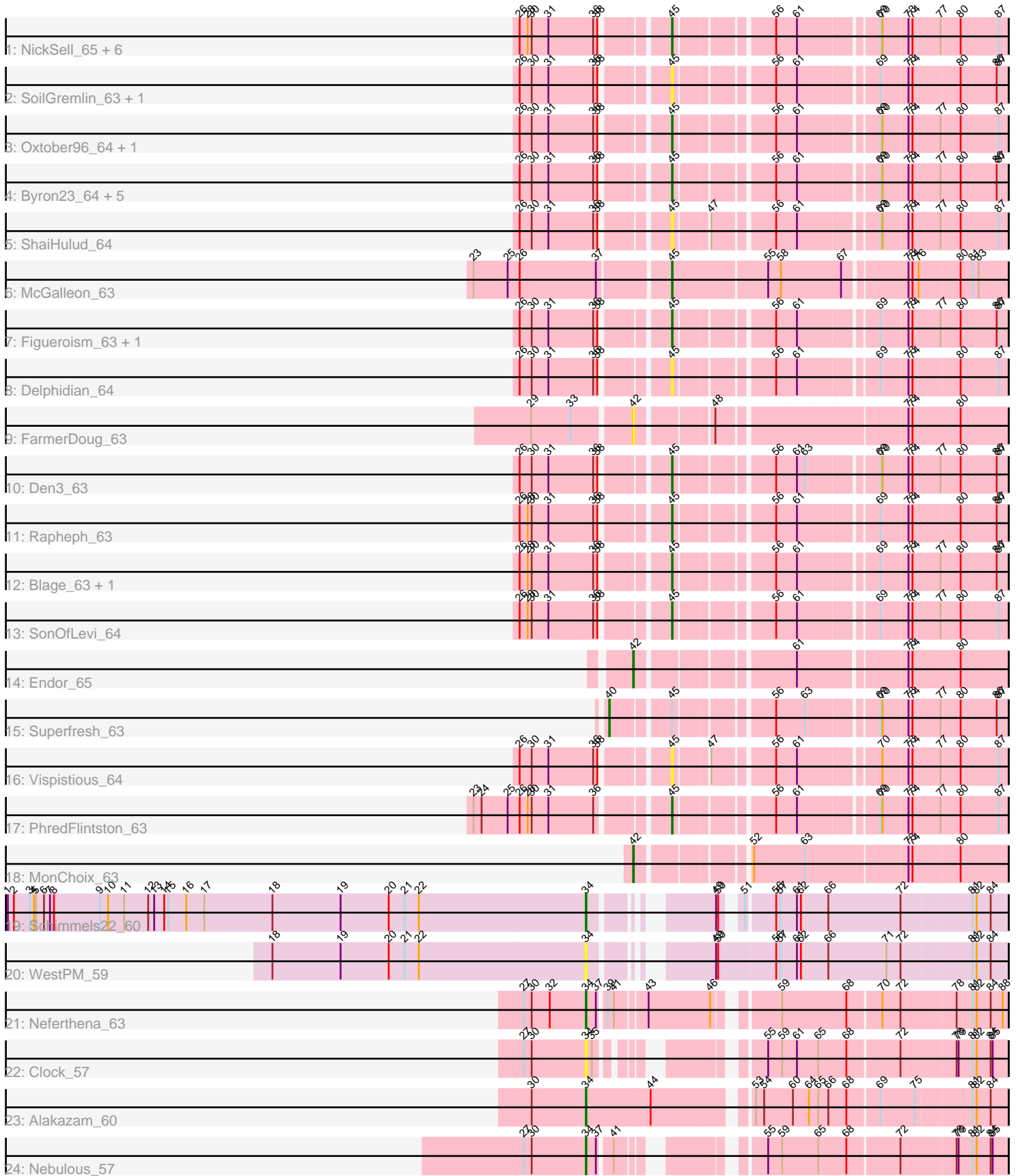


Pham 163745



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 163745 Report

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

Pham number 163745 has 39 members, 17 are drafts.

Phages represented in each track:

- Track 1 : NickSell\_65, Jerbirus\_64, Kurt1\_63, Rog141\_64, MrWorldwide\_63, Phiderman\_65, JeriBeth\_64
- Track 2 : SoilGremlin\_63, OldNelly\_63
- Track 3 : Oxtober96\_64, Lovelyunicorn\_63
- Track 4 : Byron23\_64, HungryHenry\_64, Janus167\_62, Sedgewig\_62, StirfryIV\_64, HankSprout\_65
- Track 5 : ShaiHulud\_64
- Track 6 : McGalleon\_63
- Track 7 : Figueroism\_63, Clancy\_62
- Track 8 : Delphidian\_64
- Track 9 : FarmerDoug\_63
- Track 10 : Den3\_63
- Track 11 : Rappheph\_63
- Track 12 : Blage\_63, Velene\_63
- Track 13 : SonOfLevi\_64
- Track 14 : Endor\_65
- Track 15 : Superfresh\_63
- Track 16 : Vispistious\_64
- Track 17 : PhredFlintston\_63
- Track 18 : MonChoix\_63
- Track 19 : Schimmels22\_60
- Track 20 : WestPM\_59
- Track 21 : Neferthena\_63
- Track 22 : Clock\_57
- Track 23 : Alakazam\_60
- Track 24 : Nebulous\_57

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

The start number called the most often in the published annotations is 45, it was called in 15 of the 22 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Blage\_63, Byron23\_64, Clancy\_62, Delphidian\_64, Den3\_63, Figueroism\_63, HankSprout\_65, HungryHenry\_64, Janus167\_62, Jerbirus\_64, JeriBeth\_64, Kurt1\_63, Lovelyunicorn\_63, McGalleon\_63, MrWorldwide\_63, NickSell\_65, OldNelly\_63, Oxtober96\_64, Phiderman\_65, PhredFlintston\_63, Rapheph\_63, Rog141\_64, Sedgewig\_62, ShaiHulud\_64, SoilGremlin\_63, SonOfLevi\_64, StirfryIV\_64, Velene\_63, Vispistious\_64,

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

- Superfresh\_63,

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

- Alakazam\_60, Clock\_57, Endor\_65, FarmerDoug\_63, MonChoix\_63, Nebulous\_57, Neferthena\_63, Schimmels22\_60, WestPM\_59,

### Summary by start number:

Start 34:

- Found in 6 of 39 ( 15.4% ) of genes in pham
- Manual Annotations of this start: 4 of 22
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Alakazam\_60 (EA5), Clock\_57 (EA5), Nebulous\_57 (EA5), Neferthena\_63 (EA5), Schimmels22\_60 (EA11), WestPM\_59 (EA11),

Start 40:

- Found in 1 of 39 ( 2.6% ) of genes in pham
- Manual Annotations of this start: 1 of 22
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Superfresh\_63 (EA1),

Start 42:

- Found in 3 of 39 ( 7.7% ) of genes in pham
- Manual Annotations of this start: 2 of 22
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Endor\_65 (EA1), FarmerDoug\_63 (EA1), MonChoix\_63 (EA1),

Start 45:

- Found in 30 of 39 ( 76.9% ) of genes in pham
- Manual Annotations of this start: 15 of 22
- Called 96.7% of time when present
- Phage (with cluster) where this start called: Blage\_63 (EA1), Byron23\_64 (EA1), Clancy\_62 (EA1), Delphidian\_64 (EA1), Den3\_63 (EA1), Figueroism\_63 (EA1), HankSprout\_65 (EA1), HungryHenry\_64 (EA1), Janus167\_62 (EA1), Jerbirus\_64 (EA1), JeriBeth\_64 (EA1), Kurt1\_63 (EA1), Lovelyunicorn\_63 (EA1), McGalleon\_63 (EA1), MrWorldwide\_63 (EA1), NickSell\_65 (EA1), OldNelly\_63 (EA1), Oxtober96\_64 (EA1), Phiderman\_65 (EA1), PhredFlintston\_63 (EA1), Rapheph\_63 (EA1), Rog141\_64 (EA1), Sedgewig\_62 (EA1), ShaiHulud\_64 (EA1), SoilGremlin\_63 (EA1), SonOfLevi\_64 (EA1), StirfryIV\_64 (EA1), Velene\_63 (EA1), Vispistious\_64 (EA1),

### Summary by clusters:

There are 3 clusters represented in this pham: EA1, EA11, EA5,

Info for manual annotations of cluster EA1:

- Start number 40 was manually annotated 1 time for cluster EA1.
- Start number 42 was manually annotated 2 times for cluster EA1.
- Start number 45 was manually annotated 15 times for cluster EA1.

Info for manual annotations of cluster EA11:

- Start number 34 was manually annotated 1 time for cluster EA11.

Info for manual annotations of cluster EA5:

- Start number 34 was manually annotated 3 times for cluster EA5.

### **Gene Information:**

Gene: Alakazam\_60 Start: 40514, Stop: 41098, Start Num: 34

Candidate Starts for Alakazam\_60:

(30, 40433), (Start: 34 @40514 has 4 MA's), (44, 40610), (53, 40736), (54, 40748), (60, 40790), (64, 40814), (65, 40826), (66, 40841), (68, 40868), (69, 40913), (75, 40964), (81, 41045), (82, 41051), (84, 41072),

Gene: Blage\_63 Start: 41170, Stop: 41613, Start Num: 45

Candidate Starts for Blage\_63:

(26, 40972), (28, 40984), (30, 40990), (31, 41014), (36, 41080), (38, 41086), (Start: 45 @41170 has 15 MA's), (56, 41293), (61, 41323), (69, 41428), (73, 41467), (74, 41473), (77, 41515), (80, 41542), (86, 41596), (87, 41599),

Gene: Byron23\_64 Start: 41180, Stop: 41623, Start Num: 45

Candidate Starts for Byron23\_64:

(26, 40982), (30, 41000), (31, 41024), (36, 41090), (38, 41096), (Start: 45 @41180 has 15 MA's), (56, 41303), (61, 41333), (69, 41438), (70, 41441), (73, 41477), (74, 41483), (77, 41525), (80, 41552), (86, 41606), (87, 41609),

Gene: Clancy\_62 Start: 40928, Stop: 41371, Start Num: 45

Candidate Starts for Clancy\_62:

(26, 40730), (30, 40748), (31, 40772), (36, 40838), (38, 40844), (Start: 45 @40928 has 15 MA's), (56, 41051), (61, 41081), (69, 41186), (73, 41225), (74, 41231), (77, 41273), (80, 41300), (86, 41354), (87, 41357),

Gene: Clock\_57 Start: 40957, Stop: 41472, Start Num: 34

Candidate Starts for Clock\_57:

(27, 40864), (30, 40876), (Start: 34 @40957 has 4 MA's), (35, 40966), (55, 41128), (59, 41149), (61, 41170), (65, 41200), (68, 41242), (72, 41317), (78, 41398), (79, 41401), (81, 41422), (82, 41428), (84, 41449), (85, 41452),

Gene: Delphidian\_64 Start: 40968, Stop: 41411, Start Num: 45

Candidate Starts for Delphidian\_64:

(26, 40770), (30, 40788), (31, 40812), (36, 40878), (38, 40884), (Start: 45 @40968 has 15 MA's), (56, 41091), (61, 41121), (69, 41226), (73, 41265), (74, 41271), (80, 41340), (87, 41397),

Gene: Den3\_63 Start: 41173, Stop: 41616, Start Num: 45

Candidate Starts for Den3\_63:

(26, 40975), (30, 40993), (31, 41017), (36, 41083), (38, 41089), (Start: 45 @41173 has 15 MA's), (56, 41296), (61, 41326), (63, 41338), (69, 41431), (70, 41434), (73, 41470), (74, 41476), (77, 41518), (80, 41545), (86, 41599), (87, 41602),

Gene: Endor\_65 Start: 41639, Stop: 42139, Start Num: 42

Candidate Starts for Endor\_65:

(Start: 42 @41639 has 2 MA's), (61, 41843), (73, 41990), (74, 41996), (80, 42068),

Gene: FarmerDoug\_63 Start: 41088, Stop: 41597, Start Num: 42

Candidate Starts for FarmerDoug\_63:

(29, 40950), (33, 41007), (Start: 42 @41088 has 2 MA's), (48, 41187), (73, 41448), (74, 41454), (80, 41526),

Gene: Figueroism\_63 Start: 41220, Stop: 41663, Start Num: 45

Candidate Starts for Figueroism\_63:

(26, 41022), (30, 41040), (31, 41064), (36, 41130), (38, 41136), (Start: 45 @41220 has 15 MA's), (56, 41343), (61, 41373), (69, 41478), (73, 41517), (74, 41523), (77, 41565), (80, 41592), (86, 41646), (87, 41649),

Gene: HankSprout\_65 Start: 40794, Stop: 41237, Start Num: 45

Candidate Starts for HankSprout\_65:

(26, 40596), (30, 40614), (31, 40638), (36, 40704), (38, 40710), (Start: 45 @40794 has 15 MA's), (56, 40917), (61, 40947), (69, 41052), (70, 41055), (73, 41091), (74, 41097), (77, 41139), (80, 41166), (86, 41220), (87, 41223),

Gene: HungryHenry\_64 Start: 40889, Stop: 41332, Start Num: 45

Candidate Starts for HungryHenry\_64:

(26, 40691), (30, 40709), (31, 40733), (36, 40799), (38, 40805), (Start: 45 @40889 has 15 MA's), (56, 41012), (61, 41042), (69, 41147), (70, 41150), (73, 41186), (74, 41192), (77, 41234), (80, 41261), (86, 41315), (87, 41318),

Gene: Janus167\_62 Start: 40903, Stop: 41346, Start Num: 45

Candidate Starts for Janus167\_62:

(26, 40705), (30, 40723), (31, 40747), (36, 40813), (38, 40819), (Start: 45 @40903 has 15 MA's), (56, 41026), (61, 41056), (69, 41161), (70, 41164), (73, 41200), (74, 41206), (77, 41248), (80, 41275), (86, 41329), (87, 41332),

Gene: Jerbirus\_64 Start: 40919, Stop: 41362, Start Num: 45

Candidate Starts for Jerbirus\_64:

(26, 40721), (28, 40733), (30, 40739), (31, 40763), (36, 40829), (38, 40835), (Start: 45 @40919 has 15 MA's), (56, 41042), (61, 41072), (69, 41177), (70, 41180), (73, 41216), (74, 41222), (77, 41264), (80, 41291), (87, 41348),

Gene: JeriBeth\_64 Start: 40807, Stop: 41250, Start Num: 45

Candidate Starts for JeriBeth\_64:

(26, 40609), (28, 40621), (30, 40627), (31, 40651), (36, 40717), (38, 40723), (Start: 45 @40807 has 15 MA's), (56, 40930), (61, 40960), (69, 41065), (70, 41068), (73, 41104), (74, 41110), (77, 41152), (80, 41179), (87, 41236),

Gene: Kurt1\_63 Start: 41176, Stop: 41619, Start Num: 45

Candidate Starts for Kurt1\_63:

(26, 40978), (28, 40990), (30, 40996), (31, 41020), (36, 41086), (38, 41092), (Start: 45 @41176 has 15 MA's), (56, 41299), (61, 41329), (69, 41434), (70, 41437), (73, 41473), (74, 41479), (77, 41521), (80,

41548), (87, 41605),

Gene: Lovelyunicorn\_63 Start: 41171, Stop: 41614, Start Num: 45

Candidate Starts for Lovelyunicorn\_63:

(26, 40973), (30, 40991), (31, 41015), (36, 41081), (38, 41087), (Start: 45 @41171 has 15 MA's), (56, 41294), (61, 41324), (69, 41429), (70, 41432), (73, 41468), (74, 41474), (77, 41516), (80, 41543), (87, 41600),

Gene: McGalleon\_63 Start: 41920, Stop: 42396, Start Num: 45

Candidate Starts for McGalleon\_63:

(23, 41641), (25, 41692), (26, 41710), (37, 41821), (Start: 45 @41920 has 15 MA's), (55, 42058), (58, 42076), (67, 42166), (73, 42253), (74, 42259), (76, 42268), (80, 42328), (81, 42346), (83, 42355),

Gene: MonChoix\_63 Start: 41006, Stop: 41509, Start Num: 42

Candidate Starts for MonChoix\_63:

(Start: 42 @41006 has 2 MA's), (52, 41144), (63, 41219), (73, 41363), (74, 41369), (80, 41438),

Gene: MrWorldwide\_63 Start: 41183, Stop: 41626, Start Num: 45

Candidate Starts for MrWorldwide\_63:

(26, 40985), (28, 40997), (30, 41003), (31, 41027), (36, 41093), (38, 41099), (Start: 45 @41183 has 15 MA's), (56, 41306), (61, 41336), (69, 41441), (70, 41444), (73, 41480), (74, 41486), (77, 41528), (80, 41555), (87, 41612),

Gene: Nebulous\_57 Start: 40714, Stop: 41241, Start Num: 34

Candidate Starts for Nebulous\_57:

(27, 40621), (30, 40633), (Start: 34 @40714 has 4 MA's), (37, 40729), (41, 40747), (55, 40897), (59, 40918), (65, 40969), (68, 41011), (72, 41086), (78, 41167), (79, 41170), (81, 41191), (82, 41197), (84, 41218), (85, 41221),

Gene: Neferthema\_63 Start: 40908, Stop: 41468, Start Num: 34

Candidate Starts for Neferthema\_63:

(27, 40815), (30, 40827), (32, 40854), (Start: 34 @40908 has 4 MA's), (37, 40923), (39, 40932), (41, 40941), (43, 40983), (46, 41073), (59, 41145), (68, 41238), (70, 41286), (72, 41313), (78, 41394), (81, 41418), (82, 41424), (84, 41445), (88, 41463),

Gene: NickSell\_65 Start: 41186, Stop: 41629, Start Num: 45

Candidate Starts for NickSell\_65:

(26, 40988), (28, 41000), (30, 41006), (31, 41030), (36, 41096), (38, 41102), (Start: 45 @41186 has 15 MA's), (56, 41309), (61, 41339), (69, 41444), (70, 41447), (73, 41483), (74, 41489), (77, 41531), (80, 41558), (87, 41615),

Gene: OldNelly\_63 Start: 40973, Stop: 41416, Start Num: 45

Candidate Starts for OldNelly\_63:

(26, 40775), (30, 40793), (31, 40817), (36, 40883), (38, 40889), (Start: 45 @40973 has 15 MA's), (56, 41096), (61, 41126), (69, 41231), (73, 41270), (74, 41276), (80, 41345), (86, 41399), (87, 41402),

Gene: Oxtober96\_64 Start: 41171, Stop: 41614, Start Num: 45

Candidate Starts for Oxtober96\_64:

(26, 40973), (30, 40991), (31, 41015), (36, 41081), (38, 41087), (Start: 45 @41171 has 15 MA's), (56, 41294), (61, 41324), (69, 41429), (70, 41432), (73, 41468), (74, 41474), (77, 41516), (80, 41543), (87, 41600),

Gene: Phiderman\_65 Start: 41172, Stop: 41615, Start Num: 45

Candidate Starts for Phiderman\_65:

(26, 40974), (28, 40986), (30, 40992), (31, 41016), (36, 41082), (38, 41088), (Start: 45 @41172 has 15 MA's), (56, 41295), (61, 41325), (69, 41430), (70, 41433), (73, 41469), (74, 41475), (77, 41517), (80, 41544), (87, 41601),

Gene: PhredFlintston\_63 Start: 41176, Stop: 41619, Start Num: 45

Candidate Starts for PhredFlintston\_63:

(23, 40909), (24, 40921), (25, 40960), (26, 40978), (28, 40990), (30, 40996), (31, 41020), (36, 41086), (Start: 45 @41176 has 15 MA's), (56, 41299), (61, 41329), (69, 41434), (70, 41437), (73, 41473), (74, 41479), (77, 41521), (80, 41548), (87, 41605),

Gene: Rapheph\_63 Start: 41176, Stop: 41619, Start Num: 45

Candidate Starts for Rapheph\_63:

(26, 40978), (28, 40990), (30, 40996), (31, 41020), (36, 41086), (38, 41092), (Start: 45 @41176 has 15 MA's), (56, 41299), (61, 41329), (69, 41434), (73, 41473), (74, 41479), (80, 41548), (86, 41602), (87, 41605),

Gene: Rog141\_64 Start: 40919, Stop: 41362, Start Num: 45

Candidate Starts for Rog141\_64:

(26, 40721), (28, 40733), (30, 40739), (31, 40763), (36, 40829), (38, 40835), (Start: 45 @40919 has 15 MA's), (56, 41042), (61, 41072), (69, 41177), (70, 41180), (73, 41216), (74, 41222), (77, 41264), (80, 41291), (87, 41348),

Gene: Schimmels22\_60 Start: 38999, Stop: 39520, Start Num: 34

Candidate Starts for Schimmels22\_60:

(1, 38135), (2, 38144), (3, 38168), (4, 38174), (5, 38177), (6, 38189), (7, 38198), (8, 38204), (9, 38273), (10, 38285), (11, 38309), (12, 38345), (13, 38354), (14, 38369), (15, 38375), (16, 38402), (17, 38429), (18, 38531), (19, 38633), (20, 38705), (21, 38729), (22, 38750), (Start: 34 @38999 has 4 MA's), (49, 39125), (50, 39128), (51, 39146), (56, 39185), (57, 39191), (61, 39215), (62, 39221), (66, 39260), (72, 39368), (81, 39470), (82, 39476), (84, 39497),

Gene: Sedgewig\_62 Start: 40878, Stop: 41321, Start Num: 45

Candidate Starts for Sedgewig\_62:

(26, 40680), (30, 40698), (31, 40722), (36, 40788), (38, 40794), (Start: 45 @40878 has 15 MA's), (56, 41001), (61, 41031), (69, 41136), (70, 41139), (73, 41175), (74, 41181), (77, 41223), (80, 41250), (86, 41304), (87, 41307),

Gene: ShaiHulud\_64 Start: 41185, Stop: 41628, Start Num: 45

Candidate Starts for ShaiHulud\_64:

(26, 40987), (30, 41005), (31, 41029), (36, 41095), (38, 41101), (Start: 45 @41185 has 15 MA's), (47, 41230), (56, 41308), (61, 41338), (69, 41443), (70, 41446), (73, 41482), (74, 41488), (77, 41530), (80, 41557), (87, 41614),

Gene: SoilGremlin\_63 Start: 40969, Stop: 41412, Start Num: 45

Candidate Starts for SoilGremlin\_63:

(26, 40771), (30, 40789), (31, 40813), (36, 40879), (38, 40885), (Start: 45 @40969 has 15 MA's), (56, 41092), (61, 41122), (69, 41227), (73, 41266), (74, 41272), (80, 41341), (86, 41395), (87, 41398),

Gene: SonOfLevi\_64 Start: 40946, Stop: 41389, Start Num: 45

Candidate Starts for SonOfLevi\_64:

(26, 40748), (28, 40760), (30, 40766), (31, 40790), (36, 40856), (38, 40862), (Start: 45 @40946 has 15 MA's), (56, 41069), (61, 41099), (69, 41204), (73, 41243), (74, 41249), (77, 41291), (80, 41318), (87, 41375),

Gene: StirfryIV\_64 Start: 40892, Stop: 41335, Start Num: 45

Candidate Starts for StirfryIV\_64:

(26, 40694), (30, 40712), (31, 40736), (36, 40802), (38, 40808), (Start: 45 @40892 has 15 MA's), (56, 41015), (61, 41045), (69, 41150), (70, 41153), (73, 41189), (74, 41195), (77, 41237), (80, 41264), (86, 41318), (87, 41321),

Gene: Superfresh\_63 Start: 41155, Stop: 41676, Start Num: 40

Candidate Starts for Superfresh\_63:

(Start: 40 @41155 has 1 MA's), (Start: 45 @41233 has 15 MA's), (56, 41356), (63, 41398), (69, 41491), (70, 41494), (73, 41530), (74, 41536), (77, 41578), (80, 41605), (86, 41659), (87, 41662),

Gene: Velene\_63 Start: 41171, Stop: 41614, Start Num: 45

Candidate Starts for Velene\_63:

(26, 40973), (28, 40985), (30, 40991), (31, 41015), (36, 41081), (38, 41087), (Start: 45 @41171 has 15 MA's), (56, 41294), (61, 41324), (69, 41429), (73, 41468), (74, 41474), (77, 41516), (80, 41543), (86, 41597), (87, 41600),

Gene: Vispistious\_64 Start: 41176, Stop: 41619, Start Num: 45

Candidate Starts for Vispistious\_64:

(26, 40978), (30, 40996), (31, 41020), (36, 41086), (38, 41092), (Start: 45 @41176 has 15 MA's), (47, 41221), (56, 41299), (61, 41329), (70, 41437), (73, 41473), (74, 41479), (77, 41521), (80, 41548), (87, 41605),

Gene: WestPM\_59 Start: 38858, Stop: 39406, Start Num: 34

Candidate Starts for WestPM\_59:

(18, 38390), (19, 38492), (20, 38564), (21, 38588), (22, 38609), (Start: 34 @38858 has 4 MA's), (49, 38984), (50, 38987), (56, 39071), (57, 39077), (61, 39101), (62, 39107), (66, 39146), (71, 39233), (72, 39254), (81, 39356), (82, 39362), (84, 39383),