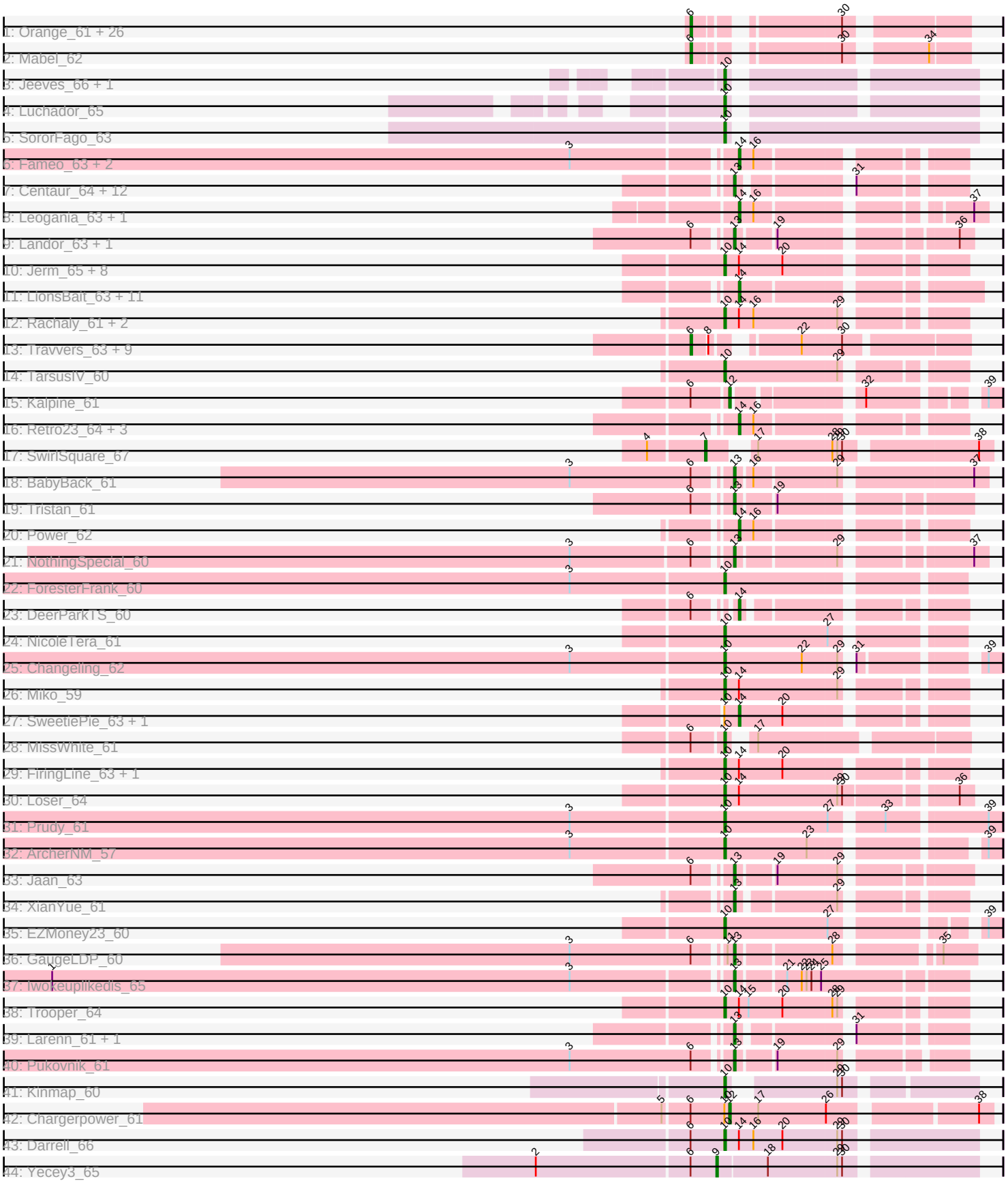
Pham 347396


1: Orange_61 + 26
2: Mabel_62
3: Jeeves_66 + 1
4: Luchador_65
5: SororFago_63
6: Fameo_63 + 2
7: Centaur_64 + 12
8: Leogania_63 + 1
9: Landor_63 + 1
10: Jerm_65 + 8
11: LionsBait_63 + 11
12: Rachaly_61 + 2
13: Travvers_63 + 9
14: TarsusIV_60
15: Kalpine_61
16: Retro23_64 + 3
17: SwirlSquare_67
18: BabyBack_61
19: Tristan_61
20: Power_62
21: NothingSpecial_60
22: ForesterFrank_60
23: DeerParkTS_60
24: NicoleTera_61
25: Changeling_62
26: Miko_59
27: SweetiePie_63 + 1
28: MissWhite_61
29: FiringLine_63 + 1
30: Loser_64
31: Prudy_61
32: ArcherNM_57
33: Jaan_63
34: XianYue_61
35: EZMoney23_60
36: GaugeLDP_60
37: Iwokeuplikedis_65
38: Trooper_64
39: Larenn_61 + 1
40: Pukovnik_61
41: Kinmap_60
42: Chargerpower_61
43: Darrell_66
44: Yecey3_65

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 347396 Report

This analysis was run 11/14/26 on database version 672.

Pham number 347396 has 123 members, 4 are drafts.

Phages represented in each track:
• Track 1 : Orange_61, MaCh_62, Bowtie_63, Et2Brutus_61, Gilberta_63, Saskia_63, Sham4_62, Timothy_62, TinyTimmy_62, Wolpertinger_60, Bud_61, Salz_61, Flaverint_63, Hutc2_61, Fibonacci_62, Insomnia_63, Mulciber_61, Kimba_62, Aneem_63, Joselito_63, Lucivia_63, Bachome_64, Petersenfast_62, Snape_62, Ebony_62, Jabith_63, Munch_62
• Track 2 : Mabel_62
• Track 3 : Jeeves_66, Drake55_65
• Track 4 : Luchador_65
• Track 5 : SororFago_63
• Track 6 : Fameo_63, Heffalump_62, QueenB2_62
• Track 7 : Centaur_64, Flare16_63, WideWale_64, Piro94_63, Updawg_64, HarryHoudini_64, Terrific_64, Equemioh13_63, Gratitude_63, MiculUcigas_63, Baehexic_62, NaSiaTalie_63, Sknot_63
• Track 8 : Leogania_63, BiancaTri92_63
• Track 9 : Landor_63, IronMan_62
• Track 10 : Jerm_65, AbbyPaige_65, LilTurb_64, Agape74_65, SemperFi_64, Turbido_64, Bugsy_65, Georgie2_64, Crucio_63
• Track 11 : LionsBait_63, Deloris_64, LadyBird_68, CRB1_66, VA6_64, First_0065, 20ES_66, Benvolio_60, HippoHollow_63, BengiVuitton_64, Echild_63, AN3_66
• Track 12 : Rachaly_61, BobSwaget_58, Lokk_59
• Track 13 : Travvers_63, Pomar16_63, D29_59.1, Kerberos_64, D32_63, Tomathan_64, Naji_64, Duplo_64, DBQu4n_64, StarStuff_64
• Track 14 : TarsusIV_60
• Track 15 : Kalpine_61
• Track 16 : Retro23_64, DudeLittle_62, Dalmatian_64, Anselm_64
• Track 17 : SwirlSquare_67
• Track 18 : BabyBack_61
• Track 19 : Tristan_61
• Track 20 : Power_62
• Track 21 : NothingSpecial_60
• Track 22 : ForesterFrank_60
• Track 23 : DeerParkTS_60
• Track 24 : NicoleTera_61
• Track 25 : Changeling_62
• Track 26 : Miko_59
• Track 27 : SweetiePie_63, SnapTap_63
• Track 28 : MissWhite_61

• Track 29 : FiringLine_63, QueenBeesly_63
• Track 30 : Loser_64
• Track 31 : Prudy_61
• Track 32 : ArcherNM_57
• Track 33 : Jaan_63
• Track 34 : XianYue_61
• Track 35 : EZMoney23_60
• Track 36 : GaugeLDP_60
• Track 37 : Iwokeuplikedis_65
• Track 38 : Trooper_64
• Track 39 : Larenn_61, Malec_62
• Track 40 : Pukovnik_61
• Track 41 : Kinmap_60
• Track 42 : Chargerpower_61
• Track 43 : Darrell_66
• Track 44 : Yecey3_65

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

The start number called the most often in the published annotations is 6, it was called in 37 of the 119 non-draft genes in the pham.

Genes that call this "Most Annotated" start:
• Aneem_63, Bachome_64, Bowtie_63, Bud_61, D29_59.1, D32_63, DBQu4n_64, Duplo_64, Ebony_62, Et2Brutus_61, Fibonacci_62, Flaverint_63, Gilberta_63, Hutc2_61, Insomnia_63, Jabith_63, Joselito_63, Kerberos_64, Kimba_62, Lucivia_63, MaCh_62, Mabel_62, Mulciber_61, Munch_62, Naji_64, Orange_61, Petersenfast_62, Pomar16_63, Salz_61, Saskia_63, Sham4_62, Snape_62, StarStuff_64, Timothy_62, TinyTimmy_62, Tomathan_64, Travvers_63, Wolpertinger_60,

Genes that have the "Most Annotated" start but do not call it:
• BabyBack_61, Chargerpower_61, Darrell_66, DeerParkTS_60, GaugeLDP_60, IronMan_62, Jaan_63, Kalpine_61, Landor_63, MissWhite_61, NothingSpecial_60, Pukovnik_61, Tristan_61, Yecey3_65,

Genes that do not have the "Most Annotated" start:
• 20ES_66, AN3_66, AbbyPaige_65, Agape74_65, Anselm_64, ArcherNM_57, Baehexic_62, BengiVuitton_64, Benvolio_60, BiancaTri92_63, BobSwaget_58, Bugsy_65, CRB1_66, Centaur_64, Changeling_62, Crucio_63, Dalmatian_64, Deloris_64, Drake55_65, DudeLittle_62, EZMoney23_60, Echild_63, Equemioh13_63, Fameo_63, FiringLine_63, First_0065, Flare16_63, ForesterFrank_60, Georgie2_64, Gratitude_63, HarryHoudini_64, Heffalump_62, HippoHollow_63, Iwokeuplikedis_65, Jeeves_66, Jerm_65, Kinmap_60, LadyBird_68, Larenn_61, Leogania_63, LilTurb_64, LionsBait_63, Lokk_59, Loser_64, Luchador_65, Malec_62, MiculUcigas_63, Miko_59, NaSiaTalie_63, NicoleTera_61, Piro94_63, Power_62, Prudy_61, QueenB2_62, QueenBeesly_63, Rachaly_61, Retro23_64, SemperFi_64, Sknot_63, SnapTap_63, SororFago_63, SweetiePie_63, SwirlSquare_67, TarsusIV_60, Terrific_64, Trooper_64, Turbido_64, Updawg_64, VA6_64, WideWale_64, XianYue_61,

Summary by start number:

Start 6:
• Found in 52 of 123 (42.3%) of genes in pham
• Manual Annotations of this start: 37 of 119
• Called 73.1% of time when present
• Phage (with cluster) where this start called: Aneem_63 (A11), Bachome_64 (A11), Bowtie_63 (A11), Bud_61 (A11), D29_59.1 (A2), D32_63 (A2), DBQu4n_64 (A2), Duplo_64 (A2), Ebony_62 (A11), Et2Brutus_61 (A11), Fibonacci_62 (A11), Flaverint_63 (A11), Gilberta_63 (A11), Hutc2_61 (A11), Insomnia_63 (A11), Jabith_63 (A11), Joselito_63 (A11), Kerberos_64 (A2), Kimba_62 (A11), Lucivia_63 (A11), MaCh_62 (A11), Mabel_62 (A11), Mulciber_61 (A11), Munch_62 (A11), Naji_64 (A2), Orange_61 (A11), Petersenfast_62 (A11), Pomar16_63 (A2), Salz_61 (A11), Saskia_63 (A11), Sham4_62 (A11), Snape_62 (A11), StarStuff_64 (A2), Timothy_62 (A11), TinyTimmy_62 (A11), Tomathan_64 (A2), Travvers_63 (A2), Wolpertinger_60 (A11),

Start 7:
• Found in 1 of 123 (0.8%) of genes in pham
• Manual Annotations of this start: 1 of 119
• Called 100.0% of time when present
• Phage (with cluster) where this start called: SwirlSquare_67 (A2),

Start 9:
• Found in 1 of 123 (0.8%) of genes in pham
• Manual Annotations of this start: 1 of 119
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Yecey3_65 (A9),

Start 10:
• Found in 34 of 123 (27.6%) of genes in pham
• Manual Annotations of this start: 31 of 119
• Called 91.2% of time when present
• Phage (with cluster) where this start called: AbbyPaige_65 (A2), Agape74_65 (A2), ArcherNM_57 (A2), BobSwaget_58 (A2), Bugsy_65 (A2), Changeling_62 (A2), Crucio_63 (A2), Darrell_66 (A9), Drake55_65 (A2), EZMoney23_60 (A2), FiringLine_63 (A2), ForesterFrank_60 (A2), Georgie2_64 (A2), Jeeves_66 (A14), Jerm_65 (A2), Kinmap_60 (A21), LilTurb_64 (A2), Lokk_59 (A2), Loser_64 (A2), Luchador_65 (A14), Miko_59 (A2), MissWhite_61 (A2), NicoleTera_61 (A2), Prudy_61 (A2), QueenBeesly_63 (A2), Rachaly_61 (A2), SemperFi_64 (A2), SororFago_63 (A14), TarsusIV_60 (A2), Trooper_64 (A2), Turbido_64 (A2),

Start 12:
• Found in 2 of 123 (1.6%) of genes in pham
• Manual Annotations of this start: 2 of 119
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Chargerpower_61 (A22), Kalpine_61 (A2),

Start 13:
• Found in 25 of 123 (20.3%) of genes in pham
• Manual Annotations of this start: 25 of 119

• Called 100.0% of time when present
• Phage (with cluster) where this start called: BabyBack_61 (A2), Baehexic_62 (A2), Centaur_64 (A2), Equemioh13_63 (A2), Flare16_63 (A2), GaugeLDP_60 (A2), Gratitude_63 (A2), HarryHoudini_64 (A2), IronMan_62 (A2), Iwokeuplikedis_65 (A2), Jaan_63 (A2), Landor_63 (A2), Larenn_61 (A2), Malec_62 (A2), MiculUcigas_63 (A2), NaSiaTalie_63 (A2), NothingSpecial_60 (A2), Piro94_63 (A2), Pukovnik_61 (A2), Sknot_63 (A2), Terrific_64 (A2), Tristan_61 (A2), Updawg_64 (A2), WideWale_64 (A2), XianYue_61 (A2),

Start 14:
• Found in 43 of 123 (35.0%) of genes in pham
• Manual Annotations of this start: 22 of 119
• Called 58.1% of time when present
• Phage (with cluster) where this start called: 20ES_66 (A2), AN3_66 (A2), Anselm_64 (A2), BengiVuitton_64 (A2), Benvolio_60 (A2), BiancaTri92_63 (A2), CRB1_66 (A2), Dalmatian_64 (A2), DeerParkTS_60 (A2), Deloris_64 (A2), DudeLittle_62 (A2), Echild_63 (A2), Fameo_63 (A2), First_0065 (A2), Heffalump_62 (A2), HippoHollow_63 (A2), LadyBird_68 (A2), Leogania_63 (A2), LionsBait_63 (A2), Power_62 (A2), QueenB2_62 (A2), Retro23_64 (A2), SnapTap_63 (A2), SweetiePie_63 (A2), VA6_64 (A2),

Summary by clusters:

There are 6 clusters represented in this pham: A14, A22, A11, A21, A2, A9,

Info for manual annotations of cluster A11:
•Start number 6 was manually annotated 28 times for cluster A11.

Info for manual annotations of cluster A14:
•Start number 10 was manually annotated 3 times for cluster A14.

Info for manual annotations of cluster A2:
•Start number 6 was manually annotated 9 times for cluster A2.
•Start number 7 was manually annotated 1 time for cluster A2.
•Start number 10 was manually annotated 26 times for cluster A2.
•Start number 12 was manually annotated 1 time for cluster A2.
•Start number 13 was manually annotated 25 times for cluster A2.
•Start number 14 was manually annotated 22 times for cluster A2.

Info for manual annotations of cluster A21:
•Start number 10 was manually annotated 1 time for cluster A21.

Info for manual annotations of cluster A22:
•Start number 12 was manually annotated 1 time for cluster A22.

Info for manual annotations of cluster A9:
•Start number 9 was manually annotated 1 time for cluster A9.
•Start number 10 was manually annotated 1 time for cluster A9.

Gene Information:

Gene: 20ES_66 Start: 40354, Stop: 40241, Start Num: 14
Candidate Starts for 20ES_66:
(Start: 14 @40354 has 22 MA's),

Gene: AN3_66 Start: 39069, Stop: 38956, Start Num: 14
Candidate Starts for AN3_66:
(Start: 14 @39069 has 22 MA's),

Gene: AbbyPaige_65 Start: 40341, Stop: 40210, Start Num: 10
Candidate Starts for AbbyPaige_65:
(Start: 10 @40341 has 31 MA's), (Start: 14 @40332 has 22 MA's), (20, 40305),

Gene: Agape74_65 Start: 40335, Stop: 40204, Start Num: 10
Candidate Starts for Agape74_65:
(Start: 10 @40335 has 31 MA's), (Start: 14 @40326 has 22 MA's), (20, 40299),

Gene: Aneem_63 Start: 39459, Stop: 39322, Start Num: 6
Candidate Starts for Aneem_63:
(Start: 6 @39459 has 37 MA's), (30, 39387),

Gene: Anselm_64 Start: 40239, Stop: 40120, Start Num: 14
Candidate Starts for Anselm_64:
(Start: 14 @40239 has 22 MA's), (16, 40230),

Gene: ArcherNM_57 Start: 39573, Stop: 39427, Start Num: 10
Candidate Starts for ArcherNM_57:
(3, 39663), (Start: 10 @39573 has 31 MA's), (23, 39522), (39, 39435),

Gene: BabyBack_61 Start: 40331, Stop: 40191, Start Num: 13
Candidate Starts for BabyBack_61:
(3, 40424), (Start: 6 @40349 has 37 MA's), (Start: 13 @40331 has 25 MA's), (16, 40322), (29, 40274), (37, 40199),

Gene: Bachome_64 Start: 39439, Stop: 39302, Start Num: 6
Candidate Starts for Bachome_64:
(Start: 6 @39439 has 37 MA's), (30, 39367),

Gene: Baehexic_62 Start: 39801, Stop: 39685, Start Num: 13
Candidate Starts for Baehexic_62:
(Start: 13 @39801 has 25 MA's), (31, 39744),

Gene: BengiVuitton_64 Start: 40331, Stop: 40212, Start Num: 14
Candidate Starts for BengiVuitton_64:
(Start: 14 @40331 has 22 MA's),

Gene: Benvolio_60 Start: 39343, Stop: 39227, Start Num: 14
Candidate Starts for Benvolio_60:
(Start: 14 @39343 has 22 MA's),

Gene: BiancaTri92_63 Start: 40390, Stop: 40262, Start Num: 14
Candidate Starts for BiancaTri92_63:
(Start: 14 @40390 has 22 MA's), (16, 40381), (37, 40270),

Gene: BobSwaget_58 Start: 38604, Stop: 38473, Start Num: 10
Candidate Starts for BobSwaget_58:
(Start: 10 @38604 has 31 MA's), (Start: 14 @38595 has 22 MA's), (16, 38586), (29, 38535),

Gene: Bowtie_63 Start: 39466, Stop: 39329, Start Num: 6
Candidate Starts for Bowtie_63:
(Start: 6 @39466 has 37 MA's), (30, 39394),

Gene: Bud_61 Start: 39013, Stop: 38876, Start Num: 6
Candidate Starts for Bud_61:
(Start: 6 @39013 has 37 MA's), (30, 38941),

Gene: Bugsy_65 Start: 40392, Stop: 40261, Start Num: 10
Candidate Starts for Bugsy_65:
(Start: 10 @40392 has 31 MA's), (Start: 14 @40383 has 22 MA's), (20, 40356),

Gene: CRB1_66 Start: 40877, Stop: 40758, Start Num: 14
Candidate Starts for CRB1_66:
(Start: 14 @40877 has 22 MA's),

Gene: Centaur_64 Start: 40015, Stop: 39899, Start Num: 13
Candidate Starts for Centaur_64:
(Start: 13 @40015 has 25 MA's), (31, 39958),

Gene: Changeling_62 Start: 40439, Stop: 40296, Start Num: 10
Candidate Starts for Changeling_62:
(3, 40529), (Start: 10 @40439 has 31 MA's), (22, 40391), (29, 40370), (31, 40367), (39, 40304),

Gene: Chargerpower_61 Start: 38578, Stop: 38429, Start Num: 12
Candidate Starts for Chargerpower_61:
(5, 38617), (Start: 6 @38602 has 37 MA's), (Start: 10 @38581 has 31 MA's), (Start: 12 @38578 has 2 MA's), (17, 38560), (26, 38518), (38, 38437),

Gene: Crucio_63 Start: 40018, Stop: 39887, Start Num: 10
Candidate Starts for Crucio_63:
(Start: 10 @40018 has 31 MA's), (Start: 14 @40009 has 22 MA's), (20, 39982),

Gene: D29_59.1 Start: 39706, Stop: 39563, Start Num: 6
Candidate Starts for D29_59.1:
(Start: 6 @39706 has 37 MA's), (8, 39697), (22, 39658), (30, 39634),

Gene: D32_63 Start: 39706, Stop: 39563, Start Num: 6
Candidate Starts for D32_63:
(Start: 6 @39706 has 37 MA's), (8, 39697), (22, 39658), (30, 39634),

Gene: DBQu4n_64 Start: 39687, Stop: 39544, Start Num: 6
Candidate Starts for DBQu4n_64:
(Start: 6 @39687 has 37 MA's), (8, 39678), (22, 39639), (30, 39615),

Gene: Dalmatian_64 Start: 40212, Stop: 40093, Start Num: 14
Candidate Starts for Dalmatian_64:
(Start: 14 @40212 has 22 MA's), (16, 40203),

Gene: Darrell_66 Start: 40703, Stop: 40557, Start Num: 10
Candidate Starts for Darrell_66:
(Start: 6 @40724 has 37 MA's), (Start: 10 @40703 has 31 MA's), (Start: 14 @40694 has 22 MA's), (16, 40685), (20, 40667), (29, 40634), (30, 40631),

Gene: DeerParkTS_60 Start: 39136, Stop: 39023, Start Num: 14
Candidate Starts for DeerParkTS_60:
(Start: 6 @39154 has 37 MA's), (Start: 14 @39136 has 22 MA's),

Gene: Deloris_64 Start: 40027, Stop: 39908, Start Num: 14
Candidate Starts for Deloris_64:
(Start: 14 @40027 has 22 MA's),

Gene: Drake55_65 Start: 40115, Stop: 39984, Start Num: 10
Candidate Starts for Drake55_65:
(Start: 10 @40115 has 31 MA's),

Gene: DudeLittle_62 Start: 39978, Stop: 39859, Start Num: 14
Candidate Starts for DudeLittle_62:
(Start: 14 @39978 has 22 MA's), (16, 39969),

Gene: Duplo_64 Start: 39743, Stop: 39600, Start Num: 6
Candidate Starts for Duplo_64:
(Start: 6 @39743 has 37 MA's), (8, 39734), (22, 39695), (30, 39671),

Gene: EZMoney23_60 Start: 39508, Stop: 39365, Start Num: 10
Candidate Starts for EZMoney23_60:
(Start: 10 @39508 has 31 MA's), (27, 39445), (39, 39373),

Gene: Ebony_62 Start: 39030, Stop: 38893, Start Num: 6
Candidate Starts for Ebony_62:
(Start: 6 @39030 has 37 MA's), (30, 38958),

Gene: Echild_63 Start: 39367, Stop: 39251, Start Num: 14
Candidate Starts for Echild_63:
(Start: 14 @39367 has 22 MA's),

Gene: Equemioh13_63 Start: 39920, Stop: 39804, Start Num: 13
Candidate Starts for Equemioh13_63:
(Start: 13 @39920 has 25 MA's), (31, 39863),

Gene: Et2Brutus_61 Start: 38993, Stop: 38856, Start Num: 6
Candidate Starts for Et2Brutus_61:
(Start: 6 @38993 has 37 MA's), (30, 38921),

Gene: Fameo_63 Start: 40337, Stop: 40218, Start Num: 14
Candidate Starts for Fameo_63:
(3, 40430), (Start: 14 @40337 has 22 MA's), (16, 40328),

Gene: Fibonacci_62 Start: 38999, Stop: 38862, Start Num: 6
Candidate Starts for Fibonacci_62:
(Start: 6 @38999 has 37 MA's), (30, 38927),

Gene: FiringLine_63 Start: 39999, Stop: 39868, Start Num: 10
Candidate Starts for FiringLine_63:
(Start: 10 @39999 has 31 MA's), (Start: 14 @39990 has 22 MA's), (20, 39963),

Gene: First_0065 Start: 40254, Stop: 40141, Start Num: 14
Candidate Starts for First_0065:
(Start: 14 @40254 has 22 MA's),

Gene: Flare16_63 Start: 39676, Stop: 39560, Start Num: 13
Candidate Starts for Flare16_63:
(Start: 13 @39676 has 25 MA's), (31, 39619),

Gene: Flaverint_63 Start: 39457, Stop: 39320, Start Num: 6
Candidate Starts for Flaverint_63:
(Start: 6 @39457 has 37 MA's), (30, 39385),

Gene: ForesterFrank_60 Start: 40183, Stop: 40052, Start Num: 10
Candidate Starts for ForesterFrank_60:
(3, 40273), (Start: 10 @40183 has 31 MA's),

Gene: GaugeLDP_60 Start: 39857, Stop: 39732, Start Num: 13
Candidate Starts for GaugeLDP_60:
(3, 39950), (Start: 6 @39875 has 37 MA's), (11, 39860), (Start: 13 @39857 has 25 MA's), (28, 39803), (35, 39752),

Gene: Georgie2_64 Start: 40044, Stop: 39913, Start Num: 10
Candidate Starts for Georgie2_64:
(Start: 10 @40044 has 31 MA's), (Start: 14 @40035 has 22 MA's), (20, 40008),

Gene: Gilberta_63 Start: 39450, Stop: 39313, Start Num: 6
Candidate Starts for Gilberta_63:
(Start: 6 @39450 has 37 MA's), (30, 39378),

Gene: Gratitude_63 Start: 39920, Stop: 39804, Start Num: 13
Candidate Starts for Gratitude_63:
(Start: 13 @39920 has 25 MA's), (31, 39863),

Gene: HarryHoudini_64 Start: 40119, Stop: 40003, Start Num: 13
Candidate Starts for HarryHoudini_64:
(Start: 13 @40119 has 25 MA's), (31, 40062),

Gene: Heffalump_62 Start: 40805, Stop: 40686, Start Num: 14
Candidate Starts for Heffalump_62:
(3, 40898), (Start: 14 @40805 has 22 MA's), (16, 40796),

Gene: HippoHollow_63 Start: 41430, Stop: 41302, Start Num: 14
Candidate Starts for HippoHollow_63:
(Start: 14 @41430 has 22 MA's),

Gene: Hutc2_61 Start: 38999, Stop: 38862, Start Num: 6
Candidate Starts for Hutc2_61:
(Start: 6 @38999 has 37 MA's), (30, 38927),

Gene: Insomnia_63 Start: 39510, Stop: 39373, Start Num: 6
Candidate Starts for Insomnia_63:
(Start: 6 @39510 has 37 MA's), (30, 39438),

Gene: IronMan_62 Start: 40812, Stop: 40687, Start Num: 13
Candidate Starts for IronMan_62:
(Start: 6 @40830 has 37 MA's), (Start: 13 @40812 has 25 MA's), (19, 40791), (36, 40695),

Gene: Iwokeuplikedis_65 Start: 39836, Stop: 39705, Start Num: 13
Candidate Starts for Iwokeuplikedis_65:
(1, 40247), (3, 39926), (Start: 13 @39836 has 25 MA's), (21, 39809), (22, 39800), (23, 39797), (24, 39794), (25, 39788),

Gene: Jaan_63 Start: 40984, Stop: 40859, Start Num: 13
Candidate Starts for Jaan_63:
(Start: 6 @41002 has 37 MA's), (Start: 13 @40984 has 25 MA's), (19, 40963), (29, 40927),

Gene: Jabith_63 Start: 39511, Stop: 39374, Start Num: 6
Candidate Starts for Jabith_63:
(Start: 6 @39511 has 37 MA's), (30, 39439),

Gene: Jeeves_66 Start: 39766, Stop: 39632, Start Num: 10
Candidate Starts for Jeeves_66:
(Start: 10 @39766 has 31 MA's),

Gene: Jerm_65 Start: 40407, Stop: 40276, Start Num: 10
Candidate Starts for Jerm_65:
(Start: 10 @40407 has 31 MA's), (Start: 14 @40398 has 22 MA's), (20, 40371),

Gene: Joselito_63 Start: 39459, Stop: 39322, Start Num: 6
Candidate Starts for Joselito_63:
(Start: 6 @39459 has 37 MA's), (30, 39387),

Gene: Kalpine_61 Start: 40096, Stop: 39965, Start Num: 12
Candidate Starts for Kalpine_61:
(Start: 6 @40117 has 37 MA's), (Start: 12 @40096 has 2 MA's), (32, 40030), (39, 39973),

Gene: Kerberos_64 Start: 39705, Stop: 39562, Start Num: 6
Candidate Starts for Kerberos_64:
(Start: 6 @39705 has 37 MA's), (8, 39696), (22, 39657), (30, 39633),

Gene: Kimba_62 Start: 39031, Stop: 38894, Start Num: 6
Candidate Starts for Kimba_62:
(Start: 6 @39031 has 37 MA's), (30, 38959),

Gene: Kinmap_60 Start: 38456, Stop: 38328, Start Num: 10
Candidate Starts for Kinmap_60:
(Start: 10 @38456 has 31 MA's), (29, 38402), (30, 38399),

Gene: LadyBird_68 Start: 40839, Stop: 40720, Start Num: 14
Candidate Starts for LadyBird_68:
(Start: 14 @40839 has 22 MA's),

Gene: Landor_63 Start: 40890, Stop: 40765, Start Num: 13
Candidate Starts for Landor_63:
(Start: 6 @40908 has 37 MA's), (Start: 13 @40890 has 25 MA's), (19, 40869), (36, 40773),

Gene: Larenn_61 Start: 39953, Stop: 39837, Start Num: 13
Candidate Starts for Larenn_61:
(Start: 13 @39953 has 25 MA's), (31, 39896),

Gene: Leogania_63 Start: 40768, Stop: 40640, Start Num: 14
Candidate Starts for Leogania_63:
(Start: 14 @40768 has 22 MA's), (16, 40759), (37, 40648),

Gene: LilTurb_64 Start: 40289, Stop: 40158, Start Num: 10
Candidate Starts for LilTurb_64:
(Start: 10 @40289 has 31 MA's), (Start: 14 @40280 has 22 MA's), (20, 40253),

Gene: LionsBait_63 Start: 41431, Stop: 41303, Start Num: 14
Candidate Starts for LionsBait_63:
(Start: 14 @41431 has 22 MA's),

Gene: Lokk_59 Start: 39228, Stop: 39097, Start Num: 10
Candidate Starts for Lokk_59:
(Start: 10 @39228 has 31 MA's), (Start: 14 @39219 has 22 MA's), (16, 39210), (29, 39159),

Gene: Loser_64 Start: 40496, Stop: 40356, Start Num: 10
Candidate Starts for Loser_64:
(Start: 10 @40496 has 31 MA's), (Start: 14 @40487 has 22 MA's), (29, 40427), (30, 40424), (36, 40364),

Gene: Luchador_65 Start: 41349, Stop: 41215, Start Num: 10
Candidate Starts for Luchador_65:
(Start: 10 @41349 has 31 MA's),

Gene: Lucivia_63 Start: 39508, Stop: 39371, Start Num: 6
Candidate Starts for Lucivia_63:
(Start: 6 @39508 has 37 MA's), (30, 39436),

Gene: MaCh_62 Start: 39438, Stop: 39301, Start Num: 6
Candidate Starts for MaCh_62:
(Start: 6 @39438 has 37 MA's), (30, 39366),

Gene: Mabel_62 Start: 39455, Stop: 39318, Start Num: 6
Candidate Starts for Mabel_62:
(Start: 6 @39455 has 37 MA's), (30, 39383), (34, 39341),

Gene: Malec_62 Start: 40520, Stop: 40404, Start Num: 13
Candidate Starts for Malec_62:
(Start: 13 @40520 has 25 MA's), (31, 40463),

Gene: MiculUcigas_63 Start: 39579, Stop: 39463, Start Num: 13
Candidate Starts for MiculUcigas_63:
(Start: 13 @39579 has 25 MA's), (31, 39522),

Gene: Miko_59 Start: 40006, Stop: 39875, Start Num: 10
Candidate Starts for Miko_59:
(Start: 10 @40006 has 31 MA's), (Start: 14 @39997 has 22 MA's), (29, 39937),

Gene: MissWhite_61 Start: 38488, Stop: 38360, Start Num: 10
Candidate Starts for MissWhite_61:
(Start: 6 @38506 has 37 MA's), (Start: 10 @38488 has 31 MA's), (17, 38479),

Gene: Mulciber_61 Start: 38996, Stop: 38859, Start Num: 6
Candidate Starts for Mulciber_61:
(Start: 6 @38996 has 37 MA's), (30, 38924),

Gene: Munch_62 Start: 39459, Stop: 39322, Start Num: 6
Candidate Starts for Munch_62:
(Start: 6 @39459 has 37 MA's), (30, 39387),

Gene: NaSiaTalie_63 Start: 39673, Stop: 39557, Start Num: 13
Candidate Starts for NaSiaTalie_63:
(Start: 13 @39673 has 25 MA's), (31, 39616),

Gene: Naji_64 Start: 39706, Stop: 39563, Start Num: 6
Candidate Starts for Naji_64:
(Start: 6 @39706 has 37 MA's), (8, 39697), (22, 39658), (30, 39634),

Gene: NicoleTera_61 Start: 39996, Stop: 39865, Start Num: 10
Candidate Starts for NicoleTera_61:
(Start: 10 @39996 has 31 MA's), (27, 39933),

Gene: NothingSpecial_60 Start: 40211, Stop: 40077, Start Num: 13
Candidate Starts for NothingSpecial_60:
(3, 40301), (Start: 6 @40229 has 37 MA's), (Start: 13 @40211 has 25 MA's), (29, 40154), (37, 40085),

Gene: Orange_61 Start: 39008, Stop: 38871, Start Num: 6
Candidate Starts for Orange_61:
(Start: 6 @39008 has 37 MA's), (30, 38936),

Gene: Petersenfast_62 Start: 39007, Stop: 38870, Start Num: 6
Candidate Starts for Petersenfast_62:
(Start: 6 @39007 has 37 MA's), (30, 38935),

Gene: Piro94_63 Start: 40026, Stop: 39910, Start Num: 13
Candidate Starts for Piro94_63:
(Start: 13 @40026 has 25 MA's), (31, 39969),

Gene: Pomar16_63 Start: 39746, Stop: 39603, Start Num: 6
Candidate Starts for Pomar16_63:
(Start: 6 @39746 has 37 MA's), (8, 39737), (22, 39698), (30, 39674),

Gene: Power_62 Start: 40040, Stop: 39921, Start Num: 14
Candidate Starts for Power_62:
(Start: 14 @40040 has 22 MA's), (16, 40031),

Gene: Prudy_61 Start: 40426, Stop: 40271, Start Num: 10

Candidate Starts for Prudy_61:
(3, 40516), (Start: 10 @40426 has 31 MA's), (27, 40363), (33, 40336), (39, 40279),

Gene: Pukovnik_61 Start: 40533, Stop: 40414, Start Num: 13
Candidate Starts for Pukovnik_61:
(3, 40626), (Start: 6 @40551 has 37 MA's), (Start: 13 @40533 has 25 MA's), (19, 40512), (29, 40476),

Gene: QueenB2_62 Start: 40018, Stop: 39899, Start Num: 14
Candidate Starts for QueenB2_62:
(3, 40111), (Start: 14 @40018 has 22 MA's), (16, 40009),

Gene: QueenBeesly_63 Start: 39999, Stop: 39868, Start Num: 10
Candidate Starts for QueenBeesly_63:
(Start: 10 @39999 has 31 MA's), (Start: 14 @39990 has 22 MA's), (20, 39963),

Gene: Rachaly_61 Start: 40151, Stop: 40020, Start Num: 10
Candidate Starts for Rachaly_61:
(Start: 10 @40151 has 31 MA's), (Start: 14 @40142 has 22 MA's), (16, 40133), (29, 40082),

Gene: Retro23_64 Start: 40232, Stop: 40113, Start Num: 14
Candidate Starts for Retro23_64:
(Start: 14 @40232 has 22 MA's), (16, 40223),

Gene: Salz_61 Start: 38978, Stop: 38841, Start Num: 6
Candidate Starts for Salz_61:
(Start: 6 @38978 has 37 MA's), (30, 38906),

Gene: Saskia_63 Start: 39006, Stop: 38869, Start Num: 6
Candidate Starts for Saskia_63:
(Start: 6 @39006 has 37 MA's), (30, 38934),

Gene: SemperFi_64 Start: 40267, Stop: 40136, Start Num: 10
Candidate Starts for SemperFi_64:
(Start: 10 @40267 has 31 MA's), (Start: 14 @40258 has 22 MA's), (20, 40231),

Gene: Sham4_62 Start: 39006, Stop: 38869, Start Num: 6
Candidate Starts for Sham4_62:
(Start: 6 @39006 has 37 MA's), (30, 38934),

Gene: Sknot_63 Start: 39676, Stop: 39560, Start Num: 13
Candidate Starts for Sknot_63:
(Start: 13 @39676 has 25 MA's), (31, 39619),

Gene: SnapTap_63 Start: 40069, Stop: 39947, Start Num: 14
Candidate Starts for SnapTap_63:
(Start: 10 @40078 has 31 MA's), (Start: 14 @40069 has 22 MA's), (20, 40042),

Gene: Snape_62 Start: 38998, Stop: 38861, Start Num: 6
Candidate Starts for Snape_62:
(Start: 6 @38998 has 37 MA's), (30, 38926),

Gene: SororFago_63 Start: 40687, Stop: 40544, Start Num: 10
Candidate Starts for SororFago_63:

(Start: 10 @40687 has 31 MA's),

Gene: StarStuff_64 Start: 39708, Stop: 39565, Start Num: 6
Candidate Starts for StarStuff_64:
(Start: 6 @39708 has 37 MA's), (8, 39699), (22, 39660), (30, 39636),

Gene: SweetiePie_63 Start: 40201, Stop: 40079, Start Num: 14
Candidate Starts for SweetiePie_63:
(Start: 10 @40210 has 31 MA's), (Start: 14 @40201 has 22 MA's), (20, 40174),

Gene: SwirlSquare_67 Start: 39598, Stop: 39446, Start Num: 7
Candidate Starts for SwirlSquare_67:
(4, 39631), (Start: 7 @39598 has 1 MA's), (17, 39580), (28, 39535), (29, 39532), (30, 39529), (38, 39454),

Gene: TarsusIV_60 Start: 39672, Stop: 39541, Start Num: 10
Candidate Starts for TarsusIV_60:
(Start: 10 @39672 has 31 MA's), (29, 39603),

Gene: Terrific_64 Start: 40030, Stop: 39914, Start Num: 13
Candidate Starts for Terrific_64:
(Start: 13 @40030 has 25 MA's), (31, 39973),

Gene: Timothy_62 Start: 38975, Stop: 38838, Start Num: 6
Candidate Starts for Timothy_62:
(Start: 6 @38975 has 37 MA's), (30, 38903),

Gene: TinyTimmy_62 Start: 39024, Stop: 38887, Start Num: 6
Candidate Starts for TinyTimmy_62:
(Start: 6 @39024 has 37 MA's), (30, 38952),

Gene: Tomathan_64 Start: 39755, Stop: 39612, Start Num: 6
Candidate Starts for Tomathan_64:
(Start: 6 @39755 has 37 MA's), (8, 39746), (22, 39707), (30, 39683),

Gene: Travvers_63 Start: 39705, Stop: 39562, Start Num: 6
Candidate Starts for Travvers_63:
(Start: 6 @39705 has 37 MA's), (8, 39696), (22, 39657), (30, 39633),

Gene: Tristan_61 Start: 40709, Stop: 40584, Start Num: 13
Candidate Starts for Tristan_61:
(Start: 6 @40727 has 37 MA's), (Start: 13 @40709 has 25 MA's), (19, 40688),

Gene: Trooper_64 Start: 40399, Stop: 40268, Start Num: 10
Candidate Starts for Trooper_64:
(Start: 10 @40399 has 31 MA's), (Start: 14 @40390 has 22 MA's), (15, 40384), (20, 40363), (28, 40333), (29, 40330),

Gene: Turbido_64 Start: 40285, Stop: 40154, Start Num: 10
Candidate Starts for Turbido_64:
(Start: 10 @40285 has 31 MA's), (Start: 14 @40276 has 22 MA's), (20, 40249),

Gene: Updawg_64 Start: 39920, Stop: 39804, Start Num: 13

Candidate Starts for Updawg_64:
(Start: 13 @39920 has 25 MA's), (31, 39863),

Gene: VA6_64 Start: 40247, Stop: 40134, Start Num: 14
Candidate Starts for VA6_64:
(Start: 14 @40247 has 22 MA's),

Gene: WideWale_64 Start: 39920, Stop: 39804, Start Num: 13
Candidate Starts for WideWale_64:
(Start: 13 @39920 has 25 MA's), (31, 39863),

Gene: Wolpertinger_60 Start: 39007, Stop: 38870, Start Num: 6
Candidate Starts for Wolpertinger_60:
(Start: 6 @39007 has 37 MA's), (30, 38935),

Gene: XianYue_61 Start: 39423, Stop: 39307, Start Num: 13
Candidate Starts for XianYue_61:
(Start: 13 @39423 has 25 MA's), (29, 39369),

Gene: Yecey3_65 Start: 40008, Stop: 39859, Start Num: 9
Candidate Starts for Yecey3_65:
(2, 40116), (Start: 6 @40023 has 37 MA's), (Start: 9 @40008 has 1 MA's), (18, 39978), (29, 39936), (30, 39933),