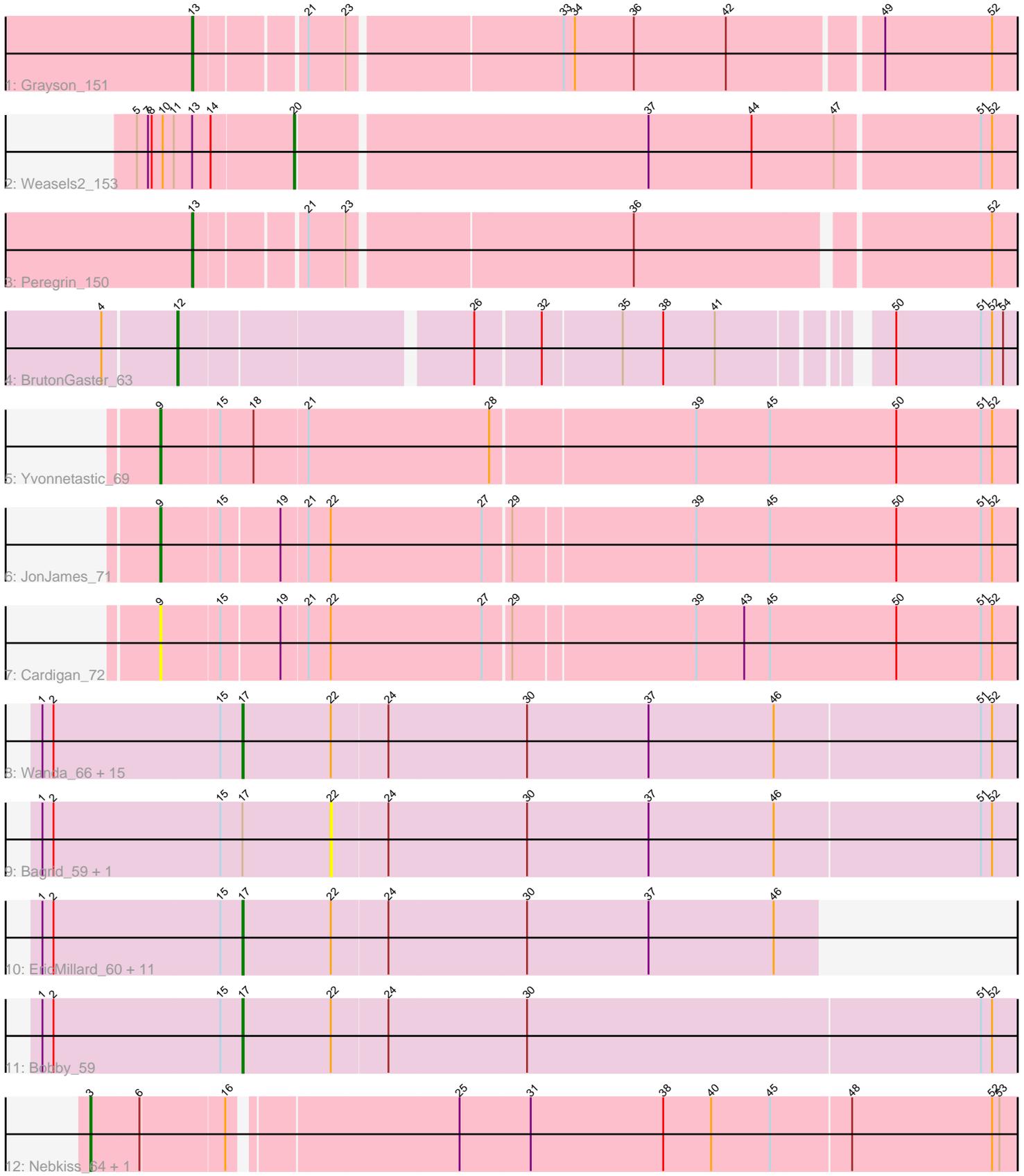


Pham 291320



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 291320 Report

This analysis was run 03/28/26 on database version 641.

Pham number 291320 has 40 members, 5 are drafts.

Phages represented in each track:

- Track 1 : Grayson_151
- Track 2 : Weasels2_153
- Track 3 : Peregrin_150
- Track 4 : BrutonGaster_63
- Track 5 : Yvonnetastic_69
- Track 6 : JonJames_71
- Track 7 : Cardigan_72
- Track 8 : Wanda_66, DmpstrDiver_59, Kalah2_56, Minerva_66, Klein_60, KashFlow_53, JuicyJay_59, Duke13_63, Pound_60, Dallas_59, ThreeRngTarjay_58, Hannaconda_56, Schatzie_55, Beem_60, Optimus_65, Zelink_58
- Track 9 : Bagrid_59, Xiaokay_53
- Track 10 : EricMillard_60, Phoebus_59, Halley_61, Hidrated_58, BAKA_64, HokkenD_53, Bombitas_57, Hughesyang_59, Ejimix_60, NihilNomen_60, Odette_58, Redno2_57
- Track 11 : Bobby_59
- Track 12 : Nebkiss_64, Gaia_63

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

The start number called the most often in the published annotations is 17, it was called in 27 of the 35 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- BAKA_64, Beem_60, Bobby_59, Bombitas_57, Dallas_59, DmpstrDiver_59, Duke13_63, Ejimix_60, EricMillard_60, Halley_61, Hannaconda_56, Hidrated_58, HokkenD_53, Hughesyang_59, JuicyJay_59, Kalah2_56, KashFlow_53, Klein_60, Minerva_66, NihilNomen_60, Odette_58, Optimus_65, Phoebus_59, Pound_60, Redno2_57, Schatzie_55, ThreeRngTarjay_58, Wanda_66, Zelink_58,

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

- Bagrid_59, Xiaokay_53,

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

• BrutonGaster_63, Cardigan_72, Gaia_63, Grayson_151, JonJames_71, Nebkiss_64, Peregrin_150, Weasels2_153, Yvonnestic_69,

Summary by start number:

Start 3:

- Found in 2 of 40 (5.0%) of genes in pham
- Manual Annotations of this start: 2 of 35
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Gaia_63 (X), Nebkiss_64 (X),

Start 9:

- Found in 3 of 40 (7.5%) of genes in pham
- Manual Annotations of this start: 2 of 35
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Cardigan_72 (DD), JonJames_71 (DD), Yvonnestic_69 (DD),

Start 12:

- Found in 1 of 40 (2.5%) of genes in pham
- Manual Annotations of this start: 1 of 35
- Called 100.0% of time when present
- Phage (with cluster) where this start called: BrutonGaster_63 (CQ2),

Start 13:

- Found in 3 of 40 (7.5%) of genes in pham
- Manual Annotations of this start: 2 of 35
- Called 66.7% of time when present
- Phage (with cluster) where this start called: Grayson_151 (CB), Peregrin_150 (CB),

Start 17:

- Found in 31 of 40 (77.5%) of genes in pham
- Manual Annotations of this start: 27 of 35
- Called 93.5% of time when present
- Phage (with cluster) where this start called: BAKA_64 (J), Beem_60 (J), Bobby_59 (J), Bombitas_57 (J), Dallas_59 (J), DmpstrDiver_59 (J), Duke13_63 (J), Ejimix_60 (J), EricMillard_60 (J), Halley_61 (J), Hannaconda_56 (J), Hidrated_58 (J), HokkenD_53 (J), Hughesyang_59 (J), JuicyJay_59 (J), Kalah2_56 (J), KashFlow_53 (J), Klein_60 (J), Minerva_66 (J), NihilNomen_60 (J), Odette_58 (J), Optimus_65 (J), Phoebus_59 (J), Pound_60 (J), Redno2_57 (J), Schatzie_55 (J), ThreeRngTarjay_58 (J), Wanda_66 (J), Zelink_58 (J),

Start 20:

- Found in 1 of 40 (2.5%) of genes in pham
- Manual Annotations of this start: 1 of 35
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Weasels2_153 (CB),

Start 22:

- Found in 33 of 40 (82.5%) of genes in pham
- No Manual Annotations of this start.
- Called 6.1% of time when present
- Phage (with cluster) where this start called: Bagrid_59 (J), Xiaokay_53 (J),

Summary by clusters:

There are 5 clusters represented in this pham: X, DD, J, CQ2, CB,

Info for manual annotations of cluster CB:

- Start number 13 was manually annotated 2 times for cluster CB.
- Start number 20 was manually annotated 1 time for cluster CB.

Info for manual annotations of cluster CQ2:

- Start number 12 was manually annotated 1 time for cluster CQ2.

Info for manual annotations of cluster DD:

- Start number 9 was manually annotated 2 times for cluster DD.

Info for manual annotations of cluster J:

- Start number 17 was manually annotated 27 times for cluster J.

Info for manual annotations of cluster X:

- Start number 3 was manually annotated 2 times for cluster X.

Gene Information:

Gene: BAKA_64 Start: 47233, Stop: 46769, Start Num: 17

Candidate Starts for BAKA_64:

(1, 47395), (2, 47386), (15, 47251), (Start: 17 @47233 has 27 MA's), (22, 47161), (24, 47116), (30, 47005), (37, 46906), (46, 46804),

Gene: Bagrid_59 Start: 46493, Stop: 45942, Start Num: 22

Candidate Starts for Bagrid_59:

(1, 46727), (2, 46718), (15, 46583), (Start: 17 @46565 has 27 MA's), (22, 46493), (24, 46448), (30, 46337), (37, 46238), (46, 46136), (51, 45971), (52, 45962),

Gene: Beem_60 Start: 47131, Stop: 46508, Start Num: 17

Candidate Starts for Beem_60:

(1, 47293), (2, 47284), (15, 47149), (Start: 17 @47131 has 27 MA's), (22, 47059), (24, 47014), (30, 46903), (37, 46804), (46, 46702), (51, 46537), (52, 46528),

Gene: Bobby_59 Start: 46077, Stop: 45454, Start Num: 17

Candidate Starts for Bobby_59:

(1, 46239), (2, 46230), (15, 46095), (Start: 17 @46077 has 27 MA's), (22, 46005), (24, 45960), (30, 45849), (51, 45483), (52, 45474),

Gene: Bombitas_57 Start: 46727, Stop: 46263, Start Num: 17

Candidate Starts for Bombitas_57:

(1, 46889), (2, 46880), (15, 46745), (Start: 17 @46727 has 27 MA's), (22, 46655), (24, 46610), (30, 46499), (37, 46400), (46, 46298),

Gene: BrutonGaster_63 Start: 45653, Stop: 46276, Start Num: 12

Candidate Starts for BrutonGaster_63:

(4, 45596), (Start: 12 @45653 has 1 MA's), (26, 45875), (32, 45926), (35, 45989), (38, 46022), (41, 46064), (50, 46178), (51, 46247), (52, 46256), (54, 46265),

Gene: Cardigan_72 Start: 47897, Stop: 48574, Start Num: 9

Candidate Starts for Cardigan_72:

(Start: 9 @47897 has 2 MA's), (15, 47942), (19, 47987), (21, 48008), (22, 48026), (27, 48149), (29, 48170), (39, 48314), (43, 48353), (45, 48374), (50, 48476), (51, 48545), (52, 48554),

Gene: Dallas_59 Start: 46052, Stop: 45429, Start Num: 17

Candidate Starts for Dallas_59:

(1, 46214), (2, 46205), (15, 46070), (Start: 17 @46052 has 27 MA's), (22, 45980), (24, 45935), (30, 45824), (37, 45725), (46, 45623), (51, 45458), (52, 45449),

Gene: DmpstrDiver_59 Start: 46479, Stop: 45856, Start Num: 17

Candidate Starts for DmpstrDiver_59:

(1, 46641), (2, 46632), (15, 46497), (Start: 17 @46479 has 27 MA's), (22, 46407), (24, 46362), (30, 46251), (37, 46152), (46, 46050), (51, 45885), (52, 45876),

Gene: Duke13_63 Start: 46999, Stop: 46376, Start Num: 17

Candidate Starts for Duke13_63:

(1, 47161), (2, 47152), (15, 47017), (Start: 17 @46999 has 27 MA's), (22, 46927), (24, 46882), (30, 46771), (37, 46672), (46, 46570), (51, 46405), (52, 46396),

Gene: Ejimix_60 Start: 47917, Stop: 47453, Start Num: 17

Candidate Starts for Ejimix_60:

(1, 48079), (2, 48070), (15, 47935), (Start: 17 @47917 has 27 MA's), (22, 47845), (24, 47800), (30, 47689), (37, 47590), (46, 47488),

Gene: EricMillard_60 Start: 47418, Stop: 46954, Start Num: 17

Candidate Starts for EricMillard_60:

(1, 47580), (2, 47571), (15, 47436), (Start: 17 @47418 has 27 MA's), (22, 47346), (24, 47301), (30, 47190), (37, 47091), (46, 46989),

Gene: Gaia_63 Start: 42822, Stop: 42097, Start Num: 3

Candidate Starts for Gaia_63:

(Start: 3 @42822 has 2 MA's), (6, 42783), (16, 42717), (25, 42546), (31, 42489), (38, 42381), (40, 42342), (45, 42294), (48, 42231), (52, 42117), (53, 42111),

Gene: Grayson_151 Start: 83243, Stop: 83872, Start Num: 13

Candidate Starts for Grayson_151:

(Start: 13 @83243 has 2 MA's), (21, 83324), (23, 83351), (33, 83516), (34, 83525), (36, 83573), (42, 83648), (49, 83765), (52, 83852),

Gene: Halley_61 Start: 47131, Stop: 46667, Start Num: 17

Candidate Starts for Halley_61:

(1, 47293), (2, 47284), (15, 47149), (Start: 17 @47131 has 27 MA's), (22, 47059), (24, 47014), (30, 46903), (37, 46804), (46, 46702),

Gene: Hannaconda_56 Start: 41619, Stop: 40996, Start Num: 17

Candidate Starts for Hannaconda_56:

(1, 41781), (2, 41772), (15, 41637), (Start: 17 @41619 has 27 MA's), (22, 41547), (24, 41502), (30, 41391), (37, 41292), (46, 41190), (51, 41025), (52, 41016),

Gene: Hidrated_58 Start: 46816, Stop: 46352, Start Num: 17

Candidate Starts for Hidrated_58:

(1, 46978), (2, 46969), (15, 46834), (Start: 17 @46816 has 27 MA's), (22, 46744), (24, 46699), (30, 46588), (37, 46489), (46, 46387),

Gene: HokkenD_53 Start: 45400, Stop: 44936, Start Num: 17

Candidate Starts for HokkenD_53:

(1, 45562), (2, 45553), (15, 45418), (Start: 17 @45400 has 27 MA's), (22, 45328), (24, 45283), (30, 45172), (37, 45073), (46, 44971),

Gene: Hughesyang_59 Start: 47060, Stop: 46596, Start Num: 17

Candidate Starts for Hughesyang_59:

(1, 47222), (2, 47213), (15, 47078), (Start: 17 @47060 has 27 MA's), (22, 46988), (24, 46943), (30, 46832), (37, 46733), (46, 46631),

Gene: JonJames_71 Start: 47943, Stop: 48620, Start Num: 9

Candidate Starts for JonJames_71:

(Start: 9 @47943 has 2 MA's), (15, 47988), (19, 48033), (21, 48054), (22, 48072), (27, 48195), (29, 48216), (39, 48360), (45, 48420), (50, 48522), (51, 48591), (52, 48600),

Gene: JuicyJay_59 Start: 48265, Stop: 47642, Start Num: 17

Candidate Starts for JuicyJay_59:

(1, 48427), (2, 48418), (15, 48283), (Start: 17 @48265 has 27 MA's), (22, 48193), (24, 48148), (30, 48037), (37, 47938), (46, 47836), (51, 47671), (52, 47662),

Gene: Kalah2_56 Start: 46674, Stop: 46051, Start Num: 17

Candidate Starts for Kalah2_56:

(1, 46836), (2, 46827), (15, 46692), (Start: 17 @46674 has 27 MA's), (22, 46602), (24, 46557), (30, 46446), (37, 46347), (46, 46245), (51, 46080), (52, 46071),

Gene: KashFlow_53 Start: 41240, Stop: 40617, Start Num: 17

Candidate Starts for KashFlow_53:

(1, 41402), (2, 41393), (15, 41258), (Start: 17 @41240 has 27 MA's), (22, 41168), (24, 41123), (30, 41012), (37, 40913), (46, 40811), (51, 40646), (52, 40637),

Gene: Klein_60 Start: 46697, Stop: 46074, Start Num: 17

Candidate Starts for Klein_60:

(1, 46859), (2, 46850), (15, 46715), (Start: 17 @46697 has 27 MA's), (22, 46625), (24, 46580), (30, 46469), (37, 46370), (46, 46268), (51, 46103), (52, 46094),

Gene: Minerva_66 Start: 48547, Stop: 47924, Start Num: 17

Candidate Starts for Minerva_66:

(1, 48709), (2, 48700), (15, 48565), (Start: 17 @48547 has 27 MA's), (22, 48475), (24, 48430), (30, 48319), (37, 48220), (46, 48118), (51, 47953), (52, 47944),

Gene: Nebkiss_64 Start: 41433, Stop: 40708, Start Num: 3

Candidate Starts for Nebkiss_64:

(Start: 3 @41433 has 2 MA's), (6, 41394), (16, 41328), (25, 41157), (31, 41100), (38, 40992), (40, 40953), (45, 40905), (48, 40842), (52, 40728), (53, 40722),

Gene: NihilNomen_60 Start: 47218, Stop: 46754, Start Num: 17

Candidate Starts for NihilNomen_60:

(1, 47380), (2, 47371), (15, 47236), (Start: 17 @47218 has 27 MA's), (22, 47146), (24, 47101), (30, 46990), (37, 46891), (46, 46789),

Gene: Odette_58 Start: 46261, Stop: 45797, Start Num: 17

Candidate Starts for Odette_58:

(1, 46423), (2, 46414), (15, 46279), (Start: 17 @46261 has 27 MA's), (22, 46189), (24, 46144), (30, 46033), (37, 45934), (46, 45832),

Gene: Optimus_65 Start: 48133, Stop: 47510, Start Num: 17

Candidate Starts for Optimus_65:

(1, 48295), (2, 48286), (15, 48151), (Start: 17 @48133 has 27 MA's), (22, 48061), (24, 48016), (30, 47905), (37, 47806), (46, 47704), (51, 47539), (52, 47530),

Gene: Peregrin_150 Start: 83136, Stop: 83759, Start Num: 13

Candidate Starts for Peregrin_150:

(Start: 13 @83136 has 2 MA's), (21, 83217), (23, 83244), (36, 83466), (52, 83739),

Gene: Phoebus_59 Start: 47419, Stop: 46955, Start Num: 17

Candidate Starts for Phoebus_59:

(1, 47581), (2, 47572), (15, 47437), (Start: 17 @47419 has 27 MA's), (22, 47347), (24, 47302), (30, 47191), (37, 47092), (46, 46990),

Gene: Pound_60 Start: 48552, Stop: 47929, Start Num: 17

Candidate Starts for Pound_60:

(1, 48714), (2, 48705), (15, 48570), (Start: 17 @48552 has 27 MA's), (22, 48480), (24, 48435), (30, 48324), (37, 48225), (46, 48123), (51, 47958), (52, 47949),

Gene: Redno2_57 Start: 44014, Stop: 43550, Start Num: 17

Candidate Starts for Redno2_57:

(1, 44176), (2, 44167), (15, 44032), (Start: 17 @44014 has 27 MA's), (22, 43942), (24, 43897), (30, 43786), (37, 43687), (46, 43585),

Gene: Schatzie_55 Start: 46008, Stop: 45385, Start Num: 17

Candidate Starts for Schatzie_55:

(1, 46170), (2, 46161), (15, 46026), (Start: 17 @46008 has 27 MA's), (22, 45936), (24, 45891), (30, 45780), (37, 45681), (46, 45579), (51, 45414), (52, 45405),

Gene: ThreeRngTarjay_58 Start: 47294, Stop: 46671, Start Num: 17

Candidate Starts for ThreeRngTarjay_58:

(1, 47456), (2, 47447), (15, 47312), (Start: 17 @47294 has 27 MA's), (22, 47222), (24, 47177), (30, 47066), (37, 46967), (46, 46865), (51, 46700), (52, 46691),

Gene: Wanda_66 Start: 47006, Stop: 46383, Start Num: 17

Candidate Starts for Wanda_66:

(1, 47168), (2, 47159), (15, 47024), (Start: 17 @47006 has 27 MA's), (22, 46934), (24, 46889), (30, 46778), (37, 46679), (46, 46577), (51, 46412), (52, 46403),

Gene: Weasels2_153 Start: 87047, Stop: 87616, Start Num: 20

Candidate Starts for Weasels2_153:

(5, 86921), (7, 86930), (8, 86933), (10, 86942), (11, 86951), (Start: 13 @86966 has 2 MA's), (14, 86981), (Start: 20 @87047 has 1 MA's), (37, 87323), (44, 87407), (47, 87473), (51, 87587), (52, 87596),

Gene: Xiaokay_53 Start: 43858, Stop: 43307, Start Num: 22

Candidate Starts for Xiaokay_53:

(1, 44092), (2, 44083), (15, 43948), (Start: 17 @43930 has 27 MA's), (22, 43858), (24, 43813), (30, 43702), (37, 43603), (46, 43501), (51, 43336), (52, 43327),

Gene: Yvonnetastic_69 Start: 45478, Stop: 46161, Start Num: 9

Candidate Starts for Yvonnetastic_69:

(Start: 9 @45478 has 2 MA's), (15, 45523), (18, 45550), (21, 45592), (28, 45739), (39, 45901), (45, 45961), (50, 46063), (51, 46132), (52, 46141),

Gene: Zelink_58 Start: 47607, Stop: 46984, Start Num: 17

Candidate Starts for Zelink_58:

(1, 47769), (2, 47760), (15, 47625), (Start: 17 @47607 has 27 MA's), (22, 47535), (24, 47490), (30, 47379), (37, 47280), (46, 47178), (51, 47013), (52, 47004),