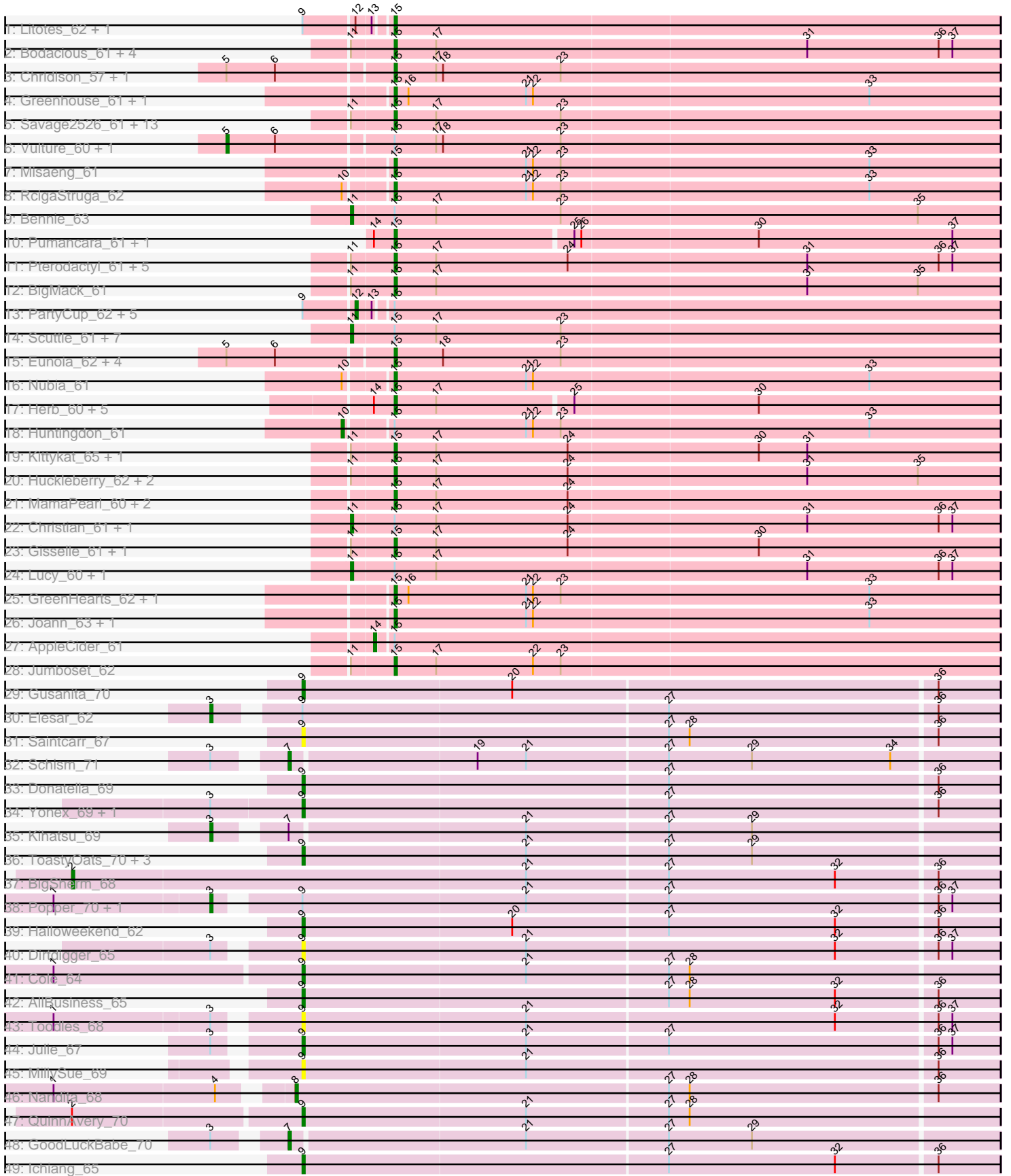


Pham 304860



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 304860 Report

This analysis was run 06/08/26 on database version 649.

Pham number 304860 has 112 members, 8 are drafts.

Phages represented in each track:

- Track 1 : Litotes_62, CallieOMalley_62
- Track 2 : Bodacious_61, CristinaYang_61, Nancia_61, LilStuart_60, Lasagna_59
- Track 3 : Chridison_57, Supakev_60
- Track 4 : Greenhouse_61, Albanese_61
- Track 5 : Savage2526_61, Potatoes_62, BrotherBLo_62, Cholula_62, Zorro_62, Immaculata_62, TattModd_61, Wawa_62, Rozby_60, Kalizoi_62, Korra_62, Riverdale_61, Beethoven_63, Carpal_61
- Track 6 : Vulture_60, HunterDalle_60
- Track 7 : Misaeng_61
- Track 8 : RcigaStruga_62
- Track 9 : Bennie_63
- Track 10 : Pumancara_61, PinkFriday_61
- Track 11 : Pterodactyl_61, Makoto_60, Lennox_61, WonderBoy_59, ChewChew_61, OurGirlNessie_59
- Track 12 : BigMack_61
- Track 13 : PartyCup_62, Wayne_64, MrBoss_63, Suppi_62, Graynor_65, Canowicakte_62
- Track 14 : Scuttle_61, Vallejo_62, Fluke_62, MrGloopy_62, RAP15_63, Glenn_64, MeganNoll_63, Dino_62
- Track 15 : Eunoia_62, OMalley_60, Aledel_60, AustinPowers_60, Riovina_60
- Track 16 : Nubia_61
- Track 17 : Herb_60, Maria1952_59, Sergei_60, Daiboju_60, KingBob_60, Temper16_60
- Track 18 : Huntingdon_61
- Track 19 : Kittykat_65, Preamble_64
- Track 20 : Huckleberry_62, Moki_62, HeadNerd_62
- Track 21 : MamaPearl_60, EstebanJulior_60, Urla_62
- Track 22 : Christian_61, PitaDog_61
- Track 23 : Gisselle_61, DreamTeam_61
- Track 24 : Lucy_60, DrRobert_59
- Track 25 : GreenHearts_62, Lakshmi_61
- Track 26 : Joann_63, Oxynfrius_62
- Track 27 : AppleCider_61
- Track 28 : Jumboset_62
- Track 29 : Gusanita_70
- Track 30 : Elesar_62
- Track 31 : Saintcarr_67

- Track 32 : Schism_71
- Track 33 : Donatella_69
- Track 34 : Yonex_69, Ryan_70
- Track 35 : Kihatsu_69
- Track 36 : ToastyOats_70, Zaheer_69, Lenoxika_66, Guinevere_71
- Track 37 : BigSherm_68
- Track 38 : Popper_70, IsHungry_64
- Track 39 : Halloweekend_62
- Track 40 : Dirdigger_65
- Track 41 : Cole_64
- Track 42 : AllBusiness_65
- Track 43 : Toodles_68
- Track 44 : Julie_67
- Track 45 : MillySue_69
- Track 46 : Nandita_68
- Track 47 : QuinnAvery_70
- Track 48 : GoodLuckBabe_70
- Track 49 : Ichiang_65

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

The start number called the most often in the published annotations is 15, it was called in 63 of the 104 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Albanese_61, Aledel_60, AustinPowers_60, Beethoven_63, BigMack_61, Bodacious_61, BrotherBLo_62, CallieOMalley_62, Carpal_61, ChewChew_61, Cholula_62, Chridison_57, CristinaYang_61, Daiboju_60, DreamTeam_61, EstebanJulior_60, Eunoia_62, Gisselle_61, GreenHearts_62, Greenhouse_61, HeadNerd_62, Herb_60, Huckleberry_62, Immaculata_62, Joann_63, Jumboset_62, Kalizoi_62, KingBob_60, Kittykat_65, Korra_62, Lakshmi_61, Lasagna_59, Lennox_61, LilStuart_60, Litotes_62, Makoto_60, MamaPearl_60, Maria1952_59, Misaeng_61, Moki_62, Nancia_61, Nubia_61, OMalley_60, OurGirlNessie_59, Oxynfrius_62, PinkFriday_61, Potatoes_62, Preamble_64, Pterodactyl_61, Pumancara_61, RcigaStruga_62, Riovina_60, Riverdale_61, Rozby_60, Savage2526_61, Sergei_60, Supakev_60, TattModd_61, Temper16_60, Urla_62, Wawa_62, WonderBoy_59, Zorro_62,

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

- AppleCider_61, Bennie_63, Canowicakte_62, Christian_61, Dino_62, DrRobert_59, Fluke_62, Glenn_64, Graynor_65, HunterDalle_60, Huntingdon_61, Lucy_60, MeganNoll_63, MrBoss_63, MrGloopy_62, PartyCup_62, PitaDog_61, RAP15_63, Scuttle_61, Suppi_62, Vallejo_62, Vulture_60, Wayne_64,

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

- AllBusiness_65, BigSherm_68, Cole_64, Dirdigger_65, Donatella_69, Elesar_62, GoodLuckBabe_70, Guinevere_71, Gusanita_70, Halloweekend_62, Ichiang_65, IsHungry_64, Julie_67, Kihatsu_69, Lenoxika_66, MillySue_69, Nandita_68, Popper_70, QuinnAvery_70, Ryan_70, Saintcarr_67, Schism_71, ToastyOats_70, Toodles_68, Yonex_69, Zaheer_69,

Summary by start number:

Start 2:

- Found in 2 of 112 (1.8%) of genes in pham
- Manual Annotations of this start: 1 of 104
- Called 50.0% of time when present
- Phage (with cluster) where this start called: BigSherm_68 (FF),

Start 3:

- Found in 11 of 112 (9.8%) of genes in pham
- Manual Annotations of this start: 4 of 104
- Called 36.4% of time when present
- Phage (with cluster) where this start called: Elesar_62 (FF), IsHungry_64 (FF), Kihatsu_69 (FF), Popper_70 (FF),

Start 5:

- Found in 9 of 112 (8.0%) of genes in pham
- Manual Annotations of this start: 2 of 104
- Called 22.2% of time when present
- Phage (with cluster) where this start called: HunterDalle_60 (AK), Vulture_60 (AK),

Start 7:

- Found in 3 of 112 (2.7%) of genes in pham
- Manual Annotations of this start: 2 of 104
- Called 66.7% of time when present
- Phage (with cluster) where this start called: GoodLuckBabe_70 (FF), Schism_71 (FF),

Start 8:

- Found in 1 of 112 (0.9%) of genes in pham
- Manual Annotations of this start: 1 of 104
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Nandita_68 (FF),

Start 9:

- Found in 29 of 112 (25.9%) of genes in pham
- Manual Annotations of this start: 12 of 104
- Called 62.1% of time when present
- Phage (with cluster) where this start called: AllBusiness_65 (FF), Cole_64 (FF), Dirtdigger_65 (FF), Donatella_69 (FF), Guinevere_71 (FF), Gusanita_70 (FF), Halloween_62 (FF), Ichiang_65 (FF), Julie_67 (FF), Lenoxika_66 (FF), MillySue_69 (FF), QuinnAvery_70 (FF), Ryan_70 (FF), Saintcarr_67 (FF), ToastyOats_70 (FF), Toodles_68 (FF), Yonex_69 (FF), Zaheer_69 (FF),

Start 10:

- Found in 3 of 112 (2.7%) of genes in pham
- Manual Annotations of this start: 1 of 104
- Called 33.3% of time when present
- Phage (with cluster) where this start called: Huntingdon_61 (AK),

Start 11:

- Found in 47 of 112 (42.0%) of genes in pham

- Manual Annotations of this start: 13 of 104
- Called 27.7% of time when present
- Phage (with cluster) where this start called: Bennie_63 (AK), Christian_61 (AK), Dino_62 (AK), DrRobert_59 (AK), Fluke_62 (AK), Glenn_64 (AK), Lucy_60 (AK), MeganNoll_63 (AK), MrGloopy_62 (AK), PitaDog_61 (AK), RAP15_63 (AK), Scuttle_61 (AK), Vallejo_62 (AK),

Start 12:

- Found in 8 of 112 (7.1%) of genes in pham
- Manual Annotations of this start: 4 of 104
- Called 75.0% of time when present
- Phage (with cluster) where this start called: Canowicakte_62 (AK), Graynor_65 (AK), MrBoss_63 (AK), PartyCup_62 (AK), Suppi_62 (AK), Wayne_64 (AK),

Start 14:

- Found in 9 of 112 (8.0%) of genes in pham
- Manual Annotations of this start: 1 of 104
- Called 11.1% of time when present
- Phage (with cluster) where this start called: AppleCider_61 (AK),

Start 15:

- Found in 86 of 112 (76.8%) of genes in pham
- Manual Annotations of this start: 63 of 104
- Called 73.3% of time when present
- Phage (with cluster) where this start called: Albanese_61 (AK), Aledel_60 (AK), AustinPowers_60 (AK), Beethoven_63 (AK), BigMack_61 (AK), Bodacious_61 (AK), BrotherBLo_62 (AK), CallieOMalley_62 (AK), Carpal_61 (AK), ChewChew_61 (AK), Cholula_62 (AK), Chridison_57 (AK), CristinaYang_61 (AK), Daiboju_60 (AK), DreamTeam_61 (AK), EstebanJulior_60 (AK), Eunoia_62 (AK), Gisselle_61 (AK), GreenHearts_62 (AK), Greenhouse_61 (AK), HeadNerd_62 (AK), Herb_60 (AK), Huckleberry_62 (AK), Immaculata_62 (AK), Joann_63 (AK), Jumboset_62 (AK), Kalizoi_62 (AK), KingBob_60 (AK), Kittykat_65 (AK), Korra_62 (AK), Lakshmi_61 (AK), Lasagna_59 (AK), Lennox_61 (AK), LilStuart_60 (AK), Litotes_62 (AK), Makoto_60 (AK), MamaPearl_60 (AK), Maria1952_59 (AK), Misaeng_61 (AK), Moki_62 (AK), Nancia_61 (AK), Nubia_61 (AK), OMalley_60 (AK), OurGirlNessie_59 (AK), Oxynfrius_62 (AK), PinkFriday_61 (AK), Potatoes_62 (AK), Preamble_64 (AK), Pterodactyl_61 (AK), Pumancara_61 (AK), RcigaStruga_62 (AK), Rivovina_60 (AK), Riverdale_61 (AK), Rozby_60 (AK), Savage2526_61 (AK), Sergei_60 (AK), Supakev_60 (AK), TattModd_61 (AK), Temper16_60 (AK), Urla_62 (AK), Wawa_62 (AK), WonderBoy_59 (AK), Zorro_62 (AK),

Summary by clusters:

There are 2 clusters represented in this pham: AK, FF,

Info for manual annotations of cluster AK:

- Start number 5 was manually annotated 2 times for cluster AK.
- Start number 10 was manually annotated 1 time for cluster AK.
- Start number 11 was manually annotated 13 times for cluster AK.
- Start number 12 was manually annotated 4 times for cluster AK.
- Start number 14 was manually annotated 1 time for cluster AK.
- Start number 15 was manually annotated 63 times for cluster AK.

Info for manual annotations of cluster FF:

- Start number 2 was manually annotated 1 time for cluster FF.
- Start number 3 was manually annotated 4 times for cluster FF.
- Start number 7 was manually annotated 2 times for cluster FF.
- Start number 8 was manually annotated 1 time for cluster FF.
- Start number 9 was manually annotated 12 times for cluster FF.

Gene Information:

Gene: Albanese_61 Start: 43774, Stop: 44034, Start Num: 15

Candidate Starts for Albanese_61:

(Start: 15 @43774 has 63 MA's), (16, 43780), (21, 43831), (22, 43834), (33, 43978),

Gene: Aledel_60 Start: 43400, Stop: 43660, Start Num: 15

Candidate Starts for Aledel_60:

(Start: 5 @43331 has 2 MA's), (6, 43352), (Start: 15 @43400 has 63 MA's), (18, 43421), (23, 43472),

Gene: AllBusiness_65 Start: 43063, Stop: 43359, Start Num: 9

Candidate Starts for AllBusiness_65:

(Start: 9 @43063 has 12 MA's), (27, 43219), (28, 43228), (32, 43291), (36, 43333),

Gene: AppleCider_61 Start: 43353, Stop: 43619, Start Num: 14

Candidate Starts for AppleCider_61:

(Start: 14 @43353 has 1 MA's), (Start: 15 @43359 has 63 MA's),

Gene: AustinPowers_60 Start: 43422, Stop: 43682, Start Num: 15

Candidate Starts for AustinPowers_60:

(Start: 5 @43353 has 2 MA's), (6, 43374), (Start: 15 @43422 has 63 MA's), (18, 43443), (23, 43494),

Gene: Beethoven_63 Start: 43598, Stop: 43858, Start Num: 15

Candidate Starts for Beethoven_63:

(Start: 11 @43580 has 13 MA's), (Start: 15 @43598 has 63 MA's), (17, 43616), (23, 43670),

Gene: Bennie_63 Start: 42720, Stop: 42998, Start Num: 11

Candidate Starts for Bennie_63:

(Start: 11 @42720 has 13 MA's), (Start: 15 @42738 has 63 MA's), (17, 42756), (23, 42810), (35, 42963),

Gene: BigMack_61 Start: 43021, Stop: 43281, Start Num: 15

Candidate Starts for BigMack_61:

(Start: 11 @43003 has 13 MA's), (Start: 15 @43021 has 63 MA's), (17, 43039), (31, 43198), (35, 43246),

Gene: BigSherm_68 Start: 41205, Stop: 41600, Start Num: 2

Candidate Starts for BigSherm_68:

(Start: 2 @41205 has 1 MA's), (21, 41400), (27, 41460), (32, 41532), (36, 41574),

Gene: Bodacious_61 Start: 42903, Stop: 43163, Start Num: 15

Candidate Starts for Bodacious_61:

(Start: 11 @42885 has 13 MA's), (Start: 15 @42903 has 63 MA's), (17, 42921), (31, 43080), (36, 43137), (37, 43143),

Gene: BrotherBLo_62 Start: 43314, Stop: 43574, Start Num: 15

Candidate Starts for BrotherBLo_62:

(Start: 11 @43296 has 13 MA's), (Start: 15 @43314 has 63 MA's), (17, 43332), (23, 43386),

Gene: CallieOMalley_62 Start: 43522, Stop: 43782, Start Num: 15

Candidate Starts for CallieOMalley_62:

(Start: 9 @43489 has 12 MA's), (Start: 12 @43510 has 4 MA's), (13, 43516), (Start: 15 @43522 has 63 MA's),

Gene: Canowicakte_62 Start: 43562, Stop: 43834, Start Num: 12

Candidate Starts for Canowicakte_62:

(Start: 9 @43541 has 12 MA's), (Start: 12 @43562 has 4 MA's), (13, 43568), (Start: 15 @43574 has 63 MA's),

Gene: Carpal_61 Start: 43369, Stop: 43629, Start Num: 15

Candidate Starts for Carpal_61:

(Start: 11 @43351 has 13 MA's), (Start: 15 @43369 has 63 MA's), (17, 43387), (23, 43441),

Gene: ChewChew_61 Start: 43103, Stop: 43363, Start Num: 15

Candidate Starts for ChewChew_61:

(Start: 11 @43085 has 13 MA's), (Start: 15 @43103 has 63 MA's), (17, 43121), (24, 43178), (31, 43280), (36, 43337), (37, 43343),

Gene: Cholula_62 Start: 43324, Stop: 43584, Start Num: 15

Candidate Starts for Cholula_62:

(Start: 11 @43306 has 13 MA's), (Start: 15 @43324 has 63 MA's), (17, 43342), (23, 43396),

Gene: Chridison_57 Start: 42676, Stop: 42936, Start Num: 15

Candidate Starts for Chridison_57:

(Start: 5 @42607 has 2 MA's), (6, 42628), (Start: 15 @42676 has 63 MA's), (17, 42694), (18, 42697), (23, 42748),

Gene: Christian_61 Start: 42727, Stop: 43005, Start Num: 11

Candidate Starts for Christian_61:

(Start: 11 @42727 has 13 MA's), (Start: 15 @42745 has 63 MA's), (17, 42763), (24, 42820), (31, 42922), (36, 42979), (37, 42985),

Gene: Cole_64 Start: 41483, Stop: 41779, Start Num: 9

Candidate Starts for Cole_64:

(1, 41378), (Start: 9 @41483 has 12 MA's), (21, 41579), (27, 41639), (28, 41648),

Gene: CristinaYang_61 Start: 43030, Stop: 43290, Start Num: 15

Candidate Starts for CristinaYang_61:

(Start: 11 @43012 has 13 MA's), (Start: 15 @43030 has 63 MA's), (17, 43048), (31, 43207), (36, 43264), (37, 43270),

Gene: Daiboju_60 Start: 43614, Stop: 43871, Start Num: 15

Candidate Starts for Daiboju_60:

(Start: 14 @43605 has 1 MA's), (Start: 15 @43614 has 63 MA's), (17, 43632), (25, 43689), (30, 43767),

Gene: Dino_62 Start: 43208, Stop: 43486, Start Num: 11

Candidate Starts for Dino_62:

(Start: 11 @43208 has 13 MA's), (Start: 15 @43226 has 63 MA's), (17, 43244), (23, 43298),

Gene: Dirdigger_65 Start: 41774, Stop: 42070, Start Num: 9

Candidate Starts for Dirdigger_65:

(Start: 3 @41744 has 4 MA's), (Start: 9 @41774 has 12 MA's), (21, 41870), (32, 42002), (36, 42044), (37, 42050),

Gene: Donatella_69 Start: 42522, Stop: 42818, Start Num: 9

Candidate Starts for Donatella_69:

(Start: 9 @42522 has 12 MA's), (27, 42678), (36, 42792),

Gene: DrRobert_59 Start: 42246, Stop: 42524, Start Num: 11

Candidate Starts for DrRobert_59:

(Start: 11 @42246 has 13 MA's), (Start: 15 @42264 has 63 MA's), (17, 42282), (31, 42441), (36, 42498), (37, 42504),

Gene: DreamTeam_61 Start: 42752, Stop: 43012, Start Num: 15

Candidate Starts for DreamTeam_61:

(Start: 11 @42734 has 13 MA's), (Start: 15 @42752 has 63 MA's), (17, 42770), (24, 42827), (30, 42908),

Gene: Elesar_62 Start: 42571, Stop: 42897, Start Num: 3

Candidate Starts for Elesar_62:

(Start: 3 @42571 has 4 MA's), (Start: 9 @42601 has 12 MA's), (27, 42757), (36, 42871),

Gene: EstebanJulior_60 Start: 43409, Stop: 43669, Start Num: 15

Candidate Starts for EstebanJulior_60:

(Start: 15 @43409 has 63 MA's), (17, 43427), (24, 43484),

Gene: Eunoia_62 Start: 44077, Stop: 44337, Start Num: 15

Candidate Starts for Eunoia_62:

(Start: 5 @44008 has 2 MA's), (6, 44029), (Start: 15 @44077 has 63 MA's), (18, 44098), (23, 44149),

Gene: Fluke_62 Start: 43458, Stop: 43736, Start Num: 11

Candidate Starts for Fluke_62:

(Start: 11 @43458 has 13 MA's), (Start: 15 @43476 has 63 MA's), (17, 43494), (23, 43548),

Gene: Gisselle_61 Start: 42752, Stop: 43012, Start Num: 15

Candidate Starts for Gisselle_61:

(Start: 11 @42734 has 13 MA's), (Start: 15 @42752 has 63 MA's), (17, 42770), (24, 42827), (30, 42908),

Gene: Glenn_64 Start: 44035, Stop: 44313, Start Num: 11

Candidate Starts for Glenn_64:

(Start: 11 @44035 has 13 MA's), (Start: 15 @44053 has 63 MA's), (17, 44071), (23, 44125),

Gene: GoodLuckBabe_70 Start: 41904, Stop: 42203, Start Num: 7

Candidate Starts for GoodLuckBabe_70:

(Start: 3 @41880 has 4 MA's), (Start: 7 @41904 has 2 MA's), (21, 42003), (27, 42063), (29, 42099),

Gene: Graynor_65 Start: 43171, Stop: 43443, Start Num: 12

Candidate Starts for Graynor_65:

(Start: 9 @43150 has 12 MA's), (Start: 12 @43171 has 4 MA's), (13, 43177), (Start: 15 @43183 has 63 MA's),

Gene: GreenHearts_62 Start: 43911, Stop: 44171, Start Num: 15

Candidate Starts for GreenHearts_62:

(Start: 15 @43911 has 63 MA's), (16, 43917), (21, 43968), (22, 43971), (23, 43983), (33, 44115),

Gene: Greenhouse_61 Start: 43637, Stop: 43897, Start Num: 15

Candidate Starts for Greenhouse_61:

(Start: 15 @43637 has 63 MA's), (16, 43643), (21, 43694), (22, 43697), (33, 43841),

Gene: Guinevere_71 Start: 41765, Stop: 42061, Start Num: 9

Candidate Starts for Guinevere_71:

(Start: 9 @41765 has 12 MA's), (21, 41861), (27, 41921), (29, 41957),

Gene: Gusanita_70 Start: 42391, Stop: 42687, Start Num: 9

Candidate Starts for Gusanita_70:

(Start: 9 @42391 has 12 MA's), (20, 42481), (36, 42661),

Gene: Halloweekend_62 Start: 41095, Stop: 41391, Start Num: 9

Candidate Starts for Halloweekend_62:

(Start: 9 @41095 has 12 MA's), (20, 41185), (27, 41251), (32, 41323), (36, 41365),

Gene: HeadNerd_62 Start: 42632, Stop: 42892, Start Num: 15

Candidate Starts for HeadNerd_62:

(Start: 11 @42614 has 13 MA's), (Start: 15 @42632 has 63 MA's), (17, 42650), (24, 42707), (31, 42809), (35, 42857),

Gene: Herb_60 Start: 43613, Stop: 43870, Start Num: 15

Candidate Starts for Herb_60:

(Start: 14 @43604 has 1 MA's), (Start: 15 @43613 has 63 MA's), (17, 43631), (25, 43688), (30, 43766),

Gene: Huckleberry_62 Start: 42636, Stop: 42896, Start Num: 15

Candidate Starts for Huckleberry_62:

(Start: 11 @42618 has 13 MA's), (Start: 15 @42636 has 63 MA's), (17, 42654), (24, 42711), (31, 42813), (35, 42861),

Gene: HunterDalle_60 Start: 42928, Stop: 43257, Start Num: 5

Candidate Starts for HunterDalle_60:

(Start: 5 @42928 has 2 MA's), (6, 42949), (Start: 15 @42997 has 63 MA's), (17, 43015), (18, 43018), (23, 43069),

Gene: Huntingdon_61 Start: 43533, Stop: 43811, Start Num: 10

Candidate Starts for Huntingdon_61:

(Start: 10 @43533 has 1 MA's), (Start: 15 @43551 has 63 MA's), (21, 43608), (22, 43611), (23, 43623), (33, 43755),

Gene: Ichiang_65 Start: 41204, Stop: 41500, Start Num: 9

Candidate Starts for Ichiang_65:

(Start: 9 @41204 has 12 MA's), (27, 41360), (32, 41432), (36, 41474),

Gene: Immaculata_62 Start: 43324, Stop: 43584, Start Num: 15

Candidate Starts for Immaculata_62:

(Start: 11 @43306 has 13 MA's), (Start: 15 @43324 has 63 MA's), (17, 43342), (23, 43396),

Gene: IsHungry_64 Start: 40246, Stop: 40572, Start Num: 3

Candidate Starts for IsHungry_64:

(1, 40180), (Start: 3 @40246 has 4 MA's), (Start: 9 @40276 has 12 MA's), (21, 40372), (27, 40432), (36, 40546), (37, 40552),

Gene: Joann_63 Start: 43843, Stop: 44103, Start Num: 15

Candidate Starts for Joann_63:

(Start: 15 @43843 has 63 MA's), (21, 43900), (22, 43903), (33, 44047),

Gene: Julie_67 Start: 41903, Stop: 42199, Start Num: 9

Candidate Starts for Julie_67:

(Start: 3 @41873 has 4 MA's), (Start: 9 @41903 has 12 MA's), (21, 41999), (27, 42059), (36, 42173), (37, 42179),

Gene: Jumboset_62 Start: 43444, Stop: 43704, Start Num: 15

Candidate Starts for Jumboset_62:

(Start: 11 @43426 has 13 MA's), (Start: 15 @43444 has 63 MA's), (17, 43462), (22, 43504), (23, 43516),

Gene: Kalizoi_62 Start: 43182, Stop: 43442, Start Num: 15

Candidate Starts for Kalizoi_62:

(Start: 11 @43164 has 13 MA's), (Start: 15 @43182 has 63 MA's), (17, 43200), (23, 43254),

Gene: Kihatsu_69 Start: 42860, Stop: 43183, Start Num: 3

Candidate Starts for Kihatsu_69:

(Start: 3 @42860 has 4 MA's), (Start: 7 @42884 has 2 MA's), (21, 42983), (27, 43043), (29, 43079),

Gene: KingBob_60 Start: 43614, Stop: 43871, Start Num: 15

Candidate Starts for KingBob_60:

(Start: 14 @43605 has 1 MA's), (Start: 15 @43614 has 63 MA's), (17, 43632), (25, 43689), (30, 43767),

Gene: Kittykat_65 Start: 43266, Stop: 43526, Start Num: 15

Candidate Starts for Kittykat_65:

(Start: 11 @43248 has 13 MA's), (Start: 15 @43266 has 63 MA's), (17, 43284), (24, 43341), (30, 43422), (31, 43443),

Gene: Korra_62 Start: 43371, Stop: 43631, Start Num: 15

Candidate Starts for Korra_62:

(Start: 11 @43353 has 13 MA's), (Start: 15 @43371 has 63 MA's), (17, 43389), (23, 43443),

Gene: Lakshmi_61 Start: 43678, Stop: 43938, Start Num: 15

Candidate Starts for Lakshmi_61:

(Start: 15 @43678 has 63 MA's), (16, 43684), (21, 43735), (22, 43738), (23, 43750), (33, 43882),

Gene: Lasagna_59 Start: 42266, Stop: 42526, Start Num: 15

Candidate Starts for Lasagna_59:

(Start: 11 @42248 has 13 MA's), (Start: 15 @42266 has 63 MA's), (17, 42284), (31, 42443), (36, 42500), (37, 42506),

Gene: Lennox_61 Start: 42751, Stop: 43011, Start Num: 15

Candidate Starts for Lennox_61:

(Start: 11 @42733 has 13 MA's), (Start: 15 @42751 has 63 MA's), (17, 42769), (24, 42826), (31, 42928), (36, 42985), (37, 42991),

Gene: Lenoxika_66 Start: 41766, Stop: 42062, Start Num: 9

Candidate Starts for Lenoxika_66:

(Start: 9 @41766 has 12 MA's), (21, 41862), (27, 41922), (29, 41958),

Gene: LilStuart_60 Start: 42614, Stop: 42874, Start Num: 15

Candidate Starts for LilStuart_60:

(Start: 11 @42596 has 13 MA's), (Start: 15 @42614 has 63 MA's), (17, 42632), (31, 42791), (36, 42848), (37, 42854),

Gene: Litotes_62 Start: 43156, Stop: 43416, Start Num: 15

Candidate Starts for Litotes_62:

(Start: 9 @43123 has 12 MA's), (Start: 12 @43144 has 4 MA's), (13, 43150), (Start: 15 @43156 has 63 MA's),

Gene: Lucy_60 Start: 42591, Stop: 42869, Start Num: 11

Candidate Starts for Lucy_60:

(Start: 11 @42591 has 13 MA's), (Start: 15 @42609 has 63 MA's), (17, 42627), (31, 42786), (36, 42843), (37, 42849),

Gene: Makoto_60 Start: 42571, Stop: 42831, Start Num: 15

Candidate Starts for Makoto_60:

(Start: 11 @42553 has 13 MA's), (Start: 15 @42571 has 63 MA's), (17, 42589), (24, 42646), (31, 42748), (36, 42805), (37, 42811),

Gene: MamaPearl_60 Start: 43409, Stop: 43669, Start Num: 15

Candidate Starts for MamaPearl_60:

(Start: 15 @43409 has 63 MA's), (17, 43427), (24, 43484),

Gene: Maria1952_59 Start: 43613, Stop: 43870, Start Num: 15

Candidate Starts for Maria1952_59:

(Start: 14 @43604 has 1 MA's), (Start: 15 @43613 has 63 MA's), (17, 43631), (25, 43688), (30, 43766),

Gene: MeganNoll_63 Start: 43904, Stop: 44182, Start Num: 11

Candidate Starts for MeganNoll_63:

(Start: 11 @43904 has 13 MA's), (Start: 15 @43922 has 63 MA's), (17, 43940), (23, 43994),

Gene: MillySue_69 Start: 41794, Stop: 42090, Start Num: 9

Candidate Starts for MillySue_69:

(Start: 9 @41794 has 12 MA's), (21, 41890), (36, 42064),

Gene: Misaeng_61 Start: 43477, Stop: 43737, Start Num: 15

Candidate Starts for Misaeng_61:

(Start: 15 @43477 has 63 MA's), (21, 43534), (22, 43537), (23, 43549), (33, 43681),

Gene: Moki_62 Start: 42825, Stop: 43085, Start Num: 15

Candidate Starts for Moki_62:

(Start: 11 @42807 has 13 MA's), (Start: 15 @42825 has 63 MA's), (17, 42843), (24, 42900), (31, 43002), (35, 43050),

Gene: MrBoss_63 Start: 42722, Stop: 42994, Start Num: 12

Candidate Starts for MrBoss_63:

(Start: 9 @42701 has 12 MA's), (Start: 12 @42722 has 4 MA's), (13, 42728), (Start: 15 @42734 has 63 MA's),

Gene: MrGloopy_62 Start: 43347, Stop: 43625, Start Num: 11

Candidate Starts for MrGloopy_62:

(Start: 11 @43347 has 13 MA's), (Start: 15 @43365 has 63 MA's), (17, 43383), (23, 43437),

Gene: Nancia_61 Start: 42902, Stop: 43162, Start Num: 15

Candidate Starts for Nancia_61:

(Start: 11 @42884 has 13 MA's), (Start: 15 @42902 has 63 MA's), (17, 42920), (31, 43079), (36, 43136), (37, 43142),

Gene: Nandita_68 Start: 42024, Stop: 42323, Start Num: 8

Candidate Starts for Nandita_68:

(1, 41931), (4, 42000), (Start: 8 @42024 has 1 MA's), (27, 42183), (28, 42192), (36, 42297),

Gene: Nubia_61 Start: 43705, Stop: 43965, Start Num: 15

Candidate Starts for Nubia_61:

(Start: 10 @43687 has 1 MA's), (Start: 15 @43705 has 63 MA's), (21, 43762), (22, 43765), (33, 43909),

Gene: OMalley_60 Start: 43400, Stop: 43660, Start Num: 15

Candidate Starts for OMalley_60:

(Start: 5 @43331 has 2 MA's), (6, 43352), (Start: 15 @43400 has 63 MA's), (18, 43421), (23, 43472),

Gene: OurGirlNessie_59 Start: 42225, Stop: 42485, Start Num: 15

Candidate Starts for OurGirlNessie_59:

(Start: 11 @42207 has 13 MA's), (Start: 15 @42225 has 63 MA's), (17, 42243), (24, 42300), (31, 42402), (36, 42459), (37, 42465),

Gene: Oxynfrius_62 Start: 43823, Stop: 44083, Start Num: 15

Candidate Starts for Oxynfrius_62:

(Start: 15 @43823 has 63 MA's), (21, 43880), (22, 43883), (33, 44027),

Gene: PartyCup_62 Start: 43576, Stop: 43848, Start Num: 12

Candidate Starts for PartyCup_62:

(Start: 9 @43555 has 12 MA's), (Start: 12 @43576 has 4 MA's), (13, 43582), (Start: 15 @43588 has 63 MA's),

Gene: PinkFriday_61 Start: 42959, Stop: 43216, Start Num: 15

Candidate Starts for PinkFriday_61:

(Start: 14 @42950 has 1 MA's), (Start: 15 @42959 has 63 MA's), (25, 43034), (26, 43037), (30, 43112), (37, 43196),

Gene: PitaDog_61 Start: 42609, Stop: 42887, Start Num: 11

Candidate Starts for PitaDog_61:

(Start: 11 @42609 has 13 MA's), (Start: 15 @42627 has 63 MA's), (17, 42645), (24, 42702), (31, 42804), (36, 42861), (37, 42867),

Gene: Popper_70 Start: 41441, Stop: 41767, Start Num: 3

Candidate Starts for Popper_70:

(1, 41375), (Start: 3 @41441 has 4 MA's), (Start: 9 @41471 has 12 MA's), (21, 41567), (27, 41627), (36, 41741), (37, 41747),

Gene: Potatoes_62 Start: 43324, Stop: 43584, Start Num: 15

Candidate Starts for Potatoes_62:

(Start: 11 @43306 has 13 MA's), (Start: 15 @43324 has 63 MA's), (17, 43342), (23, 43396),

Gene: Preamble_64 Start: 43037, Stop: 43297, Start Num: 15

Candidate Starts for Preamble_64:

(Start: 11 @43019 has 13 MA's), (Start: 15 @43037 has 63 MA's), (17, 43055), (24, 43112), (30, 43193), (31, 43214),

Gene: Pterodactyl_61 Start: 42938, Stop: 43198, Start Num: 15

Candidate Starts for Pterodactyl_61:

(Start: 11 @42920 has 13 MA's), (Start: 15 @42938 has 63 MA's), (17, 42956), (24, 43013), (31, 43115), (36, 43172), (37, 43178),

Gene: Pumancara_61 Start: 42494, Stop: 42751, Start Num: 15

Candidate Starts for Pumancara_61:

(Start: 14 @42485 has 1 MA's), (Start: 15 @42494 has 63 MA's), (25, 42569), (26, 42572), (30, 42647), (37, 42731),

Gene: QuinnAvery_70 Start: 42826, Stop: 43122, Start Num: 9

Candidate Starts for QuinnAvery_70:

(Start: 2 @42730 has 1 MA's), (Start: 9 @42826 has 12 MA's), (21, 42922), (27, 42982), (28, 42991),

Gene: RAP15_63 Start: 43905, Stop: 44183, Start Num: 11

Candidate Starts for RAP15_63:

(Start: 11 @43905 has 13 MA's), (Start: 15 @43923 has 63 MA's), (17, 43941), (23, 43995),

Gene: RcigaStruga_62 Start: 43551, Stop: 43811, Start Num: 15

Candidate Starts for RcigaStruga_62:

(Start: 10 @43533 has 1 MA's), (Start: 15 @43551 has 63 MA's), (21, 43608), (22, 43611), (23, 43623), (33, 43755),

Gene: Riovina_60 Start: 43400, Stop: 43660, Start Num: 15

Candidate Starts for Riovina_60:

(Start: 5 @43331 has 2 MA's), (6, 43352), (Start: 15 @43400 has 63 MA's), (18, 43421), (23, 43472),

Gene: Riverdale_61 Start: 43055, Stop: 43315, Start Num: 15

Candidate Starts for Riverdale_61:

(Start: 11 @43037 has 13 MA's), (Start: 15 @43055 has 63 MA's), (17, 43073), (23, 43127),

Gene: Rozby_60 Start: 42859, Stop: 43119, Start Num: 15

Candidate Starts for Rozby_60:

(Start: 11 @42841 has 13 MA's), (Start: 15 @42859 has 63 MA's), (17, 42877), (23, 42931),

Gene: Ryan_70 Start: 42477, Stop: 42773, Start Num: 9

Candidate Starts for Ryan_70:

(Start: 3 @42438 has 4 MA's), (Start: 9 @42477 has 12 MA's), (27, 42633), (36, 42747),

Gene: Saintcarr_67 Start: 42490, Stop: 42786, Start Num: 9

Candidate Starts for Saintcarr_67:

(Start: 9 @42490 has 12 MA's), (27, 42646), (28, 42655), (36, 42760),

Gene: Savage2526_61 Start: 43082, Stop: 43342, Start Num: 15
Candidate Starts for Savage2526_61:
(Start: 11 @43064 has 13 MA's), (Start: 15 @43082 has 63 MA's), (17, 43100), (23, 43154),

Gene: Schism_71 Start: 42712, Stop: 43011, Start Num: 7
Candidate Starts for Schism_71:
(Start: 3 @42688 has 4 MA's), (Start: 7 @42712 has 2 MA's), (19, 42790), (21, 42811), (27, 42871),
(29, 42907), (34, 42967),

Gene: Scuttle_61 Start: 43375, Stop: 43653, Start Num: 11
Candidate Starts for Scuttle_61:
(Start: 11 @43375 has 13 MA's), (Start: 15 @43393 has 63 MA's), (17, 43411), (23, 43465),

Gene: Sergei_60 Start: 43614, Stop: 43871, Start Num: 15
Candidate Starts for Sergei_60:
(Start: 14 @43605 has 1 MA's), (Start: 15 @43614 has 63 MA's), (17, 43632), (25, 43689), (30, 43767),

Gene: Supakev_60 Start: 43425, Stop: 43685, Start Num: 15
Candidate Starts for Supakev_60:
(Start: 5 @43356 has 2 MA's), (6, 43377), (Start: 15 @43425 has 63 MA's), (17, 43443), (18, 43446),
(23, 43497),

Gene: Suppi_62 Start: 43562, Stop: 43834, Start Num: 12
Candidate Starts for Suppi_62:
(Start: 9 @43541 has 12 MA's), (Start: 12 @43562 has 4 MA's), (13, 43568), (Start: 15 @43574 has 63 MA's),

Gene: TattModd_61 Start: 43209, Stop: 43469, Start Num: 15
Candidate Starts for TattModd_61:
(Start: 11 @43191 has 13 MA's), (Start: 15 @43209 has 63 MA's), (17, 43227), (23, 43281),

Gene: Temper16_60 Start: 43614, Stop: 43871, Start Num: 15
Candidate Starts for Temper16_60:
(Start: 14 @43605 has 1 MA's), (Start: 15 @43614 has 63 MA's), (17, 43632), (25, 43689), (30, 43767),

Gene: ToastyOats_70 Start: 42136, Stop: 42432, Start Num: 9
Candidate Starts for ToastyOats_70:
(Start: 9 @42136 has 12 MA's), (21, 42232), (27, 42292), (29, 42328),

Gene: Toodles_68 Start: 42560, Stop: 42856, Start Num: 9
Candidate Starts for Toodles_68:
(1, 42464), (Start: 3 @42530 has 4 MA's), (Start: 9 @42560 has 12 MA's), (21, 42656), (32, 42788),
(36, 42830), (37, 42836),

Gene: Urla_62 Start: 43603, Stop: 43863, Start Num: 15
Candidate Starts for Urla_62:
(Start: 15 @43603 has 63 MA's), (17, 43621), (24, 43678),

Gene: Vallejo_62 Start: 43253, Stop: 43531, Start Num: 11
Candidate Starts for Vallejo_62:
(Start: 11 @43253 has 13 MA's), (Start: 15 @43271 has 63 MA's), (17, 43289), (23, 43343),

Gene: Vulture_60 Start: 42928, Stop: 43257, Start Num: 5

Candidate Starts for Vulture_60:

(Start: 5 @42928 has 2 MA's), (6, 42949), (Start: 15 @42997 has 63 MA's), (17, 43015), (18, 43018), (23, 43069),

Gene: Wawa_62 Start: 43514, Stop: 43774, Start Num: 15

Candidate Starts for Wawa_62:

(Start: 11 @43496 has 13 MA's), (Start: 15 @43514 has 63 MA's), (17, 43532), (23, 43586),

Gene: Wayne_64 Start: 44019, Stop: 44291, Start Num: 12

Candidate Starts for Wayne_64:

(Start: 9 @43998 has 12 MA's), (Start: 12 @44019 has 4 MA's), (13, 44025), (Start: 15 @44031 has 63 MA's),

Gene: WonderBoy_59 Start: 42399, Stop: 42659, Start Num: 15

Candidate Starts for WonderBoy_59:

(Start: 11 @42381 has 13 MA's), (Start: 15 @42399 has 63 MA's), (17, 42417), (24, 42474), (31, 42576), (36, 42633), (37, 42639),

Gene: Yonex_69 Start: 42477, Stop: 42773, Start Num: 9

Candidate Starts for Yonex_69:

(Start: 3 @42438 has 4 MA's), (Start: 9 @42477 has 12 MA's), (27, 42633), (36, 42747),

Gene: Zaheer_69 Start: 42523, Stop: 42819, Start Num: 9

Candidate Starts for Zaheer_69:

(Start: 9 @42523 has 12 MA's), (21, 42619), (27, 42679), (29, 42715),

Gene: Zorro_62 Start: 43226, Stop: 43486, Start Num: 15

Candidate Starts for Zorro_62:

(Start: 11 @43208 has 13 MA's), (Start: 15 @43226 has 63 MA's), (17, 43244), (23, 43298),