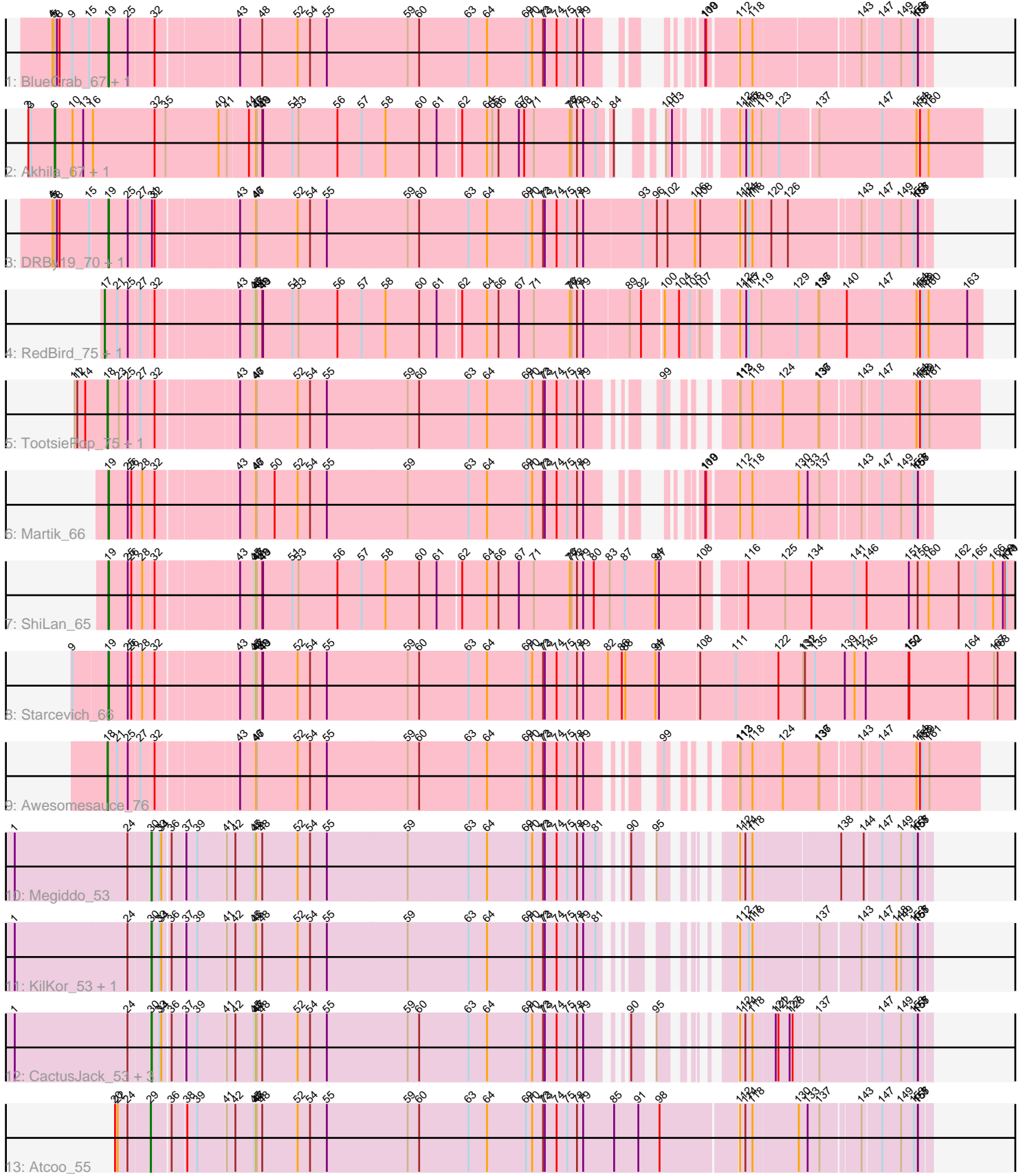


Pham 156656



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 156656 Report

This analysis was run 04/12/24 on database version 558.

Pham number 156656 has 22 members, 0 are drafts.

Phages represented in each track:

- Track 1 : BlueCrab\_67, FreddyB\_67
- Track 2 : Akhila\_67, MilanaBonita\_66
- Track 3 : DRBy19\_70, Philus\_70
- Track 4 : RedBird\_75, Dorothy\_75
- Track 5 : TootsiePop\_75, Misha28\_75
- Track 6 : Martik\_66
- Track 7 : ShiLan\_65
- Track 8 : Starcevich\_66
- Track 9 : Awesomesauce\_76
- Track 10 : Megiddo\_53
- Track 11 : KilKor\_53, Willsammy\_52
- Track 12 : CactusJack\_53, StressBall\_53, Phalm\_53, Glaske\_53
- Track 13 : Atcoo\_55

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

The start number called the most often in the published annotations is 19, it was called in 7 of the 22 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- BlueCrab\_67, DRBy19\_70, FreddyB\_67, Martik\_66, Philus\_70, ShiLan\_65, Starcevich\_66,

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

- 

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

- Akhila\_67, Atcoo\_55, Awesomesauce\_76, CactusJack\_53, Dorothy\_75, Glaske\_53, KilKor\_53, Megiddo\_53, MilanaBonita\_66, Misha28\_75, Phalm\_53, RedBird\_75, StressBall\_53, TootsiePop\_75, Willsammy\_52,

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

Start 6:

- Found in 2 of 22 ( 9.1% ) 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: Akhila\_67 (F1), MilanaBonita\_66 (F1),

Start 17:

- Found in 2 of 22 ( 9.1% ) 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: Dorothy\_75 (F1), RedBird\_75 (F1),

Start 18:

- Found in 3 of 22 ( 13.6% ) of genes in pham
- Manual Annotations of this start: 3 of 22
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Awesomesauce\_76 (F1), Misha28\_75 (F1), TootsiePop\_75 (F1),

Start 19:

- Found in 7 of 22 ( 31.8% ) of genes in pham
- Manual Annotations of this start: 7 of 22
- Called 100.0% of time when present
- Phage (with cluster) where this start called: BlueCrab\_67 (F1), DRBy19\_70 (F1), FreddyB\_67 (F1), Martik\_66 (F1), Philus\_70 (F1), ShiLan\_65 (F1), Starcevich\_66 (F1),

Start 29:

- Found in 1 of 22 ( 4.5% ) 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: Atcoo\_55 (P1),

Start 30:

- Found in 7 of 22 ( 31.8% ) of genes in pham
- Manual Annotations of this start: 7 of 22
- Called 100.0% of time when present
- Phage (with cluster) where this start called: CactusJack\_53 (P1), Glaske\_53 (P1), KilKor\_53 (P1), Megiddo\_53 (P1), Phalm\_53 (P1), StressBall\_53 (P1), Willsammy\_52 (P1),

### **Summary by clusters:**

There are 2 clusters represented in this pham: F1, P1,

Info for manual annotations of cluster F1:

- Start number 6 was manually annotated 2 times for cluster F1.
- Start number 17 was manually annotated 2 times for cluster F1.
- Start number 18 was manually annotated 3 times for cluster F1.
- Start number 19 was manually annotated 7 times for cluster F1.

Info for manual annotations of cluster P1:

- Start number 29 was manually annotated 1 time for cluster P1.
- Start number 30 was manually annotated 7 times for cluster P1.

**Gene Information:**

Gene: Akhila\_67 Start: 42333, Stop: 45014, Start Num: 6

Candidate Starts for Akhila\_67:

(2, 42243), (3, 42252), (Start: 6 @42333 has 2 MA's), (10, 42393), (13, 42429), (16, 42462), (32, 42663), (35, 42696), (40, 42873), (41, 42897), (44, 42960), (46, 42984), (47, 42987), (48, 43005), (49, 43008), (51, 43107), (53, 43128), (56, 43260), (57, 43341), (58, 43422), (60, 43536), (61, 43593), (62, 43665), (64, 43749), (65, 43767), (66, 43788), (67, 43857), (68, 43875), (71, 43908), (76, 44022), (77, 44028), (78, 44046), (79, 44067), (81, 44109), (84, 44151), (101, 44196), (103, 44208), (112, 44313), (115, 44334), (117, 44343), (118, 44355), (119, 44379), (123, 44421), (137, 44520), (147, 44706), (154, 44808), (158, 44820), (160, 44847),

Gene: Atcoo\_55 Start: 37344, Stop: 39803, Start Num: 29

Candidate Starts for Atcoo\_55:

(20, 37242), (22, 37251), (24, 37278), (Start: 29 @37344 has 1 MA's), (36, 37404), (38, 37443), (39, 37473), (41, 37563), (42, 37590), (45, 37653), (46, 37659), (47, 37662), (48, 37680), (52, 37800), (54, 37842), (55, 37899), (59, 38169), (60, 38208), (63, 38373), (64, 38436), (69, 38568), (70, 38589), (72, 38625), (73, 38631), (74, 38670), (75, 38706), (78, 38739), (79, 38760), (85, 38865), (91, 38940), (98, 39012), (112, 39258), (114, 39276), (118, 39300), (130, 39435), (133, 39465), (137, 39501), (143, 39603), (147, 39660), (149, 39720), (153, 39753), (155, 39762), (157, 39765),

Gene: Awesomesauce\_76 Start: 46078, Stop: 48528, Start Num: 18

Candidate Starts for Awesomesauce\_76:

(Start: 18 @46078 has 3 MA's), (21, 46108), (25, 46138), (27, 46174), (32, 46207), (43, 46438), (46, 46489), (47, 46492), (52, 46630), (54, 46672), (55, 46729), (59, 46999), (60, 47038), (63, 47203), (64, 47266), (69, 47398), (70, 47419), (72, 47455), (73, 47461), (74, 47500), (75, 47536), (78, 47569), (79, 47590), (99, 47725), (112, 47827), (113, 47830), (118, 47869), (124, 47950), (136, 48061), (137, 48064), (143, 48166), (147, 48223), (154, 48325), (158, 48337), (159, 48346), (161, 48367),

Gene: BlueCrab\_67 Start: 43881, Stop: 46157, Start Num: 19

Candidate Starts for BlueCrab\_67:

(4, 43704), (5, 43710), (7, 43719), (8, 43728), (9, 43767), (15, 43824), (Start: 19 @43881 has 7 MA's), (25, 43938), (32, 44007), (43, 44238), (48, 44310), (52, 44430), (54, 44472), (55, 44529), (59, 44799), (60, 44838), (63, 45003), (64, 45066), (69, 45198), (70, 45219), (72, 45255), (73, 45261), (74, 45300), (75, 45336), (78, 45369), (79, 45390), (109, 45555), (110, 45558), (112, 45642), (118, 45684), (143, 45957), (147, 46014), (149, 46074), (153, 46107), (155, 46116), (157, 46119),

Gene: CactusJack\_53 Start: 36390, Stop: 38582, Start Num: 30

Candidate Starts for CactusJack\_53:

(1, 35955), (24, 36327), (Start: 30 @36390 has 7 MA's), (33, 36417), (34, 36423), (36, 36447), (37, 36483), (39, 36516), (41, 36606), (42, 36633), (45, 36696), (46, 36702), (47, 36705), (48, 36723), (52, 36843), (54, 36885), (55, 36942), (59, 37212), (60, 37251), (63, 37416), (64, 37479), (69, 37611), (70, 37632), (72, 37668), (73, 37674), (74, 37713), (75, 37749), (78, 37782), (79, 37803), (90, 37887), (95, 37923), (112, 38046), (114, 38064), (118, 38088), (121, 38145), (122, 38151), (127, 38181), (128, 38187), (137, 38253), (147, 38439), (149, 38499), (153, 38532), (155, 38541), (157, 38544),

Gene: DRBy19\_70 Start: 44260, Stop: 46806, Start Num: 19

Candidate Starts for DRBy19\_70:

(4, 44083), (5, 44089), (7, 44098), (8, 44107), (15, 44203), (Start: 19 @44260 has 7 MA's), (25, 44317), (27, 44353), (31, 44377), (32, 44386), (43, 44617), (46, 44668), (47, 44671), (52, 44809), (54,

44851), (55, 44908), (59, 45178), (60, 45217), (63, 45382), (64, 45445), (69, 45577), (70, 45598), (72, 45634), (73, 45640), (74, 45679), (75, 45715), (78, 45748), (79, 45769), (93, 45961), (96, 46009), (102, 46045), (106, 46135), (108, 46153), (112, 46276), (114, 46294), (117, 46306), (118, 46318), (120, 46363), (126, 46411), (143, 46606), (147, 46663), (149, 46723), (153, 46756), (155, 46765), (157, 46768),

Gene: Dorothy\_75 Start: 45729, Stop: 48410, Start Num: 17

Candidate Starts for Dorothy\_75:

(Start: 17 @45729 has 2 MA's), (21, 45768), (25, 45798), (27, 45834), (32, 45867), (43, 46098), (45, 46143), (46, 46149), (47, 46152), (48, 46170), (49, 46173), (51, 46272), (53, 46293), (56, 46425), (57, 46506), (58, 46587), (60, 46701), (61, 46758), (62, 46830), (64, 46914), (66, 46953), (67, 47022), (71, 47073), (76, 47187), (77, 47193), (78, 47211), (79, 47232), (89, 47379), (92, 47415), (100, 47484), (104, 47532), (105, 47565), (107, 47592), (112, 47685), (115, 47706), (117, 47715), (119, 47751), (129, 47853), (136, 47916), (137, 47919), (140, 47997), (147, 48105), (154, 48207), (158, 48219), (159, 48228), (160, 48246), (163, 48363),

Gene: FreddyB\_67 Start: 41676, Stop: 43952, Start Num: 19

Candidate Starts for FreddyB\_67:

(4, 41499), (5, 41505), (7, 41514), (8, 41523), (9, 41562), (15, 41619), (Start: 19 @41676 has 7 MA's), (25, 41733), (32, 41802), (43, 42033), (48, 42105), (52, 42225), (54, 42267), (55, 42324), (59, 42594), (60, 42633), (63, 42798), (64, 42861), (69, 42993), (70, 43014), (72, 43050), (73, 43056), (74, 43095), (75, 43131), (78, 43164), (79, 43185), (109, 43350), (110, 43353), (112, 43437), (118, 43479), (143, 43752), (147, 43809), (149, 43869), (153, 43902), (155, 43911), (157, 43914),

Gene: Glaske\_53 Start: 36390, Stop: 38582, Start Num: 30

Candidate Starts for Glaske\_53:

(1, 35955), (24, 36327), (Start: 30 @36390 has 7 MA's), (33, 36417), (34, 36423), (36, 36447), (37, 36483), (39, 36516), (41, 36606), (42, 36633), (45, 36696), (46, 36702), (47, 36705), (48, 36723), (52, 36843), (54, 36885), (55, 36942), (59, 37212), (60, 37251), (63, 37416), (64, 37479), (69, 37611), (70, 37632), (72, 37668), (73, 37674), (74, 37713), (75, 37749), (78, 37782), (79, 37803), (90, 37887), (95, 37923), (112, 38046), (114, 38064), (118, 38088), (121, 38145), (122, 38151), (127, 38181), (128, 38187), (137, 38253), (147, 38439), (149, 38499), (153, 38532), (155, 38541), (157, 38544),

Gene: KilKor\_53 Start: 36390, Stop: 38570, Start Num: 30

Candidate Starts for KilKor\_53:

(1, 35955), (24, 36327), (Start: 30 @36390 has 7 MA's), (33, 36417), (34, 36423), (36, 36447), (37, 36483), (39, 36516), (41, 36606), (42, 36633), (45, 36696), (46, 36702), (48, 36723), (52, 36843), (54, 36885), (55, 36942), (59, 37212), (63, 37416), (64, 37479), (69, 37611), (70, 37632), (72, 37668), (73, 37674), (74, 37713), (75, 37749), (78, 37782), (79, 37803), (81, 37845), (112, 38052), (117, 38082), (118, 38094), (137, 38268), (143, 38370), (147, 38427), (148, 38472), (149, 38487), (153, 38520), (155, 38529), (157, 38532),

Gene: Martik\_66 Start: 42749, Stop: 45055, Start Num: 19

Candidate Starts for Martik\_66:

(Start: 19 @42749 has 7 MA's), (25, 42806), (26, 42818), (28, 42845), (32, 42875), (43, 43106), (46, 43157), (47, 43160), (50, 43220), (52, 43298), (54, 43340), (55, 43397), (59, 43667), (63, 43871), (64, 43934), (69, 44066), (70, 44087), (72, 44123), (73, 44129), (74, 44168), (75, 44204), (78, 44237), (79, 44258), (109, 44423), (110, 44426), (112, 44510), (118, 44552), (130, 44687), (133, 44717), (137, 44753), (143, 44855), (147, 44912), (149, 44972), (153, 45005), (155, 45014), (157, 45017),

Gene: Megiddo\_53 Start: 36390, Stop: 38585, Start Num: 30

Candidate Starts for Megiddo\_53:

(1, 35955), (24, 36327), (Start: 30 @36390 has 7 MA's), (33, 36417), (34, 36423), (36, 36447), (37, 36483), (39, 36516), (41, 36606), (42, 36633), (45, 36696), (46, 36702), (48, 36723), (52, 36843), (54, 36885), (55, 36942), (59, 37212), (63, 37416), (64, 37479), (69, 37611), (70, 37632), (72, 37668), (73, 37674), (74, 37713), (75, 37749), (78, 37782), (79, 37803), (81, 37845), (90, 37887), (95, 37923), (112, 38046), (114, 38064), (118, 38088), (138, 38325), (144, 38388), (147, 38442), (149, 38502), (153, 38535), (155, 38544), (157, 38547),

Gene: MilanaBonita\_66 Start: 42333, Stop: 45014, Start Num: 6

Candidate Starts for MilanaBonita\_66:

(2, 42243), (3, 42252), (Start: 6 @42333 has 2 MA's), (10, 42393), (13, 42429), (16, 42462), (32, 42663), (35, 42696), (40, 42873), (41, 42897), (44, 42960), (46, 42984), (47, 42987), (48, 43005), (49, 43008), (51, 43107), (53, 43128), (56, 43260), (57, 43341), (58, 43422), (60, 43536), (61, 43593), (62, 43665), (64, 43749), (65, 43767), (66, 43788), (67, 43857), (68, 43875), (71, 43908), (76, 44022), (77, 44028), (78, 44046), (79, 44067), (81, 44109), (84, 44151), (101, 44196), (103, 44208), (112, 44313), (115, 44334), (117, 44343), (118, 44355), (119, 44379), (123, 44421), (137, 44520), (147, 44706), (154, 44808), (158, 44820), (160, 44847),

Gene: Misha28\_75 Start: 46524, Stop: 48974, Start Num: 18

Candidate Starts for Misha28\_75:

(11, 46422), (12, 46431), (14, 46458), (Start: 18 @46524 has 3 MA's), (23, 46560), (25, 46584), (27, 46620), (32, 46653), (43, 46884), (46, 46935), (47, 46938), (52, 47076), (54, 47118), (55, 47175), (59, 47445), (60, 47484), (63, 47649), (64, 47712), (69, 47844), (70, 47865), (72, 47901), (73, 47907), (74, 47946), (75, 47982), (78, 48015), (79, 48036), (99, 48171), (112, 48273), (113, 48276), (118, 48315), (124, 48396), (136, 48507), (137, 48510), (143, 48612), (147, 48669), (154, 48771), (158, 48783), (159, 48792), (161, 48813),

Gene: Phalm\_53 Start: 36390, Stop: 38582, Start Num: 30

Candidate Starts for Phalm\_53:

(1, 35955), (24, 36327), (Start: 30 @36390 has 7 MA's), (33, 36417), (34, 36423), (36, 36447), (37, 36483), (39, 36516), (41, 36606), (42, 36633), (45, 36696), (46, 36702), (47, 36705), (48, 36723), (52, 36843), (54, 36885), (55, 36942), (59, 37212), (60, 37251), (63, 37416), (64, 37479), (69, 37611), (70, 37632), (72, 37668), (73, 37674), (74, 37713), (75, 37749), (78, 37782), (79, 37803), (90, 37887), (95, 37923), (112, 38046), (114, 38064), (118, 38088), (121, 38145), (122, 38151), (127, 38181), (128, 38187), (137, 38253), (147, 38439), (149, 38499), (153, 38532), (155, 38541), (157, 38544),

Gene: Philus\_70 Start: 44236, Stop: 46782, Start Num: 19

Candidate Starts for Philus\_70:

(4, 44059), (5, 44065), (7, 44074), (8, 44083), (15, 44179), (Start: 19 @44236 has 7 MA's), (25, 44293), (27, 44329), (31, 44353), (32, 44362), (43, 44593), (46, 44644), (47, 44647), (52, 44785), (54, 44827), (55, 44884), (59, 45154), (60, 45193), (63, 45358), (64, 45421), (69, 45553), (70, 45574), (72, 45610), (73, 45616), (74, 45655), (75, 45691), (78, 45724), (79, 45745), (93, 45937), (96, 45985), (102, 46021), (106, 46111), (108, 46129), (112, 46252), (114, 46270), (117, 46282), (118, 46294), (120, 46339), (126, 46387), (143, 46582), (147, 46639), (149, 46699), (153, 46732), (155, 46741), (157, 46744),

Gene: RedBird\_75 Start: 45596, Stop: 48277, Start Num: 17

Candidate Starts for RedBird\_75:

(Start: 17 @45596 has 2 MA's), (21, 45635), (25, 45665), (27, 45701), (32, 45734), (43, 45965), (45, 46010), (46, 46016), (47, 46019), (48, 46037), (49, 46040), (51, 46139), (53, 46160), (56, 46292), (57, 46373), (58, 46454), (60, 46568), (61, 46625), (62, 46697), (64, 46781), (66, 46820), (67, 46889), (71, 46940), (76, 47054), (77, 47060), (78, 47078), (79, 47099), (89, 47246), (92, 47282), (100, 47351), (104, 47399), (105, 47432), (107, 47459), (112, 47552), (115, 47573), (117, 47582), (119, 47618), (129, 47720), (136, 47783), (137, 47786), (140, 47864), (147, 47972), (154, 48074), (158, 48086),

(159, 48095), (160, 48113), (163, 48230),

Gene: ShiLan\_65 Start: 42785, Stop: 45667, Start Num: 19

Candidate Starts for ShiLan\_65:

(Start: 19 @42785 has 7 MA's), (25, 42842), (26, 42854), (28, 42881), (32, 42911), (43, 43142), (45, 43187), (46, 43193), (47, 43196), (48, 43214), (49, 43217), (51, 43316), (53, 43337), (56, 43469), (57, 43550), (58, 43631), (60, 43745), (61, 43802), (62, 43874), (64, 43958), (66, 43997), (67, 44066), (71, 44117), (76, 44231), (77, 44237), (78, 44255), (79, 44276), (80, 44312), (83, 44360), (87, 44411), (94, 44513), (97, 44525), (108, 44657), (116, 44777), (125, 44900), (134, 44987), (141, 45122), (146, 45164), (151, 45299), (156, 45329), (160, 45365), (162, 45467), (165, 45524), (166, 45584), (169, 45617), (170, 45626), (171, 45629),

Gene: Starcevich\_66 Start: 42297, Stop: 45341, Start Num: 19

Candidate Starts for Starcevich\_66:

(9, 42183), (Start: 19 @42297 has 7 MA's), (25, 42354), (26, 42366), (28, 42393), (32, 42423), (43, 42654), (45, 42699), (46, 42705), (47, 42708), (48, 42726), (49, 42729), (52, 42846), (54, 42888), (55, 42945), (59, 43215), (60, 43254), (63, 43419), (64, 43482), (69, 43614), (70, 43635), (72, 43671), (73, 43677), (74, 43716), (75, 43752), (78, 43785), (79, 43806), (82, 43890), (86, 43935), (88, 43947), (94, 44049), (97, 44061), (108, 44193), (111, 44313), (122, 44436), (131, 44517), (132, 44523), (135, 44556), (139, 44655), (142, 44685), (145, 44721), (150, 44862), (152, 44865), (164, 45051), (167, 45138), (168, 45150),

Gene: StressBall\_53 Start: 36390, Stop: 38582, Start Num: 30

Candidate Starts for StressBall\_53:

(1, 35955), (24, 36327), (Start: 30 @36390 has 7 MA's), (33, 36417), (34, 36423), (36, 36447), (37, 36483), (39, 36516), (41, 36606), (42, 36633), (45, 36696), (46, 36702), (47, 36705), (48, 36723), (52, 36843), (54, 36885), (55, 36942), (59, 37212), (60, 37251), (63, 37416), (64, 37479), (69, 37611), (70, 37632), (72, 37668), (73, 37674), (74, 37713), (75, 37749), (78, 37782), (79, 37803), (90, 37887), (95, 37923), (112, 38046), (114, 38064), (118, 38088), (121, 38145), (122, 38151), (127, 38181), (128, 38187), (137, 38253), (147, 38439), (149, 38499), (153, 38532), (155, 38541), (157, 38544),

Gene: TootsiePop\_75 Start: 46524, Stop: 48974, Start Num: 18

Candidate Starts for TootsiePop\_75:

(11, 46422), (12, 46431), (14, 46458), (Start: 18 @46524 has 3 MA's), (23, 46560), (25, 46584), (27, 46620), (32, 46653), (43, 46884), (46, 46935), (47, 46938), (52, 47076), (54, 47118), (55, 47175), (59, 47445), (60, 47484), (63, 47649), (64, 47712), (69, 47844), (70, 47865), (72, 47901), (73, 47907), (74, 47946), (75, 47982), (78, 48015), (79, 48036), (99, 48171), (112, 48273), (113, 48276), (118, 48315), (124, 48396), (136, 48507), (137, 48510), (143, 48612), (147, 48669), (154, 48771), (158, 48783), (159, 48792), (161, 48813),

Gene: Willsammy\_52 Start: 35873, Stop: 38053, Start Num: 30

Candidate Starts for Willsammy\_52:

(1, 35438), (24, 35810), (Start: 30 @35873 has 7 MA's), (33, 35900), (34, 35906), (36, 35930), (37, 35966), (39, 35999), (41, 36089), (42, 36116), (45, 36179), (46, 36185), (48, 36206), (52, 36326), (54, 36368), (55, 36425), (59, 36695), (63, 36899), (64, 36962), (69, 37094), (70, 37115), (72, 37151), (73, 37157), (74, 37196), (75, 37232), (78, 37265), (79, 37286), (81, 37328), (112, 37535), (117, 37565), (118, 37577), (137, 37751), (143, 37853), (147, 37910), (148, 37955), (149, 37970), (153, 38003), (155, 38012), (157, 38015),