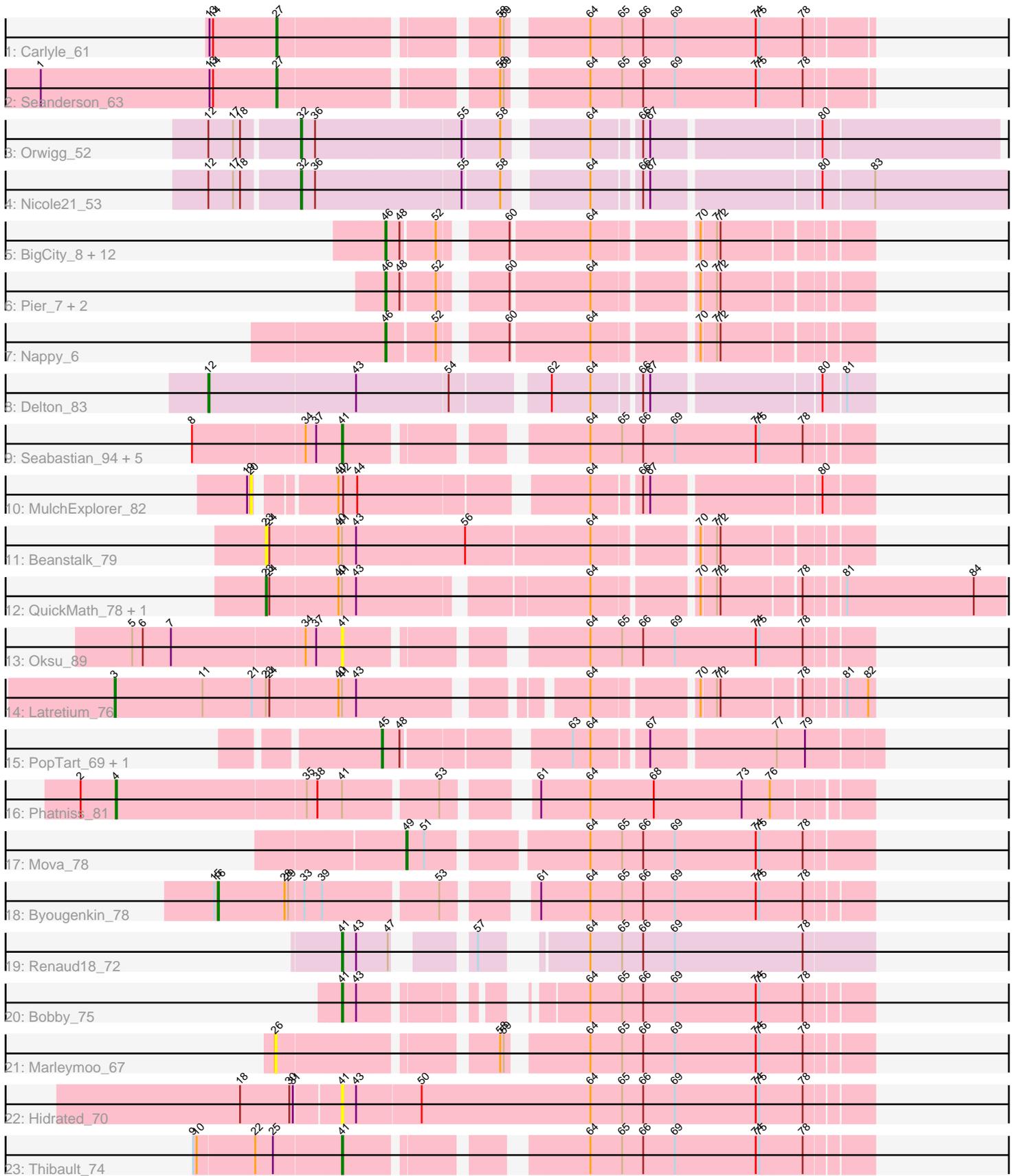


Pham 283940



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 283940 Report

This analysis was run 02/23/26 on database version 636.

Pham number 283940 has 44 members, 9 are drafts.

Phages represented in each track:

- Track 1 : Carlyle\_61
- Track 2 : Seanderson\_63
- Track 3 : Orwigg\_52
- Track 4 : Nicole21\_53
- Track 5 : BigCity\_8, Tyke\_8, InterFolia\_8, Specks\_8, Drazdys\_8, DTDevon\_8, Dandelion\_7, LolaVinca\_8, FrayBell\_8, LordLeafolot\_8, PharkleMinkus\_8, EggyFarm\_8, Grasshills\_8
- Track 6 : Pier\_7, NuevoMundo\_7, StephanieG\_7
- Track 7 : Nappy\_6
- Track 8 : Delton\_83
- Track 9 : Seabastian\_94, Jinglebell\_93, Modragons\_91, Llama\_93, OfUltron\_94, Ochi17\_92
- Track 10 : MulchExplorer\_82
- Track 11 : Beanstalk\_79
- Track 12 : QuickMath\_78, Juice456\_76
- Track 13 : Oksu\_89
- Track 14 : Latretium\_76
- Track 15 : PopTart\_69, SassyB\_69
- Track 16 : Phatniss\_81
- Track 17 : Mova\_78
- Track 18 : Byougenkin\_78
- Track 19 : Renaud18\_72
- Track 20 : Bobby\_75
- Track 21 : Marleymoo\_67
- Track 22 : Hidrated\_70
- Track 23 : Thibault\_74

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

The start number called the most often in the published annotations is 46, it was called in 13 of the 35 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- BigCity\_8, DTDevon\_8, Dandelion\_7, Drazdys\_8, EggyFarm\_8, FrayBell\_8, Grasshills\_8, InterFolia\_8, LolaVinca\_8, LordLeafolot\_8, Nappy\_6, NuevoMundo\_7, PharkleMinkus\_8, Pier\_7, Specks\_8, StephanieG\_7, Tyke\_8,

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

- 

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

- Beanstalk\_79, Bobby\_75, Byougenkin\_78, Carlyle\_61, Delton\_83, Hidrated\_70, Jinglebell\_93, Juice456\_76, Latretium\_76, Llama\_93, Marleymoo\_67, Modragons\_91, Mova\_78, MulchExplorer\_82, Nicole21\_53, Ochi17\_92, OfUltron\_94, Oksu\_89, Orwigg\_52, Phatniss\_81, PopTart\_69, QuickMath\_78, Renaud18\_72, SassyB\_69, Seabastian\_94, Seanderson\_63, Thibault\_74,

### Summary by start number:

Start 3:

- Found in 1 of 44 ( 2.3% ) 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: Latretium\_76 (F1),

Start 4:

- Found in 1 of 44 ( 2.3% ) 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: Phatniss\_81 (F1),

Start 12:

- Found in 3 of 44 ( 6.8% ) of genes in pham
- Manual Annotations of this start: 1 of 35
- Called 33.3% of time when present
- Phage (with cluster) where this start called: Delton\_83 (D1),

Start 16:

- Found in 1 of 44 ( 2.3% ) 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: Byougenkin\_78 (F1),

Start 20:

- Found in 1 of 44 ( 2.3% ) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: MulchExplorer\_82 (F1),

Start 23:

- Found in 4 of 44 ( 9.1% ) of genes in pham
- Manual Annotations of this start: 2 of 35
- Called 75.0% of time when present
- Phage (with cluster) where this start called: Beanstalk\_79 (F1), Juice456\_76 (F1), QuickMath\_78 (F1),

Start 26:

- Found in 1 of 44 ( 2.3% ) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Marleymoo\_67 (J),

Start 27:

- Found in 2 of 44 ( 4.5% ) 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: Carlyle\_61 (A1), Seanderson\_63 (A1),

Start 32:

- Found in 2 of 44 ( 4.5% ) 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: Nicole21\_53 (B1), Orwigg\_52 (B1),

Start 41:

- Found in 16 of 44 ( 36.4% ) of genes in pham
- Manual Annotations of this start: 9 of 35
- Called 68.8% of time when present
- Phage (with cluster) where this start called: Bobby\_75 (J), Hidrated\_70 (J), Jinglebell\_93 (F1), Llama\_93 (F1), Modragons\_91 (F1), Ochi17\_92 (F1), OfUltron\_94 (F1), Oksu\_89 (F1), Renaud18\_72 (F4), Seabastian\_94 (F1), Thibault\_74 (J),

Start 45:

- Found in 2 of 44 ( 4.5% ) 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: PopTart\_69 (F1), SassyB\_69 (F1),

Start 46:

- Found in 17 of 44 ( 38.6% ) of genes in pham
- Manual Annotations of this start: 13 of 35
- Called 100.0% of time when present
- Phage (with cluster) where this start called: BigCity\_8 (C1), DTDevon\_8 (C1), Dandelion\_7 (C1), Drazdys\_8 (C1), EggyFarm\_8 (C1), FrayBell\_8 (C1), Grasshills\_8 (C1), InterFolia\_8 (C1), LolaVinca\_8 (C1), LordLeafolot\_8 (C1), Nappy\_6 (C1), NuevoMundo\_7 (C1), PharkleMinkus\_8 (C1), Pier\_7 (C1), Specks\_8 (C1), StephanieG\_7 (C1), Tyke\_8 (C1),

Start 49:

- Found in 1 of 44 ( 2.3% ) 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: Mova\_78 (F1),

**Summary by clusters:**

There are 7 clusters represented in this pham: F1, F4, J, A1, B1, C1, D1,

Info for manual annotations of cluster A1:

- Start number 27 was manually annotated 2 times for cluster A1.

Info for manual annotations of cluster B1:

- Start number 32 was manually annotated 2 times for cluster B1.

Info for manual annotations of cluster C1:

- Start number 46 was manually annotated 13 times for cluster C1.

Info for manual annotations of cluster D1:

- Start number 12 was manually annotated 1 time for cluster D1.

Info for manual annotations of cluster F1:

- Start number 3 was manually annotated 1 time for cluster F1.
- Start number 4 was manually annotated 1 time for cluster F1.
- Start number 16 was manually annotated 1 time for cluster F1.
- Start number 23 was manually annotated 2 times for cluster F1.
- Start number 41 was manually annotated 6 times for cluster F1.
- Start number 45 was manually annotated 2 times for cluster F1.
- Start number 49 was manually annotated 1 time for cluster F1.

Info for manual annotations of cluster F4:

- Start number 41 was manually annotated 1 time for cluster F4.

Info for manual annotations of cluster J:

- Start number 41 was manually annotated 2 times for cluster J.

### ***Gene Information:***

Gene: Beanstalk\_79 Start: 47841, Stop: 48317, Start Num: 23

Candidate Starts for Beanstalk\_79:

(Start: 23 @47841 has 2 MA's), (24, 47844), (40, 47901), (Start: 41 @47904 has 9 MA's), (43, 47916), (56, 48006), (64, 48108), (70, 48186), (71, 48198), (72, 48201),

Gene: BigCity\_8 Start: 2903, Stop: 3259, Start Num: 46

Candidate Starts for BigCity\_8:

(Start: 46 @2903 has 13 MA's), (48, 2915), (52, 2942), (60, 2987), (64, 3050), (70, 3128), (71, 3140), (72, 3143),

Gene: Bobby\_75 Start: 51169, Stop: 50789, Start Num: 41

Candidate Starts for Bobby\_75:

(Start: 41 @51169 has 9 MA's), (43, 51157), (64, 51022), (65, 50995), (66, 50977), (69, 50950), (74, 50881), (75, 50878), (78, 50842),

Gene: Byougenkin\_78 Start: 46058, Stop: 46567, Start Num: 16

Candidate Starts for Byougenkin\_78:

(15, 46055), (Start: 16 @46058 has 1 MA's), (28, 46115), (29, 46118), (33, 46130), (39, 46145), (53, 46235), (61, 46292), (64, 46334), (65, 46361), (66, 46379), (69, 46406), (74, 46475), (75, 46478), (78, 46514),

Gene: Carlyle\_61 Start: 39697, Stop: 39242, Start Num: 27

Candidate Starts for Carlyle\_61:

(13, 39754), (14, 39751), (Start: 27 @39697 has 2 MA's), (58, 39535), (59, 39532), (64, 39475), (65, 39448), (66, 39430), (69, 39403), (74, 39334), (75, 39331), (78, 39295),

Gene: DTDevon\_8 Start: 2464, Stop: 2820, Start Num: 46

Candidate Starts for DTDevon\_8:

(Start: 46 @2464 has 13 MA's), (48, 2476), (52, 2503), (60, 2548), (64, 2611), (70, 2689), (71, 2701), (72, 2704),

Gene: Dandelion\_7 Start: 2464, Stop: 2820, Start Num: 46

Candidate Starts for Dandelion\_7:

(Start: 46 @2464 has 13 MA's), (48, 2476), (52, 2503), (60, 2548), (64, 2611), (70, 2689), (71, 2701), (72, 2704),

Gene: Delton\_83 Start: 59993, Stop: 60511, Start Num: 12

Candidate Starts for Delton\_83:

(Start: 12 @59993 has 1 MA's), (43, 60116), (54, 60191), (62, 60263), (64, 60296), (66, 60332), (67, 60338), (80, 60470), (81, 60488),

Gene: Drazdys\_8 Start: 2464, Stop: 2820, Start Num: 46

Candidate Starts for Drazdys\_8:

(Start: 46 @2464 has 13 MA's), (48, 2476), (52, 2503), (60, 2548), (64, 2611), (70, 2689), (71, 2701), (72, 2704),

Gene: EggyFarm\_8 Start: 2903, Stop: 3259, Start Num: 46

Candidate Starts for EggyFarm\_8:

(Start: 46 @2903 has 13 MA's), (48, 2915), (52, 2942), (60, 2987), (64, 3050), (70, 3128), (71, 3140), (72, 3143),

Gene: FrayBell\_8 Start: 2465, Stop: 2821, Start Num: 46

Candidate Starts for FrayBell\_8:

(Start: 46 @2465 has 13 MA's), (48, 2477), (52, 2504), (60, 2549), (64, 2612), (70, 2690), (71, 2702), (72, 2705),

Gene: Grasshills\_8 Start: 2903, Stop: 3259, Start Num: 46

Candidate Starts for Grasshills\_8:

(Start: 46 @2903 has 13 MA's), (48, 2915), (52, 2942), (60, 2987), (64, 3050), (70, 3128), (71, 3140), (72, 3143),

Gene: Hidrated\_70 Start: 50826, Stop: 50383, Start Num: 41

Candidate Starts for Hidrated\_70:

(18, 50907), (30, 50865), (31, 50862), (Start: 41 @50826 has 9 MA's), (43, 50814), (50, 50760), (64, 50616), (65, 50589), (66, 50571), (69, 50544), (74, 50475), (75, 50472), (78, 50436),

Gene: InterFolia\_8 Start: 2464, Stop: 2820, Start Num: 46

Candidate Starts for InterFolia\_8:

(Start: 46 @2464 has 13 MA's), (48, 2476), (52, 2503), (60, 2548), (64, 2611), (70, 2689), (71, 2701), (72, 2704),

Gene: Jinglebell\_93 Start: 50985, Stop: 51386, Start Num: 41

Candidate Starts for Jinglebell\_93:

(8, 50862), (34, 50955), (37, 50964), (Start: 41 @50985 has 9 MA's), (64, 51153), (65, 51180), (66, 51198), (69, 51225), (74, 51294), (75, 51297), (78, 51333),

Gene: Juice456\_76 Start: 47271, Stop: 47840, Start Num: 23

Candidate Starts for Juice456\_76:

(Start: 23 @47271 has 2 MA's), (24, 47274), (40, 47331), (Start: 41 @47334 has 9 MA's), (43, 47346), (64, 47520), (70, 47598), (71, 47610), (72, 47613), (78, 47676), (81, 47706), (84, 47814),

Gene: Latretium\_76 Start: 46342, Stop: 46914, Start Num: 3

Candidate Starts for Latretium\_76:

(Start: 3 @46342 has 1 MA's), (11, 46417), (21, 46459), (Start: 23 @46471 has 2 MA's), (24, 46474), (40, 46531), (Start: 41 @46534 has 9 MA's), (43, 46546), (64, 46705), (70, 46783), (71, 46795), (72, 46798), (78, 46861), (81, 46891), (82, 46909),

Gene: Llama\_93 Start: 50841, Stop: 51242, Start Num: 41

Candidate Starts for Llama\_93:

(8, 50718), (34, 50811), (37, 50820), (Start: 41 @50841 has 9 MA's), (64, 51009), (65, 51036), (66, 51054), (69, 51081), (74, 51150), (75, 51153), (78, 51189),

Gene: LolaVınca\_8 Start: 2464, Stop: 2820, Start Num: 46

Candidate Starts for LolaVınca\_8:

(Start: 46 @2464 has 13 MA's), (48, 2476), (52, 2503), (60, 2548), (64, 2611), (70, 2689), (71, 2701), (72, 2704),

Gene: LordLeafolot\_8 Start: 2464, Stop: 2820, Start Num: 46

Candidate Starts for LordLeafolot\_8:

(Start: 46 @2464 has 13 MA's), (48, 2476), (52, 2503), (60, 2548), (64, 2611), (70, 2689), (71, 2701), (72, 2704),

Gene: Marleymoo\_67 Start: 49139, Stop: 48684, Start Num: 26

Candidate Starts for Marleymoo\_67:

(26, 49139), (58, 48977), (59, 48974), (64, 48917), (65, 48890), (66, 48872), (69, 48845), (74, 48776), (75, 48773), (78, 48737),

Gene: Modragons\_91 Start: 50829, Stop: 51230, Start Num: 41

Candidate Starts for Modragons\_91:

(8, 50706), (34, 50799), (37, 50808), (Start: 41 @50829 has 9 MA's), (64, 50997), (65, 51024), (66, 51042), (69, 51069), (74, 51138), (75, 51141), (78, 51177),

Gene: Mova\_78 Start: 47116, Stop: 47487, Start Num: 49

Candidate Starts for Mova\_78:

(Start: 49 @47116 has 1 MA's), (51, 47131), (64, 47251), (65, 47278), (66, 47296), (69, 47323), (74, 47392), (75, 47395), (78, 47431),

Gene: MulchExplorer\_82 Start: 47402, Stop: 47863, Start Num: 20

Candidate Starts for MulchExplorer\_82:

(19, 47399), (20, 47402), (40, 47459), (42, 47462), (44, 47474), (64, 47648), (66, 47684), (67, 47690), (80, 47822),

Gene: Nappy\_6 Start: 1987, Stop: 2343, Start Num: 46

Candidate Starts for Nappy\_6:

(Start: 46 @1987 has 13 MA's), (52, 2026), (60, 2071), (64, 2134), (70, 2212), (71, 2224), (72, 2227),

Gene: Nicole21\_53 Start: 47623, Stop: 47051, Start Num: 32

Candidate Starts for Nicole21\_53:

(Start: 12 @47695 has 1 MA's), (17, 47674), (18, 47668), (Start: 32 @47623 has 2 MA's), (36, 47611), (55, 47491), (58, 47461), (64, 47401), (66, 47365), (67, 47359), (80, 47227), (83, 47185),

Gene: NuevoMundo\_7 Start: 2137, Stop: 2493, Start Num: 46

Candidate Starts for NuevoMundo\_7:

(Start: 46 @2137 has 13 MA's), (48, 2149), (52, 2176), (60, 2221), (64, 2284), (70, 2362), (71, 2374), (72, 2377),

Gene: Ochi17\_92 Start: 50436, Stop: 50837, Start Num: 41

Candidate Starts for Ochi17\_92:

(8, 50313), (34, 50406), (37, 50415), (Start: 41 @50436 has 9 MA's), (64, 50604), (65, 50631), (66, 50649), (69, 50676), (74, 50745), (75, 50748), (78, 50784),

Gene: OfUltron\_94 Start: 50985, Stop: 51386, Start Num: 41

Candidate Starts for OfUltron\_94:

(8, 50862), (34, 50955), (37, 50964), (Start: 41 @50985 has 9 MA's), (64, 51153), (65, 51180), (66, 51198), (69, 51225), (74, 51294), (75, 51297), (78, 51333),

Gene: Oksu\_89 Start: 51566, Stop: 51967, Start Num: 41

Candidate Starts for Oksu\_89:

(5, 51392), (6, 51401), (7, 51425), (34, 51536), (37, 51545), (Start: 41 @51566 has 9 MA's), (64, 51734), (65, 51761), (66, 51779), (69, 51806), (74, 51875), (75, 51878), (78, 51914),

Gene: Orwigg\_52 Start: 47308, Stop: 46766, Start Num: 32

Candidate Starts for Orwigg\_52:

(Start: 12 @47380 has 1 MA's), (17, 47359), (18, 47353), (Start: 32 @47308 has 2 MA's), (36, 47296), (55, 47176), (58, 47146), (64, 47086), (66, 47050), (67, 47044), (80, 46912),

Gene: PharkleMinkus\_8 Start: 2465, Stop: 2821, Start Num: 46

Candidate Starts for PharkleMinkus\_8:

(Start: 46 @2465 has 13 MA's), (48, 2477), (52, 2504), (60, 2549), (64, 2612), (70, 2690), (71, 2702), (72, 2705),

Gene: Phatniss\_81 Start: 48507, Stop: 49100, Start Num: 4

Candidate Starts for Phatniss\_81:

(2, 48477), (Start: 4 @48507 has 1 MA's), (35, 48666), (38, 48675), (Start: 41 @48696 has 9 MA's), (53, 48771), (61, 48828), (64, 48870), (68, 48924), (73, 48999), (76, 49023),

Gene: Pier\_7 Start: 2140, Stop: 2496, Start Num: 46

Candidate Starts for Pier\_7:

(Start: 46 @2140 has 13 MA's), (48, 2152), (52, 2179), (60, 2224), (64, 2287), (70, 2365), (71, 2377), (72, 2380),

Gene: PopTart\_69 Start: 45137, Stop: 45511, Start Num: 45

Candidate Starts for PopTart\_69:

(Start: 45 @45137 has 2 MA's), (48, 45152), (63, 45272), (64, 45287), (67, 45329), (77, 45425), (79, 45449),

Gene: QuickMath\_78 Start: 47623, Stop: 48192, Start Num: 23

Candidate Starts for QuickMath\_78:

(Start: 23 @47623 has 2 MA's), (24, 47626), (40, 47683), (Start: 41 @47686 has 9 MA's), (43, 47698), (64, 47872), (70, 47950), (71, 47962), (72, 47965), (78, 48028), (81, 48058), (84, 48166),

Gene: Renaud18\_72 Start: 42500, Stop: 42886, Start Num: 41

Candidate Starts for Renaud18\_72:

(Start: 41 @42500 has 9 MA's), (43, 42512), (47, 42539), (57, 42584), (64, 42647), (65, 42674), (66, 42692), (69, 42719), (78, 42827),

Gene: SassyB\_69 Start: 45137, Stop: 45511, Start Num: 45

Candidate Starts for SassyB\_69:

(Start: 45 @45137 has 2 MA's), (48, 45152), (63, 45272), (64, 45287), (67, 45329), (77, 45425), (79, 45449),

Gene: Seabastian\_94 Start: 50986, Stop: 51387, Start Num: 41

Candidate Starts for Seabastian\_94:

(8, 50863), (34, 50956), (37, 50965), (Start: 41 @50986 has 9 MA's), (64, 51154), (65, 51181), (66, 51199), (69, 51226), (74, 51295), (75, 51298), (78, 51334),

Gene: Seanderson\_63 Start: 42839, Stop: 42384, Start Num: 27

Candidate Starts for Seanderson\_63:

(1, 43040), (13, 42896), (14, 42893), (Start: 27 @42839 has 2 MA's), (58, 42677), (59, 42674), (64, 42617), (65, 42590), (66, 42572), (69, 42545), (74, 42476), (75, 42473), (78, 42437),

Gene: Specks\_8 Start: 2464, Stop: 2820, Start Num: 46

Candidate Starts for Specks\_8:

(Start: 46 @2464 has 13 MA's), (48, 2476), (52, 2503), (60, 2548), (64, 2611), (70, 2689), (71, 2701), (72, 2704),

Gene: StephanieG\_7 Start: 2140, Stop: 2496, Start Num: 46

Candidate Starts for StephanieG\_7:

(Start: 46 @2140 has 13 MA's), (48, 2152), (52, 2179), (60, 2224), (64, 2287), (70, 2365), (71, 2377), (72, 2380),

Gene: Thibault\_74 Start: 51276, Stop: 51677, Start Num: 41

Candidate Starts for Thibault\_74:

(9, 51156), (10, 51159), (22, 51207), (25, 51222), (Start: 41 @51276 has 9 MA's), (64, 51444), (65, 51471), (66, 51489), (69, 51516), (74, 51585), (75, 51588), (78, 51624),

Gene: Tyke\_8 Start: 2464, Stop: 2820, Start Num: 46

Candidate Starts for Tyke\_8:

(Start: 46 @2464 has 13 MA's), (48, 2476), (52, 2503), (60, 2548), (64, 2611), (70, 2689), (71, 2701), (72, 2704),