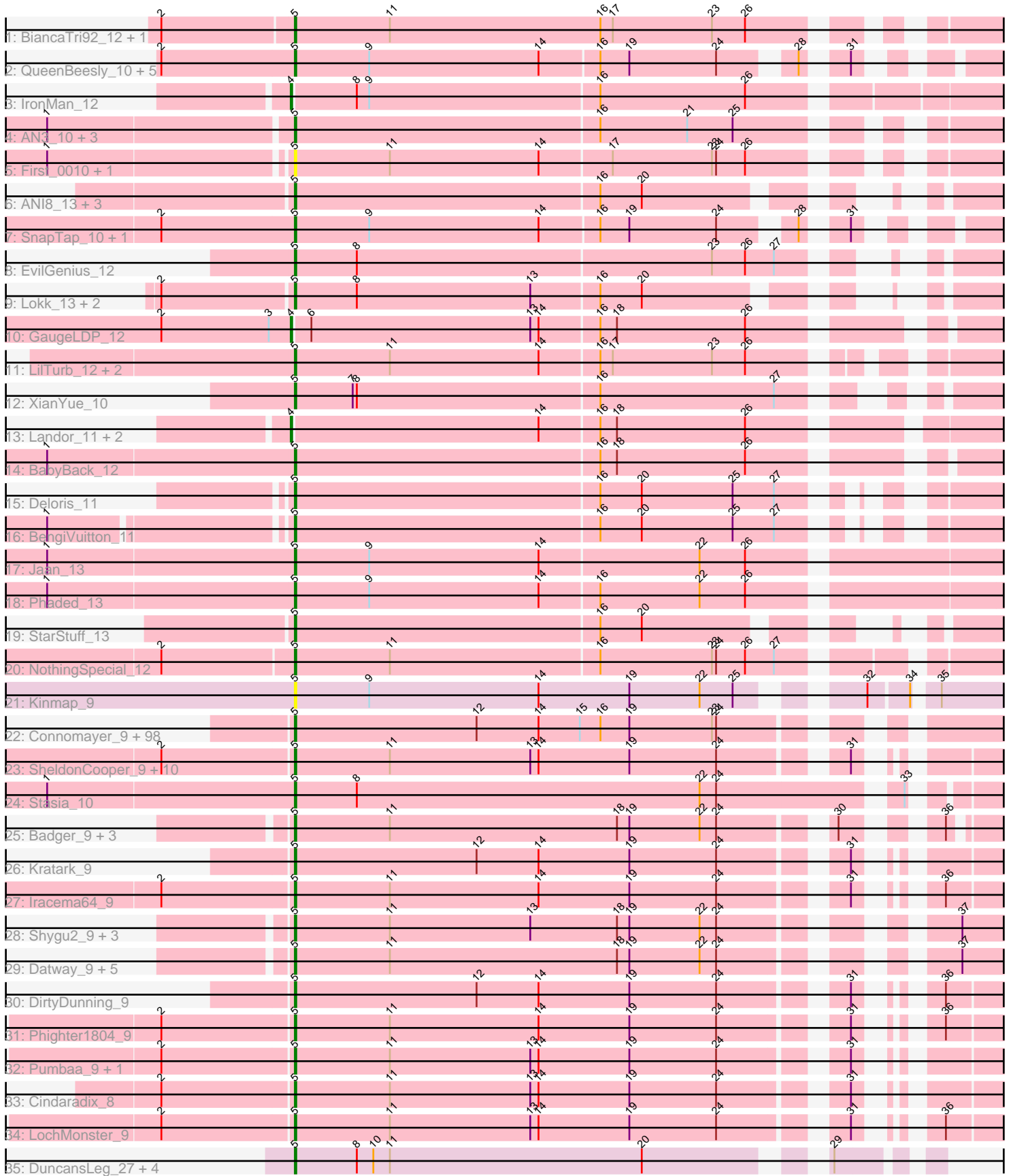


Pham 202712



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 202712 Report

This analysis was run 01/18/25 on database version 583.

Pham number 202712 has 179 members, 11 are drafts.

Phages represented in each track:

- Track 1 : BiancaTri92_12, Leogania_12
- Track 2 : QueenBeesly_10, Georgie2_11, SemperFi_12, FiringLine_10, SweetiePie_10, Power_10
- Track 3 : IronMan_12
- Track 4 : AN3_10, Benvolio_10, VA6_10, Echild_10
- Track 5 : First_0010, 20ES_10
- Track 6 : ANI8_13, AN9_13, VC3_13, C3_08
- Track 7 : SnapTap_10, Crucio_10
- Track 8 : EvilGenius_12
- Track 9 : Lokk_13, Rachaly_13, Miko_13
- Track 10 : GaugeLDP_12
- Track 11 : LilTurb_12, Jerm_12, Turbido_12
- Track 12 : XianYue_10
- Track 13 : Landor_11, Bactobuster_11, Pukovnik_12
- Track 14 : BabyBack_12
- Track 15 : Deloris_11
- Track 16 : BengiVuitton_11
- Track 17 : Jaan_13
- Track 18 : Phaded_13
- Track 19 : StarStuff_13
- Track 20 : NothingSpecial_12
- Track 21 : Kinmap_9
- Track 22 : Connomayer_9, ICleared_9, Blackmoor_9, SenorClean_8, Avle17_9, Taquarus_9, PeterPeter_9, Flux_9, TiroTheta9_9, Holli_9, Annyong_9, Kamy_9, Polymorphads_9, LeoAvram_9, Wizard007_9, Palestino_9, Medusa_9, Lorenzo_9, Houdini22_9, Nemo27_9, TroyPia_9, Koreni_8, MeeZee_9, OKaNui_9, BubbleTrouble_9, Broseidon_9, Happiness_9, Sabertooth_9, Burger_8, YoSam321_9, Millski_9, Citius_9, Jaykayelowell_9, JetBlade_9, CentreCat_9, Clarenza_9, Commander_9, HamSlice_8, Ruin_9, Romney_9, Sparxx_9, Lemur_9, Noelle_9, Eagle_8, Iceman_9, Nebs_9, Eris_9, Caelakin_9, Arturo_8, Dhanush_9, NotAPhaseMom_9, TinaFeyge_9, Florean_9, Kyee_9, Cocoaberry_9, Skipitt_9, Shaka_9, Koan_8, Relief_9, TygerBlood_9, Bartimeaus_9, Ohfah_9, Maxo_9, Chaph_9, BellusTerra_9, Alberto7_10, LappelDuVide_9, Mazhar510_9, Lunsford_10, Spino_9, Roosevelt_9, Phacado_9, Druantia_9, Albee_9, Eurydice_9, Eros_9, Gadost_9, Deano_9, Funston_9, Thanksgivukkah_9, Bombshell_9, Maverick_9, JoongJeon_9, LittleB_9, Melvin_9, Pipcraft_9, KFPoly_9, Baby16_9, NorthStar_9, Morrow_9, Phelipe_9, Peaches_9, Wilbur_9, Scamp_9, Eapen_9, Bruiser_9,

Wander_9, Abdiel_9, Kingmustik0402_9

- Track 23 : SheldonCooper_9, Huxley_9, Obama12_9, Rosa24_8, Cerulean_9, ChampagnePapi_9, Ulysses_8, LHTSCC_9, BangNhom_8, Tinybot_8, Camperdownii_8
- Track 24 : Stasia_10
- Track 25 : Badger_9, Cici_9, Xena_9, Achebe_9
- Track 26 : Kratak_9
- Track 27 : Iracema64_9
- Track 28 : Shygu2_9, Morpher26_9, AbbysRanger_9, Bumblebee11_9
- Track 29 : Datway_9, PetiteSangsue_9, Wile_9, Katalie136_9, Backyardigan_9, Perplexer_9
- Track 30 : DirtyDunning_9
- Track 31 : Phighter1804_9
- Track 32 : Pumbaa_9, Mundrea_9
- Track 33 : Cindaradix_8
- Track 34 : LochMonster_9
- Track 35 : DuncansLeg_27, LiyuLake_27, Ellson_27, KirDoubleO7_25, BourbonZero_26

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

The start number called the most often in the published annotations is 5, it was called in 163 of the 168 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- 20ES_10, AN3_10, AN9_13, ANI8_13, AbbysRanger_9, Abdiel_9, Achebe_9, Albee_9, Alberto7_10, Annyong_9, Arturo_8, Avle17_9, Baby16_9, BabyBack_12, Backyardigan_9, Badger_9, BangNhom_8, Bartimeaus_9, BellusTerra_9, BengiVuitton_11, Benvolio_10, BiancaTri92_12, Blackmoor_9, Bombshell_9, BourbonZero_26, Broseidon_9, Bruiser_9, BubbleTrouble_9, Bumblebee11_9, Burger_8, C3_08, Caelakin_9, Camperdownii_8, CentreCat_9, Cerulean_9, ChampagnePapi_9, Chaph_9, Cici_9, Cindaradix_8, Citius_9, Clarenza_9, Cocoaberry_9, Commander_9, Connomayer_9, Crucio_10, Datway_9, Deano_9, Deloris_11, Dhanush_9, DirtyDunning_9, Druantia_9, DuncansLeg_27, Eagle_8, Eapen_9, Echild_10, Ellson_27, Eris_9, Eros_9, Eurydice_9, EvilGenius_12, FiringLine_10, First_0010, Florean_9, Flux_9, Funston_9, Gadost_9, Georgie2_11, HamSlice_8, Happiness_9, Holli_9, Houdini22_9, Huxley_9, ICleared_9, Iceman_9, Iracema64_9, Jaan_13, Jaykayelowell_9, Jerm_12, JetBlade_9, JoongJeon_9, KFPoly_9, Kamy_9, Katalie136_9, Kingmustik0402_9, Kinmap_9, KirDoubleO7_25, Koan_8, Koreni_8, Kratak_9, Kyee_9, LHTSCC_9, LappelDuVide_9, Lemur_9, LeoAvram_9, Leogania_12, LilTurb_12, LittleB_9, LiyuLake_27, LochMonster_9, Lokk_13, Lorenzo_9, Lunsford_10, Maverick_9, Maxo_9, Mazhar510_9, Medusa_9, MeeZee_9, Melvin_9, Miko_13, Millski_9, Morpher26_9, Morrow_9, Mundrea_9, Nebs_9, Nemo27_9, Noelle_9, NorthStar_9, NotAPhaseMom_9, NothingSpecial_12, OKaNui_9, Obama12_9, Ohfah_9, Palestino_9, Peaches_9, Perplexer_9, PeterPeter_9, PetiteSangsue_9, Phacado_9, Phaded_13, Phelipe_9, Phighter1804_9, Pipcraft_9, Polymorphads_9, Power_10, Pumbaa_9, QueenBeesly_10, Rachaly_13, Relief_9, Romney_9, Roosevelt_9, Rosa24_8, Ruin_9, Sabertooth_9, Scamp_9, SemperFi_12, SenorClean_8, Shaka_9, SheldonCooper_9, Shygu2_9, Skipitt_9, SnapTap_10, Sparxx_9, Spino_9,

StarStuff_13, Stasia_10, SweetiePie_10, Taquarus_9, Thanksgivukkah_9, TinaFeyge_9, Tinybot_8, TiroTheta9_9, TroyPia_9, Turbido_12, TygerBlood_9, Ulysses_8, VA6_10, VC3_13, Wander_9, Wilbur_9, Wile_9, Wizard007_9, Xena_9, XianYue_10, YoSam321_9,

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

-

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

- Bactobuster_11, GaugeLDP_12, IronMan_12, Landor_11, Pukovnik_12,

Summary by start number:

Start 4:

- Found in 5 of 179 (2.8%) of genes in pham
- Manual Annotations of this start: 5 of 168
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Bactobuster_11 (A2), GaugeLDP_12 (A2), IronMan_12 (A2), Landor_11 (A2), Pukovnik_12 (A2),

Start 5:

- Found in 174 of 179 (97.2%) of genes in pham
- Manual Annotations of this start: 163 of 168
- Called 100.0% of time when present
- Phage (with cluster) where this start called: 20ES_10 (A2), AN3_10 (A2), AN9_13 (A2), ANI8_13 (A2), AbbysRanger_9 (A4), Abdiel_9 (A4), Achebe_9 (A4), Albee_9 (A4), Alberto7_10 (A4), Annyong_9 (A4), Arturo_8 (A4), Avle17_9 (A4), Baby16_9 (A4), BabyBack_12 (A2), Backyardigan_9 (A4), Badger_9 (A4), BangNhom_8 (A4), Bartimeaus_9 (A4), BellusTerra_9 (A4), BengiVuitton_11 (A2), Benvolio_10 (A2), BiancaTri92_12 (A2), Blackmoor_9 (A4), Bombshell_9 (A4), BourbonZero_26 (L3), Broseidon_9 (A4), Bruiser_9 (A4), BubbleTrouble_9 (A4), Bumblebee11_9 (A4), Burger_8 (A4), C3_08 (A2), Caelakin_9 (A4), Camperdownii_8 (A4), CentreCat_9 (A4), Cerulean_9 (A4), ChampagnePapi_9 (A4), Chaph_9 (A4), Cici_9 (A4), Cindaradix_8 (A4), Citius_9 (A4), Clarenza_9 (A4), Cocoaberry_9 (A4), Commander_9 (A4), Connomayer_9 (A4), Crucio_10 (A2), Datway_9 (A4), Deano_9 (A4), Deloris_11 (A2), Dhanush_9 (A4), DirtyDunning_9 (A4), Druantia_9 (A4), DuncansLeg_27 (L3), Eagle_8 (A4), Eapen_9 (A4), Echild_10 (A2), Ellson_27 (L3), Eris_9 (A4), Eros_9 (A4), Eurydice_9 (A4), EvilGenius_12 (A2), FiringLine_10 (A2), First_0010 (A2), Florean_9 (A4), Flux_9 (A4), Funston_9 (A4), Gadost_9 (A4), Georgie2_11 (A2), HamSlice_8 (A4), Happiness_9 (A4), Holli_9 (A4), Houdini22_9 (A4), Huxley_9 (A4), ICleared_9 (A4), Iceman_9 (A4), Iracema64_9 (A4), Jaan_13 (A2), Jaykayelowell_9 (A4), Jerm_12 (A2), JetBlade_9 (A4), JoongJeon_9 (A4), KFPoly_9 (A4), Kampy_9 (A4), Katalie136_9 (A4), Kingmustik0402_9 (A4), Kinmap_9 (A21), KirDoubleO7_25 (L3), Koan_8 (A4), Koreni_8 (A4), Kratark_9 (A4), Kye_9 (A4), LHTSCC_9 (A4), LappelDuVide_9 (A4), Lemur_9 (A4), LeoAvram_9 (A4), Leogania_12 (A2), LiITurb_12 (A2), LittleB_9 (A4), LiyuLake_27 (L3), LochMonster_9 (A4), Lokk_13 (A2), Lorenzo_9 (A4), Lunsford_10 (A4), Maverick_9 (A4), Maxo_9 (A4), Mazhar510_9 (A4), Medusa_9 (A4), MeeZee_9 (A4), Melvin_9 (A4), Miko_13 (A2), Millski_9 (A4), Morpher26_9 (A4), Morrow_9 (A4), Mundrea_9 (A4), Nebs_9 (A4), Nemo27_9 (A4), Noelle_9 (A4), NorthStar_9 (A4), NotAPhaseMom_9 (A4), NothingSpecial_12 (A2), OKaNui_9 (A4), Obama12_9 (A4), Ohfah_9 (A4), Palestino_9 (A4), Peaches_9 (A4), Perplexer_9 (A4), PeterPeter_9 (A4), PetiteSangsue_9 (A4), Phacado_9 (A4), Phaded_13 (A2), Phelipe_9 (A4),

Phighter1804_9 (A4), Pipcraft_9 (A4), Polymorphads_9 (A4), Power_10 (A2), Pumbaa_9 (A4), QueenBeesly_10 (A2), Rachaly_13 (A2), Relief_9 (A4), Romney_9 (A4), Roosevelt_9 (A4), Rosa24_8 (A4), Ruin_9 (A4), Sabertooth_9 (A4), Scamp_9 (A4), SemperFi_12 (A2), SenorClean_8 (A4), Shaka_9 (A4), SheldonCooper_9 (A4), Shygu2_9 (A4), Skipitt_9 (A4), SnapTap_10 (A2), Sparxx_9 (A4), Spino_9 (A4), StarStuff_13 (A2), Stasia_10 (A4), SweetiePie_10 (A2), Taquarus_9 (A4), Thanksgivukkah_9 (A4), TinaFeyge_9 (A4), Tinybot_8 (A4), TiroTheta9_9 (A4), TroyPia_9 (A4), Turbido_12 (A2), TygerBlood_9 (A4), Ulysses_8 (A4), VA6_10 (A2), VC3_13 (A2), Wander_9 (A4), Wilbur_9 (A4), Wile_9 (A4), Wizard007_9 (A4), Xena_9 (A4), XianYue_10 (A2), YoSam321_9 (A4),

Summary by clusters:

There are 4 clusters represented in this pham: A21, A2, A4, L3,

Info for manual annotations of cluster A2:

- Start number 4 was manually annotated 5 times for cluster A2.
- Start number 5 was manually annotated 33 times for cluster A2.

Info for manual annotations of cluster A4:

- Start number 5 was manually annotated 129 times for cluster A4.

Info for manual annotations of cluster L3:

- Start number 5 was manually annotated 1 time for cluster L3.

Gene Information:

Gene: 20ES_10 Start: 5985, Stop: 6446, Start Num: 5

Candidate Starts for 20ES_10:

(1, 5817), (Start: 5 @5985 has 163 MA's), (11, 6054), (14, 6162), (17, 6213), (23, 6285), (24, 6288), (26, 6309),

Gene: AN3_10 Start: 5970, Stop: 6431, Start Num: 5

Candidate Starts for AN3_10:

(1, 5799), (Start: 5 @5970 has 163 MA's), (16, 6189), (21, 6252), (25, 6285),

Gene: AN9_13 Start: 6174, Stop: 6599, Start Num: 5

Candidate Starts for AN9_13:

(Start: 5 @6174 has 163 MA's), (16, 6393), (20, 6423),

Gene: ANI8_13 Start: 6174, Stop: 6599, Start Num: 5

Candidate Starts for ANI8_13:

(Start: 5 @6174 has 163 MA's), (16, 6393), (20, 6423),

Gene: AbbysRanger_9 Start: 5429, Stop: 5890, Start Num: 5

Candidate Starts for AbbysRanger_9:

(Start: 5 @5429 has 163 MA's), (11, 5498), (13, 5600), (18, 5663), (19, 5672), (22, 5723), (24, 5735), (37, 5858),

Gene: Abdiel_9 Start: 5420, Stop: 5881, Start Num: 5

Candidate Starts for Abdiel_9:

(Start: 5 @5420 has 163 MA's), (12, 5552), (14, 5597), (15, 5627), (16, 5642), (19, 5663), (23, 5723), (24, 5726),

Gene: Achebe_9 Start: 5429, Stop: 5878, Start Num: 5

Candidate Starts for Achebe_9:

(Start: 5 @5429 has 163 MA's), (11, 5498), (18, 5663), (19, 5672), (22, 5723), (24, 5735), (30, 5801), (36, 5846),

Gene: Albee_9 Start: 5420, Stop: 5881, Start Num: 5

Candidate Starts for Albee_9:

(Start: 5 @5420 has 163 MA's), (12, 5552), (14, 5597), (15, 5627), (16, 5642), (19, 5663), (23, 5723), (24, 5726),

Gene: Alberto7_10 Start: 5725, Stop: 6186, Start Num: 5

Candidate Starts for Alberto7_10:

(Start: 5 @5725 has 163 MA's), (12, 5857), (14, 5902), (15, 5932), (16, 5947), (19, 5968), (23, 6028), (24, 6031),

Gene: Annyong_9 Start: 5421, Stop: 5882, Start Num: 5

Candidate Starts for Annyong_9:

(Start: 5 @5421 has 163 MA's), (12, 5553), (14, 5598), (15, 5628), (16, 5643), (19, 5664), (23, 5724), (24, 5727),

Gene: Arturo_8 Start: 5531, Stop: 5992, Start Num: 5

Candidate Starts for Arturo_8:

(Start: 5 @5531 has 163 MA's), (12, 5663), (14, 5708), (15, 5738), (16, 5753), (19, 5774), (23, 5834), (24, 5837),

Gene: Avle17_9 Start: 5420, Stop: 5881, Start Num: 5

Candidate Starts for Avle17_9:

(Start: 5 @5420 has 163 MA's), (12, 5552), (14, 5597), (15, 5627), (16, 5642), (19, 5663), (23, 5723), (24, 5726),

Gene: Baby16_9 Start: 5429, Stop: 5890, Start Num: 5

Candidate Starts for Baby16_9:

(Start: 5 @5429 has 163 MA's), (12, 5561), (14, 5606), (15, 5636), (16, 5651), (19, 5672), (23, 5732), (24, 5735),

Gene: BabyBack_12 Start: 7641, Stop: 8111, Start Num: 5

Candidate Starts for BabyBack_12:

(1, 7464), (Start: 5 @7641 has 163 MA's), (16, 7860), (18, 7872), (26, 7965),

Gene: Backyardigan_9 Start: 5429, Stop: 5890, Start Num: 5

Candidate Starts for Backyardigan_9:

(Start: 5 @5429 has 163 MA's), (11, 5498), (18, 5663), (19, 5672), (22, 5723), (24, 5735), (37, 5858),

Gene: Bactobuster_11 Start: 7711, Stop: 8190, Start Num: 4

Candidate Starts for Bactobuster_11:

(Start: 4 @7711 has 5 MA's), (14, 7888), (16, 7930), (18, 7942), (26, 8035),

Gene: Badger_9 Start: 5430, Stop: 5879, Start Num: 5

Candidate Starts for Badger_9:

(Start: 5 @5430 has 163 MA's), (11, 5499), (18, 5664), (19, 5673), (22, 5724), (24, 5736), (30, 5802), (36, 5847),

Gene: BangNhom_8 Start: 5406, Stop: 5858, Start Num: 5

Candidate Starts for BangNhom_8:

(2, 5313), (Start: 5 @5406 has 163 MA's), (11, 5475), (13, 5577), (14, 5583), (19, 5649), (24, 5712), (31, 5787),

Gene: Bartimeaus_9 Start: 5420, Stop: 5881, Start Num: 5

Candidate Starts for Bartimeaus_9:

(Start: 5 @5420 has 163 MA's), (12, 5552), (14, 5597), (15, 5627), (16, 5642), (19, 5663), (23, 5723), (24, 5726),

Gene: BellusTerra_9 Start: 5420, Stop: 5881, Start Num: 5

Candidate Starts for BellusTerra_9:

(Start: 5 @5420 has 163 MA's), (12, 5552), (14, 5597), (15, 5627), (16, 5642), (19, 5663), (23, 5723), (24, 5726),

Gene: BengiVuitton_11 Start: 6419, Stop: 6868, Start Num: 5

Candidate Starts for BengiVuitton_11:

(1, 6257), (Start: 5 @6419 has 163 MA's), (16, 6638), (20, 6668), (25, 6734), (27, 6764),

Gene: Benvolio_10 Start: 6083, Stop: 6544, Start Num: 5

Candidate Starts for Benvolio_10:

(1, 5912), (Start: 5 @6083 has 163 MA's), (16, 6302), (21, 6365), (25, 6398),

Gene: BiancaTri92_12 Start: 7749, Stop: 8213, Start Num: 5

Candidate Starts for BiancaTri92_12:

(2, 7656), (Start: 5 @7749 has 163 MA's), (11, 7818), (16, 7971), (17, 7980), (23, 8052), (26, 8076),

Gene: Blackmoor_9 Start: 5420, Stop: 5881, Start Num: 5

Candidate Starts for Blackmoor_9:

(Start: 5 @5420 has 163 MA's), (12, 5552), (14, 5597), (15, 5627), (16, 5642), (19, 5663), (23, 5723), (24, 5726),

Gene: Bombshell_9 Start: 5420, Stop: 5881, Start Num: 5

Candidate Starts for Bombshell_9:

(Start: 5 @5420 has 163 MA's), (12, 5552), (14, 5597), (15, 5627), (16, 5642), (19, 5663), (23, 5723), (24, 5726),

Gene: BourbonZero_26 Start: 26394, Stop: 26810, Start Num: 5

Candidate Starts for BourbonZero_26:

(Start: 5 @26394 has 163 MA's), (8, 26439), (10, 26451), (11, 26463), (20, 26646), (29, 26751),

Gene: Broseidon_9 Start: 5420, Stop: 5881, Start Num: 5

Candidate Starts for Broseidon_9:

(Start: 5 @5420 has 163 MA's), (12, 5552), (14, 5597), (15, 5627), (16, 5642), (19, 5663), (23, 5723), (24, 5726),

Gene: Bruiser_9 Start: 5420, Stop: 5881, Start Num: 5

Candidate Starts for Bruiser_9:

(Start: 5 @5420 has 163 MA's), (12, 5552), (14, 5597), (15, 5627), (16, 5642), (19, 5663), (23, 5723), (24, 5726),

Gene: BubbleTrouble_9 Start: 5420, Stop: 5881, Start Num: 5

Candidate Starts for BubbleTrouble_9:

(Start: 5 @5420 has 163 MA's), (12, 5552), (14, 5597), (15, 5627), (16, 5642), (19, 5663), (23, 5723), (24, 5726),

Gene: Bumblebee11_9 Start: 5429, Stop: 5890, Start Num: 5

Candidate Starts for Bumblebee11_9:

(Start: 5 @5429 has 163 MA's), (11, 5498), (13, 5600), (18, 5663), (19, 5672), (22, 5723), (24, 5735), (37, 5858),

Gene: Burger_8 Start: 5420, Stop: 5881, Start Num: 5

Candidate Starts for Burger_8:

(Start: 5 @5420 has 163 MA's), (12, 5552), (14, 5597), (15, 5627), (16, 5642), (19, 5663), (23, 5723), (24, 5726),

Gene: C3_08 Start: 6174, Stop: 6599, Start Num: 5

Candidate Starts for C3_08:

(Start: 5 @6174 has 163 MA's), (16, 6393), (20, 6423),

Gene: Caelakin_9 Start: 5420, Stop: 5881, Start Num: 5

Candidate Starts for Caelakin_9:

(Start: 5 @5420 has 163 MA's), (12, 5552), (14, 5597), (15, 5627), (16, 5642), (19, 5663), (23, 5723), (24, 5726),

Gene: Camperdownii_8 Start: 5046, Stop: 5498, Start Num: 5

Candidate Starts for Camperdownii_8:

(2, 4953), (Start: 5 @5046 has 163 MA's), (11, 5115), (13, 5217), (14, 5223), (19, 5289), (24, 5352), (31, 5427),

Gene: CentreCat_9 Start: 5421, Stop: 5882, Start Num: 5

Candidate Starts for CentreCat_9:

(Start: 5 @5421 has 163 MA's), (12, 5553), (14, 5598), (15, 5628), (16, 5643), (19, 5664), (23, 5724), (24, 5727),

Gene: Cerulean_9 Start: 5407, Stop: 5859, Start Num: 5

Candidate Starts for Cerulean_9:

(2, 5314), (Start: 5 @5407 has 163 MA's), (11, 5476), (13, 5578), (14, 5584), (19, 5650), (24, 5713), (31, 5788),

Gene: ChampagnePapi_9 Start: 5406, Stop: 5858, Start Num: 5

Candidate Starts for ChampagnePapi_9:

(2, 5313), (Start: 5 @5406 has 163 MA's), (11, 5475), (13, 5577), (14, 5583), (19, 5649), (24, 5712), (31, 5787),

Gene: Chaph_9 Start: 5429, Stop: 5890, Start Num: 5

Candidate Starts for Chaph_9:

(Start: 5 @5429 has 163 MA's), (12, 5561), (14, 5606), (15, 5636), (16, 5651), (19, 5672), (23, 5732), (24, 5735),

Gene: Cici_9 Start: 5429, Stop: 5878, Start Num: 5

Candidate Starts for Cici_9:

(Start: 5 @5429 has 163 MA's), (11, 5498), (18, 5663), (19, 5672), (22, 5723), (24, 5735), (30, 5801), (36, 5846),

Gene: Cindaradix_8 Start: 5135, Stop: 5587, Start Num: 5

Candidate Starts for Cindaradix_8:

(2, 5042), (Start: 5 @5135 has 163 MA's), (11, 5204), (13, 5306), (14, 5312), (19, 5378), (24, 5441), (31, 5516),

Gene: Citius_9 Start: 5420, Stop: 5881, Start Num: 5

Candidate Starts for Citius_9:

(Start: 5 @5420 has 163 MA's), (12, 5552), (14, 5597), (15, 5627), (16, 5642), (19, 5663), (23, 5723), (24, 5726),

Gene: Clarenza_9 Start: 5420, Stop: 5881, Start Num: 5

Candidate Starts for Clarenza_9:

(Start: 5 @5420 has 163 MA's), (12, 5552), (14, 5597), (15, 5627), (16, 5642), (19, 5663), (23, 5723), (24, 5726),

Gene: Cocoaberry_9 Start: 5424, Stop: 5885, Start Num: 5

Candidate Starts for Cocoaberry_9:

(Start: 5 @5424 has 163 MA's), (12, 5556), (14, 5601), (15, 5631), (16, 5646), (19, 5667), (23, 5727), (24, 5730),

Gene: Commander_9 Start: 5420, Stop: 5881, Start Num: 5

Candidate Starts for Commander_9:

(Start: 5 @5420 has 163 MA's), (12, 5552), (14, 5597), (15, 5627), (16, 5642), (19, 5663), (23, 5723), (24, 5726),

Gene: Connomayer_9 Start: 5420, Stop: 5881, Start Num: 5

Candidate Starts for Connomayer_9:

(Start: 5 @5420 has 163 MA's), (12, 5552), (14, 5597), (15, 5627), (16, 5642), (19, 5663), (23, 5723), (24, 5726),

Gene: Crucio_10 Start: 5938, Stop: 6375, Start Num: 5

Candidate Starts for Crucio_10:

(2, 5842), (Start: 5 @5938 has 163 MA's), (9, 5992), (14, 6115), (16, 6157), (19, 6178), (24, 6241), (28, 6283), (31, 6304),

Gene: Datway_9 Start: 5429, Stop: 5890, Start Num: 5

Candidate Starts for Datway_9:

(Start: 5 @5429 has 163 MA's), (11, 5498), (18, 5663), (19, 5672), (22, 5723), (24, 5735), (37, 5858),

Gene: Deano_9 Start: 5426, Stop: 5887, Start Num: 5

Candidate Starts for Deano_9:

(Start: 5 @5426 has 163 MA's), (12, 5558), (14, 5603), (15, 5633), (16, 5648), (19, 5669), (23, 5729), (24, 5732),

Gene: Deloris_11 Start: 6419, Stop: 6868, Start Num: 5

Candidate Starts for Deloris_11:

(Start: 5 @6419 has 163 MA's), (16, 6638), (20, 6668), (25, 6734), (27, 6764),

Gene: Dhanush_9 Start: 5423, Stop: 5884, Start Num: 5

Candidate Starts for Dhanush_9:

(Start: 5 @5423 has 163 MA's), (12, 5555), (14, 5600), (15, 5630), (16, 5645), (19, 5666), (23, 5726), (24, 5729),

Gene: DirtyDunning_9 Start: 5425, Stop: 5877, Start Num: 5

Candidate Starts for DirtyDunning_9:

(Start: 5 @5425 has 163 MA's), (12, 5557), (14, 5602), (19, 5668), (24, 5731), (31, 5806), (36, 5836),

Gene: Druantia_9 Start: 5421, Stop: 5882, Start Num: 5

Candidate Starts for Druantia_9:

(Start: 5 @5421 has 163 MA's), (12, 5553), (14, 5598), (15, 5628), (16, 5643), (19, 5664), (23, 5724), (24, 5727),

Gene: DuncansLeg_27 Start: 26417, Stop: 26833, Start Num: 5

Candidate Starts for DuncansLeg_27:

(Start: 5 @26417 has 163 MA's), (8, 26462), (10, 26474), (11, 26486), (20, 26669), (29, 26774),

Gene: Eagle_8 Start: 5420, Stop: 5881, Start Num: 5

Candidate Starts for Eagle_8:

(Start: 5 @5420 has 163 MA's), (12, 5552), (14, 5597), (15, 5627), (16, 5642), (19, 5663), (23, 5723), (24, 5726),

Gene: Eapen_9 Start: 5422, Stop: 5883, Start Num: 5

Candidate Starts for Eapen_9:

(Start: 5 @5422 has 163 MA's), (12, 5554), (14, 5599), (15, 5629), (16, 5644), (19, 5665), (23, 5725), (24, 5728),

Gene: Echild_10 Start: 6083, Stop: 6544, Start Num: 5

Candidate Starts for Echild_10:

(1, 5912), (Start: 5 @6083 has 163 MA's), (16, 6302), (21, 6365), (25, 6398),

Gene: Ellson_27 Start: 26404, Stop: 26820, Start Num: 5

Candidate Starts for Ellson_27:

(Start: 5 @26404 has 163 MA's), (8, 26449), (10, 26461), (11, 26473), (20, 26656), (29, 26761),

Gene: Eris_9 Start: 5420, Stop: 5881, Start Num: 5

Candidate Starts for Eris_9:

(Start: 5 @5420 has 163 MA's), (12, 5552), (14, 5597), (15, 5627), (16, 5642), (19, 5663), (23, 5723), (24, 5726),

Gene: Eros_9 Start: 5420, Stop: 5881, Start Num: 5

Candidate Starts for Eros_9:

(Start: 5 @5420 has 163 MA's), (12, 5552), (14, 5597), (15, 5627), (16, 5642), (19, 5663), (23, 5723), (24, 5726),

Gene: Eurydice_9 Start: 5420, Stop: 5881, Start Num: 5

Candidate Starts for Eurydice_9:

(Start: 5 @5420 has 163 MA's), (12, 5552), (14, 5597), (15, 5627), (16, 5642), (19, 5663), (23, 5723), (24, 5726),

Gene: EvilGenius_12 Start: 6384, Stop: 6953, Start Num: 5

Candidate Starts for EvilGenius_12:

(Start: 5 @6384 has 163 MA's), (8, 6429), (23, 6684), (26, 6708), (27, 6729),

Gene: FiringLine_10 Start: 5938, Stop: 6375, Start Num: 5

Candidate Starts for FiringLine_10:

(2, 5842), (Start: 5 @5938 has 163 MA's), (9, 5992), (14, 6115), (16, 6157), (19, 6178), (24, 6241), (28, 6283), (31, 6304),

Gene: First_0010 Start: 5985, Stop: 6446, Start Num: 5

Candidate Starts for First_0010:

(1, 5817), (Start: 5 @5985 has 163 MA's), (11, 6054), (14, 6162), (17, 6213), (23, 6285), (24, 6288), (26, 6309),

Gene: Florean_9 Start: 5420, Stop: 5881, Start Num: 5

Candidate Starts for Florean_9:

(Start: 5 @5420 has 163 MA's), (12, 5552), (14, 5597), (15, 5627), (16, 5642), (19, 5663), (23, 5723), (24, 5726),

Gene: Flux_9 Start: 5420, Stop: 5881, Start Num: 5

Candidate Starts for Flux_9:

(Start: 5 @5420 has 163 MA's), (12, 5552), (14, 5597), (15, 5627), (16, 5642), (19, 5663), (23, 5723), (24, 5726),

Gene: Funston_9 Start: 5420, Stop: 5881, Start Num: 5

Candidate Starts for Funston_9:

(Start: 5 @5420 has 163 MA's), (12, 5552), (14, 5597), (15, 5627), (16, 5642), (19, 5663), (23, 5723), (24, 5726),

Gene: Gadost_9 Start: 5424, Stop: 5885, Start Num: 5

Candidate Starts for Gadost_9:

(Start: 5 @5424 has 163 MA's), (12, 5556), (14, 5601), (15, 5631), (16, 5646), (19, 5667), (23, 5727), (24, 5730),

Gene: GaugeLDP_12 Start: 7318, Stop: 7788, Start Num: 4

Candidate Starts for GaugeLDP_12:

(2, 7225), (3, 7303), (Start: 4 @7318 has 5 MA's), (6, 7330), (13, 7489), (14, 7495), (16, 7537), (18, 7549), (26, 7642),

Gene: Georgie2_11 Start: 5939, Stop: 6376, Start Num: 5

Candidate Starts for Georgie2_11:

(2, 5843), (Start: 5 @5939 has 163 MA's), (9, 5993), (14, 6116), (16, 6158), (19, 6179), (24, 6242), (28, 6284), (31, 6305),

Gene: HamSlice_8 Start: 5421, Stop: 5882, Start Num: 5

Candidate Starts for HamSlice_8:

(Start: 5 @5421 has 163 MA's), (12, 5553), (14, 5598), (15, 5628), (16, 5643), (19, 5664), (23, 5724), (24, 5727),

Gene: Happiness_9 Start: 5425, Stop: 5886, Start Num: 5

Candidate Starts for Happiness_9:

(Start: 5 @5425 has 163 MA's), (12, 5557), (14, 5602), (15, 5632), (16, 5647), (19, 5668), (23, 5728), (24, 5731),

Gene: Holli_9 Start: 5213, Stop: 5674, Start Num: 5

Candidate Starts for Holli_9:

(Start: 5 @5213 has 163 MA's), (12, 5345), (14, 5390), (15, 5420), (16, 5435), (19, 5456), (23, 5516), (24, 5519),

Gene: Houdini22_9 Start: 5424, Stop: 5885, Start Num: 5

Candidate Starts for Houdini22_9:

(Start: 5 @5424 has 163 MA's), (12, 5556), (14, 5601), (15, 5631), (16, 5646), (19, 5667), (23, 5727), (24, 5730),

Gene: Huxley_9 Start: 5493, Stop: 5945, Start Num: 5

Candidate Starts for Huxley_9:

(2, 5400), (Start: 5 @5493 has 163 MA's), (11, 5562), (13, 5664), (14, 5670), (19, 5736), (24, 5799), (31, 5874),

Gene: ICleared_9 Start: 5420, Stop: 5881, Start Num: 5

Candidate Starts for ICleared_9:

(Start: 5 @5420 has 163 MA's), (12, 5552), (14, 5597), (15, 5627), (16, 5642), (19, 5663), (23, 5723), (24, 5726),

Gene: Iceman_9 Start: 5420, Stop: 5881, Start Num: 5

Candidate Starts for Iceman_9:

(Start: 5 @5420 has 163 MA's), (12, 5552), (14, 5597), (15, 5627), (16, 5642), (19, 5663), (23, 5723), (24, 5726),

Gene: Iracema64_9 Start: 5406, Stop: 5858, Start Num: 5

Candidate Starts for Iracema64_9:

(2, 5313), (Start: 5 @5406 has 163 MA's), (11, 5475), (14, 5583), (19, 5649), (24, 5712), (31, 5787), (36, 5817),

Gene: IronMan_12 Start: 7666, Stop: 8154, Start Num: 4

Candidate Starts for IronMan_12:

(Start: 4 @7666 has 5 MA's), (8, 7711), (9, 7720), (16, 7885), (26, 7990),

Gene: Jaan_13 Start: 8050, Stop: 8544, Start Num: 5

Candidate Starts for Jaan_13:

(1, 7873), (Start: 5 @8050 has 163 MA's), (9, 8104), (14, 8227), (22, 8341), (26, 8374),

Gene: Jaykayelowell_9 Start: 5419, Stop: 5880, Start Num: 5

Candidate Starts for Jaykayelowell_9:

(Start: 5 @5419 has 163 MA's), (12, 5551), (14, 5596), (15, 5626), (16, 5641), (19, 5662), (23, 5722), (24, 5725),

Gene: Jerm_12 Start: 6372, Stop: 6836, Start Num: 5

Candidate Starts for Jerm_12:

(Start: 5 @6372 has 163 MA's), (11, 6441), (14, 6549), (16, 6591), (17, 6600), (23, 6672), (26, 6696),

Gene: JetBlade_9 Start: 5420, Stop: 5881, Start Num: 5

Candidate Starts for JetBlade_9:

(Start: 5 @5420 has 163 MA's), (12, 5552), (14, 5597), (15, 5627), (16, 5642), (19, 5663), (23, 5723), (24, 5726),

Gene: JoongJeon_9 Start: 5420, Stop: 5881, Start Num: 5

Candidate Starts for JoongJeon_9:

(Start: 5 @5420 has 163 MA's), (12, 5552), (14, 5597), (15, 5627), (16, 5642), (19, 5663), (23, 5723), (24, 5726),

Gene: KFPoly_9 Start: 5420, Stop: 5881, Start Num: 5

Candidate Starts for KFPoly_9:

(Start: 5 @5420 has 163 MA's), (12, 5552), (14, 5597), (15, 5627), (16, 5642), (19, 5663), (23, 5723), (24, 5726),

Gene: Kampy_9 Start: 5421, Stop: 5882, Start Num: 5

Candidate Starts for Kampy_9:

(Start: 5 @5421 has 163 MA's), (12, 5553), (14, 5598), (15, 5628), (16, 5643), (19, 5664), (23, 5724), (24, 5727),

Gene: Katalie136_9 Start: 5429, Stop: 5890, Start Num: 5

Candidate Starts for Katalie136_9:

(Start: 5 @5429 has 163 MA's), (11, 5498), (18, 5663), (19, 5672), (22, 5723), (24, 5735), (37, 5858),

Gene: Kingmustik0402_9 Start: 5412, Stop: 5873, Start Num: 5

Candidate Starts for Kingmustik0402_9:

(Start: 5 @5412 has 163 MA's), (12, 5544), (14, 5589), (15, 5619), (16, 5634), (19, 5655), (23, 5715), (24, 5718),

Gene: Kinmap_9 Start: 5941, Stop: 6426, Start Num: 5

Candidate Starts for Kinmap_9:

(Start: 5 @5941 has 163 MA's), (9, 5995), (14, 6118), (19, 6184), (22, 6235), (25, 6259), (32, 6322), (34, 6349), (35, 6361),

Gene: KirDoubleO7_25 Start: 26426, Stop: 26842, Start Num: 5

Candidate Starts for KirDoubleO7_25:

(Start: 5 @26426 has 163 MA's), (8, 26471), (10, 26483), (11, 26495), (20, 26678), (29, 26783),

Gene: Koan_8 Start: 5420, Stop: 5881, Start Num: 5

Candidate Starts for Koan_8:

(Start: 5 @5420 has 163 MA's), (12, 5552), (14, 5597), (15, 5627), (16, 5642), (19, 5663), (23, 5723), (24, 5726),

Gene: Koreni_8 Start: 5069, Stop: 5530, Start Num: 5

Candidate Starts for Koreni_8:

(Start: 5 @5069 has 163 MA's), (12, 5201), (14, 5246), (15, 5276), (16, 5291), (19, 5312), (23, 5372), (24, 5375),

Gene: Kratak_9 Start: 5424, Stop: 5876, Start Num: 5

Candidate Starts for Kratak_9:

(Start: 5 @5424 has 163 MA's), (12, 5556), (14, 5601), (19, 5667), (24, 5730), (31, 5805),

Gene: Kyee_9 Start: 5421, Stop: 5882, Start Num: 5

Candidate Starts for Kyee_9:

(Start: 5 @5421 has 163 MA's), (12, 5553), (14, 5598), (15, 5628), (16, 5643), (19, 5664), (23, 5724), (24, 5727),

Gene: LHTSCC_9 Start: 5406, Stop: 5858, Start Num: 5

Candidate Starts for LHTSCC_9:

(2, 5313), (Start: 5 @5406 has 163 MA's), (11, 5475), (13, 5577), (14, 5583), (19, 5649), (24, 5712), (31, 5787),

Gene: Landor_11 Start: 7717, Stop: 8196, Start Num: 4

Candidate Starts for Landor_11:

(Start: 4 @7717 has 5 MA's), (14, 7894), (16, 7936), (18, 7948), (26, 8041),

Gene: LappelDuVide_9 Start: 5420, Stop: 5881, Start Num: 5

Candidate Starts for LappelDuVide_9:

(Start: 5 @5420 has 163 MA's), (12, 5552), (14, 5597), (15, 5627), (16, 5642), (19, 5663), (23, 5723), (24, 5726),

Gene: Lemur_9 Start: 5420, Stop: 5881, Start Num: 5

Candidate Starts for Lemur_9:

(Start: 5 @5420 has 163 MA's), (12, 5552), (14, 5597), (15, 5627), (16, 5642), (19, 5663), (23, 5723), (24, 5726),

Gene: LeoAvram_9 Start: 5420, Stop: 5881, Start Num: 5

Candidate Starts for LeoAvram_9:

(Start: 5 @5420 has 163 MA's), (12, 5552), (14, 5597), (15, 5627), (16, 5642), (19, 5663), (23, 5723), (24, 5726),

Gene: Leogania_12 Start: 8106, Stop: 8570, Start Num: 5

Candidate Starts for Leogania_12:

(2, 8013), (Start: 5 @8106 has 163 MA's), (11, 8175), (16, 8328), (17, 8337), (23, 8409), (26, 8433),

Gene: LilTurb_12 Start: 6431, Stop: 6895, Start Num: 5

Candidate Starts for LilTurb_12:

(Start: 5 @6431 has 163 MA's), (11, 6500), (14, 6608), (16, 6650), (17, 6659), (23, 6731), (26, 6755),

Gene: LittleB_9 Start: 5420, Stop: 5881, Start Num: 5

Candidate Starts for LittleB_9:

(Start: 5 @5420 has 163 MA's), (12, 5552), (14, 5597), (15, 5627), (16, 5642), (19, 5663), (23, 5723), (24, 5726),

Gene: LiyuLake_27 Start: 26396, Stop: 26812, Start Num: 5

Candidate Starts for LiyuLake_27:

(Start: 5 @26396 has 163 MA's), (8, 26441), (10, 26453), (11, 26465), (20, 26648), (29, 26753),

Gene: LochMonster_9 Start: 5404, Stop: 5856, Start Num: 5

Candidate Starts for LochMonster_9:

(2, 5311), (Start: 5 @5404 has 163 MA's), (11, 5473), (13, 5575), (14, 5581), (19, 5647), (24, 5710), (31, 5785), (36, 5815),

Gene: Lokk_13 Start: 7712, Stop: 8134, Start Num: 5

Candidate Starts for Lokk_13:

(2, 7619), (Start: 5 @7712 has 163 MA's), (8, 7757), (13, 7883), (16, 7931), (20, 7961),

Gene: Lorenzo_9 Start: 5420, Stop: 5881, Start Num: 5

Candidate Starts for Lorenzo_9:

(Start: 5 @5420 has 163 MA's), (12, 5552), (14, 5597), (15, 5627), (16, 5642), (19, 5663), (23, 5723), (24, 5726),

Gene: Lunsford_10 Start: 5420, Stop: 5881, Start Num: 5
Candidate Starts for Lunsford_10:
(Start: 5 @5420 has 163 MA's), (12, 5552), (14, 5597), (15, 5627), (16, 5642), (19, 5663), (23, 5723),
(24, 5726),

Gene: Maverick_9 Start: 5420, Stop: 5881, Start Num: 5
Candidate Starts for Maverick_9:
(Start: 5 @5420 has 163 MA's), (12, 5552), (14, 5597), (15, 5627), (16, 5642), (19, 5663), (23, 5723),
(24, 5726),

Gene: Maxo_9 Start: 5421, Stop: 5882, Start Num: 5
Candidate Starts for Maxo_9:
(Start: 5 @5421 has 163 MA's), (12, 5553), (14, 5598), (15, 5628), (16, 5643), (19, 5664), (23, 5724),
(24, 5727),

Gene: Mazhar510_9 Start: 5421, Stop: 5882, Start Num: 5
Candidate Starts for Mazhar510_9:
(Start: 5 @5421 has 163 MA's), (12, 5553), (14, 5598), (15, 5628), (16, 5643), (19, 5664), (23, 5724),
(24, 5727),

Gene: Medusa_9 Start: 5420, Stop: 5881, Start Num: 5
Candidate Starts for Medusa_9:
(Start: 5 @5420 has 163 MA's), (12, 5552), (14, 5597), (15, 5627), (16, 5642), (19, 5663), (23, 5723),
(24, 5726),

Gene: MeeZee_9 Start: 5420, Stop: 5881, Start Num: 5
Candidate Starts for MeeZee_9:
(Start: 5 @5420 has 163 MA's), (12, 5552), (14, 5597), (15, 5627), (16, 5642), (19, 5663), (23, 5723),
(24, 5726),

Gene: Melvin_9 Start: 5420, Stop: 5881, Start Num: 5
Candidate Starts for Melvin_9:
(Start: 5 @5420 has 163 MA's), (12, 5552), (14, 5597), (15, 5627), (16, 5642), (19, 5663), (23, 5723),
(24, 5726),

Gene: Miko_13 Start: 7681, Stop: 8103, Start Num: 5
Candidate Starts for Miko_13:
(2, 7588), (Start: 5 @7681 has 163 MA's), (8, 7726), (13, 7852), (16, 7900), (20, 7930),

Gene: Millski_9 Start: 5420, Stop: 5881, Start Num: 5
Candidate Starts for Millski_9:
(Start: 5 @5420 has 163 MA's), (12, 5552), (14, 5597), (15, 5627), (16, 5642), (19, 5663), (23, 5723),
(24, 5726),

Gene: Morpher26_9 Start: 5429, Stop: 5890, Start Num: 5
Candidate Starts for Morpher26_9:
(Start: 5 @5429 has 163 MA's), (11, 5498), (13, 5600), (18, 5663), (19, 5672), (22, 5723), (24, 5735),
(37, 5858),

Gene: Morrow_9 Start: 5420, Stop: 5881, Start Num: 5
Candidate Starts for Morrow_9:
(Start: 5 @5420 has 163 MA's), (12, 5552), (14, 5597), (15, 5627), (16, 5642), (19, 5663), (23, 5723),
(24, 5726),

Gene: Mundrea_9 Start: 5391, Stop: 5843, Start Num: 5

Candidate Starts for Mundrea_9:

(2, 5298), (Start: 5 @5391 has 163 MA's), (11, 5460), (13, 5562), (14, 5568), (19, 5634), (24, 5697), (31, 5772),

Gene: Nebs_9 Start: 5420, Stop: 5881, Start Num: 5

Candidate Starts for Nebs_9:

(Start: 5 @5420 has 163 MA's), (12, 5552), (14, 5597), (15, 5627), (16, 5642), (19, 5663), (23, 5723), (24, 5726),

Gene: Nemo27_9 Start: 5419, Stop: 5880, Start Num: 5

Candidate Starts for Nemo27_9:

(Start: 5 @5419 has 163 MA's), (12, 5551), (14, 5596), (15, 5626), (16, 5641), (19, 5662), (23, 5722), (24, 5725),

Gene: Noelle_9 Start: 5486, Stop: 5947, Start Num: 5

Candidate Starts for Noelle_9:

(Start: 5 @5486 has 163 MA's), (12, 5618), (14, 5663), (15, 5693), (16, 5708), (19, 5729), (23, 5789), (24, 5792),

Gene: NorthStar_9 Start: 5420, Stop: 5881, Start Num: 5

Candidate Starts for NorthStar_9:

(Start: 5 @5420 has 163 MA's), (12, 5552), (14, 5597), (15, 5627), (16, 5642), (19, 5663), (23, 5723), (24, 5726),

Gene: NotAPhaseMom_9 Start: 5424, Stop: 5885, Start Num: 5

Candidate Starts for NotAPhaseMom_9:

(Start: 5 @5424 has 163 MA's), (12, 5556), (14, 5601), (15, 5631), (16, 5646), (19, 5667), (23, 5727), (24, 5730),

Gene: NothingSpecial_12 Start: 7983, Stop: 8459, Start Num: 5

Candidate Starts for NothingSpecial_12:

(2, 7890), (Start: 5 @7983 has 163 MA's), (11, 8052), (16, 8202), (23, 8283), (24, 8286), (26, 8307), (27, 8328),

Gene: OKaNui_9 Start: 5185, Stop: 5646, Start Num: 5

Candidate Starts for OKaNui_9:

(Start: 5 @5185 has 163 MA's), (12, 5317), (14, 5362), (15, 5392), (16, 5407), (19, 5428), (23, 5488), (24, 5491),

Gene: Obama12_9 Start: 5408, Stop: 5860, Start Num: 5

Candidate Starts for Obama12_9:

(2, 5315), (Start: 5 @5408 has 163 MA's), (11, 5477), (13, 5579), (14, 5585), (19, 5651), (24, 5714), (31, 5789),

Gene: Ohfah_9 Start: 5420, Stop: 5881, Start Num: 5

Candidate Starts for Ohfah_9:

(Start: 5 @5420 has 163 MA's), (12, 5552), (14, 5597), (15, 5627), (16, 5642), (19, 5663), (23, 5723), (24, 5726),

Gene: Palestino_9 Start: 5420, Stop: 5881, Start Num: 5

Candidate Starts for Palestino_9:

(Start: 5 @5420 has 163 MA's), (12, 5552), (14, 5597), (15, 5627), (16, 5642), (19, 5663), (23, 5723), (24, 5726),

Gene: Peaches_9 Start: 5420, Stop: 5881, Start Num: 5

Candidate Starts for Peaches_9:

(Start: 5 @5420 has 163 MA's), (12, 5552), (14, 5597), (15, 5627), (16, 5642), (19, 5663), (23, 5723), (24, 5726),

Gene: Perplexer_9 Start: 5423, Stop: 5884, Start Num: 5

Candidate Starts for Perplexer_9:

(Start: 5 @5423 has 163 MA's), (11, 5492), (18, 5657), (19, 5666), (22, 5717), (24, 5729), (37, 5852),

Gene: PeterPeter_9 Start: 5420, Stop: 5881, Start Num: 5

Candidate Starts for PeterPeter_9:

(Start: 5 @5420 has 163 MA's), (12, 5552), (14, 5597), (15, 5627), (16, 5642), (19, 5663), (23, 5723), (24, 5726),

Gene: PetiteSangsue_9 Start: 5429, Stop: 5890, Start Num: 5

Candidate Starts for PetiteSangsue_9:

(Start: 5 @5429 has 163 MA's), (11, 5498), (18, 5663), (19, 5672), (22, 5723), (24, 5735), (37, 5858),

Gene: Phacado_9 Start: 5419, Stop: 5880, Start Num: 5

Candidate Starts for Phacado_9:

(Start: 5 @5419 has 163 MA's), (12, 5551), (14, 5596), (15, 5626), (16, 5641), (19, 5662), (23, 5722), (24, 5725),

Gene: Phaded_13 Start: 8049, Stop: 8543, Start Num: 5

Candidate Starts for Phaded_13:

(1, 7872), (Start: 5 @8049 has 163 MA's), (9, 8103), (14, 8226), (16, 8268), (22, 8340), (26, 8373),

Gene: Phelipe_9 Start: 5420, Stop: 5881, Start Num: 5

Candidate Starts for Phelipe_9:

(Start: 5 @5420 has 163 MA's), (12, 5552), (14, 5597), (15, 5627), (16, 5642), (19, 5663), (23, 5723), (24, 5726),

Gene: Phighter1804_9 Start: 5405, Stop: 5857, Start Num: 5

Candidate Starts for Phighter1804_9:

(2, 5312), (Start: 5 @5405 has 163 MA's), (11, 5474), (14, 5582), (19, 5648), (24, 5711), (31, 5786), (36, 5816),

Gene: Pipcraft_9 Start: 5420, Stop: 5881, Start Num: 5

Candidate Starts for Pipcraft_9:

(Start: 5 @5420 has 163 MA's), (12, 5552), (14, 5597), (15, 5627), (16, 5642), (19, 5663), (23, 5723), (24, 5726),

Gene: Polymorphads_9 Start: 5420, Stop: 5881, Start Num: 5

Candidate Starts for Polymorphads_9:

(Start: 5 @5420 has 163 MA's), (12, 5552), (14, 5597), (15, 5627), (16, 5642), (19, 5663), (23, 5723), (24, 5726),

Gene: Power_10 Start: 5938, Stop: 6375, Start Num: 5

Candidate Starts for Power_10:

(2, 5842), (Start: 5 @5938 has 163 MA's), (9, 5992), (14, 6115), (16, 6157), (19, 6178), (24, 6241), (28, 6283), (31, 6304),

Gene: Pukovnik_12 Start: 7625, Stop: 8104, Start Num: 4

Candidate Starts for Pukovnik_12:

(Start: 4 @7625 has 5 MA's), (14, 7802), (16, 7844), (18, 7856), (26, 7949),

Gene: Pumbaa_9 Start: 5404, Stop: 5856, Start Num: 5

Candidate Starts for Pumbaa_9:

(2, 5311), (Start: 5 @5404 has 163 MA's), (11, 5473), (13, 5575), (14, 5581), (19, 5647), (24, 5710), (31, 5785),

Gene: QueenBeesly_10 Start: 5938, Stop: 6375, Start Num: 5

Candidate Starts for QueenBeesly_10:

(2, 5842), (Start: 5 @5938 has 163 MA's), (9, 5992), (14, 6115), (16, 6157), (19, 6178), (24, 6241), (28, 6283), (31, 6304),

Gene: Rachaly_13 Start: 7710, Stop: 8132, Start Num: 5

Candidate Starts for Rachaly_13:

(2, 7617), (Start: 5 @7710 has 163 MA's), (8, 7755), (13, 7881), (16, 7929), (20, 7959),

Gene: Relief_9 Start: 5421, Stop: 5882, Start Num: 5

Candidate Starts for Relief_9:

(Start: 5 @5421 has 163 MA's), (12, 5553), (14, 5598), (15, 5628), (16, 5643), (19, 5664), (23, 5724), (24, 5727),

Gene: Romney_9 Start: 5419, Stop: 5880, Start Num: 5

Candidate Starts for Romney_9:

(Start: 5 @5419 has 163 MA's), (12, 5551), (14, 5596), (15, 5626), (16, 5641), (19, 5662), (23, 5722), (24, 5725),

Gene: Roosevelt_9 Start: 5420, Stop: 5881, Start Num: 5

Candidate Starts for Roosevelt_9:

(Start: 5 @5420 has 163 MA's), (12, 5552), (14, 5597), (15, 5627), (16, 5642), (19, 5663), (23, 5723), (24, 5726),

Gene: Rosa24_8 Start: 5404, Stop: 5856, Start Num: 5

Candidate Starts for Rosa24_8:

(2, 5311), (Start: 5 @5404 has 163 MA's), (11, 5473), (13, 5575), (14, 5581), (19, 5647), (24, 5710), (31, 5785),

Gene: Ruin_9 Start: 5419, Stop: 5880, Start Num: 5

Candidate Starts for Ruin_9:

(Start: 5 @5419 has 163 MA's), (12, 5551), (14, 5596), (15, 5626), (16, 5641), (19, 5662), (23, 5722), (24, 5725),

Gene: Sabertooth_9 Start: 5420, Stop: 5881, Start Num: 5

Candidate Starts for Sabertooth_9:

(Start: 5 @5420 has 163 MA's), (12, 5552), (14, 5597), (15, 5627), (16, 5642), (19, 5663), (23, 5723), (24, 5726),

Gene: Scamp_9 Start: 5420, Stop: 5881, Start Num: 5

Candidate Starts for Scamp_9:

(Start: 5 @5420 has 163 MA's), (12, 5552), (14, 5597), (15, 5627), (16, 5642), (19, 5663), (23, 5723), (24, 5726),

Gene: SemperFi_12 Start: 6366, Stop: 6803, Start Num: 5

Candidate Starts for SemperFi_12:

(2, 6270), (Start: 5 @6366 has 163 MA's), (9, 6420), (14, 6543), (16, 6585), (19, 6606), (24, 6669), (28, 6711), (31, 6732),

Gene: SenorClean_8 Start: 5420, Stop: 5881, Start Num: 5

Candidate Starts for SenorClean_8:

(Start: 5 @5420 has 163 MA's), (12, 5552), (14, 5597), (15, 5627), (16, 5642), (19, 5663), (23, 5723), (24, 5726),

Gene: Shaka_9 Start: 5420, Stop: 5881, Start Num: 5

Candidate Starts for Shaka_9:

(Start: 5 @5420 has 163 MA's), (12, 5552), (14, 5597), (15, 5627), (16, 5642), (19, 5663), (23, 5723), (24, 5726),

Gene: SheldonCooper_9 Start: 5407, Stop: 5859, Start Num: 5

Candidate Starts for SheldonCooper_9:

(2, 5314), (Start: 5 @5407 has 163 MA's), (11, 5476), (13, 5578), (14, 5584), (19, 5650), (24, 5713), (31, 5788),

Gene: Shygu2_9 Start: 5423, Stop: 5884, Start Num: 5

Candidate Starts for Shygu2_9:

(Start: 5 @5423 has 163 MA's), (11, 5492), (13, 5594), (18, 5657), (19, 5666), (22, 5717), (24, 5729), (37, 5852),

Gene: Skipitt_9 Start: 5420, Stop: 5881, Start Num: 5

Candidate Starts for Skipitt_9:

(Start: 5 @5420 has 163 MA's), (12, 5552), (14, 5597), (15, 5627), (16, 5642), (19, 5663), (23, 5723), (24, 5726),

Gene: SnapTap_10 Start: 5938, Stop: 6375, Start Num: 5

Candidate Starts for SnapTap_10:

(2, 5842), (Start: 5 @5938 has 163 MA's), (9, 5992), (14, 6115), (16, 6157), (19, 6178), (24, 6241), (28, 6283), (31, 6304),

Gene: Sparxx_9 Start: 5420, Stop: 5881, Start Num: 5

Candidate Starts for Sparxx_9:

(Start: 5 @5420 has 163 MA's), (12, 5552), (14, 5597), (15, 5627), (16, 5642), (19, 5663), (23, 5723), (24, 5726),

Gene: Spino_9 Start: 5420, Stop: 5881, Start Num: 5

Candidate Starts for Spino_9:

(Start: 5 @5420 has 163 MA's), (12, 5552), (14, 5597), (15, 5627), (16, 5642), (19, 5663), (23, 5723), (24, 5726),

Gene: StarStuff_13 Start: 6175, Stop: 6600, Start Num: 5

Candidate Starts for StarStuff_13:

(Start: 5 @6175 has 163 MA's), (16, 6394), (20, 6424),

Gene: Stasia_10 Start: 5853, Stop: 6326, Start Num: 5

Candidate Starts for Stasia_10:

(1, 5676), (Start: 5 @5853 has 163 MA's), (8, 5898), (22, 6147), (24, 6159), (33, 6276),

Gene: SweetiePie_10 Start: 5938, Stop: 6375, Start Num: 5

Candidate Starts for SweetiePie_10:

(2, 5842), (Start: 5 @5938 has 163 MA's), (9, 5992), (14, 6115), (16, 6157), (19, 6178), (24, 6241), (28, 6283), (31, 6304),

Gene: Taquarus_9 Start: 5423, Stop: 5884, Start Num: 5

Candidate Starts for Taquarus_9:

(Start: 5 @5423 has 163 MA's), (12, 5555), (14, 5600), (15, 5630), (16, 5645), (19, 5666), (23, 5726), (24, 5729),

Gene: Thanksgivukkah_9 Start: 5425, Stop: 5886, Start Num: 5

Candidate Starts for Thanksgivukkah_9:

(Start: 5 @5425 has 163 MA's), (12, 5557), (14, 5602), (15, 5632), (16, 5647), (19, 5668), (23, 5728), (24, 5731),

Gene: TinaFeyge_9 Start: 5420, Stop: 5881, Start Num: 5

Candidate Starts for TinaFeyge_9:

(Start: 5 @5420 has 163 MA's), (12, 5552), (14, 5597), (15, 5627), (16, 5642), (19, 5663), (23, 5723), (24, 5726),

Gene: Tinybot_8 Start: 5409, Stop: 5861, Start Num: 5

Candidate Starts for Tinybot_8:

(2, 5316), (Start: 5 @5409 has 163 MA's), (11, 5478), (13, 5580), (14, 5586), (19, 5652), (24, 5715), (31, 5790),

Gene: TiroTheta9_9 Start: 5420, Stop: 5881, Start Num: 5

Candidate Starts for TiroTheta9_9:

(Start: 5 @5420 has 163 MA's), (12, 5552), (14, 5597), (15, 5627), (16, 5642), (19, 5663), (23, 5723), (24, 5726),

Gene: TroyPia_9 Start: 5420, Stop: 5881, Start Num: 5

Candidate Starts for TroyPia_9:

(Start: 5 @5420 has 163 MA's), (12, 5552), (14, 5597), (15, 5627), (16, 5642), (19, 5663), (23, 5723), (24, 5726),

Gene: Turbido_12 Start: 6434, Stop: 6898, Start Num: 5

Candidate Starts for Turbido_12:

(Start: 5 @6434 has 163 MA's), (11, 6503), (14, 6611), (16, 6653), (17, 6662), (23, 6734), (26, 6758),

Gene: TygerBlood_9 Start: 5422, Stop: 5883, Start Num: 5

Candidate Starts for TygerBlood_9:

(Start: 5 @5422 has 163 MA's), (12, 5554), (14, 5599), (15, 5629), (16, 5644), (19, 5665), (23, 5725), (24, 5728),

Gene: Ulysses_8 Start: 5148, Stop: 5600, Start Num: 5

Candidate Starts for Ulysses_8:

(2, 5055), (Start: 5 @5148 has 163 MA's), (11, 5217), (13, 5319), (14, 5325), (19, 5391), (24, 5454), (31, 5529),

Gene: VA6_10 Start: 5970, Stop: 6431, Start Num: 5

Candidate Starts for VA6_10:

(1, 5799), (Start: 5 @5970 has 163 MA's), (16, 6189), (21, 6252), (25, 6285),

Gene: VC3_13 Start: 6174, Stop: 6599, Start Num: 5

Candidate Starts for VC3_13:

(Start: 5 @6174 has 163 MA's), (16, 6393), (20, 6423),

Gene: Wander_9 Start: 5420, Stop: 5881, Start Num: 5

Candidate Starts for Wander_9:

(Start: 5 @5420 has 163 MA's), (12, 5552), (14, 5597), (15, 5627), (16, 5642), (19, 5663), (23, 5723), (24, 5726),

Gene: Wilbur_9 Start: 5419, Stop: 5880, Start Num: 5

Candidate Starts for Wilbur_9:

(Start: 5 @5419 has 163 MA's), (12, 5551), (14, 5596), (15, 5626), (16, 5641), (19, 5662), (23, 5722), (24, 5725),

Gene: Wile_9 Start: 5430, Stop: 5891, Start Num: 5

Candidate Starts for Wile_9:

(Start: 5 @5430 has 163 MA's), (11, 5499), (18, 5664), (19, 5673), (22, 5724), (24, 5736), (37, 5859),

Gene: Wizard007_9 Start: 5422, Stop: 5883, Start Num: 5

Candidate Starts for Wizard007_9:

(Start: 5 @5422 has 163 MA's), (12, 5554), (14, 5599), (15, 5629), (16, 5644), (19, 5665), (23, 5725), (24, 5728),

Gene: Xena_9 Start: 5429, Stop: 5878, Start Num: 5

Candidate Starts for Xena_9:

(Start: 5 @5429 has 163 MA's), (11, 5498), (18, 5663), (19, 5672), (22, 5723), (24, 5735), (30, 5801), (36, 5846),

Gene: XianYue_10 Start: 5913, Stop: 6362, Start Num: 5

Candidate Starts for XianYue_10:

(Start: 5 @5913 has 163 MA's), (7, 5955), (8, 5958), (16, 6132), (27, 6258),

Gene: YoSam321_9 Start: 5420, Stop: 5881, Start Num: 5

Candidate Starts for YoSam321_9:

(Start: 5 @5420 has 163 MA's), (12, 5552), (14, 5597), (15, 5627), (16, 5642), (19, 5663), (23, 5723), (24, 5726),