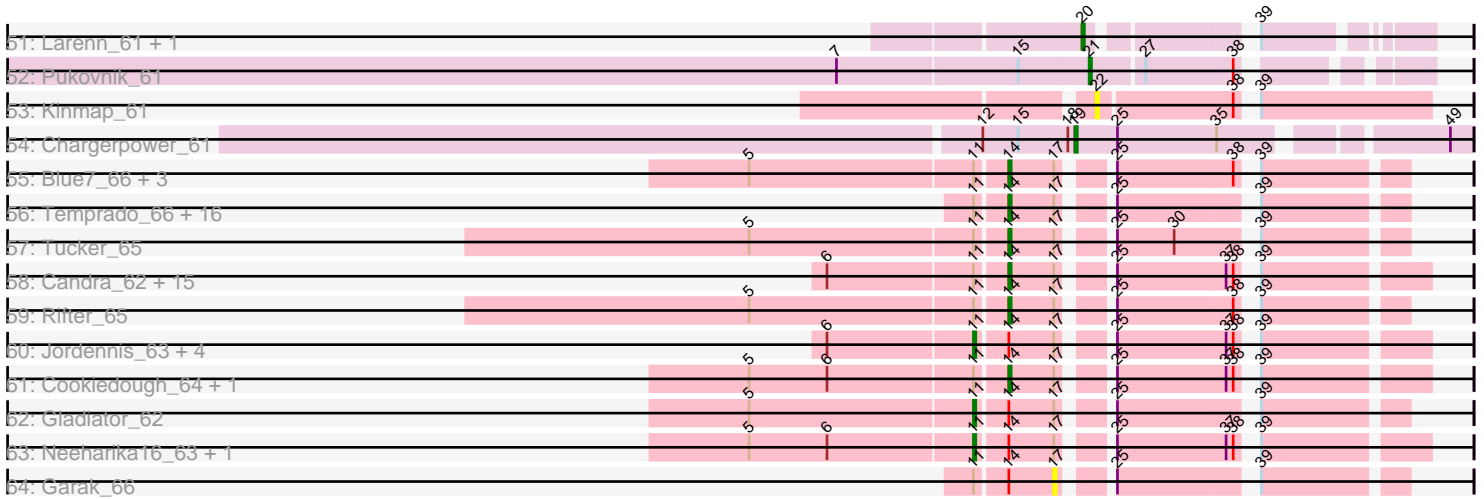


Pham 311261



Pham 311261



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 311261 Report

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

Pham number 311261 has 188 members, 24 are drafts.

Phages represented in each track:

- Track 1 : Orange_61, MaCh_62, Bowtie_63, Et2Brutus_61, Gilberta_63, Petersenfast_60, Sham4_62, Timothy_62, TinyTimmy_62, Bud_61, Salz_61, Saskia_62, Flaverint_63, Hutc2_61, Fibonacci_62, Insomnia_63, Mulciber_61, Kimba_61, Aneem_63, Joselito_63, Wolpertinger_60, Lucivia_63, Bachome_64, Snape_62, Ebony_62, Jabith_63, Munch_62
- Track 2 : Mabel_62
- Track 3 : Jeeves_66, Drake55_65
- Track 4 : Gail_64, Sunhee_65
- Track 5 : Luchador_65
- Track 6 : SororFago_63
- Track 7 : 40AC_63
- Track 8 : Fameo_63, Heffalump_62, QueenB2_62
- Track 9 : Centaur_64, MiculUcigas_63, Gratitude_61, WideWale_64, Piro94_63, Flare16_63, Updawg_64, HarryHoudini_64, Terrific_64, Equemioh13_63, Baehexic_62, NaSiaTalie_63, Sknot_63
- Track 10 : Leogania_63, BiancaTri92_63
- Track 11 : AN9_65, VC3_65, ANI8_65
- Track 12 : AN3_66, 20ES_66, LionsBait_64, Deloris_64, LadyBird_68, HippoHollow_62, CRB1_66, First_0065, VA6_64, BengiVuitton_64
- Track 13 : NothingSpecial_60
- Track 14 : Landor_63, IronMan_62
- Track 15 : Koduck_64
- Track 16 : Quokka_61, Bradman_62
- Track 17 : Jerm_65, Agape74_65, AbbyPaige_65, SemperFi_64, Turbido_64, Buggy_65, Georgie2_64, Crucio_63, LilTurb_64
- Track 18 : Rachaly_61, BobSwaget_58, Lokk_59
- Track 19 : Travvers_63, Pomar16_63, D29_59.1, Kerberos_64, D32_63, DBQu4n_64, Tomathan_64, Naji_64, Duplo_64, StarStuff_64
- Track 20 : Serenity_63, TipsytheTRex_60
- Track 21 : C3_59
- Track 22 : Kalpine_61
- Track 23 : FiringLine_63, QueenBeesly_63
- Track 24 : Dalmatian_64, DudeLittle_62, Anselm_64, Retro23_64
- Track 25 : SwirlSquare_67
- Track 26 : BabyBack_61
- Track 27 : Ph8s_64
- Track 28 : Tristan_61

- Track 29 : Power_62
- Track 30 : Caraxes_63, Superchunk_62
- Track 31 : TarsusIV_60
- Track 32 : DeerParkTS_60
- Track 33 : NicoleTera_61
- Track 34 : ForesterFrank_58
- Track 35 : Changeling_62
- Track 36 : SnapTap_63, SweetiePie_63
- Track 37 : Miko_59
- Track 38 : Odin_62
- Track 39 : MissWhite_61
- Track 40 : Jsquared_63
- Track 41 : Benvolio_60, Echild_63
- Track 42 : Loser_64
- Track 43 : ArcherNM_57
- Track 44 : Jaan_63
- Track 45 : XianYue_61
- Track 46 : MajorMajor_62
- Track 47 : GaugeLDP_60
- Track 48 : EZMoney23_59
- Track 49 : Iwokeuplikedis_65
- Track 50 : Trooper_64
- Track 51 : Larenn_61, Malec_62
- Track 52 : Pukovnik_61
- Track 53 : Kinmap_61
- Track 54 : Chargerpower_61
- Track 55 : Blue7_66, Hammer_65, Gruunaga_65, Roksolana_66
- Track 56 : Temprado_66, Koko_67, Hexamo_65, Jeffabunny_65, ToneTone_62, Lilbunny_64, BennyP_65, Zaka_65, Artemis2UCLA_65, Helmet_67, WunderPhul_65, BlessJoy_65, Yokurt_64, Zulu_66, Indra_68, Wiks_64, CloudWang3_66
- Track 57 : Tucker_65
- Track 58 : Candra_62, SuperAwesome_64, Isiphiwo_62, VohminGhazi_64, Polyphemos_66, SmellyB_64, JewelBug_64, DelvinSonDorr_61, DaVinci_62, Kazan_65, Newrala_64, Kipper29_64, Hoot_59, EricB_63, Chartreuse_63, BABullseye_57
- Track 59 : Rifter_65
- Track 60 : Jordennis_63, Priamo_66, Blinn1_67, SuperCallie99_61, Dorothea_64
- Track 61 : Cookiedough_64, McFly_64
- Track 62 : Gladiator_62
- Track 63 : Neeharika16_63, Pmask_63
- Track 64 : Garak_66

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

The start number called the most often in the published annotations is 18, it was called in 60 of the 164 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- AbbyPaige_65, Agape74_65, Aneem_63, ArcherNM_57, Bachome_64, BobSwaget_58, Bowtie_63, Bud_61, Bugsy_65, Changeling_62, Crucio_63,

D29_59.1, D32_63, DBQu4n_64, Drake55_65, Duplo_64, EZMoney23_59, Ebony_62, Et2Brutus_61, Fibonacci_62, FiringLine_63, Flaverint_63, ForesterFrank_58, Gail_64, Georgie2_64, Gilberta_63, Hutc2_61, Insomnia_63, Jabith_63, Jeeves_66, Jerm_65, Joselito_63, Kerberos_64, Kimba_61, LiITurb_64, Lokk_59, Loser_64, Luchador_65, Lucivia_63, MaCh_62, Mabel_62, Miko_59, Mulciber_61, Munch_62, Naji_64, NicoleTera_61, Orange_61, Petersenfast_60, Pomar16_63, QueenBeesly_63, Rachaly_61, Salz_61, Saskia_62, SemperFi_64, Sham4_62, Snape_62, SororFago_63, StarStuff_64, Sunhee_65, TarsusIV_60, Timothy_62, TinyTimmy_62, Tomathan_64, Travvers_63, Trooper_64, Turbido_64, Wolpertinger_60,

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

- Chargerpower_61, SnapTap_63, SweetiePie_63,

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

- 20ES_66, 40AC_63, AN3_66, AN9_65, ANI8_65, Anselm_64, Artemis2UCLA_65, BABullseye_57, BabyBack_61, Baehexic_62, BengiVuitton_64, BennyP_65, Benvolio_60, BiancaTri92_63, BlessJoy_65, Blinn1_67, Blue7_66, Bradman_62, C3_59, CRB1_66, Candra_62, Caraxes_63, Centaur_64, Chartreuse_63, CloudWang3_66, Cookiedough_64, DaVinci_62, Dalmatian_64, DeerParkTS_60, Deloris_64, DelvinSonDorr_61, Dorothea_64, DudeLittle_62, Echild_63, Equemioh13_63, EricB_63, Fameo_63, First_0065, Flare16_63, Garak_66, GaugeLDP_60, Gladiator_62, Gratitude_61, Gruunaga_65, Hammer_65, HarryHoudini_64, Heffalump_62, Helmet_67, Hexamo_65, HippoHollow_62, Hoot_59, Indra_68, IronMan_62, Isiphiwo_62, Iwokeuplikedis_65, Jaan_63, Jeffabunny_65, JewelBug_64, Jordennis_63, Jsquared_63, Kalpine_61, Kazan_65, Kinmap_61, Kipper29_64, Koduck_64, Koko_67, LadyBird_68, Landor_63, Larenn_61, Leogania_63, Lilbunny_64, LionsBait_64, MajorMajor_62, Malec_62, McFly_64, MiculUcigas_63, MissWhite_61, NaSiaTalie_63, Neeharika16_63, Newrala_64, NothingSpecial_60, Odin_62, Ph8s_64, Piro94_63, Pmask_63, Polyphemus_66, Power_62, Priamo_66, Pukovnik_61, QueenB2_62, Quokka_61, Retro23_64, Rifter_65, Roksolana_66, Serenity_63, Sknot_63, SmellyB_64, SuperAwesome_64, SuperCallie99_61, Superchunk_62, SwirlSquare_67, Temprado_66, Terrific_64, TipsytheTRex_60, ToneTone_62, Tristan_61, Tucker_65, Updawg_64, VA6_64, VC3_65, VohminGhazi_64, WideWale_64, Wiks_64, WunderPhul_65, XianYue_61, Yokurt_64, Zaka_65, Zulu_66,

Summary by start number:

Start 10:

- Found in 10 of 188 (5.3%) of genes in pham
- Manual Annotations of this start: 1 of 164
- Called 10.0% of time when present
- Phage (with cluster) where this start called: C3_59 (A2),

Start 11:

- Found in 50 of 188 (26.6%) of genes in pham
- Manual Annotations of this start: 8 of 164
- Called 16.0% of time when present
- Phage (with cluster) where this start called: Blinn1_67 (A6), Dorothea_64 (A6), Gladiator_62 (A6), Jordennis_63 (A6), Neeharika16_63 (A6), Pmask_63 (A6), Priamo_66 (A6), SuperCallie99_61 (A6),

Start 13:

- Found in 4 of 188 (2.1%) of genes in pham
- No Manual Annotations of this start.
- Called 25.0% of time when present
- Phage (with cluster) where this start called: MajorMajor_62 (A2),

Start 14:

- Found in 50 of 188 (26.6%) of genes in pham
- Manual Annotations of this start: 39 of 164
- Called 82.0% of time when present
- Phage (with cluster) where this start called: Artemis2UCLA_65 (A6), BABullseye_57 (A6), BennyP_65 (A6), BlessJoy_65 (A6), Blue7_66 (A6), Candra_62 (A6), Chartreuse_63 (A6), CloudWang3_66 (A6), Cookiedough_64 (A6), DaVinci_62 (A6), DelvinSonDorr_61 (A6), EricB_63 (A6), Gruunaga_65 (A6), Hammer_65 (A6), Helmet_67 (A6), Hexamo_65 (A6), Hoot_59 (A6), Indra_68 (A6), Isiphiwo_62 (A6), Jeffabunny_65 (A6), JewelBug_64 (A6), Kazan_65 (A6), Kipper29_64 (A6), Koko_67 (A6), Lilbunny_64 (A6), McFly_64 (A6), Newrala_64 (A6), Polyphemus_66 (A6), Rifter_65 (A6), Roksolana_66 (A6), SmellyB_64 (A6), SuperAwesome_64 (A6), Temprado_66 (A6), ToneTone_62 (A6), Tucker_65 (A6), VohminGhazi_64 (A6), Wiks_64 (A6), WunderPhul_65 (A6), Yokurt_64 (A6), Zaka_65 (A6), Zulu_66 (A6),

Start 16:

- Found in 16 of 188 (8.5%) of genes in pham
- Manual Annotations of this start: 11 of 164
- Called 87.5% of time when present
- Phage (with cluster) where this start called: AN9_65 (A2), ANI8_65 (A2), Bradman_62 (A2), Caraxes_63 (A2), Jsquared_63 (A2), Koduck_64 (A2), Odin_62 (A2), Ph8s_64 (A2), Quokka_61 (A2), Serenity_63 (A2), Superchunk_62 (A2), SwirlSquare_67 (A2), TopsytheTRex_60 (A2), VC3_65 (A2),

Start 17:

- Found in 53 of 188 (28.2%) of genes in pham
- No Manual Annotations of this start.
- Called 1.9% of time when present
- Phage (with cluster) where this start called: Garak_66 (A6),

Start 18:

- Found in 70 of 188 (37.2%) of genes in pham
- Manual Annotations of this start: 60 of 164
- Called 95.7% of time when present
- Phage (with cluster) where this start called: AbbyPaige_65 (A2), Agape74_65 (A2), Aneem_63 (A11), ArcherNM_57 (A2), Bachome_64 (A11), BobSwaget_58 (A2), Bowtie_63 (A11), Bud_61 (A11), Buggy_65 (A2), Changeling_62 (A2), Crucio_63 (A2), D29_59.1 (A2), D32_63 (A2), DBQu4n_64 (A2), Drake55_65 (A2), Duplo_64 (A2), EZMoney23_59 (A2), Ebony_62 (A11), Et2Brutus_61 (A11), Fibonacci_62 (A11), FiringLine_63 (A2), Flaverint_63 (A11), ForesterFrank_58 (A2), Gail_64 (A14), Georgie2_64 (A2), Gilberta_63 (A11), Hutc2_61 (A11), Insomnia_63 (A11), Jabith_63 (A11), Jeeves_66 (A14), Jerm_65 (A2), Joselito_63 (A11), Kerberos_64 (A2), Kimba_61 (A11), LilTurb_64 (A2), Lokk_59 (A2), Loser_64 (A2), Luchador_65 (A14), Lucivia_63 (A11), MaCh_62 (A11), Mabel_62 (A11), Miko_59 (A2), Mulciber_61 (A11), Munch_62 (A11), Naji_64 (A2), NicoleTera_61 (A2), Orange_61 (A11), Petersenfast_60 (A11), Pomar16_63 (A2), QueenBeesly_63 (A2), Rachaly_61 (A2), Salz_61 (A11), Saskia_62 (A11), SemperFi_64 (A2), Sham4_62 (A11), Snape_62

(A11), SororFago_63 (A14), StarStuff_64 (A2), Sunhee_65 (A14), TarsusIV_60 (A2), Timothy_62 (A11), TinyTimmy_62 (A11), Tomathan_64 (A2), Travvers_63 (A2), Trooper_64 (A2), Turbido_64 (A2), Wolpertinger_60 (A11),

Start 19:

- Found in 1 of 188 (0.5%) of genes in pham
- Manual Annotations of this start: 1 of 164
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Chargerpower_61 (A22),

Start 20:

- Found in 16 of 188 (8.5%) of genes in pham
- Manual Annotations of this start: 14 of 164
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Baehexic_62 (A2), Centaur_64 (A2), Equemioh13_63 (A2), Flare16_63 (A2), Gratitude_61 (A2), HarryHoudini_64 (A2), Larenn_61 (A2), Malec_62 (A2), MiculUcigas_63 (A2), NaSiaTalie_63 (A2), Piro94_63 (A2), Sknot_63 (A2), Terrific_64 (A2), Updawn_64 (A2), WideWale_64 (A2), XianYue_61 (A2),

Start 21:

- Found in 51 of 188 (27.1%) of genes in pham
- Manual Annotations of this start: 23 of 164
- Called 45.1% of time when present
- Phage (with cluster) where this start called: Anselm_64 (A2), BabyBack_61 (A2), Benvolio_60 (A2), Dalmatian_64 (A2), DudeLittle_62 (A2), Echid_63 (A2), Fameo_63 (A2), GaugeLDP_60 (A2), Heffalump_62 (A2), IronMan_62 (A2), Iwokeuplikedis_65 (A2), Jaan_63 (A2), Kalpine_61 (A2), Landor_63 (A2), MissWhite_61 (A2), NothingSpecial_60 (A2), Power_62 (A2), Pukovnik_61 (A2), QueenB2_62 (A2), Retro23_64 (A2), SnapTap_63 (A2), SweetiePie_63 (A2), Tristan_61 (A2),

Start 22:

- Found in 15 of 188 (8.0%) of genes in pham
- Manual Annotations of this start: 7 of 164
- Called 100.0% of time when present
- Phage (with cluster) where this start called: 20ES_66 (A2), 40AC_63 (A17), AN3_66 (A2), BengiVuitton_64 (A2), BiancaTri92_63 (A2), CRB1_66 (A2), DeerParkTS_60 (A2), Deloris_64 (A2), First_0065 (A2), HippoHollow_62 (A2), Kinmap_61 (A21), LadyBird_68 (A2), Leogania_63 (A2), LionsBait_64 (A2), VA6_64 (A2),

Summary by clusters:

There are 7 clusters represented in this pham: A14, A22, A11, A21, A17, A2, A6,

Info for manual annotations of cluster A11:

- Start number 18 was manually annotated 24 times for cluster A11.

Info for manual annotations of cluster A14:

- Start number 18 was manually annotated 5 times for cluster A14.

Info for manual annotations of cluster A2:

- Start number 10 was manually annotated 1 time for cluster A2.

- Start number 16 was manually annotated 11 times for cluster A2.
- Start number 18 was manually annotated 31 times for cluster A2.
- Start number 20 was manually annotated 14 times for cluster A2.
- Start number 21 was manually annotated 23 times for cluster A2.
- Start number 22 was manually annotated 7 times for cluster A2.

Info for manual annotations of cluster A22:

- Start number 19 was manually annotated 1 time for cluster A22.

Info for manual annotations of cluster A6:

- Start number 11 was manually annotated 8 times for cluster A6.
- Start number 14 was manually annotated 39 times for cluster A6.

Gene Information:

Gene: 20ES_66 Start: 40354, Stop: 40241, Start Num: 22

Candidate Starts for 20ES_66:

(Start: 22 @40354 has 7 MA's),

Gene: 40AC_63 Start: 41089, Stop: 40973, Start Num: 22

Candidate Starts for 40AC_63:

(Start: 22 @41089 has 7 MA's),

Gene: AN3_66 Start: 39069, Stop: 38956, Start Num: 22

Candidate Starts for AN3_66:

(Start: 22 @39069 has 7 MA's),

Gene: AN9_65 Start: 40106, Stop: 39975, Start Num: 16

Candidate Starts for AN9_65:

(Start: 10 @40136 has 1 MA's), (Start: 16 @40106 has 11 MA's), (23, 40088), (37, 40043), (39, 40037), (44, 39983),

Gene: ANI8_65 Start: 40106, Stop: 39975, Start Num: 16

Candidate Starts for ANI8_65:

(Start: 10 @40136 has 1 MA's), (Start: 16 @40106 has 11 MA's), (23, 40088), (37, 40043), (39, 40037), (44, 39983),

Gene: AbbyPaige_65 Start: 40341, Stop: 40210, Start Num: 18

Candidate Starts for AbbyPaige_65:

(Start: 18 @40341 has 60 MA's), (Start: 21 @40332 has 23 MA's), (28, 40305),

Gene: Agape74_65 Start: 40335, Stop: 40204, Start Num: 18

Candidate Starts for Agape74_65:

(Start: 18 @40335 has 60 MA's), (Start: 21 @40326 has 23 MA's), (28, 40299),

Gene: Aneem_63 Start: 39459, Stop: 39322, Start Num: 18

Candidate Starts for Aneem_63:

(Start: 18 @39459 has 60 MA's), (39, 39387),

Gene: Anselm_64 Start: 40239, Stop: 40120, Start Num: 21

Candidate Starts for Anselm_64:
(Start: 21 @40239 has 23 MA's), (24, 40230),

Gene: ArcherNM_57 Start: 39573, Stop: 39427, Start Num: 18
Candidate Starts for ArcherNM_57:
(7, 39663), (Start: 18 @39573 has 60 MA's), (32, 39522), (47, 39435),

Gene: Artemis2UCLA_65 Start: 38809, Stop: 38669, Start Num: 14
Candidate Starts for Artemis2UCLA_65:
(Start: 11 @38821 has 8 MA's), (Start: 14 @38809 has 39 MA's), (17, 38791), (25, 38776), (39, 38725),

Gene: BABullseye_57 Start: 36364, Stop: 36215, Start Num: 14
Candidate Starts for BABullseye_57:
(6, 36436), (Start: 11 @36376 has 8 MA's), (Start: 14 @36364 has 39 MA's), (17, 36346), (25, 36331),
(37, 36286), (38, 36283), (39, 36280),

Gene: BabyBack_61 Start: 40331, Stop: 40191, Start Num: 21
Candidate Starts for BabyBack_61:
(7, 40424), (15, 40349), (Start: 21 @40331 has 23 MA's), (24, 40322), (38, 40274), (48, 40199),

Gene: Bachome_64 Start: 39439, Stop: 39302, Start Num: 18
Candidate Starts for Bachome_64:
(Start: 18 @39439 has 60 MA's), (39, 39367),

Gene: Baehexic_62 Start: 39801, Stop: 39685, Start Num: 20
Candidate Starts for Baehexic_62:
(Start: 20 @39801 has 14 MA's), (39, 39744),

Gene: BengiVuitton_64 Start: 40331, Stop: 40212, Start Num: 22
Candidate Starts for BengiVuitton_64:
(Start: 22 @40331 has 7 MA's),

Gene: BennyP_65 Start: 38879, Stop: 38739, Start Num: 14
Candidate Starts for BennyP_65:
(Start: 11 @38891 has 8 MA's), (Start: 14 @38879 has 39 MA's), (17, 38861), (25, 38846), (39, 38795),

Gene: Benvolio_60 Start: 39343, Stop: 39227, Start Num: 21
Candidate Starts for Benvolio_60:
(Start: 21 @39343 has 23 MA's),

Gene: BiancaTri92_63 Start: 40390, Stop: 40262, Start Num: 22
Candidate Starts for BiancaTri92_63:
(Start: 22 @40390 has 7 MA's), (25, 40381), (43, 40270),

Gene: BlessJoy_65 Start: 39235, Stop: 39095, Start Num: 14
Candidate Starts for BlessJoy_65:
(Start: 11 @39247 has 8 MA's), (Start: 14 @39235 has 39 MA's), (17, 39217), (25, 39202), (39, 39151),

Gene: Blinn1_67 Start: 38905, Stop: 38744, Start Num: 11
Candidate Starts for Blinn1_67:
(6, 38965), (Start: 11 @38905 has 8 MA's), (Start: 14 @38893 has 39 MA's), (17, 38875), (25, 38860),
(37, 38815), (38, 38812), (39, 38809),

Gene: Blue7_66 Start: 38903, Stop: 38763, Start Num: 14

Candidate Starts for Blue7_66:

(5, 39008), (Start: 11 @38915 has 8 MA's), (Start: 14 @38903 has 39 MA's), (17, 38885), (25, 38870), (38, 38822), (39, 38819),

Gene: BobSwaget_58 Start: 38604, Stop: 38473, Start Num: 18

Candidate Starts for BobSwaget_58:

(Start: 18 @38604 has 60 MA's), (Start: 21 @38595 has 23 MA's), (24, 38586), (38, 38535),

Gene: Bowtie_63 Start: 39466, Stop: 39329, Start Num: 18

Candidate Starts for Bowtie_63:

(Start: 18 @39466 has 60 MA's), (39, 39394),

Gene: Bradman_62 Start: 39200, Stop: 39054, Start Num: 16

Candidate Starts for Bradman_62:

(8, 39230), (13, 39215), (Start: 16 @39200 has 11 MA's), (23, 39182), (29, 39164), (37, 39137), (38, 39134), (39, 39131),

Gene: Bud_61 Start: 39013, Stop: 38876, Start Num: 18

Candidate Starts for Bud_61:

(Start: 18 @39013 has 60 MA's), (39, 38941),

Gene: Buggy_65 Start: 40392, Stop: 40261, Start Num: 18

Candidate Starts for Buggy_65:

(Start: 18 @40392 has 60 MA's), (Start: 21 @40383 has 23 MA's), (28, 40356),

Gene: C3_59 Start: 40136, Stop: 39975, Start Num: 10

Candidate Starts for C3_59:

(Start: 10 @40136 has 1 MA's), (Start: 16 @40106 has 11 MA's), (23, 40088), (37, 40043), (39, 40037), (44, 39983),

Gene: CRB1_66 Start: 40877, Stop: 40758, Start Num: 22

Candidate Starts for CRB1_66:

(Start: 22 @40877 has 7 MA's),

Gene: Candra_62 Start: 38728, Stop: 38579, Start Num: 14

Candidate Starts for Candra_62:

(6, 38800), (Start: 11 @38740 has 8 MA's), (Start: 14 @38728 has 39 MA's), (17, 38710), (25, 38695), (37, 38650), (38, 38647), (39, 38644),

Gene: Caraxes_63 Start: 38676, Stop: 38521, Start Num: 16

Candidate Starts for Caraxes_63:

(2, 39000), (3, 38934), (4, 38928), (9, 38712), (Start: 10 @38709 has 1 MA's), (Start: 16 @38676 has 11 MA's), (23, 38658), (26, 38652), (37, 38613), (38, 38610), (39, 38607),

Gene: Centaur_64 Start: 40015, Stop: 39899, Start Num: 20

Candidate Starts for Centaur_64:

(Start: 20 @40015 has 14 MA's), (39, 39958),

Gene: Changeling_62 Start: 40439, Stop: 40296, Start Num: 18

Candidate Starts for Changeling_62:

(7, 40529), (Start: 18 @40439 has 60 MA's), (31, 40391), (38, 40370), (39, 40367), (47, 40304),

Gene: Chargerpower_61 Start: 38578, Stop: 38429, Start Num: 19
Candidate Starts for Chargerpower_61:
(12, 38617), (15, 38602), (Start: 18 @38581 has 60 MA's), (Start: 19 @38578 has 1 MA's), (25, 38560),
(35, 38518), (49, 38437),

Gene: Chartreuse_63 Start: 38079, Stop: 37930, Start Num: 14
Candidate Starts for Chartreuse_63:
(6, 38151), (Start: 11 @38091 has 8 MA's), (Start: 14 @38079 has 39 MA's), (17, 38061), (25, 38046),
(37, 38001), (38, 37998), (39, 37995),

Gene: CloudWang3_66 Start: 39321, Stop: 39181, Start Num: 14
Candidate Starts for CloudWang3_66:
(Start: 11 @39333 has 8 MA's), (Start: 14 @39321 has 39 MA's), (17, 39303), (25, 39288), (39, 39237),

Gene: Cookiedough_64 Start: 38707, Stop: 38558, Start Num: 14
Candidate Starts for Cookiedough_64:
(5, 38812), (6, 38779), (Start: 11 @38719 has 8 MA's), (Start: 14 @38707 has 39 MA's), (17, 38689),
(25, 38674), (37, 38629), (38, 38626), (39, 38623),

Gene: Crucio_63 Start: 40018, Stop: 39887, Start Num: 18
Candidate Starts for Crucio_63:
(Start: 18 @40018 has 60 MA's), (Start: 21 @40009 has 23 MA's), (28, 39982),

Gene: D29_59.1 Start: 39706, Stop: 39563, Start Num: 18
Candidate Starts for D29_59.1:
(Start: 18 @39706 has 60 MA's), (Start: 21 @39697 has 23 MA's), (31, 39658), (39, 39634),

Gene: D32_63 Start: 39706, Stop: 39563, Start Num: 18
Candidate Starts for D32_63:
(Start: 18 @39706 has 60 MA's), (Start: 21 @39697 has 23 MA's), (31, 39658), (39, 39634),

Gene: DBQu4n_64 Start: 39687, Stop: 39544, Start Num: 18
Candidate Starts for DBQu4n_64:
(Start: 18 @39687 has 60 MA's), (Start: 21 @39678 has 23 MA's), (31, 39639), (39, 39615),

Gene: DaVinci_62 Start: 38133, Stop: 37984, Start Num: 14
Candidate Starts for DaVinci_62:
(6, 38205), (Start: 11 @38145 has 8 MA's), (Start: 14 @38133 has 39 MA's), (17, 38115), (25, 38100),
(37, 38055), (38, 38052), (39, 38049),

Gene: Dalmatian_64 Start: 40212, Stop: 40093, Start Num: 21
Candidate Starts for Dalmatian_64:
(Start: 21 @40212 has 23 MA's), (24, 40203),

Gene: DeerParkTS_60 Start: 39136, Stop: 39023, Start Num: 22
Candidate Starts for DeerParkTS_60:
(15, 39154), (Start: 22 @39136 has 7 MA's),

Gene: Deloris_64 Start: 40027, Stop: 39908, Start Num: 22
Candidate Starts for Deloris_64:
(Start: 22 @40027 has 7 MA's),

Gene: DelvinSonDorr_61 Start: 38938, Stop: 38789, Start Num: 14

Candidate Starts for DelvinSonDorr_61:

(6, 39010), (Start: 11 @38950 has 8 MA's), (Start: 14 @38938 has 39 MA's), (17, 38920), (25, 38905), (37, 38860), (38, 38857), (39, 38854),

Gene: Dorothea_64 Start: 38717, Stop: 38556, Start Num: 11

Candidate Starts for Dorothea_64:

(6, 38777), (Start: 11 @38717 has 8 MA's), (Start: 14 @38705 has 39 MA's), (17, 38687), (25, 38672), (37, 38627), (38, 38624), (39, 38621),

Gene: Drake55_65 Start: 40115, Stop: 39984, Start Num: 18

Candidate Starts for Drake55_65:

(Start: 18 @40115 has 60 MA's),

Gene: DudeLittle_62 Start: 39978, Stop: 39859, Start Num: 21

Candidate Starts for DudeLittle_62:

(Start: 21 @39978 has 23 MA's), (24, 39969),

Gene: Duplo_64 Start: 39743, Stop: 39600, Start Num: 18

Candidate Starts for Duplo_64:

(Start: 18 @39743 has 60 MA's), (Start: 21 @39734 has 23 MA's), (31, 39695), (39, 39671),

Gene: EZMoney23_59 Start: 39508, Stop: 39365, Start Num: 18

Candidate Starts for EZMoney23_59:

(Start: 18 @39508 has 60 MA's), (36, 39445), (47, 39373),

Gene: Ebony_62 Start: 39030, Stop: 38893, Start Num: 18

Candidate Starts for Ebony_62:

(Start: 18 @39030 has 60 MA's), (39, 38958),

Gene: Echild_63 Start: 39367, Stop: 39251, Start Num: 21

Candidate Starts for Echild_63:

(Start: 21 @39367 has 23 MA's),

Gene: Equemioh13_63 Start: 39920, Stop: 39804, Start Num: 20

Candidate Starts for Equemioh13_63:

(Start: 20 @39920 has 14 MA's), (39, 39863),

Gene: EricB_63 Start: 38685, Stop: 38536, Start Num: 14

Candidate Starts for EricB_63:

(6, 38757), (Start: 11 @38697 has 8 MA's), (Start: 14 @38685 has 39 MA's), (17, 38667), (25, 38652), (37, 38607), (38, 38604), (39, 38601),

Gene: Et2Brutus_61 Start: 38993, Stop: 38856, Start Num: 18

Candidate Starts for Et2Brutus_61:

(Start: 18 @38993 has 60 MA's), (39, 38921),

Gene: Fameo_63 Start: 40337, Stop: 40218, Start Num: 21

Candidate Starts for Fameo_63:

(7, 40430), (Start: 21 @40337 has 23 MA's), (24, 40328),

Gene: Fibonacci_62 Start: 38999, Stop: 38862, Start Num: 18

Candidate Starts for Fibonacci_62:

(Start: 18 @38999 has 60 MA's), (39, 38927),

Gene: FiringLine_63 Start: 39999, Stop: 39868, Start Num: 18
Candidate Starts for FiringLine_63:
(Start: 18 @39999 has 60 MA's), (Start: 21 @39990 has 23 MA's), (28, 39963),

Gene: First_0065 Start: 40254, Stop: 40141, Start Num: 22
Candidate Starts for First_0065:
(Start: 22 @40254 has 7 MA's),

Gene: Flare16_63 Start: 39676, Stop: 39560, Start Num: 20
Candidate Starts for Flare16_63:
(Start: 20 @39676 has 14 MA's), (39, 39619),

Gene: Flaverint_63 Start: 39457, Stop: 39320, Start Num: 18
Candidate Starts for Flaverint_63:
(Start: 18 @39457 has 60 MA's), (39, 39385),

Gene: ForesterFrank_58 Start: 40183, Stop: 40052, Start Num: 18
Candidate Starts for ForesterFrank_58:
(7, 40273), (Start: 18 @40183 has 60 MA's),

Gene: Gail_64 Start: 40781, Stop: 40653, Start Num: 18
Candidate Starts for Gail_64:
(17, 40787), (Start: 18 @40781 has 60 MA's),

Gene: Garak_66 Start: 39158, Stop: 39036, Start Num: 17
Candidate Starts for Garak_66:
(Start: 11 @39188 has 8 MA's), (Start: 14 @39176 has 39 MA's), (17, 39158), (25, 39143), (39, 39092),

Gene: GaugeLDP_60 Start: 39857, Stop: 39732, Start Num: 21
Candidate Starts for GaugeLDP_60:
(7, 39950), (15, 39875), (17, 39860), (Start: 21 @39857 has 23 MA's), (37, 39803), (42, 39752),

Gene: Georgie2_64 Start: 40044, Stop: 39913, Start Num: 18
Candidate Starts for Georgie2_64:
(Start: 18 @40044 has 60 MA's), (Start: 21 @40035 has 23 MA's), (28, 40008),

Gene: Gilberta_63 Start: 39450, Stop: 39313, Start Num: 18
Candidate Starts for Gilberta_63:
(Start: 18 @39450 has 60 MA's), (39, 39378),

Gene: Gladiator_62 Start: 38413, Stop: 38261, Start Num: 11
Candidate Starts for Gladiator_62:
(5, 38506), (Start: 11 @38413 has 8 MA's), (Start: 14 @38401 has 39 MA's), (17, 38383), (25, 38368),
(39, 38317),

Gene: Gratitude_61 Start: 39920, Stop: 39804, Start Num: 20
Candidate Starts for Gratitude_61:
(Start: 20 @39920 has 14 MA's), (39, 39863),

Gene: Gruunaga_65 Start: 39100, Stop: 38960, Start Num: 14
Candidate Starts for Gruunaga_65:

(5, 39205), (Start: 11 @39112 has 8 MA's), (Start: 14 @39100 has 39 MA's), (17, 39082), (25, 39067), (38, 39019), (39, 39016),

Gene: Hammer_65 Start: 38707, Stop: 38567, Start Num: 14

Candidate Starts for Hammer_65:

(5, 38812), (Start: 11 @38719 has 8 MA's), (Start: 14 @38707 has 39 MA's), (17, 38689), (25, 38674), (38, 38626), (39, 38623),

Gene: HarryHoudini_64 Start: 40119, Stop: 40003, Start Num: 20

Candidate Starts for HarryHoudini_64:

(Start: 20 @40119 has 14 MA's), (39, 40062),

Gene: Heffalump_62 Start: 40805, Stop: 40686, Start Num: 21

Candidate Starts for Heffalump_62:

(7, 40898), (Start: 21 @40805 has 23 MA's), (24, 40796),

Gene: Helmet_67 Start: 39176, Stop: 39036, Start Num: 14

Candidate Starts for Helmet_67:

(Start: 11 @39188 has 8 MA's), (Start: 14 @39176 has 39 MA's), (17, 39158), (25, 39143), (39, 39092),

Gene: Hexamo_65 Start: 38806, Stop: 38666, Start Num: 14

Candidate Starts for Hexamo_65:

(Start: 11 @38818 has 8 MA's), (Start: 14 @38806 has 39 MA's), (17, 38788), (25, 38773), (39, 38722),

Gene: HippoHollow_62 Start: 41430, Stop: 41302, Start Num: 22

Candidate Starts for HippoHollow_62:

(Start: 22 @41430 has 7 MA's),

Gene: Hoot_59 Start: 36543, Stop: 36394, Start Num: 14

Candidate Starts for Hoot_59:

(6, 36615), (Start: 11 @36555 has 8 MA's), (Start: 14 @36543 has 39 MA's), (17, 36525), (25, 36510), (37, 36465), (38, 36462), (39, 36459),

Gene: Hutc2_61 Start: 38999, Stop: 38862, Start Num: 18

Candidate Starts for Hutc2_61:

(Start: 18 @38999 has 60 MA's), (39, 38927),

Gene: Indra_68 Start: 39177, Stop: 39037, Start Num: 14

Candidate Starts for Indra_68:

(Start: 11 @39189 has 8 MA's), (Start: 14 @39177 has 39 MA's), (17, 39159), (25, 39144), (39, 39093),

Gene: Insomnia_63 Start: 39510, Stop: 39373, Start Num: 18

Candidate Starts for Insomnia_63:

(Start: 18 @39510 has 60 MA's), (39, 39438),

Gene: IronMan_62 Start: 40812, Stop: 40687, Start Num: 21

Candidate Starts for IronMan_62:

(15, 40830), (Start: 21 @40812 has 23 MA's), (27, 40791), (46, 40695),

Gene: Isiphiwo_62 Start: 38259, Stop: 38110, Start Num: 14

Candidate Starts for Isiphiwo_62:

(6, 38331), (Start: 11 @38271 has 8 MA's), (Start: 14 @38259 has 39 MA's), (17, 38241), (25, 38226), (37, 38181), (38, 38178), (39, 38175),

Gene: Iwokeuplikedis_65 Start: 39836, Stop: 39705, Start Num: 21
Candidate Starts for Iwokeuplikedis_65:
(1, 40247), (7, 39926), (Start: 21 @39836 has 23 MA's), (29, 39809), (31, 39800), (32, 39797), (33, 39794), (34, 39788),

Gene: Jaan_63 Start: 40984, Stop: 40859, Start Num: 21
Candidate Starts for Jaan_63:
(15, 41002), (Start: 21 @40984 has 23 MA's), (27, 40963), (38, 40927),

Gene: Jabith_63 Start: 39511, Stop: 39374, Start Num: 18
Candidate Starts for Jabith_63:
(Start: 18 @39511 has 60 MA's), (39, 39439),

Gene: Jeeves_66 Start: 39766, Stop: 39632, Start Num: 18
Candidate Starts for Jeeves_66:
(Start: 18 @39766 has 60 MA's),

Gene: Jeffabunny_65 Start: 38803, Stop: 38663, Start Num: 14
Candidate Starts for Jeffabunny_65:
(Start: 11 @38815 has 8 MA's), (Start: 14 @38803 has 39 MA's), (17, 38785), (25, 38770), (39, 38719),

Gene: Jerm_65 Start: 40407, Stop: 40276, Start Num: 18
Candidate Starts for Jerm_65:
(Start: 18 @40407 has 60 MA's), (Start: 21 @40398 has 23 MA's), (28, 40371),

Gene: JewelBug_64 Start: 38964, Stop: 38815, Start Num: 14
Candidate Starts for JewelBug_64:
(6, 39036), (Start: 11 @38976 has 8 MA's), (Start: 14 @38964 has 39 MA's), (17, 38946), (25, 38931), (37, 38886), (38, 38883), (39, 38880),

Gene: Jordennis_63 Start: 38457, Stop: 38296, Start Num: 11
Candidate Starts for Jordennis_63:
(6, 38517), (Start: 11 @38457 has 8 MA's), (Start: 14 @38445 has 39 MA's), (17, 38427), (25, 38412), (37, 38367), (38, 38364), (39, 38361),

Gene: Joselito_63 Start: 39459, Stop: 39322, Start Num: 18
Candidate Starts for Joselito_63:
(Start: 18 @39459 has 60 MA's), (39, 39387),

Gene: Jsquared_63 Start: 39358, Stop: 39215, Start Num: 16
Candidate Starts for Jsquared_63:
(8, 39388), (13, 39373), (Start: 16 @39358 has 11 MA's), (23, 39340), (29, 39322), (32, 39310), (37, 39295), (38, 39292), (39, 39289),

Gene: Kalpine_61 Start: 40096, Stop: 39965, Start Num: 21
Candidate Starts for Kalpine_61:
(15, 40117), (Start: 21 @40096 has 23 MA's), (40, 40030), (45, 39973),

Gene: Kazan_65 Start: 38698, Stop: 38549, Start Num: 14
Candidate Starts for Kazan_65:
(6, 38770), (Start: 11 @38710 has 8 MA's), (Start: 14 @38698 has 39 MA's), (17, 38680), (25, 38665), (37, 38620), (38, 38617), (39, 38614),

Gene: Kerberos_64 Start: 39705, Stop: 39562, Start Num: 18

Candidate Starts for Kerberos_64:

(Start: 18 @39705 has 60 MA's), (Start: 21 @39696 has 23 MA's), (31, 39657), (39, 39633),

Gene: Kimba_61 Start: 39031, Stop: 38894, Start Num: 18

Candidate Starts for Kimba_61:

(Start: 18 @39031 has 60 MA's), (39, 38959),

Gene: Kinmap_61 Start: 38456, Stop: 38328, Start Num: 22

Candidate Starts for Kinmap_61:

(Start: 22 @38456 has 7 MA's), (38, 38402), (39, 38399),

Gene: Kipper29_64 Start: 38711, Stop: 38562, Start Num: 14

Candidate Starts for Kipper29_64:

(6, 38783), (Start: 11 @38723 has 8 MA's), (Start: 14 @38711 has 39 MA's), (17, 38693), (25, 38678), (37, 38633), (38, 38630), (39, 38627),

Gene: Koduck_64 Start: 39295, Stop: 39152, Start Num: 16

Candidate Starts for Koduck_64:

(Start: 10 @39316 has 1 MA's), (Start: 16 @39295 has 11 MA's), (23, 39277), (37, 39232), (38, 39229), (39, 39226),

Gene: Koko_67 Start: 39661, Stop: 39521, Start Num: 14

Candidate Starts for Koko_67:

(Start: 11 @39673 has 8 MA's), (Start: 14 @39661 has 39 MA's), (17, 39643), (25, 39628), (39, 39577),

Gene: LadyBird_68 Start: 40839, Stop: 40720, Start Num: 22

Candidate Starts for LadyBird_68:

(Start: 22 @40839 has 7 MA's),

Gene: Landor_63 Start: 40890, Stop: 40765, Start Num: 21

Candidate Starts for Landor_63:

(15, 40908), (Start: 21 @40890 has 23 MA's), (27, 40869), (46, 40773),

Gene: Larenn_61 Start: 39953, Stop: 39837, Start Num: 20

Candidate Starts for Larenn_61:

(Start: 20 @39953 has 14 MA's), (39, 39896),

Gene: Leogania_63 Start: 40768, Stop: 40640, Start Num: 22

Candidate Starts for Leogania_63:

(Start: 22 @40768 has 7 MA's), (25, 40759), (43, 40648),

Gene: LilTurb_64 Start: 40289, Stop: 40158, Start Num: 18

Candidate Starts for LilTurb_64:

(Start: 18 @40289 has 60 MA's), (Start: 21 @40280 has 23 MA's), (28, 40253),

Gene: Lilbunny_64 Start: 38807, Stop: 38667, Start Num: 14

Candidate Starts for Lilbunny_64:

(Start: 11 @38819 has 8 MA's), (Start: 14 @38807 has 39 MA's), (17, 38789), (25, 38774), (39, 38723),

Gene: LionsBait_64 Start: 41431, Stop: 41303, Start Num: 22

Candidate Starts for LionsBait_64:

(Start: 22 @41431 has 7 MA's),

Gene: Lokk_59 Start: 39228, Stop: 39097, Start Num: 18

Candidate Starts for Lokk_59:

(Start: 18 @39228 has 60 MA's), (Start: 21 @39219 has 23 MA's), (24, 39210), (38, 39159),

Gene: Loser_64 Start: 40496, Stop: 40356, Start Num: 18

Candidate Starts for Loser_64:

(Start: 18 @40496 has 60 MA's), (Start: 21 @40487 has 23 MA's), (38, 40427), (39, 40424), (47, 40364),

Gene: Luchador_65 Start: 41349, Stop: 41215, Start Num: 18

Candidate Starts for Luchador_65:

(Start: 18 @41349 has 60 MA's),

Gene: Lucivia_63 Start: 39508, Stop: 39371, Start Num: 18

Candidate Starts for Lucivia_63:

(Start: 18 @39508 has 60 MA's), (39, 39436),

Gene: MaCh_62 Start: 39438, Stop: 39301, Start Num: 18

Candidate Starts for MaCh_62:

(Start: 18 @39438 has 60 MA's), (39, 39366),

Gene: Mabel_62 Start: 39455, Stop: 39318, Start Num: 18

Candidate Starts for Mabel_62:

(Start: 18 @39455 has 60 MA's), (39, 39383), (41, 39341),

Gene: MajorMajor_62 Start: 39215, Stop: 39054, Start Num: 13

Candidate Starts for MajorMajor_62:

(8, 39230), (13, 39215), (Start: 16 @39200 has 11 MA's), (23, 39182), (29, 39164), (37, 39137), (38, 39134), (39, 39131),

Gene: Malec_62 Start: 40520, Stop: 40404, Start Num: 20

Candidate Starts for Malec_62:

(Start: 20 @40520 has 14 MA's), (39, 40463),

Gene: McFly_64 Start: 38692, Stop: 38543, Start Num: 14

Candidate Starts for McFly_64:

(5, 38797), (6, 38764), (Start: 11 @38704 has 8 MA's), (Start: 14 @38692 has 39 MA's), (17, 38674), (25, 38659), (37, 38614), (38, 38611), (39, 38608),

Gene: MiculUcigas_63 Start: 39579, Stop: 39463, Start Num: 20

Candidate Starts for MiculUcigas_63:

(Start: 20 @39579 has 14 MA's), (39, 39522),

Gene: Miko_59 Start: 40006, Stop: 39875, Start Num: 18

Candidate Starts for Miko_59:

(Start: 18 @40006 has 60 MA's), (Start: 21 @39997 has 23 MA's), (38, 39937),

Gene: MissWhite_61 Start: 38488, Stop: 38360, Start Num: 21

Candidate Starts for MissWhite_61:

(15, 38506), (Start: 21 @38488 has 23 MA's), (24, 38479),

Gene: Mulciber_61 Start: 38996, Stop: 38859, Start Num: 18
Candidate Starts for Mulciber_61:
(Start: 18 @38996 has 60 MA's), (39, 38924),

Gene: Munch_62 Start: 39459, Stop: 39322, Start Num: 18
Candidate Starts for Munch_62:
(Start: 18 @39459 has 60 MA's), (39, 39387),

Gene: NaSiaTalie_63 Start: 39673, Stop: 39557, Start Num: 20
Candidate Starts for NaSiaTalie_63:
(Start: 20 @39673 has 14 MA's), (39, 39616),

Gene: Naji_64 Start: 39706, Stop: 39563, Start Num: 18
Candidate Starts for Naji_64:
(Start: 18 @39706 has 60 MA's), (Start: 21 @39697 has 23 MA's), (31, 39658), (39, 39634),

Gene: Neeharika16_63 Start: 38164, Stop: 38003, Start Num: 11
Candidate Starts for Neeharika16_63:
(5, 38257), (6, 38224), (Start: 11 @38164 has 8 MA's), (Start: 14 @38152 has 39 MA's), (17, 38134),
(25, 38119), (37, 38074), (38, 38071), (39, 38068),

Gene: Newrala_64 Start: 38694, Stop: 38545, Start Num: 14
Candidate Starts for Newrala_64:
(6, 38766), (Start: 11 @38706 has 8 MA's), (Start: 14 @38694 has 39 MA's), (17, 38676), (25, 38661),
(37, 38616), (38, 38613), (39, 38610),

Gene: NicoleTera_61 Start: 39996, Stop: 39865, Start Num: 18
Candidate Starts for NicoleTera_61:
(Start: 18 @39996 has 60 MA's), (36, 39933),

Gene: NothingSpecial_60 Start: 40211, Stop: 40077, Start Num: 21
Candidate Starts for NothingSpecial_60:
(7, 40301), (15, 40229), (Start: 21 @40211 has 23 MA's), (38, 40154), (48, 40085),

Gene: Odin_62 Start: 39060, Stop: 38905, Start Num: 16
Candidate Starts for Odin_62:
(9, 39096), (Start: 10 @39093 has 1 MA's), (Start: 16 @39060 has 11 MA's), (23, 39042), (26, 39036),
(37, 38997), (38, 38994), (39, 38991),

Gene: Orange_61 Start: 39008, Stop: 38871, Start Num: 18
Candidate Starts for Orange_61:
(Start: 18 @39008 has 60 MA's), (39, 38936),

Gene: Petersenfast_60 Start: 39007, Stop: 38870, Start Num: 18
Candidate Starts for Petersenfast_60:
(Start: 18 @39007 has 60 MA's), (39, 38935),

Gene: Ph8s_64 Start: 39243, Stop: 39100, Start Num: 16
Candidate Starts for Ph8s_64:
(9, 39267), (Start: 10 @39264 has 1 MA's), (Start: 16 @39243 has 11 MA's), (Start: 21 @39231 has 23 MA's), (23, 39225), (37, 39180), (39, 39174),

Gene: Piro94_63 Start: 40026, Stop: 39910, Start Num: 20

Candidate Starts for Piro94_63:
(Start: 20 @40026 has 14 MA's), (39, 39969),

Gene: Pmask_63 Start: 38707, Stop: 38546, Start Num: 11
Candidate Starts for Pmask_63:
(5, 38800), (6, 38767), (Start: 11 @38707 has 8 MA's), (Start: 14 @38695 has 39 MA's), (17, 38677),
(25, 38662), (37, 38617), (38, 38614), (39, 38611),

Gene: Polyphemus_66 Start: 39080, Stop: 38931, Start Num: 14
Candidate Starts for Polyphemus_66:
(6, 39152), (Start: 11 @39092 has 8 MA's), (Start: 14 @39080 has 39 MA's), (17, 39062), (25, 39047),
(37, 39002), (38, 38999), (39, 38996),

Gene: Pomar16_63 Start: 39746, Stop: 39603, Start Num: 18
Candidate Starts for Pomar16_63:
(Start: 18 @39746 has 60 MA's), (Start: 21 @39737 has 23 MA's), (31, 39698), (39, 39674),

Gene: Power_62 Start: 40040, Stop: 39921, Start Num: 21
Candidate Starts for Power_62:
(Start: 21 @40040 has 23 MA's), (24, 40031),

Gene: Priamo_66 Start: 38523, Stop: 38362, Start Num: 11
Candidate Starts for Priamo_66:
(6, 38583), (Start: 11 @38523 has 8 MA's), (Start: 14 @38511 has 39 MA's), (17, 38493), (25, 38478),
(37, 38433), (38, 38430), (39, 38427),

Gene: Pukovnik_61 Start: 40533, Stop: 40414, Start Num: 21
Candidate Starts for Pukovnik_61:
(7, 40626), (15, 40551), (Start: 21 @40533 has 23 MA's), (27, 40512), (38, 40476),

Gene: QueenB2_62 Start: 40018, Stop: 39899, Start Num: 21
Candidate Starts for QueenB2_62:
(7, 40111), (Start: 21 @40018 has 23 MA's), (24, 40009),

Gene: QueenBeesly_63 Start: 39999, Stop: 39868, Start Num: 18
Candidate Starts for QueenBeesly_63:
(Start: 18 @39999 has 60 MA's), (Start: 21 @39990 has 23 MA's), (28, 39963),

Gene: Quokka_61 Start: 39200, Stop: 39054, Start Num: 16
Candidate Starts for Quokka_61:
(8, 39230), (13, 39215), (Start: 16 @39200 has 11 MA's), (23, 39182), (29, 39164), (37, 39137), (38,
39134), (39, 39131),

Gene: Rachaly_61 Start: 40151, Stop: 40020, Start Num: 18
Candidate Starts for Rachaly_61:
(Start: 18 @40151 has 60 MA's), (Start: 21 @40142 has 23 MA's), (24, 40133), (38, 40082),

Gene: Retro23_64 Start: 40232, Stop: 40113, Start Num: 21
Candidate Starts for Retro23_64:
(Start: 21 @40232 has 23 MA's), (24, 40223),

Gene: Rifter_65 Start: 38303, Stop: 38163, Start Num: 14
Candidate Starts for Rifter_65:

(5, 38408), (Start: 11 @38315 has 8 MA's), (Start: 14 @38303 has 39 MA's), (17, 38285), (25, 38270), (38, 38222), (39, 38219),

Gene: Roksolana_66 Start: 39137, Stop: 38997, Start Num: 14

Candidate Starts for Roksolana_66:

(5, 39242), (Start: 11 @39149 has 8 MA's), (Start: 14 @39137 has 39 MA's), (17, 39119), (25, 39104), (38, 39056), (39, 39053),

Gene: Salz_61 Start: 38978, Stop: 38841, Start Num: 18

Candidate Starts for Salz_61:

(Start: 18 @38978 has 60 MA's), (39, 38906),

Gene: Saskia_62 Start: 39006, Stop: 38869, Start Num: 18

Candidate Starts for Saskia_62:

(Start: 18 @39006 has 60 MA's), (39, 38934),

Gene: SemperFi_64 Start: 40267, Stop: 40136, Start Num: 18

Candidate Starts for SemperFi_64:

(Start: 18 @40267 has 60 MA's), (Start: 21 @40258 has 23 MA's), (28, 40231),

Gene: Serenity_63 Start: 39413, Stop: 39267, Start Num: 16

Candidate Starts for Serenity_63:

(Start: 16 @39413 has 11 MA's), (23, 39395), (37, 39350), (38, 39347), (39, 39344),

Gene: Sham4_62 Start: 39006, Stop: 38869, Start Num: 18

Candidate Starts for Sham4_62:

(Start: 18 @39006 has 60 MA's), (39, 38934),

Gene: Sknot_63 Start: 39676, Stop: 39560, Start Num: 20

Candidate Starts for Sknot_63:

(Start: 20 @39676 has 14 MA's), (39, 39619),

Gene: SmellyB_64 Start: 38692, Stop: 38543, Start Num: 14

Candidate Starts for SmellyB_64:

(6, 38764), (Start: 11 @38704 has 8 MA's), (Start: 14 @38692 has 39 MA's), (17, 38674), (25, 38659), (37, 38614), (38, 38611), (39, 38608),

Gene: SnapTap_63 Start: 40069, Stop: 39947, Start Num: 21

Candidate Starts for SnapTap_63:

(Start: 18 @40078 has 60 MA's), (Start: 21 @40069 has 23 MA's), (28, 40042),

Gene: Snape_62 Start: 38998, Stop: 38861, Start Num: 18

Candidate Starts for Snape_62:

(Start: 18 @38998 has 60 MA's), (39, 38926),

Gene: SororFago_63 Start: 40687, Stop: 40544, Start Num: 18

Candidate Starts for SororFago_63:

(Start: 18 @40687 has 60 MA's),

Gene: StarStuff_64 Start: 39708, Stop: 39565, Start Num: 18

Candidate Starts for StarStuff_64:

(Start: 18 @39708 has 60 MA's), (Start: 21 @39699 has 23 MA's), (31, 39660), (39, 39636),

Gene: Sunhee_65 Start: 39237, Stop: 39109, Start Num: 18

Candidate Starts for Sunhee_65:

(17, 39243), (Start: 18 @39237 has 60 MA's),

Gene: SuperAwesome_64 Start: 38697, Stop: 38548, Start Num: 14

Candidate Starts for SuperAwesome_64:

(6, 38769), (Start: 11 @38709 has 8 MA's), (Start: 14 @38697 has 39 MA's), (17, 38679), (25, 38664), (37, 38619), (38, 38616), (39, 38613),

Gene: SuperCallie99_61 Start: 38591, Stop: 38430, Start Num: 11

Candidate Starts for SuperCallie99_61:

(6, 38651), (Start: 11 @38591 has 8 MA's), (Start: 14 @38579 has 39 MA's), (17, 38561), (25, 38546), (37, 38501), (38, 38498), (39, 38495),

Gene: Superchunk_62 Start: 38676, Stop: 38521, Start Num: 16

Candidate Starts for Superchunk_62:

(2, 39000), (3, 38934), (4, 38928), (9, 38712), (Start: 10 @38709 has 1 MA's), (Start: 16 @38676 has 11 MA's), (23, 38658), (26, 38652), (37, 38613), (38, 38610), (39, 38607),

Gene: SweetiePie_63 Start: 40201, Stop: 40079, Start Num: 21

Candidate Starts for SweetiePie_63:

(Start: 18 @40210 has 60 MA's), (Start: 21 @40201 has 23 MA's), (28, 40174),

Gene: SwirlSquare_67 Start: 39598, Stop: 39446, Start Num: 16

Candidate Starts for SwirlSquare_67:

(Start: 10 @39631 has 1 MA's), (Start: 16 @39598 has 11 MA's), (23, 39580), (37, 39535), (38, 39532), (39, 39529), (50, 39454),

Gene: TarsusIV_60 Start: 39672, Stop: 39541, Start Num: 18

Candidate Starts for TarsusIV_60:

(Start: 18 @39672 has 60 MA's), (38, 39603),

Gene: Temprado_66 Start: 39176, Stop: 39036, Start Num: 14

Candidate Starts for Temprado_66:

(Start: 11 @39188 has 8 MA's), (Start: 14 @39176 has 39 MA's), (17, 39158), (25, 39143), (39, 39092),

Gene: Terrific_64 Start: 40030, Stop: 39914, Start Num: 20

Candidate Starts for Terrific_64:

(Start: 20 @40030 has 14 MA's), (39, 39973),

Gene: Timothy_62 Start: 38975, Stop: 38838, Start Num: 18

Candidate Starts for Timothy_62:

(Start: 18 @38975 has 60 MA's), (39, 38903),

Gene: TinyTimmy_62 Start: 39024, Stop: 38887, Start Num: 18

Candidate Starts for TinyTimmy_62:

(Start: 18 @39024 has 60 MA's), (39, 38952),

Gene: TipsytheTRex_60 Start: 39483, Stop: 39337, Start Num: 16

Candidate Starts for TipsytheTRex_60:

(Start: 16 @39483 has 11 MA's), (23, 39465), (37, 39420), (38, 39417), (39, 39414),

Gene: Tomathan_64 Start: 39755, Stop: 39612, Start Num: 18

Candidate Starts for Tomathan_64:

(Start: 18 @39755 has 60 MA's), (Start: 21 @39746 has 23 MA's), (31, 39707), (39, 39683),

Gene: ToneTone_62 Start: 38736, Stop: 38596, Start Num: 14

Candidate Starts for ToneTone_62:

(Start: 11 @38748 has 8 MA's), (Start: 14 @38736 has 39 MA's), (17, 38718), (25, 38703), (39, 38652),

Gene: Travvers_63 Start: 39705, Stop: 39562, Start Num: 18

Candidate Starts for Travvers_63:

(Start: 18 @39705 has 60 MA's), (Start: 21 @39696 has 23 MA's), (31, 39657), (39, 39633),

Gene: Tristan_61 Start: 40709, Stop: 40584, Start Num: 21

Candidate Starts for Tristan_61:

(15, 40727), (Start: 21 @40709 has 23 MA's), (27, 40688),

Gene: Trooper_64 Start: 40399, Stop: 40268, Start Num: 18

Candidate Starts for Trooper_64:

(Start: 18 @40399 has 60 MA's), (Start: 21 @40390 has 23 MA's), (23, 40384), (28, 40363), (37, 40333), (38, 40330),

Gene: Tucker_65 Start: 38905, Stop: 38765, Start Num: 14

Candidate Starts for Tucker_65:

(5, 39010), (Start: 11 @38917 has 8 MA's), (Start: 14 @38905 has 39 MA's), (17, 38887), (25, 38872), (30, 38848), (39, 38821),

Gene: Turbido_64 Start: 40285, Stop: 40154, Start Num: 18

Candidate Starts for Turbido_64:

(Start: 18 @40285 has 60 MA's), (Start: 21 @40276 has 23 MA's), (28, 40249),

Gene: Updawg_64 Start: 39920, Stop: 39804, Start Num: 20

Candidate Starts for Updawg_64:

(Start: 20 @39920 has 14 MA's), (39, 39863),

Gene: VA6_64 Start: 40247, Stop: 40134, Start Num: 22

Candidate Starts for VA6_64:

(Start: 22 @40247 has 7 MA's),

Gene: VC3_65 Start: 40106, Stop: 39975, Start Num: 16

Candidate Starts for VC3_65:

(Start: 10 @40136 has 1 MA's), (Start: 16 @40106 has 11 MA's), (23, 40088), (37, 40043), (39, 40037), (44, 39983),

Gene: VohminGhazi_64 Start: 38693, Stop: 38544, Start Num: 14

Candidate Starts for VohminGhazi_64:

(6, 38765), (Start: 11 @38705 has 8 MA's), (Start: 14 @38693 has 39 MA's), (17, 38675), (25, 38660), (37, 38615), (38, 38612), (39, 38609),

Gene: WideWale_64 Start: 39920, Stop: 39804, Start Num: 20

Candidate Starts for WideWale_64:

(Start: 20 @39920 has 14 MA's), (39, 39863),

Gene: Wiks_64 Start: 38807, Stop: 38667, Start Num: 14

Candidate Starts for Wiks_64:

(Start: 11 @38819 has 8 MA's), (Start: 14 @38807 has 39 MA's), (17, 38789), (25, 38774), (39, 38723),

Gene: Wolpertinger_60 Start: 39007, Stop: 38870, Start Num: 18

Candidate Starts for Wolpertinger_60:

(Start: 18 @39007 has 60 MA's), (39, 38935),

Gene: WunderPhul_65 Start: 38805, Stop: 38665, Start Num: 14

Candidate Starts for WunderPhul_65:

(Start: 11 @38817 has 8 MA's), (Start: 14 @38805 has 39 MA's), (17, 38787), (25, 38772), (39, 38721),

Gene: XianYue_61 Start: 39423, Stop: 39307, Start Num: 20

Candidate Starts for XianYue_61:

(Start: 20 @39423 has 14 MA's), (38, 39369),

Gene: Yokurt_64 Start: 38807, Stop: 38667, Start Num: 14

Candidate Starts for Yokurt_64:

(Start: 11 @38819 has 8 MA's), (Start: 14 @38807 has 39 MA's), (17, 38789), (25, 38774), (39, 38723),

Gene: Zaka_65 Start: 38807, Stop: 38667, Start Num: 14

Candidate Starts for Zaka_65:

(Start: 11 @38819 has 8 MA's), (Start: 14 @38807 has 39 MA's), (17, 38789), (25, 38774), (39, 38723),

Gene: Zulu_66 Start: 39185, Stop: 39045, Start Num: 14

Candidate Starts for Zulu_66:

(Start: 11 @39197 has 8 MA's), (Start: 14 @39185 has 39 MA's), (17, 39167), (25, 39152), (39, 39101),