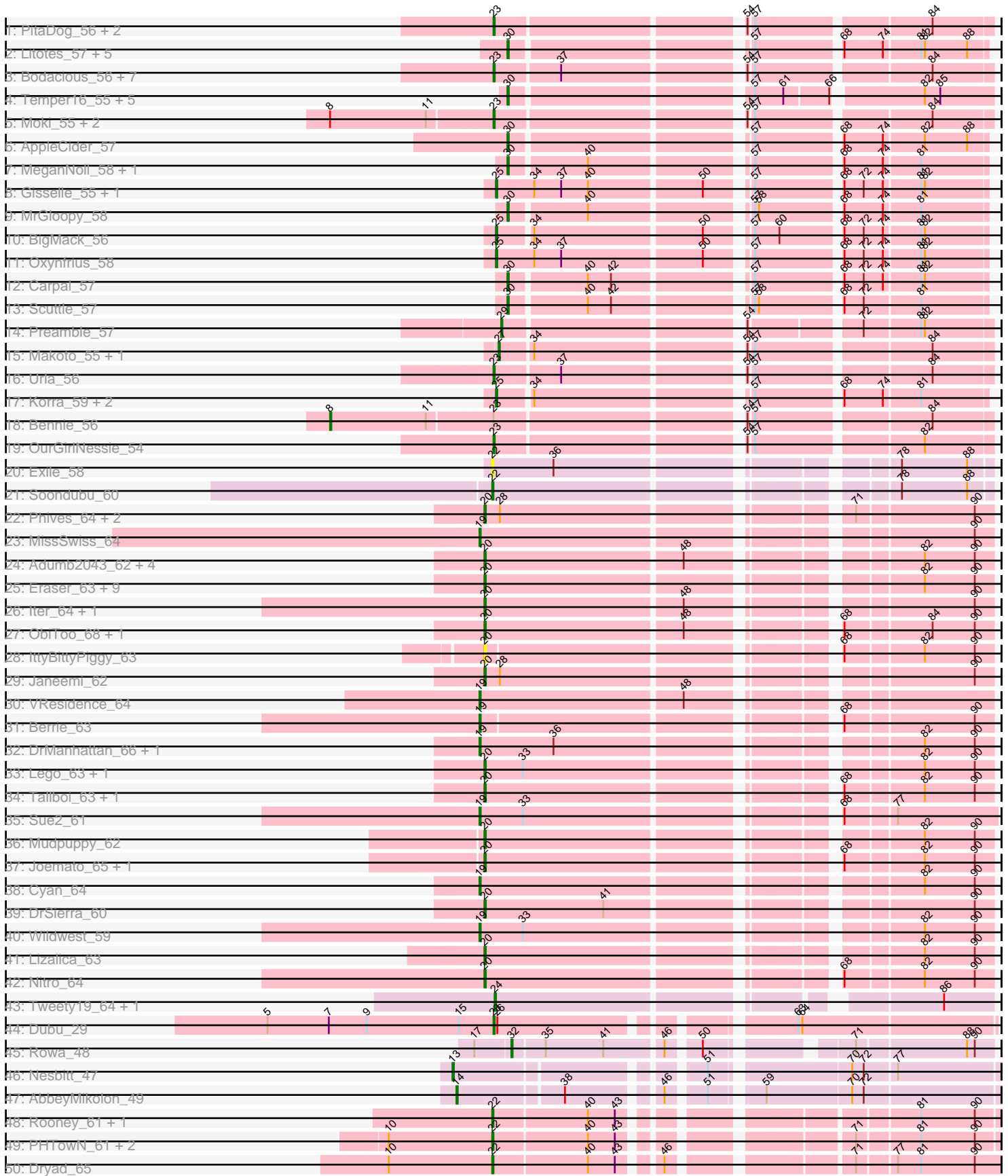
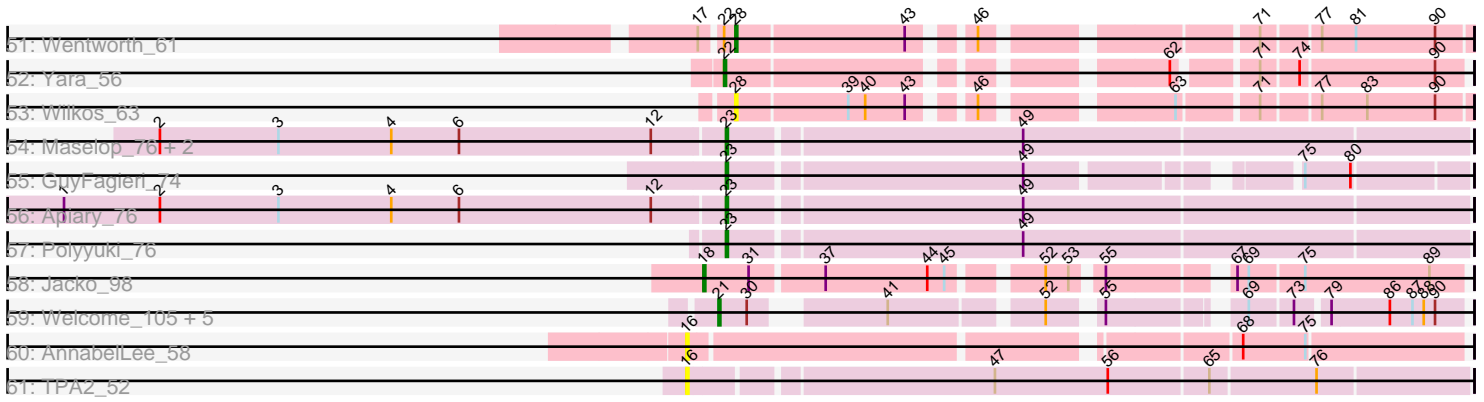


Pham 193849



Pham 193849



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 193849 Report

This analysis was run 11/02/24 on database version 579.

Pham number 193849 has 119 members, 13 are drafts.

Phages represented in each track:

- Track 1 : PitaDog_56, Christian_56, Pterodactyl_56
- Track 2 : Litotes_57, PartyCup_63, CallieOMalley_58, Suppi_58, Canowicakte_58, Wayne_60
- Track 3 : Bodacious_56, Lucy_55, Lennox_56, ChewChew_56, CristinaYang_56, Lasagna_54, LilStuart_55, Nancia_56
- Track 4 : Temper16_55, Maria1952_54, Daiboju_55, Sergei_55, KingBob_55, Herb_55
- Track 5 : Moki_55, Huckleberry_55, HeadNerd_55
- Track 6 : AppleCider_57
- Track 7 : MeganNoll_58, RAP15_59
- Track 8 : Gisselle_55, DreamTeam_55
- Track 9 : MrGloopy_58
- Track 10 : BigMack_56
- Track 11 : Oxynfrius_58
- Track 12 : Carpal_57
- Track 13 : Scuttle_57
- Track 14 : Preamble_57
- Track 15 : Makoto_55, DrRobert_54
- Track 16 : Urla_56
- Track 17 : Korra_59, Fluke_58, Glenn_59
- Track 18 : Bennie_56
- Track 19 : OurGirlNessie_54
- Track 20 : Exile_58
- Track 21 : Soondubu_60
- Track 22 : Phives_64, Community_63, Tuck_63
- Track 23 : MissSwiss_64
- Track 24 : Adumb2043_62, Turab_62, Jstan_64, AEgle_61, Elezi_62
- Track 25 : Eraser_63, YesChef_63, Asa16_63, London_63, AGrandiflora_65, Niobe_63, Tutumahutu_65, Tbone_63, Powerpuff_65, Warda_64
- Track 26 : Iter_64, Ascela_65
- Track 27 : ObiToo_68, Crewmate_68
- Track 28 : IttyBittyPiggy_63
- Track 29 : Janeemi_62
- Track 30 : VResidence_64
- Track 31 : Berrie_63
- Track 32 : DrManhattan_66, Adolin_65
- Track 33 : Lego_63, Kaylissa_65

- Track 34 : Tallboi_63, JohnDoe_64
- Track 35 : Sue2_61
- Track 36 : Mudpuppy_62
- Track 37 : Joemato_65, Simpson_69
- Track 38 : Cyan_64
- Track 39 : DrSierra_60
- Track 40 : Wildwest_59
- Track 41 : Lizalica_63
- Track 42 : Nitro_64
- Track 43 : Tweety19_64, Snek_63
- Track 44 : Dubu_29
- Track 45 : Rowa_48
- Track 46 : Nesbitt_47
- Track 47 : AbbeyMikolon_49
- Track 48 : Rooney_61, Gibson_61
- Track 49 : PHTowN_61, Lizz_61, ShakeNBake_61
- Track 50 : Dryad_65
- Track 51 : Wentworth_61
- Track 52 : Yara_56
- Track 53 : Wilkos_63
- Track 54 : Maselop_76, CoffeeBean_76, Braxoaddie_76
- Track 55 : GuyFagieri_74
- Track 56 : Apiary_76
- Track 57 : Polyzuki_76
- Track 58 : Jacko_98
- Track 59 : Welcome_105, ASegato_101, Necrophoxinus_105, StevieWelch_103, Fork_99, Erenyeager_103
- Track 60 : AnnabelLee_58
- Track 61 : TPA2_52

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

The start number called the most often in the published annotations is 20, it was called in 27 of the 106 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- AEgle_61, AGrandiflora_65, Adumb2043_62, Asa16_63, Ascela_65, Community_63, Crewmate_68, DrSierra_60, Elezi_62, Eraser_63, Iter_64, IttyBittyPiggy_63, Janeemi_62, Joemato_65, JohnDoe_64, Jstan_64, Kaylissa_65, Lego_63, Lizalica_63, London_63, Mudpuppy_62, Niobe_63, Nitro_64, ObiToo_68, Phives_64, Powerpuff_65, Simpson_69, Tallboi_63, Tbone_63, Tuck_63, Turab_62, Tutumahutu_65, Warda_64, YesChef_63,

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

-

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

- ASegato_101, AbbeyMikolon_49, Adolin_65, AnnabelLee_58, Apiary_76, AppleCider_57, Bennie_56, Berrie_63, BigMack_56, Bodacious_56, Braxoaddie_76, CallieOMalley_58, Canowicakte_58, Carpal_57, ChewChew_56, Christian_56,

CoffeeBean_76, CristinaYang_56, Cyan_64, Daiboju_55, DrManhattan_66, DrRobert_54, DreamTeam_55, Dryad_65, Dubu_29, Erenyeager_103, Exile_58, Fluke_58, Fork_99, Gibson_61, Gisselle_55, Glenn_59, GuyFagieri_74, HeadNerd_55, Herb_55, Huckleberry_55, Jacko_98, KingBob_55, Korra_59, Lasagna_54, Lennox_56, LilStuart_55, Litotes_57, Lizz_61, Lucy_55, Makoto_55, Maria1952_54, Maselop_76, MeganNoll_58, MissSwiss_64, Moki_55, MrGloopy_58, Nancia_56, Necrophoxinus_105, Nesbitt_47, OurGirlNessie_54, Oxynfrius_58, PHTown_61, PartyCup_63, PitaDog_56, Polyuyuki_76, Preamble_57, Pterodactyl_56, RAP15_59, Rooney_61, Rowa_48, Scuttle_57, Sergei_55, ShakeNBake_61, Snek_63, Soondubu_60, StevieWelch_103, Sue2_61, Suppi_58, TPA2_52, Temper16_55, Tweety19_64, Urla_56, VResidence_64, Wayne_60, Welcome_105, Wentworth_61, Wildwest_59, Wilkos_63, Yara_56,

Summary by start number:

Start 8:

- Found in 4 of 119 (3.4%) of genes in pham
- Manual Annotations of this start: 1 of 106
- Called 25.0% of time when present
- Phage (with cluster) where this start called: Bennie_56 (AK),

Start 13:

- Found in 1 of 119 (0.8%) of genes in pham
- Manual Annotations of this start: 1 of 106
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Nesbitt_47 (BL),

Start 14:

- Found in 1 of 119 (0.8%) of genes in pham
- Manual Annotations of this start: 1 of 106
- Called 100.0% of time when present
- Phage (with cluster) where this start called: AbbeyMikolon_49 (BL),

Start 16:

- Found in 2 of 119 (1.7%) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: AnnabelLee_58 (FR), TPA2_52 (singleton),

Start 18:

- Found in 1 of 119 (0.8%) of genes in pham
- Manual Annotations of this start: 1 of 106
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Jacko_98 (ED1),

Start 19:

- Found in 8 of 119 (6.7%) of genes in pham
- Manual Annotations of this start: 8 of 106
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Adolin_65 (AZ1), Berrie_63 (AZ1), Cyan_64 (AZ1), DrManhattan_66 (AZ1), MissSwiss_64 (AZ1), Sue2_61 (AZ1), VResidence_64 (AZ1), Wildwest_59 (AZ1),

Start 20:

- Found in 34 of 119 (28.6%) of genes in pham
- Manual Annotations of this start: 27 of 106
- Called 100.0% of time when present
- Phage (with cluster) where this start called: AEgle_61 (AZ1), AGrandiflora_65 (AZ1), Adumb2043_62 (AZ1), Asa16_63 (AZ1), Ascela_65 (AZ1), Community_63 (AZ1), Crewmate_68 (AZ1), DrSierra_60 (AZ1), Elezi_62 (AZ1), Eraser_63 (AZ1), Iter_64 (AZ1), IttyBittyPiggy_63 (AZ1), Janeemi_62 (AZ1), Joemato_65 (AZ1), JohnDoe_64 (AZ1), Jstan_64 (AZ1), Kaylissa_65 (AZ1), Lego_63 (AZ1), Lizalica_63 (AZ1), London_63 (AZ1), Mudpuppy_62 (AZ1), Niobe_63 (AZ1), Nitro_64 (AZ1), ObiToo_68 (AZ1), Phives_64 (AZ1), Powerpuff_65 (AZ1), Simpson_69 (AZ1), Tallboi_63 (AZ1), Tbone_63 (AZ1), Tuck_63 (AZ1), Turab_62 (AZ1), Tutumahutu_65 (AZ1), Warda_64 (AZ1), YesChef_63 (AZ1),

Start 21:

- Found in 6 of 119 (5.0%) of genes in pham
- Manual Annotations of this start: 5 of 106
- Called 100.0% of time when present
- Phage (with cluster) where this start called: ASegato_101 (ED2), Erenyeager_103 (ED2), Fork_99 (ED2), Necrophoxinus_105 (ED2), StevieWelch_103 (ED2), Welcome_105 (ED2),

Start 22:

- Found in 10 of 119 (8.4%) of genes in pham
- Manual Annotations of this start: 8 of 106
- Called 90.0% of time when present
- Phage (with cluster) where this start called: Dryad_65 (BN), Exile_58 (AZ), Gibson_61 (BN), Lizz_61 (BN), PHTown_61 (BN), Rooney_61 (BN), ShakeNBake_61 (BN), Soondubu_60 (AZ), Yara_56 (BN),

Start 23:

- Found in 24 of 119 (20.2%) of genes in pham
- Manual Annotations of this start: 23 of 106
- Called 95.8% of time when present
- Phage (with cluster) where this start called: Apiary_76 (CR), Bodacious_56 (AK), Braxoaddie_76 (CR), ChewChew_56 (AK), Christian_56 (AK), CoffeeBean_76 (CR), CristinaYang_56 (AK), Dubu_29 (BJ), GuyFagieri_74 (CR), HeadNerd_55 (AK), Huckleberry_55 (AK), Lasagna_54 (AK), Lennox_56 (AK), LilStuart_55 (AK), Lucy_55 (AK), Maselop_76 (CR), Moki_55 (AK), Nancia_56 (AK), OurGirlNessie_54 (AK), PitaDog_56 (AK), Polyuyuki_76 (CR), Pterodactyl_56 (AK), Urla_56 (AK),

Start 24:

- Found in 2 of 119 (1.7%) of genes in pham
- Manual Annotations of this start: 2 of 106
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Snek_63 (AZ3), Tweety19_64 (AZ3),

Start 25:

- Found in 7 of 119 (5.9%) of genes in pham
- Manual Annotations of this start: 7 of 106
- Called 100.0% of time when present

- Phage (with cluster) where this start called: BigMack_56 (AK), DreamTeam_55 (AK), Fluke_58 (AK), Gisselle_55 (AK), Glenn_59 (AK), Korra_59 (AK), Oxynfrius_58 (AK),

Start 27:

- Found in 2 of 119 (1.7%) of genes in pham
- Manual Annotations of this start: 2 of 106
- Called 100.0% of time when present
- Phage (with cluster) where this start called: DrRobert_54 (AK), Makoto_55 (AK),

Start 28:

- Found in 6 of 119 (5.0%) of genes in pham
- Manual Annotations of this start: 1 of 106
- Called 33.3% of time when present
- Phage (with cluster) where this start called: Wentworth_61 (BN), Wilkos_63 (BN),

Start 29:

- Found in 1 of 119 (0.8%) of genes in pham
- Manual Annotations of this start: 1 of 106
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Preamble_57 (AK),

Start 30:

- Found in 24 of 119 (20.2%) of genes in pham
- Manual Annotations of this start: 17 of 106
- Called 75.0% of time when present
- Phage (with cluster) where this start called: AppleCider_57 (AK), CallieOMalley_58 (AK), Canowicakte_58 (AK), Carpal_57 (AK), Daiboju_55 (AK), Herb_55 (AK), KingBob_55 (AK), Litotes_57 (AK), Maria1952_54 (AK), MeganNoll_58 (AK), MrGloopy_58 (AK), PartyCup_63 (AK), RAP15_59 (AK), Scuttle_57 (AK), Sergei_55 (AK), Suppi_58 (AK), Temper16_55 (AK), Wayne_60 (AK),

Start 32:

- Found in 1 of 119 (0.8%) of genes in pham
- Manual Annotations of this start: 1 of 106
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Rowa_48 (BL),

Summary by clusters:

There are 12 clusters represented in this pham: singleton, AZ, BL, AK, FR, BJ, ED2, ED1, CR, AZ1, AZ3, BN,

Info for manual annotations of cluster AK:

- Start number 8 was manually annotated 1 time for cluster AK.
- Start number 23 was manually annotated 16 times for cluster AK.
- Start number 25 was manually annotated 7 times for cluster AK.
- Start number 27 was manually annotated 2 times for cluster AK.
- Start number 29 was manually annotated 1 time for cluster AK.
- Start number 30 was manually annotated 17 times for cluster AK.

Info for manual annotations of cluster AZ:

- Start number 22 was manually annotated 1 time for cluster AZ.

Info for manual annotations of cluster AZ1:

- Start number 19 was manually annotated 8 times for cluster AZ1.
- Start number 20 was manually annotated 27 times for cluster AZ1.

Info for manual annotations of cluster AZ3:

- Start number 24 was manually annotated 2 times for cluster AZ3.

Info for manual annotations of cluster BJ:

- Start number 23 was manually annotated 1 time for cluster BJ.

Info for manual annotations of cluster BL:

- Start number 13 was manually annotated 1 time for cluster BL.
- Start number 14 was manually annotated 1 time for cluster BL.
- Start number 32 was manually annotated 1 time for cluster BL.

Info for manual annotations of cluster BN:

- Start number 22 was manually annotated 7 times for cluster BN.
- Start number 28 was manually annotated 1 time for cluster BN.

Info for manual annotations of cluster CR:

- Start number 23 was manually annotated 6 times for cluster CR.

Info for manual annotations of cluster ED1:

- Start number 18 was manually annotated 1 time for cluster ED1.

Info for manual annotations of cluster ED2:

- Start number 21 was manually annotated 5 times for cluster ED2.

Gene Information:

Gene: AEgle_61 Start: 41138, Stop: 41494, Start Num: 20

Candidate Starts for AEgle_61:

(Start: 20 @41138 has 27 MA's), (48, 41288), (82, 41441), (90, 41480),

Gene: AGrandiflora_65 Start: 42034, Stop: 42390, Start Num: 20

Candidate Starts for AGrandiflora_65:

(Start: 20 @42034 has 27 MA's), (82, 42337), (90, 42376),

Gene: ASegato_101 Start: 54171, Stop: 53848, Start Num: 21

Candidate Starts for ASegato_101:

(Start: 21 @54171 has 5 MA's), (Start: 30 @54156 has 17 MA's), (41, 54102), (52, 54030), (55, 54009), (69, 53952), (73, 53931), (79, 53916), (86, 53886), (87, 53874), (88, 53868), (90, 53862),

Gene: AbbeyMikolon_49 Start: 34450, Stop: 34821, Start Num: 14

Candidate Starts for AbbeyMikolon_49:

(Start: 14 @34450 has 1 MA's), (38, 34528), (46, 34591), (51, 34615), (59, 34648), (70, 34711), (72, 34720),

Gene: Adolin_65 Start: 40925, Stop: 41284, Start Num: 19

Candidate Starts for Adolin_65:

(Start: 19 @40925 has 8 MA's), (36, 40982), (82, 41231), (90, 41270),

Gene: Adumb2043_62 Start: 41162, Stop: 41518, Start Num: 20

Candidate Starts for Adumb2043_62:

(Start: 20 @41162 has 27 MA's), (48, 41312), (82, 41465), (90, 41504),

Gene: AnnabelLee_58 Start: 35355, Stop: 34978, Start Num: 16

Candidate Starts for AnnabelLee_58:

(16, 35355), (68, 35091), (75, 35058),

Gene: Apiary_76 Start: 55270, Stop: 54890, Start Num: 23

Candidate Starts for Apiary_76:

(1, 55618), (2, 55567), (3, 55504), (4, 55444), (6, 55408), (12, 55306), (Start: 23 @55270 has 23 MA's), (49, 55120),

Gene: AppleCider_57 Start: 41677, Stop: 42012, Start Num: 30

Candidate Starts for AppleCider_57:

(Start: 30 @41677 has 17 MA's), (57, 41845), (68, 41905), (74, 41935), (82, 41965), (88, 41998),

Gene: Asa16_63 Start: 41723, Stop: 42079, Start Num: 20

Candidate Starts for Asa16_63:

(Start: 20 @41723 has 27 MA's), (82, 42026), (90, 42065),

Gene: Ascela_65 Start: 42214, Stop: 42570, Start Num: 20

Candidate Starts for Ascela_65:

(Start: 20 @42214 has 27 MA's), (48, 42364), (90, 42556),

Gene: Bennie_56 Start: 40399, Stop: 40872, Start Num: 8

Candidate Starts for Bennie_56:

(Start: 8 @40399 has 1 MA's), (11, 40474), (Start: 23 @40522 has 23 MA's), (54, 40699), (57, 40702), (84, 40828),

Gene: Berrie_63 Start: 41818, Stop: 42174, Start Num: 19

Candidate Starts for Berrie_63:

(Start: 19 @41818 has 8 MA's), (68, 42064), (90, 42160),

Gene: BigMack_56 Start: 40973, Stop: 41317, Start Num: 25

Candidate Starts for BigMack_56:

(Start: 25 @40973 has 7 MA's), (34, 40997), (50, 41123), (57, 41150), (60, 41168), (68, 41210), (72, 41225), (74, 41240), (81, 41267), (82, 41270),

Gene: Bodacious_56 Start: 40944, Stop: 41294, Start Num: 23

Candidate Starts for Bodacious_56:

(Start: 23 @40944 has 23 MA's), (37, 40992), (54, 41121), (57, 41124), (84, 41250),

Gene: Braxoaddie_76 Start: 55255, Stop: 54875, Start Num: 23

Candidate Starts for Braxoaddie_76:

(2, 55552), (3, 55489), (4, 55429), (6, 55393), (12, 55291), (Start: 23 @55255 has 23 MA's), (49, 55105),

Gene: CallieOMalley_58 Start: 41865, Stop: 42200, Start Num: 30

Candidate Starts for CallieOMalley_58:

(Start: 30 @41865 has 17 MA's), (57, 42033), (68, 42093), (74, 42123), (81, 42150), (82, 42153), (88, 42186),

Gene: Canowicakte_58 Start: 41917, Stop: 42252, Start Num: 30

Candidate Starts for Canowicakte_58:

(Start: 30 @41917 has 17 MA's), (57, 42085), (68, 42145), (74, 42175), (81, 42202), (82, 42205), (88, 42238),

Gene: Carpal_57 Start: 41744, Stop: 42079, Start Num: 30

Candidate Starts for Carpal_57:

(Start: 30 @41744 has 17 MA's), (40, 41801), (42, 41819), (57, 41912), (68, 41972), (72, 41987), (74, 42002), (81, 42029), (82, 42032),

Gene: ChewChew_56 Start: 41074, Stop: 41424, Start Num: 23

Candidate Starts for ChewChew_56:

(Start: 23 @41074 has 23 MA's), (37, 41122), (54, 41251), (57, 41254), (84, 41380),

Gene: Christian_56 Start: 40786, Stop: 41136, Start Num: 23

Candidate Starts for Christian_56:

(Start: 23 @40786 has 23 MA's), (54, 40963), (57, 40966), (84, 41092),

Gene: CoffeeBean_76 Start: 55213, Stop: 54833, Start Num: 23

Candidate Starts for CoffeeBean_76:

(2, 55510), (3, 55447), (4, 55387), (6, 55351), (12, 55249), (Start: 23 @55213 has 23 MA's), (49, 55063),

Gene: Community_63 Start: 42094, Stop: 42450, Start Num: 20

Candidate Starts for Community_63:

(Start: 20 @42094 has 27 MA's), (Start: 28 @42106 has 1 MA's), (71, 42349), (90, 42436),

Gene: Crewmate_68 Start: 42445, Stop: 42801, Start Num: 20

Candidate Starts for Crewmate_68:

(Start: 20 @42445 has 27 MA's), (48, 42595), (68, 42691), (84, 42754), (90, 42787),

Gene: CristinaYang_56 Start: 41071, Stop: 41421, Start Num: 23

Candidate Starts for CristinaYang_56:

(Start: 23 @41071 has 23 MA's), (37, 41119), (54, 41248), (57, 41251), (84, 41377),

Gene: Cyan_64 Start: 41775, Stop: 42134, Start Num: 19

Candidate Starts for Cyan_64:

(Start: 19 @41775 has 8 MA's), (82, 42081), (90, 42120),

Gene: Daiboju_55 Start: 41677, Stop: 42018, Start Num: 30

Candidate Starts for Daiboju_55:

(Start: 30 @41677 has 17 MA's), (57, 41848), (61, 41869), (66, 41902), (82, 41965), (85, 41977),

Gene: DrManhattan_66 Start: 40479, Stop: 40838, Start Num: 19

Candidate Starts for DrManhattan_66:

(Start: 19 @40479 has 8 MA's), (36, 40536), (82, 40785), (90, 40824),

Gene: DrRobert_54 Start: 40308, Stop: 40655, Start Num: 27

Candidate Starts for DrRobert_54:

(Start: 27 @40308 has 2 MA's), (34, 40332), (54, 40482), (57, 40485), (84, 40611),

Gene: DrSierra_60 Start: 40611, Stop: 40967, Start Num: 20

Candidate Starts for DrSierra_60:

(Start: 20 @40611 has 27 MA's), (41, 40704), (90, 40953),

Gene: DreamTeam_55 Start: 40683, Stop: 41033, Start Num: 25

Candidate Starts for DreamTeam_55:

(Start: 25 @40683 has 7 MA's), (34, 40713), (37, 40734), (40, 40755), (50, 40839), (57, 40866), (68, 40926), (72, 40941), (74, 40956), (81, 40983), (82, 40986),

Gene: Dryad_65 Start: 44270, Stop: 43926, Start Num: 22

Candidate Starts for Dryad_65:

(10, 44351), (Start: 22 @44270 has 8 MA's), (40, 44198), (43, 44177), (46, 44153), (71, 44033), (77, 44006), (81, 43988), (90, 43946),

Gene: Dubu_29 Start: 22724, Stop: 23071, Start Num: 23

Candidate Starts for Dubu_29:

(5, 22547), (7, 22595), (9, 22625), (15, 22697), (Start: 23 @22724 has 23 MA's), (26, 22727), (63, 22922), (64, 22925),

Gene: Elezi_62 Start: 41480, Stop: 41836, Start Num: 20

Candidate Starts for Elezi_62:

(Start: 20 @41480 has 27 MA's), (48, 41630), (82, 41783), (90, 41822),

Gene: Eraser_63 Start: 41730, Stop: 42086, Start Num: 20

Candidate Starts for Eraser_63:

(Start: 20 @41730 has 27 MA's), (82, 42033), (90, 42072),

Gene: Erenyeager_103 Start: 54096, Stop: 53773, Start Num: 21

Candidate Starts for Erenyeager_103:

(Start: 21 @54096 has 5 MA's), (Start: 30 @54081 has 17 MA's), (41, 54027), (52, 53955), (55, 53934), (69, 53877), (73, 53856), (79, 53841), (86, 53811), (87, 53799), (88, 53793), (90, 53787),

Gene: Exile_58 Start: 42771, Stop: 43118, Start Num: 22

Candidate Starts for Exile_58:

(Start: 22 @42771 has 8 MA's), (36, 42819), (78, 43050), (88, 43101),

Gene: Fluke_58 Start: 42001, Stop: 42345, Start Num: 25

Candidate Starts for Fluke_58:

(Start: 25 @42001 has 7 MA's), (34, 42025), (57, 42178), (68, 42238), (74, 42268), (81, 42295),

Gene: Fork_99 Start: 54049, Stop: 53726, Start Num: 21

Candidate Starts for Fork_99:

(Start: 21 @54049 has 5 MA's), (Start: 30 @54034 has 17 MA's), (41, 53980), (52, 53908), (55, 53887), (69, 53830), (73, 53809), (79, 53794), (86, 53764), (87, 53752), (88, 53746), (90, 53740),

Gene: Gibson_61 Start: 43510, Stop: 43169, Start Num: 22

Candidate Starts for Gibson_61:

(Start: 22 @43510 has 8 MA's), (40, 43438), (43, 43417), (81, 43228), (90, 43186),

Gene: Gisselle_55 Start: 40683, Stop: 41033, Start Num: 25

Candidate Starts for Gisselle_55:

(Start: 25 @40683 has 7 MA's), (34, 40713), (37, 40734), (40, 40755), (50, 40839), (57, 40866), (68, 40926), (72, 40941), (74, 40956), (81, 40983), (82, 40986),

Gene: Glenn_59 Start: 42462, Stop: 42806, Start Num: 25

Candidate Starts for Glenn_59:

(Start: 25 @42462 has 7 MA's), (34, 42486), (57, 42639), (68, 42699), (74, 42729), (81, 42756),

Gene: GuyFagieri_74 Start: 55043, Stop: 54696, Start Num: 23

Candidate Starts for GuyFagieri_74:

(Start: 23 @55043 has 23 MA's), (49, 54893), (75, 54776), (80, 54752),

Gene: HeadNerd_55 Start: 40416, Stop: 40766, Start Num: 23

Candidate Starts for HeadNerd_55:

(Start: 8 @40293 has 1 MA's), (11, 40368), (Start: 23 @40416 has 23 MA's), (54, 40593), (57, 40596), (84, 40722),

Gene: Herb_55 Start: 41676, Stop: 42017, Start Num: 30

Candidate Starts for Herb_55:

(Start: 30 @41676 has 17 MA's), (57, 41847), (61, 41868), (66, 41901), (82, 41964), (85, 41976),

Gene: Huckleberry_55 Start: 40420, Stop: 40770, Start Num: 23

Candidate Starts for Huckleberry_55:

(Start: 8 @40297 has 1 MA's), (11, 40372), (Start: 23 @40420 has 23 MA's), (54, 40597), (57, 40600), (84, 40726),

Gene: Iter_64 Start: 41985, Stop: 42341, Start Num: 20

Candidate Starts for Iter_64:

(Start: 20 @41985 has 27 MA's), (48, 42135), (90, 42327),

Gene: IttyBittyPiggy_63 Start: 40207, Stop: 40560, Start Num: 20

Candidate Starts for IttyBittyPiggy_63:

(Start: 20 @40207 has 27 MA's), (68, 40450), (82, 40507), (90, 40546),

Gene: Jacko_98 Start: 53745, Stop: 53389, Start Num: 18

Candidate Starts for Jacko_98:

(Start: 18 @53745 has 1 MA's), (31, 53721), (37, 53685), (44, 53631), (45, 53622), (52, 53583), (53, 53571), (55, 53559), (67, 53505), (69, 53499), (75, 53472), (89, 53406),

Gene: Janeemi_62 Start: 41595, Stop: 41951, Start Num: 20

Candidate Starts for Janeemi_62:

(Start: 20 @41595 has 27 MA's), (Start: 28 @41607 has 1 MA's), (90, 41937),

Gene: Joemato_65 Start: 41955, Stop: 42311, Start Num: 20

Candidate Starts for Joemato_65:

(Start: 20 @41955 has 27 MA's), (68, 42201), (82, 42258), (90, 42297),

Gene: JohnDoe_64 Start: 41872, Stop: 42228, Start Num: 20

Candidate Starts for JohnDoe_64:

(Start: 20 @41872 has 27 MA's), (68, 42118), (82, 42175), (90, 42214),

Gene: Jstan_64 Start: 41484, Stop: 41840, Start Num: 20

Candidate Starts for Jstan_64:

(Start: 20 @41484 has 27 MA's), (48, 41634), (82, 41787), (90, 41826),

Gene: Kaylissa_65 Start: 42234, Stop: 42590, Start Num: 20
Candidate Starts for Kaylissa_65:
(Start: 20 @42234 has 27 MA's), (33, 42264), (82, 42537), (90, 42576),

Gene: KingBob_55 Start: 41677, Stop: 42018, Start Num: 30
Candidate Starts for KingBob_55:
(Start: 30 @41677 has 17 MA's), (57, 41848), (61, 41869), (66, 41902), (82, 41965), (85, 41977),

Gene: Korra_59 Start: 41736, Stop: 42080, Start Num: 25
Candidate Starts for Korra_59:
(Start: 25 @41736 has 7 MA's), (34, 41760), (57, 41913), (68, 41973), (74, 42003), (81, 42030),

Gene: Lasagna_54 Start: 40307, Stop: 40657, Start Num: 23
Candidate Starts for Lasagna_54:
(Start: 23 @40307 has 23 MA's), (37, 40355), (54, 40484), (57, 40487), (84, 40613),

Gene: Lego_63 Start: 41553, Stop: 41909, Start Num: 20
Candidate Starts for Lego_63:
(Start: 20 @41553 has 27 MA's), (33, 41583), (82, 41856), (90, 41895),

Gene: Lennox_56 Start: 40792, Stop: 41142, Start Num: 23
Candidate Starts for Lennox_56:
(Start: 23 @40792 has 23 MA's), (37, 40840), (54, 40969), (57, 40972), (84, 41098),

Gene: LilStuart_55 Start: 40655, Stop: 41005, Start Num: 23
Candidate Starts for LilStuart_55:
(Start: 23 @40655 has 23 MA's), (37, 40703), (54, 40832), (57, 40835), (84, 40961),

Gene: Litotes_57 Start: 41464, Stop: 41799, Start Num: 30
Candidate Starts for Litotes_57:
(Start: 30 @41464 has 17 MA's), (57, 41632), (68, 41692), (74, 41722), (81, 41749), (82, 41752), (88, 41785),

Gene: Lizalica_63 Start: 41149, Stop: 41505, Start Num: 20
Candidate Starts for Lizalica_63:
(Start: 20 @41149 has 27 MA's), (82, 41452), (90, 41491),

Gene: Lizz_61 Start: 43350, Stop: 43009, Start Num: 22
Candidate Starts for Lizz_61:
(10, 43431), (Start: 22 @43350 has 8 MA's), (40, 43278), (43, 43257), (71, 43113), (81, 43068), (90, 43026),

Gene: London_63 Start: 41721, Stop: 42077, Start Num: 20
Candidate Starts for London_63:
(Start: 20 @41721 has 27 MA's), (82, 42024), (90, 42063),

Gene: Lucy_55 Start: 40650, Stop: 41000, Start Num: 23
Candidate Starts for Lucy_55:
(Start: 23 @40650 has 23 MA's), (37, 40698), (54, 40827), (57, 40830), (84, 40956),

Gene: Makoto_55 Start: 40551, Stop: 40898, Start Num: 27
Candidate Starts for Makoto_55:

(Start: 27 @40551 has 2 MA's), (34, 40575), (54, 40725), (57, 40728), (84, 40854),

Gene: Maria1952_54 Start: 41676, Stop: 42017, Start Num: 30

Candidate Starts for Maria1952_54:

(Start: 30 @41676 has 17 MA's), (57, 41847), (61, 41868), (66, 41901), (82, 41964), (85, 41976),

Gene: Maselop_76 Start: 55289, Stop: 54909, Start Num: 23

Candidate Starts for Maselop_76:

(2, 55586), (3, 55523), (4, 55463), (6, 55427), (12, 55325), (Start: 23 @55289 has 23 MA's), (49, 55139),

Gene: MeganNoll_58 Start: 42247, Stop: 42582, Start Num: 30

Candidate Starts for MeganNoll_58:

(Start: 30 @42247 has 17 MA's), (40, 42304), (57, 42415), (68, 42475), (74, 42505), (81, 42532),

Gene: MissSwiss_64 Start: 40483, Stop: 40842, Start Num: 19

Candidate Starts for MissSwiss_64:

(Start: 19 @40483 has 8 MA's), (90, 40828),

Gene: Moki_55 Start: 40609, Stop: 40959, Start Num: 23

Candidate Starts for Moki_55:

(Start: 8 @40486 has 1 MA's), (11, 40561), (Start: 23 @40609 has 23 MA's), (54, 40786), (57, 40789), (84, 40915),

Gene: MrGloopy_58 Start: 41899, Stop: 42234, Start Num: 30

Candidate Starts for MrGloopy_58:

(Start: 30 @41899 has 17 MA's), (40, 41956), (57, 42067), (58, 42070), (68, 42127), (74, 42157), (81, 42184),

Gene: Mudpuppy_62 Start: 41921, Stop: 42277, Start Num: 20

Candidate Starts for Mudpuppy_62:

(Start: 20 @41921 has 27 MA's), (82, 42224), (90, 42263),

Gene: Nancia_56 Start: 40943, Stop: 41293, Start Num: 23

Candidate Starts for Nancia_56:

(Start: 23 @40943 has 23 MA's), (37, 40991), (54, 41120), (57, 41123), (84, 41249),

Gene: Necrophoxinus_105 Start: 54949, Stop: 54626, Start Num: 21

Candidate Starts for Necrophoxinus_105:

(Start: 21 @54949 has 5 MA's), (Start: 30 @54934 has 17 MA's), (41, 54880), (52, 54808), (55, 54787), (69, 54730), (73, 54709), (79, 54694), (86, 54664), (87, 54652), (88, 54646), (90, 54640),

Gene: Nesbitt_47 Start: 34330, Stop: 34704, Start Num: 13

Candidate Starts for Nesbitt_47:

(Start: 13 @34330 has 1 MA's), (51, 34498), (70, 34594), (72, 34603), (77, 34627),

Gene: Niobe_63 Start: 41724, Stop: 42080, Start Num: 20

Candidate Starts for Niobe_63:

(Start: 20 @41724 has 27 MA's), (82, 42027), (90, 42066),

Gene: Nitro_64 Start: 42421, Stop: 42777, Start Num: 20

Candidate Starts for Nitro_64:

(Start: 20 @42421 has 27 MA's), (68, 42667), (82, 42724), (90, 42763),

Gene: ObiToo_68 Start: 42061, Stop: 42417, Start Num: 20
Candidate Starts for ObiToo_68:
(Start: 20 @42061 has 27 MA's), (48, 42211), (68, 42307), (84, 42370), (90, 42403),

Gene: OurGirlNessie_54 Start: 40272, Stop: 40622, Start Num: 23
Candidate Starts for OurGirlNessie_54:
(Start: 23 @40272 has 23 MA's), (54, 40449), (57, 40452), (82, 40572),

Gene: Oxynfrius_58 Start: 42154, Stop: 42504, Start Num: 25
Candidate Starts for Oxynfrius_58:
(Start: 25 @42154 has 7 MA's), (34, 42184), (37, 42205), (50, 42310), (57, 42337), (68, 42397), (72, 42412), (74, 42427), (81, 42454), (82, 42457),

Gene: PHTowN_61 Start: 43348, Stop: 43007, Start Num: 22
Candidate Starts for PHTowN_61:
(10, 43429), (Start: 22 @43348 has 8 MA's), (40, 43276), (43, 43255), (71, 43111), (81, 43066), (90, 43024),

Gene: PartyCup_63 Start: 42112, Stop: 42447, Start Num: 30
Candidate Starts for PartyCup_63:
(Start: 30 @42112 has 17 MA's), (57, 42280), (68, 42340), (74, 42370), (81, 42397), (82, 42400), (88, 42433),

Gene: Phives_64 Start: 42209, Stop: 42565, Start Num: 20
Candidate Starts for Phives_64:
(Start: 20 @42209 has 27 MA's), (Start: 28 @42221 has 1 MA's), (71, 42464), (90, 42551),

Gene: PitaDog_56 Start: 40668, Stop: 41018, Start Num: 23
Candidate Starts for PitaDog_56:
(Start: 23 @40668 has 23 MA's), (54, 40845), (57, 40848), (84, 40974),

Gene: Polyzuki_76 Start: 55281, Stop: 54901, Start Num: 23
Candidate Starts for Polyzuki_76:
(Start: 23 @55281 has 23 MA's), (49, 55131),

Gene: Powerpuff_65 Start: 42757, Stop: 43113, Start Num: 20
Candidate Starts for Powerpuff_65:
(Start: 20 @42757 has 27 MA's), (82, 43060), (90, 43099),

Gene: Preamble_57 Start: 40868, Stop: 41209, Start Num: 29
Candidate Starts for Preamble_57:
(Start: 29 @40868 has 1 MA's), (54, 41039), (72, 41114), (81, 41156), (82, 41159),

Gene: Pterodactyl_56 Start: 40909, Stop: 41259, Start Num: 23
Candidate Starts for Pterodactyl_56:
(Start: 23 @40909 has 23 MA's), (54, 41086), (57, 41089), (84, 41215),

Gene: RAP15_59 Start: 42248, Stop: 42583, Start Num: 30
Candidate Starts for RAP15_59:
(Start: 30 @42248 has 17 MA's), (40, 42305), (57, 42416), (68, 42476), (74, 42506), (81, 42533),

Gene: Rooney_61 Start: 43507, Stop: 43166, Start Num: 22

Candidate Starts for Rooney_61:

(Start: 22 @43507 has 8 MA's), (40, 43435), (43, 43414), (81, 43225), (90, 43183),

Gene: Rowa_48 Start: 34719, Stop: 35042, Start Num: 32

Candidate Starts for Rowa_48:

(17, 34692), (Start: 32 @34719 has 1 MA's), (35, 34743), (41, 34788), (46, 34830), (50, 34851), (71, 34941), (88, 35022), (90, 35028),

Gene: Scuttle_57 Start: 41927, Stop: 42262, Start Num: 30

Candidate Starts for Scuttle_57:

(Start: 30 @41927 has 17 MA's), (40, 41984), (42, 42002), (57, 42095), (58, 42098), (68, 42155), (72, 42170), (81, 42212),

Gene: Sergei_55 Start: 41677, Stop: 42018, Start Num: 30

Candidate Starts for Sergei_55:

(Start: 30 @41677 has 17 MA's), (57, 41848), (61, 41869), (66, 41902), (82, 41965), (85, 41977),

Gene: ShakeNBake_61 Start: 43366, Stop: 43025, Start Num: 22

Candidate Starts for ShakeNBake_61:

(10, 43447), (Start: 22 @43366 has 8 MA's), (40, 43294), (43, 43273), (71, 43129), (81, 43084), (90, 43042),

Gene: Simpson_69 Start: 41959, Stop: 42315, Start Num: 20

Candidate Starts for Simpson_69:

(Start: 20 @41959 has 27 MA's), (68, 42205), (82, 42262), (90, 42301),

Gene: Snek_63 Start: 39170, Stop: 39511, Start Num: 24

Candidate Starts for Snek_63:

(Start: 24 @39170 has 2 MA's), (86, 39473),

Gene: Soondubu_60 Start: 43780, Stop: 44127, Start Num: 22

Candidate Starts for Soondubu_60:

(Start: 22 @43780 has 8 MA's), (78, 44059), (88, 44110),

Gene: StevieWelch_103 Start: 54233, Stop: 53910, Start Num: 21

Candidate Starts for StevieWelch_103:

(Start: 21 @54233 has 5 MA's), (Start: 30 @54218 has 17 MA's), (41, 54164), (52, 54092), (55, 54071), (69, 54014), (73, 53993), (79, 53978), (86, 53948), (87, 53936), (88, 53930), (90, 53924),

Gene: Sue2_61 Start: 40180, Stop: 40542, Start Num: 19

Candidate Starts for Sue2_61:

(Start: 19 @40180 has 8 MA's), (33, 40213), (68, 40429), (77, 40465),

Gene: Suppi_58 Start: 41917, Stop: 42252, Start Num: 30

Candidate Starts for Suppi_58:

(Start: 30 @41917 has 17 MA's), (57, 42085), (68, 42145), (74, 42175), (81, 42202), (82, 42205), (88, 42238),

Gene: TPA2_52 Start: 39328, Stop: 38936, Start Num: 16

Candidate Starts for TPA2_52:

(16, 39328), (47, 39178), (56, 39118), (65, 39067), (76, 39013),

Gene: Tallboi_63 Start: 41726, Stop: 42082, Start Num: 20

Candidate Starts for Tallboi_63:

(Start: 20 @41726 has 27 MA's), (68, 41972), (82, 42029), (90, 42068),

Gene: Tbone_63 Start: 42208, Stop: 42564, Start Num: 20

Candidate Starts for Tbone_63:

(Start: 20 @42208 has 27 MA's), (82, 42511), (90, 42550),

Gene: Temper16_55 Start: 41677, Stop: 42018, Start Num: 30

Candidate Starts for Temper16_55:

(Start: 30 @41677 has 17 MA's), (57, 41848), (61, 41869), (66, 41902), (82, 41965), (85, 41977),

Gene: Tuck_63 Start: 41997, Stop: 42353, Start Num: 20

Candidate Starts for Tuck_63:

(Start: 20 @41997 has 27 MA's), (Start: 28 @42009 has 1 MA's), (71, 42252), (90, 42339),

Gene: Turab_62 Start: 41182, Stop: 41538, Start Num: 20

Candidate Starts for Turab_62:

(Start: 20 @41182 has 27 MA's), (48, 41332), (82, 41485), (90, 41524),

Gene: Tutumahutu_65 Start: 41800, Stop: 42156, Start Num: 20

Candidate Starts for Tutumahutu_65:

(Start: 20 @41800 has 27 MA's), (82, 42103), (90, 42142),

Gene: Tweety19_64 Start: 39171, Stop: 39512, Start Num: 24

Candidate Starts for Tweety19_64:

(Start: 24 @39171 has 2 MA's), (86, 39474),

Gene: Urla_56 Start: 41609, Stop: 41959, Start Num: 23

Candidate Starts for Urla_56:

(Start: 23 @41609 has 23 MA's), (37, 41657), (54, 41786), (57, 41789), (84, 41915),

Gene: VResidence_64 Start: 39888, Stop: 40247, Start Num: 19

Candidate Starts for VResidence_64:

(Start: 19 @39888 has 8 MA's), (48, 40041),

Gene: Warda_64 Start: 41934, Stop: 42290, Start Num: 20

Candidate Starts for Warda_64:

(Start: 20 @41934 has 27 MA's), (82, 42237), (90, 42276),

Gene: Wayne_60 Start: 42374, Stop: 42709, Start Num: 30

Candidate Starts for Wayne_60:

(Start: 30 @42374 has 17 MA's), (57, 42542), (68, 42602), (74, 42632), (81, 42659), (82, 42662), (88, 42695),

Gene: Welcome_105 Start: 54864, Stop: 54541, Start Num: 21

Candidate Starts for Welcome_105:

(Start: 21 @54864 has 5 MA's), (Start: 30 @54849 has 17 MA's), (41, 54795), (52, 54723), (55, 54702), (69, 54645), (73, 54624), (79, 54609), (86, 54579), (87, 54567), (88, 54561), (90, 54555),

Gene: Wentworth_61 Start: 43514, Stop: 43179, Start Num: 28

Candidate Starts for Wentworth_61:

(17, 43529), (Start: 22 @43520 has 8 MA's), (Start: 28 @43514 has 1 MA's), (43, 43427), (46, 43403), (71, 43283), (77, 43256), (81, 43238), (90, 43196),

Gene: Wildwest_59 Start: 41597, Stop: 41956, Start Num: 19

Candidate Starts for Wildwest_59:

(Start: 19 @41597 has 8 MA's), (33, 41630), (82, 41903), (90, 41942),

Gene: Wilkos_63 Start: 43658, Stop: 43323, Start Num: 28

Candidate Starts for Wilkos_63:

(Start: 28 @43658 has 1 MA's), (39, 43601), (40, 43592), (43, 43571), (46, 43547), (63, 43463), (71, 43427), (77, 43400), (83, 43376), (90, 43340),

Gene: Yara_56 Start: 41985, Stop: 41650, Start Num: 22

Candidate Starts for Yara_56:

(Start: 22 @41985 has 8 MA's), (62, 41787), (71, 41751), (74, 41733), (90, 41664),

Gene: YesChef_63 Start: 41616, Stop: 41972, Start Num: 20

Candidate Starts for YesChef_63:

(Start: 20 @41616 has 27 MA's), (82, 41919), (90, 41958),