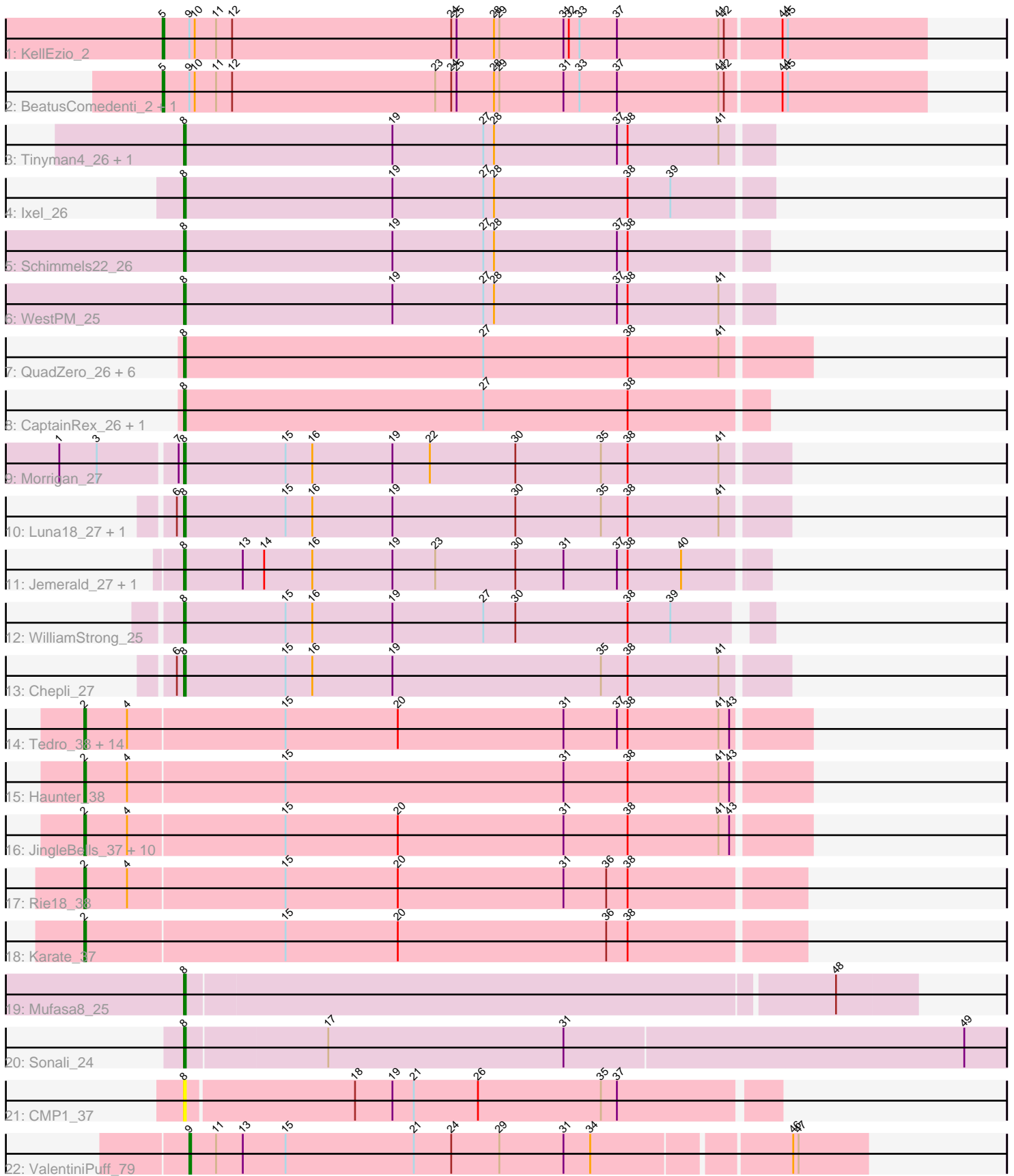


# Pham 169877



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 169877 Report

This analysis was run 07/09/24 on database version 566.

Pham number 169877 has 57 members, 8 are drafts.

Phages represented in each track:

- Track 1 : Kellezio\_2
- Track 2 : BeatusComedenti\_2, Kitkat\_2
- Track 3 : Tinyman4\_26, HerculesXL\_26
- Track 4 : Ixel\_26
- Track 5 : Schimmels22\_26
- Track 6 : WestPM\_25
- Track 7 : QuadZero\_26, Hasitha\_26, Zayuliv\_26, Greenlvy\_26, LilTerminator\_27, Fulton\_27, Zepp\_27
- Track 8 : CaptainRex\_26, Librie\_26
- Track 9 : Morigan\_27
- Track 10 : Luna18\_27, KatChan\_27
- Track 11 : Jemerald\_27, Juicer\_27
- Track 12 : WilliamStrong\_25
- Track 13 : Chepli\_27
- Track 14 : Tedro\_38, Neptune\_38, CoolCookie\_43, Cybele\_38, Snakehole\_38, AnnaSerena\_38, PhunaPhoke\_38, NarutoRun\_38, Gilda\_38, Anakin\_38, Krampus\_38, Potty\_38, OverHedge\_38, Pharpay\_38, Rachella\_38
- Track 15 : Haunter\_38
- Track 16 : JingleBells\_37, Kate\_38, Crestdrop\_38, Hiddenleaf\_37, JDawG\_37, FreddieHg\_37, MortySmith\_36, Aesir\_37, Chivey\_37, Poultriss\_38, DannyDe\_37
- Track 17 : Rie18\_38
- Track 18 : Karate\_37
- Track 19 : Mufasa8\_25
- Track 20 : Sonali\_24
- Track 21 : CMP1\_37
- Track 22 : ValentiniPuff\_79

### ***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 24 of the 49 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Aesir\_37, Anakin\_38, AnnaSerena\_38, Chivey\_37, CoolCookie\_43, Crestdrop\_38, Cybele\_38, DannyDe\_37, FreddieHg\_37, Gilda\_38, Haunter\_38, Hiddenleaf\_37, JDawG\_37, JingleBells\_37, Karate\_37, Kate\_38, Krampus\_38, MortySmith\_36, NarutoRun\_38, Neptune\_38, OverHedge\_38, Pharpay\_38, PhunaPhoke\_38, Potty\_38, Poultruss\_38, Rachella\_38, Rie18\_38, Snakehole\_38, Tedro\_38,

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

- 

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

- BeatusComedenti\_2, CMP1\_37, CaptainRex\_26, Chepli\_27, Fulton\_27, Greenlvy\_26, Hasitha\_26, HerculesXL\_26, Ixel\_26, Jemerald\_27, Juicer\_27, KatChan\_27, KellEzio\_2, Kitkat\_2, Librie\_26, LilTerminator\_27, Luna18\_27, Morrigan\_27, Mufasa8\_25, QuadZero\_26, Schimmels22\_26, Sonali\_24, Tinyman4\_26, ValentiniPuff\_79, WestPM\_25, WilliamStrong\_25, Zayuliv\_26, Zepp\_27,

### Summary by start number:

Start 2:

- Found in 29 of 57 ( 50.9% ) of genes in pham
- Manual Annotations of this start: 24 of 49
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Aesir\_37 (EF), Anakin\_38 (EF), AnnaSerena\_38 (EF), Chivey\_37 (EF), CoolCookie\_43 (EF), Crestdrop\_38 (EF), Cybele\_38 (EF), DannyDe\_37 (EF), FreddieHg\_37 (EF), Gilda\_38 (EF), Haunter\_38 (EF), Hiddenleaf\_37 (EF), JDawG\_37 (EF), JingleBells\_37 (EF), Karate\_37 (EF), Kate\_38 (EF), Krampus\_38 (EF), MortySmith\_36 (EF), NarutoRun\_38 (EF), Neptune\_38 (EF), OverHedge\_38 (EF), Pharpay\_38 (EF), PhunaPhoke\_38 (EF), Potty\_38 (EF), Poultruss\_38 (EF), Rachella\_38 (EF), Rie18\_38 (EF), Snakehole\_38 (EF), Tedro\_38 (EF),

Start 5:

- Found in 3 of 57 ( 5.3% ) of genes in pham
- Manual Annotations of this start: 3 of 49
- Called 100.0% of time when present
- Phage (with cluster) where this start called: BeatusComedenti\_2 (AT), KellEzio\_2 (AT), Kitkat\_2 (AT),

Start 8:

- Found in 24 of 57 ( 42.1% ) of genes in pham
- Manual Annotations of this start: 21 of 49
- Called 100.0% of time when present
- Phage (with cluster) where this start called: CMP1\_37 (singleton), CaptainRex\_26 (EA5), Chepli\_27 (EA6), Fulton\_27 (EA5), Greenlvy\_26 (EA5), Hasitha\_26 (EA5), HerculesXL\_26 (EA11), Ixel\_26 (EA11), Jemerald\_27 (EA6), Juicer\_27 (EA6), KatChan\_27 (EA6), Librie\_26 (EA5), LilTerminator\_27 (EA5), Luna18\_27 (EA6), Morrigan\_27 (EA6), Mufasa8\_25 (FG), QuadZero\_26 (EA5), Schimmels22\_26 (EA11), Sonali\_24 (FG), Tinyman4\_26 (EA11), WestPM\_25 (EA11), WilliamStrong\_25 (EA6), Zayuliv\_26 (EA5), Zepp\_27 (EA5),

Start 9:

- Found in 4 of 57 ( 7.0% ) of genes in pham

- Manual Annotations of this start: 1 of 49
- Called 25.0% of time when present
- Phage (with cluster) where this start called: ValentiniPuff\_79 (singleton),

### **Summary by clusters:**

There are 7 clusters represented in this pham: singleton, EA11, EF, AT, FG, EA5, EA6,

Info for manual annotations of cluster AT:

- Start number 5 was manually annotated 3 times for cluster AT.

Info for manual annotations of cluster EA11:

- Start number 8 was manually annotated 5 times for cluster EA11.

Info for manual annotations of cluster EA5:

- Start number 8 was manually annotated 7 times for cluster EA5.

Info for manual annotations of cluster EA6:

- Start number 8 was manually annotated 7 times for cluster EA6.

Info for manual annotations of cluster EF:

- Start number 2 was manually annotated 24 times for cluster EF.

Info for manual annotations of cluster FG:

- Start number 8 was manually annotated 2 times for cluster FG.

### **Gene Information:**

Gene: Aesir\_37 Start: 24476, Stop: 24877, Start Num: 2

Candidate Starts for Aesir\_37:

(Start: 2 @24476 has 24 MA's), (4, 24500), (15, 24587), (20, 24650), (31, 24743), (38, 24779), (41, 24830), (43, 24836),

Gene: Anakin\_38 Start: 24796, Stop: 25197, Start Num: 2

Candidate Starts for Anakin\_38:

(Start: 2 @24796 has 24 MA's), (4, 24820), (15, 24907), (20, 24970), (31, 25063), (37, 25093), (38, 25099), (41, 25150), (43, 25156),

Gene: AnnaSerena\_38 Start: 24831, Stop: 25232, Start Num: 2

Candidate Starts for AnnaSerena\_38:

(Start: 2 @24831 has 24 MA's), (4, 24855), (15, 24942), (20, 25005), (31, 25098), (37, 25128), (38, 25134), (41, 25185), (43, 25191),

Gene: BeatusComedenti\_2 Start: 788, Stop: 1213, Start Num: 5

Candidate Starts for BeatusComedenti\_2:

(Start: 5 @788 has 3 MA's), (Start: 9 @803 has 1 MA's), (10, 806), (11, 818), (12, 827), (23, 941), (24, 950), (25, 953), (28, 974), (29, 977), (31, 1013), (33, 1022), (37, 1043), (41, 1100), (42, 1103), (44, 1133), (45, 1136),

Gene: CMP1\_37 Start: 36378, Stop: 36704, Start Num: 8

Candidate Starts for CMP1\_37:

(Start: 8 @36378 has 21 MA's), (18, 36471), (19, 36492), (21, 36504), (26, 36540), (35, 36609), (37, 36618),

Gene: CaptainRex\_26 Start: 18608, Stop: 18931, Start Num: 8

Candidate Starts for CaptainRex\_26:

(Start: 8 @18608 has 21 MA's), (27, 18776), (38, 18857),

Gene: Chepli\_27 Start: 19263, Stop: 19598, Start Num: 8

Candidate Starts for Chepli\_27:

(6, 19260), (Start: 8 @19263 has 21 MA's), (15, 19320), (16, 19335), (19, 19380), (35, 19497), (38, 19512), (41, 19563),

Gene: Chivey\_37 Start: 23887, Stop: 24288, Start Num: 2

Candidate Starts for Chivey\_37:

(Start: 2 @23887 has 24 MA's), (4, 23911), (15, 23998), (20, 24061), (31, 24154), (38, 24190), (41, 24241), (43, 24247),

Gene: CoolCookie\_43 Start: 24826, Stop: 25227, Start Num: 2

Candidate Starts for CoolCookie\_43:

(Start: 2 @24826 has 24 MA's), (4, 24850), (15, 24937), (20, 25000), (31, 25093), (37, 25123), (38, 25129), (41, 25180), (43, 25186),

Gene: Crestdrop\_38 Start: 23798, Stop: 24199, Start Num: 2

Candidate Starts for Crestdrop\_38:

(Start: 2 @23798 has 24 MA's), (4, 23822), (15, 23909), (20, 23972), (31, 24065), (38, 24101), (41, 24152), (43, 24158),

Gene: Cybele\_38 Start: 24796, Stop: 25197, Start Num: 2

Candidate Starts for Cybele\_38:

(Start: 2 @24796 has 24 MA's), (4, 24820), (15, 24907), (20, 24970), (31, 25063), (37, 25093), (38, 25099), (41, 25150), (43, 25156),

Gene: DannyDe\_37 Start: 23893, Stop: 24294, Start Num: 2

Candidate Starts for DannyDe\_37:

(Start: 2 @23893 has 24 MA's), (4, 23917), (15, 24004), (20, 24067), (31, 24160), (38, 24196), (41, 24247), (43, 24253),

Gene: FreddieHg\_37 Start: 23903, Stop: 24304, Start Num: 2

Candidate Starts for FreddieHg\_37:

(Start: 2 @23903 has 24 MA's), (4, 23927), (15, 24014), (20, 24077), (31, 24170), (38, 24206), (41, 24257), (43, 24263),

Gene: Fulton\_27 Start: 18590, Stop: 18937, Start Num: 8

Candidate Starts for Fulton\_27:

(Start: 8 @18590 has 21 MA's), (27, 18758), (38, 18839), (41, 18890),

Gene: Gilda\_38 Start: 24820, Stop: 25221, Start Num: 2

Candidate Starts for Gilda\_38:

(Start: 2 @24820 has 24 MA's), (4, 24844), (15, 24931), (20, 24994), (31, 25087), (37, 25117), (38, 25123), (41, 25174), (43, 25180),

Gene: Greenlvy\_26 Start: 19176, Stop: 19523, Start Num: 8

Candidate Starts for GreenIvy\_26:

(Start: 8 @19176 has 21 MA's), (27, 19344), (38, 19425), (41, 19476),

Gene: Hasitha\_26 Start: 18602, Stop: 18949, Start Num: 8

Candidate Starts for Hasitha\_26:

(Start: 8 @18602 has 21 MA's), (27, 18770), (38, 18851), (41, 18902),

Gene: Haunter\_38 Start: 24212, Stop: 24613, Start Num: 2

Candidate Starts for Haunter\_38:

(Start: 2 @24212 has 24 MA's), (4, 24236), (15, 24323), (31, 24479), (38, 24515), (41, 24566), (43, 24572),

Gene: HerculesXL\_26 Start: 18674, Stop: 19000, Start Num: 8

Candidate Starts for HerculesXL\_26:

(Start: 8 @18674 has 21 MA's), (19, 18791), (27, 18842), (28, 18848), (37, 18917), (38, 18923), (41, 18974),

Gene: Hiddenleaf\_37 Start: 23887, Stop: 24288, Start Num: 2

Candidate Starts for Hiddenleaf\_37:

(Start: 2 @23887 has 24 MA's), (4, 23911), (15, 23998), (20, 24061), (31, 24154), (38, 24190), (41, 24241), (43, 24247),

Gene: Ixel\_26 Start: 18510, Stop: 18836, Start Num: 8

Candidate Starts for Ixel\_26:

(Start: 8 @18510 has 21 MA's), (19, 18627), (27, 18678), (28, 18684), (38, 18759), (39, 18783),

Gene: JDawG\_37 Start: 24471, Stop: 24872, Start Num: 2

Candidate Starts for JDawG\_37:

(Start: 2 @24471 has 24 MA's), (4, 24495), (15, 24582), (20, 24645), (31, 24738), (38, 24774), (41, 24825), (43, 24831),

Gene: Jemerald\_27 Start: 20196, Stop: 20519, Start Num: 8

Candidate Starts for Jemerald\_27:

(Start: 8 @20196 has 21 MA's), (13, 20229), (14, 20241), (16, 20268), (19, 20313), (23, 20337), (30, 20382), (31, 20409), (37, 20439), (38, 20445), (40, 20475),

Gene: JingleBells\_37 Start: 24008, Stop: 24409, Start Num: 2

Candidate Starts for JingleBells\_37:

(Start: 2 @24008 has 24 MA's), (4, 24032), (15, 24119), (20, 24182), (31, 24275), (38, 24311), (41, 24362), (43, 24368),

Gene: Juicer\_27 Start: 20196, Stop: 20519, Start Num: 8

Candidate Starts for Juicer\_27:

(Start: 8 @20196 has 21 MA's), (13, 20229), (14, 20241), (16, 20268), (19, 20313), (23, 20337), (30, 20382), (31, 20409), (37, 20439), (38, 20445), (40, 20475),

Gene: Karate\_37 Start: 24819, Stop: 25217, Start Num: 2

Candidate Starts for Karate\_37:

(Start: 2 @24819 has 24 MA's), (15, 24930), (20, 24993), (36, 25110), (38, 25122),

Gene: KatChan\_27 Start: 19269, Stop: 19604, Start Num: 8

Candidate Starts for KatChan\_27:

(6, 19266), (Start: 8 @19269 has 21 MA's), (15, 19326), (16, 19341), (19, 19386), (30, 19455), (35, 19503), (38, 19518), (41, 19569),

Gene: Kate\_38 Start: 24828, Stop: 25229, Start Num: 2

Candidate Starts for Kate\_38:

(Start: 2 @24828 has 24 MA's), (4, 24852), (15, 24939), (20, 25002), (31, 25095), (38, 25131), (41, 25182), (43, 25188),

Gene: KellEzio\_2 Start: 788, Stop: 1213, Start Num: 5

Candidate Starts for KellEzio\_2:

(Start: 5 @788 has 3 MA's), (Start: 9 @803 has 1 MA's), (10, 806), (11, 818), (12, 827), (24, 950), (25, 953), (28, 974), (29, 977), (31, 1013), (32, 1016), (33, 1022), (37, 1043), (41, 1100), (42, 1103), (44, 1133), (45, 1136),

Gene: Kitkat\_2 Start: 788, Stop: 1213, Start Num: 5

Candidate Starts for Kitkat\_2:

(Start: 5 @788 has 3 MA's), (Start: 9 @803 has 1 MA's), (10, 806), (11, 818), (12, 827), (23, 941), (24, 950), (25, 953), (28, 974), (29, 977), (31, 1013), (33, 1022), (37, 1043), (41, 1100), (42, 1103), (44, 1133), (45, 1136),

Gene: Krampus\_38 Start: 24828, Stop: 25229, Start Num: 2

Candidate Starts for Krampus\_38:

(Start: 2 @24828 has 24 MA's), (4, 24852), (15, 24939), (20, 25002), (31, 25095), (37, 25125), (38, 25131), (41, 25182), (43, 25188),

Gene: Librie\_26 Start: 18608, Stop: 18931, Start Num: 8

Candidate Starts for Librie\_26:

(Start: 8 @18608 has 21 MA's), (27, 18776), (38, 18857),

Gene: LilTerminator\_27 Start: 18608, Stop: 18955, Start Num: 8

Candidate Starts for LilTerminator\_27:

(Start: 8 @18608 has 21 MA's), (27, 18776), (38, 18857), (41, 18908),

Gene: Luna18\_27 Start: 19269, Stop: 19604, Start Num: 8

Candidate Starts for Luna18\_27:

(6, 19266), (Start: 8 @19269 has 21 MA's), (15, 19326), (16, 19341), (19, 19386), (30, 19455), (35, 19503), (38, 19518), (41, 19569),

Gene: Morrigan\_27 Start: 20156, Stop: 20491, Start Num: 8

Candidate Starts for Morrigan\_27:

(1, 20090), (3, 20111), (7, 20153), (Start: 8 @20156 has 21 MA's), (15, 20213), (16, 20228), (19, 20273), (22, 20294), (30, 20342), (35, 20390), (38, 20405), (41, 20456),

Gene: MortySmith\_36 Start: 23859, Stop: 24260, Start Num: 2

Candidate Starts for MortySmith\_36:

(Start: 2 @23859 has 24 MA's), (4, 23883), (15, 23970), (20, 24033), (31, 24126), (38, 24162), (41, 24213), (43, 24219),

Gene: Mufasa8\_25 Start: 23961, Stop: 24362, Start Num: 8

Candidate Starts for Mufasa8\_25:

(Start: 8 @23961 has 21 MA's), (48, 24318),

Gene: NarutoRun\_38 Start: 24796, Stop: 25197, Start Num: 2

Candidate Starts for NarutoRun\_38:

(Start: 2 @24796 has 24 MA's), (4, 24820), (15, 24907), (20, 24970), (31, 25063), (37, 25093), (38, 25099), (41, 25150), (43, 25156),

Gene: Neptune\_38 Start: 24796, Stop: 25197, Start Num: 2

Candidate Starts for Neptune\_38:

(Start: 2 @24796 has 24 MA's), (4, 24820), (15, 24907), (20, 24970), (31, 25063), (37, 25093), (38, 25099), (41, 25150), (43, 25156),

Gene: OverHedge\_38 Start: 24786, Stop: 25187, Start Num: 2

Candidate Starts for OverHedge\_38:

(Start: 2 @24786 has 24 MA's), (4, 24810), (15, 24897), (20, 24960), (31, 25053), (37, 25083), (38, 25089), (41, 25140), (43, 25146),

Gene: Pharpay\_38 Start: 24841, Stop: 25242, Start Num: 2

Candidate Starts for Pharpay\_38:

(Start: 2 @24841 has 24 MA's), (4, 24865), (15, 24952), (20, 25015), (31, 25108), (37, 25138), (38, 25144), (41, 25195), (43, 25201),

Gene: PhunaPhoke\_38 Start: 24814, Stop: 25215, Start Num: 2

Candidate Starts for PhunaPhoke\_38:

(Start: 2 @24814 has 24 MA's), (4, 24838), (15, 24925), (20, 24988), (31, 25081), (37, 25111), (38, 25117), (41, 25168), (43, 25174),

Gene: Potty\_38 Start: 24819, Stop: 25220, Start Num: 2

Candidate Starts for Potty\_38:

(Start: 2 @24819 has 24 MA's), (4, 24843), (15, 24930), (20, 24993), (31, 25086), (37, 25116), (38, 25122), (41, 25173), (43, 25179),

Gene: Poultruss\_38 Start: 25165, Stop: 25566, Start Num: 2

Candidate Starts for Poultruss\_38:

(Start: 2 @25165 has 24 MA's), (4, 25189), (15, 25276), (20, 25339), (31, 25432), (38, 25468), (41, 25519), (43, 25525),

Gene: QuadZero\_26 Start: 18612, Stop: 18959, Start Num: 8

Candidate Starts for QuadZero\_26:

(Start: 8 @18612 has 21 MA's), (27, 18780), (38, 18861), (41, 18912),

Gene: Rachella\_38 Start: 24822, Stop: 25223, Start Num: 2

Candidate Starts for Rachella\_38:

(Start: 2 @24822 has 24 MA's), (4, 24846), (15, 24933), (20, 24996), (31, 25089), (37, 25119), (38, 25125), (41, 25176), (43, 25182),

Gene: Rie18\_38 Start: 24311, Stop: 24709, Start Num: 2

Candidate Starts for Rie18\_38:

(Start: 2 @24311 has 24 MA's), (4, 24335), (15, 24422), (20, 24485), (31, 24578), (36, 24602), (38, 24614),

Gene: Schimmels22\_26 Start: 19037, Stop: 19360, Start Num: 8

Candidate Starts for Schimmels22\_26:

(Start: 8 @19037 has 21 MA's), (19, 19154), (27, 19205), (28, 19211), (37, 19280), (38, 19286),

Gene: Snakehole\_38 Start: 23999, Stop: 24400, Start Num: 2



Candidate Starts for Snakehole\_38:

(Start: 2 @23999 has 24 MA's), (4, 24023), (15, 24110), (20, 24173), (31, 24266), (37, 24296), (38, 24302), (41, 24353), (43, 24359),

Gene: Sonali\_24 Start: 24016, Stop: 24471, Start Num: 8

Candidate Starts for Sonali\_24:

(Start: 8 @24016 has 21 MA's), (17, 24094), (31, 24226), (49, 24448),

Gene: Tedro\_38 Start: 24292, Stop: 24693, Start Num: 2

Candidate Starts for Tedro\_38:

(Start: 2 @24292 has 24 MA's), (4, 24316), (15, 24403), (20, 24466), (31, 24559), (37, 24589), (38, 24595), (41, 24646), (43, 24652),

Gene: Tinyman4\_26 Start: 18674, Stop: 19000, Start Num: 8

Candidate Starts for Tinyman4\_26:

(Start: 8 @18674 has 21 MA's), (19, 18791), (27, 18842), (28, 18848), (37, 18917), (38, 18923), (41, 18974),

Gene: ValentiniPuff\_79 Start: 47112, Stop: 47483, Start Num: 9

Candidate Starts for ValentiniPuff\_79:

(Start: 9 @47112 has 1 MA's), (11, 47127), (13, 47142), (15, 47166), (21, 47238), (24, 47259), (29, 47286), (31, 47322), (34, 47337), (46, 47442), (47, 47445),

Gene: WestPM\_25 Start: 18517, Stop: 18843, Start Num: 8

Candidate Starts for WestPM\_25:

(Start: 8 @18517 has 21 MA's), (19, 18634), (27, 18685), (28, 18691), (37, 18760), (38, 18766), (41, 18817),

Gene: WilliamStrong\_25 Start: 20264, Stop: 20584, Start Num: 8

Candidate Starts for WilliamStrong\_25:

(Start: 8 @20264 has 21 MA's), (15, 20321), (16, 20336), (19, 20381), (27, 20432), (30, 20450), (38, 20513), (39, 20537),

Gene: Zayuliv\_26 Start: 19198, Stop: 19545, Start Num: 8

Candidate Starts for Zayuliv\_26:

(Start: 8 @19198 has 21 MA's), (27, 19366), (38, 19447), (41, 19498),

Gene: Zepp\_27 Start: 18596, Stop: 18943, Start Num: 8

Candidate Starts for Zepp\_27:

(Start: 8 @18596 has 21 MA's), (27, 18764), (38, 18845), (41, 18896),