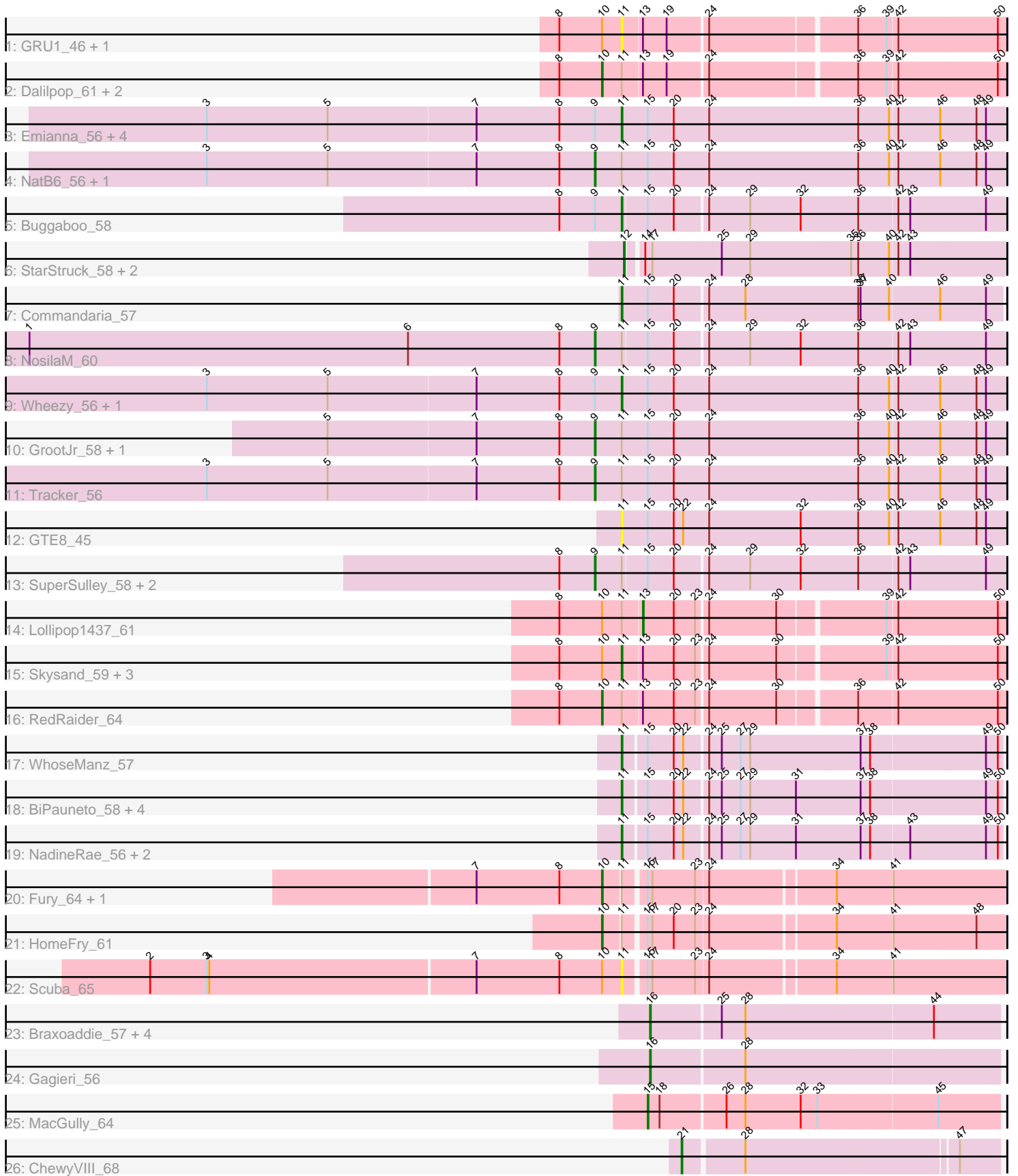


Pham 308710



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 308710 Report

This analysis was run 06/27/26 on database version 652.

Pham number 308710 has 54 members, 5 are drafts.

Phages represented in each track:

- Track 1 : GRU1_46, GTE5_47
- Track 2 : Dalilpop_61, Turuncu_61, Flapper_61
- Track 3 : Emianna_56, Kurt_56, KidneyBean_56, Jifall16_55, Foxboro_57
- Track 4 : NatB6_56, Phomeo_55
- Track 5 : Buggaboo_58
- Track 6 : StarStruck_58, MerCougar_58, Outis_58
- Track 7 : Commandaria_57
- Track 8 : NosilaM_60
- Track 9 : Wheezy_56, Arti_56
- Track 10 : GrootJr_58, NovumRegina_56
- Track 11 : Tracker_56
- Track 12 : GTE8_45
- Track 13 : SuperSulley_58, Bonum_60, Kabluna_60
- Track 14 : Lollipop1437_61
- Track 15 : Skysand_59, Ennea_63, Patio_60, Float294_58
- Track 16 : RedRaider_64
- Track 17 : WhoseManz_57
- Track 18 : BiPauneto_58, Pemberton_59, Marietta_58, Sukkupi_57, Yndexa_57
- Track 19 : NadineRae_56, IDyn_57, HubbaBubba_53
- Track 20 : Fury_64, Pleakley_64
- Track 21 : HomeFry_61
- Track 22 : Scuba_65
- Track 23 : Braxoaddie_57, Polyuyuki_57, Maselop_57, CoffeeBean_57, Apiary_57
- Track 24 : Gagieri_56
- Track 25 : MacGully_64
- Track 26 : ChewyVIII_68

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

The start number called the most often in the published annotations is 11, it was called in 21 of the 49 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Arti_56, BiPauneto_58, Buggaboo_58, Commandaria_57, Emianna_56, Ennea_63, Float294_58, Foxboro_57, GRU1_46, GTE5_47, GTE8_45, HubbaBubba_53, IDyn_57, Jifall16_55, KidneyBean_56, Kurt_56, Marietta_58, NadineRae_56, Patio_60, Pemberton_59, Scuba_65, Skysand_59, Sukkupi_57, Wheezy_56, WhoseManz_57, Yndexa_57,

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

- Bonum_60, Dalilpop_61, Flapper_61, Fury_64, GrootJr_58, HomeFry_61, Kabluna_60, Lollipop1437_61, NatB6_56, NosilaM_60, NovumRegina_56, Phomeo_55, Pleakley_64, RedRaider_64, SuperSulley_58, Tracker_56, Turuncu_61,

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

- Apiary_57, Braxoaddie_57, ChewyVIII_68, CoffeeBean_57, Gagieri_56, MacGully_64, Maselop_57, MerCougar_58, Outis_58, Polyuyuki_57, StarStruck_58,

Summary by start number:

Start 9:

- Found in 17 of 54 (31.5%) of genes in pham
- Manual Annotations of this start: 9 of 49
- Called 52.9% of time when present
- Phage (with cluster) where this start called: Bonum_60 (CR2), GrootJr_58 (CR2), Kabluna_60 (CR2), NatB6_56 (CR2), NosilaM_60 (CR2), NovumRegina_56 (CR2), Phomeo_55 (CR2), SuperSulley_58 (CR2), Tracker_56 (CR2),

Start 10:

- Found in 15 of 54 (27.8%) of genes in pham
- Manual Annotations of this start: 7 of 49
- Called 46.7% of time when present
- Phage (with cluster) where this start called: Dalilpop_61 (CR1), Flapper_61 (CR1), Fury_64 (CR5), HomeFry_61 (CR5), Pleakley_64 (CR5), RedRaider_64 (CR3), Turuncu_61 (CR1),

Start 11:

- Found in 43 of 54 (79.6%) of genes in pham
- Manual Annotations of this start: 21 of 49
- Called 60.5% of time when present
- Phage (with cluster) where this start called: Arti_56 (CR2), BiPauneto_58 (CR4), Buggaboo_58 (CR2), Commandaria_57 (CR2), Emianna_56 (CR2), Ennea_63 (CR3), Float294_58 (CR3), Foxboro_57 (CR2), GRU1_46 (CR1), GTE5_47 (CR1), GTE8_45 (CR2), HubbaBubba_53 (CR4), IDyn_57 (CR4), Jifall16_55 (CR2), KidneyBean_56 (CR2), Kurt_56 (CR2), Marietta_58 (CR4), NadineRae_56 (CR4), Patio_60 (CR3), Pemberton_59 (CR4), Scuba_65 (CR5), Skysand_59 (CR3), Sukkupi_57 (CR4), Wheezy_56 (CR2), WhoseManz_57 (CR4), Yndexa_57 (CR4),

Start 12:

- Found in 3 of 54 (5.6%) of genes in pham
- Manual Annotations of this start: 3 of 49
- Called 100.0% of time when present
- Phage (with cluster) where this start called: MerCougar_58 (CR2), Outis_58 (CR2), StarStruck_58 (CR2),

Start 13:

- Found in 11 of 54 (20.4%) of genes in pham
- Manual Annotations of this start: 1 of 49
- Called 9.1% of time when present
- Phage (with cluster) where this start called: Lollipop1437_61 (CR3),

Start 15:

- Found in 33 of 54 (61.1%) of genes in pham
- Manual Annotations of this start: 1 of 49
- Called 3.0% of time when present
- Phage (with cluster) where this start called: MacGully_64 (CR7),

Start 16:

- Found in 6 of 54 (11.1%) of genes in pham
- Manual Annotations of this start: 6 of 49
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Apiary_57 (CR6), Braxoaddie_57 (CR6), CoffeeBean_57 (CR6), Gagieri_56 (CR6), Maselop_57 (CR6), Polyuyuki_57 (CR6),

Start 21:

- Found in 1 of 54 (1.9%) of genes in pham
- Manual Annotations of this start: 1 of 49
- Called 100.0% of time when present
- Phage (with cluster) where this start called: ChewyVIII_68 (singleton),

Summary by clusters:

There are 8 clusters represented in this pham: CR2, CR3, singleton, CR1, CR6, CR7, CR4, CR5,

Info for manual annotations of cluster CR1:

- Start number 10 was manually annotated 3 times for cluster CR1.

Info for manual annotations of cluster CR2:

- Start number 9 was manually annotated 9 times for cluster CR2.
- Start number 11 was manually annotated 9 times for cluster CR2.
- Start number 12 was manually annotated 3 times for cluster CR2.

Info for manual annotations of cluster CR3:

- Start number 10 was manually annotated 1 time for cluster CR3.
- Start number 11 was manually annotated 4 times for cluster CR3.
- Start number 13 was manually annotated 1 time for cluster CR3.

Info for manual annotations of cluster CR4:

- Start number 11 was manually annotated 8 times for cluster CR4.

Info for manual annotations of cluster CR5:

- Start number 10 was manually annotated 3 times for cluster CR5.

Info for manual annotations of cluster CR6:

- Start number 16 was manually annotated 6 times for cluster CR6.

Info for manual annotations of cluster CR7:

- Start number 15 was manually annotated 1 time for cluster CR7.

Gene Information:

Gene: Apiary_57 Start: 41538, Stop: 41110, Start Num: 16

Candidate Starts for Apiary_57:

(Start: 16 @41538 has 6 MA's), (25, 41454), (28, 41424), (44, 41190),

Gene: Arti_56 Start: 43592, Stop: 43116, Start Num: 11

Candidate Starts for Arti_56:

(3, 44114), (5, 43961), (7, 43775), (8, 43670), (Start: 9 @43625 has 9 MA's), (Start: 11 @43592 has 21 MA's), (Start: 15 @43559 has 1 MA's), (20, 43526), (24, 43481), (36, 43295), (40, 43256), (42, 43247), (46, 43196), (48, 43151), (49, 43139),

Gene: BiPauneto_58 Start: 43095, Stop: 42634, Start Num: 11

Candidate Starts for BiPauneto_58:

(Start: 11 @43095 has 21 MA's), (Start: 15 @43068 has 1 MA's), (20, 43035), (22, 43023), (24, 42996), (25, 42981), (27, 42957), (29, 42945), (31, 42888), (37, 42807), (38, 42795), (49, 42654), (50, 42639),

Gene: Bonum_60 Start: 44274, Stop: 43774, Start Num: 9

Candidate Starts for Bonum_60:

(8, 44319), (Start: 9 @44274 has 9 MA's), (Start: 11 @44241 has 21 MA's), (Start: 15 @44211 has 1 MA's), (20, 44178), (24, 44139), (29, 44088), (32, 44025), (36, 43953), (42, 43905), (43, 43890), (49, 43797),

Gene: Braxoaddie_57 Start: 41527, Stop: 41099, Start Num: 16

Candidate Starts for Braxoaddie_57:

(Start: 16 @41527 has 6 MA's), (25, 41443), (28, 41413), (44, 41179),

Gene: Buggaboo_58 Start: 44720, Stop: 44253, Start Num: 11

Candidate Starts for Buggaboo_58:

(8, 44798), (Start: 9 @44753 has 9 MA's), (Start: 11 @44720 has 21 MA's), (Start: 15 @44690 has 1 MA's), (20, 44657), (24, 44618), (29, 44567), (32, 44504), (36, 44432), (42, 44384), (43, 44369), (49, 44276),

Gene: ChewyVIII_68 Start: 49114, Stop: 48734, Start Num: 21

Candidate Starts for ChewyVIII_68:

(Start: 21 @49114 has 1 MA's), (28, 49042), (47, 48784),

Gene: CoffeeBean_57 Start: 41485, Stop: 41057, Start Num: 16

Candidate Starts for CoffeeBean_57:

(Start: 16 @41485 has 6 MA's), (25, 41401), (28, 41371), (44, 41137),

Gene: Commandaria_57 Start: 44707, Stop: 44240, Start Num: 11

Candidate Starts for Commandaria_57:

(Start: 11 @44707 has 21 MA's), (Start: 15 @44674 has 1 MA's), (20, 44641), (24, 44602), (28, 44557), (36, 44416), (37, 44413), (40, 44377), (46, 44317), (49, 44260),

Gene: Dalilpop_61 Start: 45905, Stop: 45423, Start Num: 10

Candidate Starts for Dalilpop_61:

(8, 45959), (Start: 10 @45905 has 7 MA's), (Start: 11 @45881 has 21 MA's), (Start: 13 @45857 has 1 MA's), (19, 45827), (24, 45779), (36, 45605), (39, 45569), (42, 45557), (50, 45434),

Gene: Emianna_56 Start: 44584, Stop: 44108, Start Num: 11

Candidate Starts for Emianna_56:

(3, 45106), (5, 44953), (7, 44767), (8, 44662), (Start: 9 @44617 has 9 MA's), (Start: 11 @44584 has 21 MA's), (Start: 15 @44551 has 1 MA's), (20, 44518), (24, 44473), (36, 44287), (40, 44248), (42, 44239), (46, 44188), (48, 44143), (49, 44131),

Gene: Ennea_63 Start: 45588, Stop: 45130, Start Num: 11

Candidate Starts for Ennea_63:

(8, 45666), (Start: 10 @45612 has 7 MA's), (Start: 11 @45588 has 21 MA's), (Start: 13 @45564 has 1 MA's), (20, 45525), (23, 45498), (24, 45486), (30, 45402), (39, 45276), (42, 45264), (50, 45141),

Gene: Flapper_61 Start: 45337, Stop: 44855, Start Num: 10

Candidate Starts for Flapper_61:

(8, 45391), (Start: 10 @45337 has 7 MA's), (Start: 11 @45313 has 21 MA's), (Start: 13 @45289 has 1 MA's), (19, 45259), (24, 45211), (36, 45037), (39, 45001), (42, 44989), (50, 44866),

Gene: Float294_58 Start: 45030, Stop: 44572, Start Num: 11

Candidate Starts for Float294_58:

(8, 45108), (Start: 10 @45054 has 7 MA's), (Start: 11 @45030 has 21 MA's), (Start: 13 @45006 has 1 MA's), (20, 44967), (23, 44940), (24, 44928), (30, 44844), (39, 44718), (42, 44706), (50, 44583),

Gene: Foxboro_57 Start: 45090, Stop: 44614, Start Num: 11

Candidate Starts for Foxboro_57:

(3, 45612), (5, 45459), (7, 45273), (8, 45168), (Start: 9 @45123 has 9 MA's), (Start: 11 @45090 has 21 MA's), (Start: 15 @45057 has 1 MA's), (20, 45024), (24, 44979), (36, 44793), (40, 44754), (42, 44745), (46, 44694), (48, 44649), (49, 44637),

Gene: Fury_64 Start: 43780, Stop: 43304, Start Num: 10

Candidate Starts for Fury_64:

(7, 43939), (8, 43834), (Start: 10 @43780 has 7 MA's), (Start: 11 @43759 has 21 MA's), (Start: 15 @43735 has 1 MA's), (17, 43729), (23, 43675), (24, 43660), (34, 43510), (41, 43441),

Gene: GRU1_46 Start: 36859, Stop: 36401, Start Num: 11

Candidate Starts for GRU1_46:

(8, 36937), (Start: 10 @36883 has 7 MA's), (Start: 11 @36859 has 21 MA's), (Start: 13 @36835 has 1 MA's), (19, 36805), (24, 36757), (36, 36583), (39, 36547), (42, 36535), (50, 36412),

Gene: GTE5_47 Start: 38169, Stop: 37711, Start Num: 11

Candidate Starts for GTE5_47:

(8, 38247), (Start: 10 @38193 has 7 MA's), (Start: 11 @38169 has 21 MA's), (Start: 13 @38145 has 1 MA's), (19, 38115), (24, 38067), (36, 37893), (39, 37857), (42, 37845), (50, 37722),

Gene: GTE8_45 Start: 37847, Stop: 37371, Start Num: 11

Candidate Starts for GTE8_45:

(Start: 11 @37847 has 21 MA's), (Start: 15 @37814 has 1 MA's), (20, 37781), (22, 37769), (24, 37736), (32, 37622), (36, 37550), (40, 37511), (42, 37502), (46, 37451), (48, 37406), (49, 37394),

Gene: Gagieri_56 Start: 41719, Stop: 41291, Start Num: 16

Candidate Starts for Gagieri_56:

(Start: 16 @41719 has 6 MA's), (28, 41605),

Gene: GrootJr_58 Start: 43999, Stop: 43490, Start Num: 9

Candidate Starts for GrootJr_58:

(5, 44335), (7, 44149), (8, 44044), (Start: 9 @43999 has 9 MA's), (Start: 11 @43966 has 21 MA's), (Start: 15 @43933 has 1 MA's), (20, 43900), (24, 43855), (36, 43669), (40, 43630), (42, 43621), (46, 43570), (48, 43525), (49, 43513),

Gene: HomeFry_61 Start: 42479, Stop: 42003, Start Num: 10

Candidate Starts for HomeFry_61:

(Start: 10 @42479 has 7 MA's), (Start: 11 @42458 has 21 MA's), (Start: 15 @42434 has 1 MA's), (17, 42428), (20, 42401), (23, 42374), (24, 42359), (34, 42209), (41, 42140), (48, 42038),

Gene: HubbaBubba_53 Start: 40104, Stop: 39643, Start Num: 11

Candidate Starts for HubbaBubba_53:

(Start: 11 @40104 has 21 MA's), (Start: 15 @40077 has 1 MA's), (20, 40044), (22, 40032), (24, 40005), (25, 39990), (27, 39966), (29, 39954), (31, 39897), (37, 39816), (38, 39804), (43, 39756), (49, 39663), (50, 39648),

Gene: IDyn_57 Start: 41536, Stop: 41075, Start Num: 11

Candidate Starts for IDyn_57:

(Start: 11 @41536 has 21 MA's), (Start: 15 @41509 has 1 MA's), (20, 41476), (22, 41464), (24, 41437), (25, 41422), (27, 41398), (29, 41386), (31, 41329), (37, 41248), (38, 41236), (43, 41188), (49, 41095), (50, 41080),

Gene: Jifall16_55 Start: 44238, Stop: 43762, Start Num: 11

Candidate Starts for Jifall16_55:

(3, 44760), (5, 44607), (7, 44421), (8, 44316), (Start: 9 @44271 has 9 MA's), (Start: 11 @44238 has 21 MA's), (Start: 15 @44205 has 1 MA's), (20, 44172), (24, 44127), (36, 43941), (40, 43902), (42, 43893), (46, 43842), (48, 43797), (49, 43785),

Gene: Kabluna_60 Start: 43689, Stop: 43189, Start Num: 9

Candidate Starts for Kabluna_60:

(8, 43734), (Start: 9 @43689 has 9 MA's), (Start: 11 @43656 has 21 MA's), (Start: 15 @43626 has 1 MA's), (20, 43593), (24, 43554), (29, 43503), (32, 43440), (36, 43368), (42, 43320), (43, 43305), (49, 43212),

Gene: KidneyBean_56 Start: 44362, Stop: 43886, Start Num: 11

Candidate Starts for KidneyBean_56:

(3, 44884), (5, 44731), (7, 44545), (8, 44440), (Start: 9 @44395 has 9 MA's), (Start: 11 @44362 has 21 MA's), (Start: 15 @44329 has 1 MA's), (20, 44296), (24, 44251), (36, 44065), (40, 44026), (42, 44017), (46, 43966), (48, 43921), (49, 43909),

Gene: Kurt_56 Start: 44599, Stop: 44123, Start Num: 11

Candidate Starts for Kurt_56:

(3, 45121), (5, 44968), (7, 44782), (8, 44677), (Start: 9 @44632 has 9 MA's), (Start: 11 @44599 has 21 MA's), (Start: 15 @44566 has 1 MA's), (20, 44533), (24, 44488), (36, 44302), (40, 44263), (42, 44254), (46, 44203), (48, 44158), (49, 44146),

Gene: Lollipop1437_61 Start: 45552, Stop: 45118, Start Num: 13

Candidate Starts for Lollipop1437_61:

(8, 45654), (Start: 10 @45600 has 7 MA's), (Start: 11 @45576 has 21 MA's), (Start: 13 @45552 has 1 MA's), (20, 45513), (23, 45486), (24, 45474), (30, 45390), (39, 45264), (42, 45252), (50, 45129),

Gene: MacGully_64 Start: 43799, Stop: 43368, Start Num: 15

Candidate Starts for MacGully_64:

(Start: 15 @43799 has 1 MA's), (18, 43784), (26, 43706), (28, 43682), (32, 43613), (33, 43592), (45, 43442),

Gene: Marietta_58 Start: 41430, Stop: 40969, Start Num: 11

Candidate Starts for Marietta_58:

(Start: 11 @41430 has 21 MA's), (Start: 15 @41403 has 1 MA's), (20, 41370), (22, 41358), (24, 41331), (25, 41316), (27, 41292), (29, 41280), (31, 41223), (37, 41142), (38, 41130), (49, 40989), (50, 40974),

Gene: Maselop_57 Start: 41561, Stop: 41133, Start Num: 16

Candidate Starts for Maselop_57:

(Start: 16 @41561 has 6 MA's), (25, 41477), (28, 41447), (44, 41213),

Gene: MerCougar_58 Start: 44845, Stop: 44387, Start Num: 12

Candidate Starts for MerCougar_58:

(Start: 12 @44845 has 3 MA's), (14, 44830), (17, 44821), (25, 44734), (29, 44698), (35, 44575), (36, 44566), (40, 44527), (42, 44518), (43, 44503),

Gene: NadineRae_56 Start: 40674, Stop: 40213, Start Num: 11

Candidate Starts for NadineRae_56:

(Start: 11 @40674 has 21 MA's), (Start: 15 @40647 has 1 MA's), (20, 40614), (22, 40602), (24, 40575), (25, 40560), (27, 40536), (29, 40524), (31, 40467), (37, 40386), (38, 40374), (43, 40326), (49, 40233), (50, 40218),

Gene: NatB6_56 Start: 43689, Stop: 43180, Start Num: 9

Candidate Starts for NatB6_56:

(3, 44178), (5, 44025), (7, 43839), (8, 43734), (Start: 9 @43689 has 9 MA's), (Start: 11 @43656 has 21 MA's), (Start: 15 @43623 has 1 MA's), (20, 43590), (24, 43545), (36, 43359), (40, 43320), (42, 43311), (46, 43260), (48, 43215), (49, 43203),

Gene: NosilaM_60 Start: 44587, Stop: 44087, Start Num: 9

Candidate Starts for NosilaM_60:

(1, 45304), (6, 44824), (8, 44632), (Start: 9 @44587 has 9 MA's), (Start: 11 @44554 has 21 MA's), (Start: 15 @44524 has 1 MA's), (20, 44491), (24, 44452), (29, 44401), (32, 44338), (36, 44266), (42, 44218), (43, 44203), (49, 44110),

Gene: NovumRegina_56 Start: 43998, Stop: 43489, Start Num: 9

Candidate Starts for NovumRegina_56:

(5, 44334), (7, 44148), (8, 44043), (Start: 9 @43998 has 9 MA's), (Start: 11 @43965 has 21 MA's), (Start: 15 @43932 has 1 MA's), (20, 43899), (24, 43854), (36, 43668), (40, 43629), (42, 43620), (46, 43569), (48, 43524), (49, 43512),

Gene: Outis_58 Start: 44539, Stop: 44081, Start Num: 12

Candidate Starts for Outis_58:

(Start: 12 @44539 has 3 MA's), (14, 44524), (17, 44515), (25, 44428), (29, 44392), (35, 44269), (36, 44260), (40, 44221), (42, 44212), (43, 44197),

Gene: Patio_60 Start: 44812, Stop: 44354, Start Num: 11

Candidate Starts for Patio_60:

(8, 44890), (Start: 10 @44836 has 7 MA's), (Start: 11 @44812 has 21 MA's), (Start: 13 @44788 has 1 MA's), (20, 44749), (23, 44722), (24, 44710), (30, 44626), (39, 44500), (42, 44488), (50, 44365),

Gene: Pemberton_59 Start: 41412, Stop: 40951, Start Num: 11

Candidate Starts for Pemberton_59:

(Start: 11 @41412 has 21 MA's), (Start: 15 @41385 has 1 MA's), (20, 41352), (22, 41340), (24, 41313), (25, 41298), (27, 41274), (29, 41262), (31, 41205), (37, 41124), (38, 41112), (49, 40971), (50, 40956),

Gene: Phomeo_55 Start: 44267, Stop: 43758, Start Num: 9

Candidate Starts for Phomeo_55:

(3, 44756), (5, 44603), (7, 44417), (8, 44312), (Start: 9 @44267 has 9 MA's), (Start: 11 @44234 has 21 MA's), (Start: 15 @44201 has 1 MA's), (20, 44168), (24, 44123), (36, 43937), (40, 43898), (42, 43889), (46, 43838), (48, 43793), (49, 43781),

Gene: Pleakley_64 Start: 43781, Stop: 43305, Start Num: 10

Candidate Starts for Pleakley_64:

(7, 43940), (8, 43835), (Start: 10 @43781 has 7 MA's), (Start: 11 @43760 has 21 MA's), (Start: 15 @43736 has 1 MA's), (17, 43730), (23, 43676), (24, 43661), (34, 43511), (41, 43442),

Gene: Polyzuki_57 Start: 41550, Stop: 41122, Start Num: 16

Candidate Starts for Polyzuki_57:

(Start: 16 @41550 has 6 MA's), (25, 41466), (28, 41436), (44, 41202),

Gene: RedRaider_64 Start: 46858, Stop: 46376, Start Num: 10

Candidate Starts for RedRaider_64:

(8, 46912), (Start: 10 @46858 has 7 MA's), (Start: 11 @46834 has 21 MA's), (Start: 13 @46810 has 1 MA's), (20, 46771), (23, 46744), (24, 46732), (30, 46648), (36, 46558), (42, 46510), (50, 46387),

Gene: Scuba_65 Start: 43834, Stop: 43379, Start Num: 11

Candidate Starts for Scuba_65:

(2, 44422), (3, 44350), (4, 44347), (7, 44014), (8, 43909), (Start: 10 @43855 has 7 MA's), (Start: 11 @43834 has 21 MA's), (Start: 15 @43810 has 1 MA's), (17, 43804), (23, 43750), (24, 43735), (34, 43585), (41, 43516),

Gene: Skysand_59 Start: 45032, Stop: 44574, Start Num: 11

Candidate Starts for Skysand_59:

(8, 45110), (Start: 10 @45056 has 7 MA's), (Start: 11 @45032 has 21 MA's), (Start: 13 @45008 has 1 MA's), (20, 44969), (23, 44942), (24, 44930), (30, 44846), (39, 44720), (42, 44708), (50, 44585),

Gene: StarStruck_58 Start: 44539, Stop: 44081, Start Num: 12

Candidate Starts for StarStruck_58:

(Start: 12 @44539 has 3 MA's), (14, 44524), (17, 44515), (25, 44428), (29, 44392), (35, 44269), (36, 44260), (40, 44221), (42, 44212), (43, 44197),

Gene: Sukkupi_57 Start: 42986, Stop: 42525, Start Num: 11

Candidate Starts for Sukkupi_57:

(Start: 11 @42986 has 21 MA's), (Start: 15 @42959 has 1 MA's), (20, 42926), (22, 42914), (24, 42887), (25, 42872), (27, 42848), (29, 42836), (31, 42779), (37, 42698), (38, 42686), (49, 42545), (50, 42530),

Gene: SuperSulley_58 Start: 44753, Stop: 44253, Start Num: 9

Candidate Starts for SuperSulley_58:

(8, 44798), (Start: 9 @44753 has 9 MA's), (Start: 11 @44720 has 21 MA's), (Start: 15 @44690 has 1 MA's), (20, 44657), (24, 44618), (29, 44567), (32, 44504), (36, 44432), (42, 44384), (43, 44369), (49, 44276),

Gene: Tracker_56 Start: 43413, Stop: 42904, Start Num: 9

Candidate Starts for Tracker_56:

(3, 43902), (5, 43749), (7, 43563), (8, 43458), (Start: 9 @43413 has 9 MA's), (Start: 11 @43380 has 21 MA's), (Start: 15 @43347 has 1 MA's), (20, 43314), (24, 43269), (36, 43083), (40, 43044), (42, 43035), (46, 42984), (48, 42939), (49, 42927),

Gene: Turuncu_61 Start: 44999, Stop: 44517, Start Num: 10

Candidate Starts for Turuncu_61:

(8, 45053), (Start: 10 @44999 has 7 MA's), (Start: 11 @44975 has 21 MA's), (Start: 13 @44951 has 1 MA's), (19, 44921), (24, 44873), (36, 44699), (39, 44663), (42, 44651), (50, 44528),

Gene: Wheezy_56 Start: 43588, Stop: 43112, Start Num: 11

Candidate Starts for Wheezy_56:

(3, 44110), (5, 43957), (7, 43771), (8, 43666), (Start: 9 @43621 has 9 MA's), (Start: 11 @43588 has 21 MA's), (Start: 15 @43555 has 1 MA's), (20, 43522), (24, 43477), (36, 43291), (40, 43252), (42, 43243), (46, 43192), (48, 43147), (49, 43135),

Gene: WhoseManz_57 Start: 41043, Stop: 40582, Start Num: 11

Candidate Starts for WhoseManz_57:

(Start: 11 @41043 has 21 MA's), (Start: 15 @41016 has 1 MA's), (20, 40983), (22, 40971), (24, 40944), (25, 40929), (27, 40905), (29, 40893), (37, 40755), (38, 40743), (49, 40602), (50, 40587),

Gene: Yndexa_57 Start: 42986, Stop: 42525, Start Num: 11

Candidate Starts for Yndexa_57:

(Start: 11 @42986 has 21 MA's), (Start: 15 @42959 has 1 MA's), (20, 42926), (22, 42914), (24, 42887), (25, 42872), (27, 42848), (29, 42836), (31, 42779), (37, 42698), (38, 42686), (49, 42545), (50, 42530),