Pham 283510

Pham 283510 Report

This analysis was run 02/23/26 on database version 636.

Pham number 283510 has 189 members, 9 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 : SnapTap_10, Crucio_10
• Track 4 : IronMan_12, Tristan_11
• Track 5 : AN3_10, Benvolio_10, VA6_10, Echild_10
• Track 6 : First_0010, 20ES_10
• Track 7 : ANI8_13, AN9_13, VC3_13, C3_08
• Track 8 : EvilGenius_12
• Track 9 : Naji_13, Duplo_13, Pomar16_13, D29_11, D32_13, Travvers_13, StarStuff_13, Kerberos_13, Tomathan_13, DBQu4n_13
• Track 10 : Lokk_13, Rachaly_13, Miko_13
• Track 11 : GaugeLDP_12
• Track 12 : LilTurb_12, Jerm_12, Turbido_12
• Track 13 : XianYue_10
• Track 14 : Landor_11, Bactobuster_11, Pukovnik_12
• Track 15 : BabyBack_12
• Track 16 : Deloris_11
• Track 17 : BengiVuitton_11
• Track 18 : Jaan_13
• Track 19 : Phaded_13
• Track 20 : NothingSpecial_12
• Track 21 : Kinmap_9
• Track 22 : Connomayer_9, ICleared_9, Blackmoor_9, SenorClean_9, Avle17_9, Mayonnaise_9, PeterPeter_9, Flux_9, TiroTheta9_9, HamSlice_8, Annyong_9, Kampy_9, Polymorphads_9, LeoAvram_9, Wizard007_9, Palestino_9, Taquarus_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, Holli_9, Romney_9, Sparxx_9, Lemur_9, Noelle_9, Eagle_8, Nebs_9, KekoraPapaka_8, Eris_9, Ruin_9, Caelakin_9, Arturo_8, Dhanush_9, NotAPhaseMom_9, TinaFeyge_9, Florean_9, Kyee_9, Cocoaberry_9, Skipitt_9, Koan_9, 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, Albee_9, Phacado_9, Druantia_9, Iceman_9, Eurydice_9, Eros_9, Gadost_9, Deano_9, Funston_9, Thanksgivukkah_9, Bombshell_9, Maverick_9, JoongJeon_9, LittleB_9, Melvin_9, RockieBear_8, Pipcraft_9, KFPoly_9,

Baby16_9, NorthStar_9, Morrow_9, Phelipe_9, Peaches_9, Wilbur_9, Scamp_9, Eapen_9, Bruiser_9, SteMason_8, Wander_9, Abdiel_9, Shaka_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 : Kratark_9
• Track 27 : Iracema64_9
• Track 28 : Shygu2_9, Morpher26_9, AbbysRanger_9, Bumblebee11_9
• Track 29 : Sultana_9
• Track 30 : Datway_9, PetiteSangsue_9, Wile_9, Katalie136_9, Backyardigan_9, Perplexer_9
• Track 31 : DirtyDunning_9
• Track 32 : Phighter1804_9
• Track 33 : Pumbaa_9, Mundrea_9
• Track 34 : Cindaradix_8
• Track 35 : LochMonster_9

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 174 of the 180 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, 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, D29_11, D32_13, DBQu4n_13, Datway_9, Deloris_11, Dhanush_9, DirtyDunning_9, Druantia_9, Duplo_13, Eagle_8, Eapen_9, Echild_10, 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, Kampy_9, Katalie136_9, KekoraPapaka_8, Kerberos_13, Kingmustik0402_9, Kinmap_9, Koan_9, Koreni_8, Kratark_9, Kyee_9, LHTSCC_9, LappelDuVide_9, Lemur_9, LeoAvram_9, Leogania_12, LilTurb_12, LittleB_9, LochMonster_9, Lokk_13, Lorenzo_9, Lunsford_10, Maverick_9, Maxo_9, Mayonnaise_9, Mazhar510_9, Medusa_9, MeeZee_9, Melvin_9, Miko_13, Millski_9, Morpher26_9, Morrow_9, Mundrea_9, Naji_13, 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, Pomar16_13, Power_10, Pumbaa_9, QueenBeesly_10, Rachaly_13, Relief_9, RockieBear_8, Romney_9, Roosevelt_9, Rosa24_8, Ruin_9, Sabertooth_9, Scamp_9, SemperFi_12, SenorClean_9, Shaka_9, SheldonCooper_9, Shygu2_9, Skipitt_9, SnapTap_10,

Sparxx_9, Spino_9, StarStuff_13, Stasia_10, SteMason_8, Sultana_9, SweetiePie_10, Taquarus_9, Thanksgivukkah_9, TinaFeyge_9, Tinybot_8, TiroTheta9_9, Tomathan_13, Travvers_13, 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:
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Genes that do not have the "Most Annotated" start:
• Bactobuster_11, GaugeLDP_12, IronMan_12, Landor_11, Pukovnik_12, Tristan_11,

Summary by start number:

Start 4:
• Found in 6 of 189 (3.2%) of genes in pham
• Manual Annotations of this start: 6 of 180
• 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), Tristan_11 (A2),

Start 5:
• Found in 183 of 189 (96.8%) of genes in pham
• Manual Annotations of this start: 174 of 180
• 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), 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), D29_11 (A2), D32_13 (A2), DBQu4n_13 (A2), Datway_9 (A4), Deano_9 (A4), Deloris_11 (A2), Dhanush_9 (A4), DirtyDunning_9 (A4), Druantia_9 (A4), Duplo_13 (A2), Eagle_8 (A4), Eapen_9 (A4), Echild_10 (A2), 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), KekoraPapaka_8 (A4), Kerberos_13 (A2), Kingmustik0402_9 (A4), Kinmap_9 (A21), Koan_9 (A4), Koreni_8 (A4), Kratark_9 (A4), Kyee_9 (A4), LHTSCC_9 (A4), LappelDuVide_9 (A4), Lemur_9 (A4), LeoAvram_9 (A4), Leogania_12 (A2), LilTurb_12 (A2), LittleB_9 (A4), LochMonster_9 (A4), Lokk_13 (A2), Lorenzo_9 (A4), Lunsford_10 (A4), Maverick_9 (A4), Maxo_9 (A4), Mayonnaise_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), Naji_13 (A2), 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), Pomar16_13 (A2), Power_10 (A2), Pumbaa_9 (A4), QueenBeesly_10 (A2), Rachaly_13 (A2), Relief_9 (A4), RockieBear_8 (A4), Romney_9 (A4), Roosevelt_9 (A4), Rosa24_8 (A4), Ruin_9 (A4), Sabertooth_9 (A4), Scamp_9 (A4), SemperFi_12 (A2), SenorClean_9 (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), SteMason_8 (A4), Sultana_9 (A4), SweetiePie_10 (A2), Taquarus_9 (A4), Thanksgivukkah_9 (A4), TinaFeyge_9 (A4), Tinybot_8 (A4), TiroTheta9_9 (A4), Tomathan_13 (A2), Travvers_13 (A2), 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 3 clusters represented in this pham: A21, A2, A4,

Info for manual annotations of cluster A2:
•Start number 4 was manually annotated 6 times for cluster A2.
•Start number 5 was manually annotated 41 times for cluster A2.

Info for manual annotations of cluster A4:
•Start number 5 was manually annotated 133 times for cluster A4.

Gene Information:

Gene: 20ES_10 Start: 5985, Stop: 6446, Start Num: 5
Candidate Starts for 20ES_10:
(1, 5817), (Start: 5 @5985 has 174 MA's), (10, 6054), (13, 6162), (16, 6213), (22, 6285), (23, 6288), (25, 6309),

Gene: AN3_10 Start: 5970, Stop: 6431, Start Num: 5
Candidate Starts for AN3_10:
(1, 5799), (Start: 5 @5970 has 174 MA's), (15, 6189), (20, 6252), (24, 6285),

Gene: AN9_13 Start: 6174, Stop: 6599, Start Num: 5
Candidate Starts for AN9_13:
(Start: 5 @6174 has 174 MA's), (15, 6393), (19, 6423),

Gene: ANI8_13 Start: 6174, Stop: 6599, Start Num: 5
Candidate Starts for ANI8_13:
(Start: 5 @6174 has 174 MA's), (15, 6393), (19, 6423),

Gene: AbbysRanger_9 Start: 5429, Stop: 5890, Start Num: 5
Candidate Starts for AbbysRanger_9:
(Start: 5 @5429 has 174 MA's), (10, 5498), (12, 5600), (17, 5663), (18, 5672), (21, 5723), (23, 5735), (35, 5858),

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

Candidate Starts for Abdiel_9:
(Start: 5 @5420 has 174 MA's), (11, 5552), (13, 5597), (14, 5627), (15, 5642), (18, 5663), (22, 5723), (23, 5726),

Gene: Achebe_9 Start: 5429, Stop: 5878, Start Num: 5
Candidate Starts for Achebe_9:
(Start: 5 @5429 has 174 MA's), (10, 5498), (17, 5663), (18, 5672), (21, 5723), (23, 5735), (29, 5801), (34, 5846),

Gene: Albee_9 Start: 5420, Stop: 5881, Start Num: 5
Candidate Starts for Albee_9:
(Start: 5 @5420 has 174 MA's), (11, 5552), (13, 5597), (14, 5627), (15, 5642), (18, 5663), (22, 5723), (23, 5726),

Gene: Alberto7_10 Start: 5725, Stop: 6186, Start Num: 5
Candidate Starts for Alberto7_10:
(Start: 5 @5725 has 174 MA's), (11, 5857), (13, 5902), (14, 5932), (15, 5947), (18, 5968), (22, 6028), (23, 6031),

Gene: Annyong_9 Start: 5421, Stop: 5882, Start Num: 5
Candidate Starts for Annyong_9:
(Start: 5 @5421 has 174 MA's), (11, 5553), (13, 5598), (14, 5628), (15, 5643), (18, 5664), (22, 5724), (23, 5727),

Gene: Arturo_8 Start: 5531, Stop: 5992, Start Num: 5
Candidate Starts for Arturo_8:
(Start: 5 @5531 has 174 MA's), (11, 5663), (13, 5708), (14, 5738), (15, 5753), (18, 5774), (22, 5834), (23, 5837),

Gene: Avle17_9 Start: 5420, Stop: 5881, Start Num: 5
Candidate Starts for Avle17_9:
(Start: 5 @5420 has 174 MA's), (11, 5552), (13, 5597), (14, 5627), (15, 5642), (18, 5663), (22, 5723), (23, 5726),

Gene: Baby16_9 Start: 5429, Stop: 5890, Start Num: 5
Candidate Starts for Baby16_9:
(Start: 5 @5429 has 174 MA's), (11, 5561), (13, 5606), (14, 5636), (15, 5651), (18, 5672), (22, 5732), (23, 5735),

Gene: BabyBack_12 Start: 7641, Stop: 8111, Start Num: 5
Candidate Starts for BabyBack_12:
(1, 7464), (Start: 5 @7641 has 174 MA's), (15, 7860), (17, 7872), (25, 7965),

Gene: Backyardigan_9 Start: 5429, Stop: 5890, Start Num: 5
Candidate Starts for Backyardigan_9:
(Start: 5 @5429 has 174 MA's), (10, 5498), (17, 5663), (18, 5672), (21, 5723), (23, 5735), (35, 5858),

Gene: Bactobuster_11 Start: 7711, Stop: 8190, Start Num: 4
Candidate Starts for Bactobuster_11:
(Start: 4 @7711 has 6 MA's), (13, 7888), (15, 7930), (17, 7942), (25, 8035),

Gene: Badger_9 Start: 5430, Stop: 5879, Start Num: 5
Candidate Starts for Badger_9:

(Start: 5 @5430 has 174 MA's), (10, 5499), (17, 5664), (18, 5673), (21, 5724), (23, 5736), (29, 5802), (34, 5847),

Gene: BangNhom_8 Start: 5406, Stop: 5858, Start Num: 5
Candidate Starts for BangNhom_8:
(2, 5313), (Start: 5 @5406 has 174 MA's), (10, 5475), (12, 5577), (13, 5583), (18, 5649), (23, 5712), (30, 5787),

Gene: Bartimeaus_9 Start: 5420, Stop: 5881, Start Num: 5
Candidate Starts for Bartimeaus_9:
(Start: 5 @5420 has 174 MA's), (11, 5552), (13, 5597), (14, 5627), (15, 5642), (18, 5663), (22, 5723), (23, 5726),

Gene: BellusTerra_9 Start: 5420, Stop: 5881, Start Num: 5
Candidate Starts for BellusTerra_9:
(Start: 5 @5420 has 174 MA's), (11, 5552), (13, 5597), (14, 5627), (15, 5642), (18, 5663), (22, 5723), (23, 5726),

Gene: BengiVuitton_11 Start: 6419, Stop: 6868, Start Num: 5
Candidate Starts for BengiVuitton_11:
(1, 6257), (Start: 5 @6419 has 174 MA's), (15, 6638), (19, 6668), (24, 6734), (26, 6764),

Gene: Benvolio_10 Start: 6083, Stop: 6544, Start Num: 5
Candidate Starts for Benvolio_10:
(1, 5912), (Start: 5 @6083 has 174 MA's), (15, 6302), (20, 6365), (24, 6398),

Gene: BiancaTri92_12 Start: 7749, Stop: 8213, Start Num: 5
Candidate Starts for BiancaTri92_12:
(2, 7656), (Start: 5 @7749 has 174 MA's), (10, 7818), (15, 7971), (16, 7980), (22, 8052), (25, 8076),

Gene: Blackmoor_9 Start: 5420, Stop: 5881, Start Num: 5
Candidate Starts for Blackmoor_9:
(Start: 5 @5420 has 174 MA's), (11, 5552), (13, 5597), (14, 5627), (15, 5642), (18, 5663), (22, 5723), (23, 5726),

Gene: Bombshell_9 Start: 5420, Stop: 5881, Start Num: 5
Candidate Starts for Bombshell_9:
(Start: 5 @5420 has 174 MA's), (11, 5552), (13, 5597), (14, 5627), (15, 5642), (18, 5663), (22, 5723), (23, 5726),

Gene: Broseidon_9 Start: 5420, Stop: 5881, Start Num: 5
Candidate Starts for Broseidon_9:
(Start: 5 @5420 has 174 MA's), (11, 5552), (13, 5597), (14, 5627), (15, 5642), (18, 5663), (22, 5723), (23, 5726),

Gene: Bruiser_9 Start: 5420, Stop: 5881, Start Num: 5
Candidate Starts for Bruiser_9:
(Start: 5 @5420 has 174 MA's), (11, 5552), (13, 5597), (14, 5627), (15, 5642), (18, 5663), (22, 5723), (23, 5726),

Gene: BubbleTrouble_9 Start: 5420, Stop: 5881, Start Num: 5
Candidate Starts for BubbleTrouble_9:

(Start: 5 @5420 has 174 MA's), (11, 5552), (13, 5597), (14, 5627), (15, 5642), (18, 5663), (22, 5723), (23, 5726),

Gene: Bumblebee11_9 Start: 5429, Stop: 5890, Start Num: 5
Candidate Starts for Bumblebee11_9:
(Start: 5 @5429 has 174 MA's), (10, 5498), (12, 5600), (17, 5663), (18, 5672), (21, 5723), (23, 5735), (35, 5858),

Gene: Burger_8 Start: 5420, Stop: 5881, Start Num: 5
Candidate Starts for Burger_8:
(Start: 5 @5420 has 174 MA's), (11, 5552), (13, 5597), (14, 5627), (15, 5642), (18, 5663), (22, 5723), (23, 5726),

Gene: C3_08 Start: 6174, Stop: 6599, Start Num: 5
Candidate Starts for C3_08:
(Start: 5 @6174 has 174 MA's), (15, 6393), (19, 6423),

Gene: Caelakin_9 Start: 5420, Stop: 5881, Start Num: 5
Candidate Starts for Caelakin_9:
(Start: 5 @5420 has 174 MA's), (11, 5552), (13, 5597), (14, 5627), (15, 5642), (18, 5663), (22, 5723), (23, 5726),

Gene: Camperdownii_8 Start: 5046, Stop: 5498, Start Num: 5
Candidate Starts for Camperdownii_8:
(2, 4953), (Start: 5 @5046 has 174 MA's), (10, 5115), (12, 5217), (13, 5223), (18, 5289), (23, 5352), (30, 5427),

Gene: CentreCat_9 Start: 5421, Stop: 5882, Start Num: 5
Candidate Starts for CentreCat_9:
(Start: 5 @5421 has 174 MA's), (11, 5553), (13, 5598), (14, 5628), (15, 5643), (18, 5664), (22, 5724), (23, 5727),

Gene: Cerulean_9 Start: 5407, Stop: 5859, Start Num: 5
Candidate Starts for Cerulean_9:
(2, 5314), (Start: 5 @5407 has 174 MA's), (10, 5476), (12, 5578), (13, 5584), (18, 5650), (23, 5713), (30, 5788),

Gene: ChampagnePapi_9 Start: 5406, Stop: 5858, Start Num: 5
Candidate Starts for ChampagnePapi_9:
(2, 5313), (Start: 5 @5406 has 174 MA's), (10, 5475), (12, 5577), (13, 5583), (18, 5649), (23, 5712), (30, 5787),

Gene: Chaph_9 Start: 5429, Stop: 5890, Start Num: 5
Candidate Starts for Chaph_9:
(Start: 5 @5429 has 174 MA's), (11, 5561), (13, 5606), (14, 5636), (15, 5651), (18, 5672), (22, 5732), (23, 5735),

Gene: Cici_9 Start: 5429, Stop: 5878, Start Num: 5
Candidate Starts for Cici_9:
(Start: 5 @5429 has 174 MA's), (10, 5498), (17, 5663), (18, 5672), (21, 5723), (23, 5735), (29, 5801), (34, 5846),

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

Candidate Starts for Cindaradix_8:
(2, 5042), (Start: 5 @5135 has 174 MA's), (10, 5204), (12, 5306), (13, 5312), (18, 5378), (23, 5441),
(30, 5516),

Gene: Citius_9 Start: 5420, Stop: 5881, Start Num: 5
Candidate Starts for Citius_9:
(Start: 5 @5420 has 174 MA's), (11, 5552), (13, 5597), (14, 5627), (15, 5642), (18, 5663), (22, 5723),
(23, 5726),

Gene: Clarenza_9 Start: 5420, Stop: 5881, Start Num: 5
Candidate Starts for Clarenza_9:
(Start: 5 @5420 has 174 MA's), (11, 5552), (13, 5597), (14, 5627), (15, 5642), (18, 5663), (22, 5723),
(23, 5726),

Gene: Cocoaberry_9 Start: 5424, Stop: 5885, Start Num: 5
Candidate Starts for Cocoaberry_9:
(Start: 5 @5424 has 174 MA's), (11, 5556), (13, 5601), (14, 5631), (15, 5646), (18, 5667), (22, 5727),
(23, 5730),

Gene: Commander_9 Start: 5420, Stop: 5881, Start Num: 5
Candidate Starts for Commander_9:
(Start: 5 @5420 has 174 MA's), (11, 5552), (13, 5597), (14, 5627), (15, 5642), (18, 5663), (22, 5723),
(23, 5726),

Gene: Connomayer_9 Start: 5420, Stop: 5881, Start Num: 5
Candidate Starts for Connomayer_9:
(Start: 5 @5420 has 174 MA's), (11, 5552), (13, 5597), (14, 5627), (15, 5642), (18, 5663), (22, 5723),
(23, 5726),

Gene: Crucio_10 Start: 5938, Stop: 6375, Start Num: 5
Candidate Starts for Crucio_10:
(2, 5842), (Start: 5 @5938 has 174 MA's), (9, 5992), (13, 6115), (15, 6157), (18, 6178), (23, 6241), (27,
6283), (30, 6304),

Gene: D29_11 Start: 6175, Stop: 6600, Start Num: 5
Candidate Starts for D29_11:
(Start: 5 @6175 has 174 MA's), (15, 6394), (19, 6424),

Gene: D32_13 Start: 6175, Stop: 6600, Start Num: 5
Candidate Starts for D32_13:
(Start: 5 @6175 has 174 MA's), (15, 6394), (19, 6424),

Gene: DBQu4n_13 Start: 6175, Stop: 6600, Start Num: 5
Candidate Starts for DBQu4n_13:
(Start: 5 @6175 has 174 MA's), (15, 6394), (19, 6424),

Gene: Datway_9 Start: 5429, Stop: 5890, Start Num: 5
Candidate Starts for Datway_9:
(Start: 5 @5429 has 174 MA's), (10, 5498), (17, 5663), (18, 5672), (21, 5723), (23, 5735), (35, 5858),

Gene: Deano_9 Start: 5426, Stop: 5887, Start Num: 5
Candidate Starts for Deano_9:

(Start: 5 @5426 has 174 MA's), (11, 5558), (13, 5603), (14, 5633), (15, 5648), (18, 5669), (22, 5729), (23, 5732),

Gene: Deloris_11 Start: 6419, Stop: 6868, Start Num: 5
Candidate Starts for Deloris_11:
(Start: 5 @6419 has 174 MA's), (15, 6638), (19, 6668), (24, 6734), (26, 6764),

Gene: Dhanush_9 Start: 5423, Stop: 5884, Start Num: 5
Candidate Starts for Dhanush_9:
(Start: 5 @5423 has 174 MA's), (11, 5555), (13, 5600), (14, 5630), (15, 5645), (18, 5666), (22, 5726), (23, 5729),

Gene: DirtyDunning_9 Start: 5425, Stop: 5877, Start Num: 5
Candidate Starts for DirtyDunning_9:
(Start: 5 @5425 has 174 MA's), (11, 5557), (13, 5602), (18, 5668), (23, 5731), (30, 5806), (34, 5836),

Gene: Druantia_9 Start: 5421, Stop: 5882, Start Num: 5
Candidate Starts for Druantia_9:
(Start: 5 @5421 has 174 MA's), (11, 5553), (13, 5598), (14, 5628), (15, 5643), (18, 5664), (22, 5724), (23, 5727),

Gene: Duplo_13 Start: 6216, Stop: 6641, Start Num: 5
Candidate Starts for Duplo_13:
(Start: 5 @6216 has 174 MA's), (15, 6435), (19, 6465),

Gene: Eagle_8 Start: 5420, Stop: 5881, Start Num: 5
Candidate Starts for Eagle_8:
(Start: 5 @5420 has 174 MA's), (11, 5552), (13, 5597), (14, 5627), (15, 5642), (18, 5663), (22, 5723), (23, 5726),

Gene: Eapen_9 Start: 5422, Stop: 5883, Start Num: 5
Candidate Starts for Eapen_9:
(Start: 5 @5422 has 174 MA's), (11, 5554), (13, 5599), (14, 5629), (15, 5644), (18, 5665), (22, 5725), (23, 5728),

Gene: Echild_10 Start: 6083, Stop: 6544, Start Num: 5
Candidate Starts for Echild_10:
(1, 5912), (Start: 5 @6083 has 174 MA's), (15, 6302), (20, 6365), (24, 6398),

Gene: Eris_9 Start: 5420, Stop: 5881, Start Num: 5
Candidate Starts for Eris_9:
(Start: 5 @5420 has 174 MA's), (11, 5552), (13, 5597), (14, 5627), (15, 5642), (18, 5663), (22, 5723), (23, 5726),

Gene: Eros_9 Start: 5420, Stop: 5881, Start Num: 5
Candidate Starts for Eros_9:
(Start: 5 @5420 has 174 MA's), (11, 5552), (13, 5597), (14, 5627), (15, 5642), (18, 5663), (22, 5723), (23, 5726),

Gene: Eurydice_9 Start: 5420, Stop: 5881, Start Num: 5
Candidate Starts for Eurydice_9:
(Start: 5 @5420 has 174 MA's), (11, 5552), (13, 5597), (14, 5627), (15, 5642), (18, 5663), (22, 5723), (23, 5726),

Gene: EvilGenius_12 Start: 6384, Stop: 6953, Start Num: 5
Candidate Starts for EvilGenius_12:
(Start: 5 @6384 has 174 MA's), (8, 6429), (22, 6684), (25, 6708), (26, 6729),

Gene: FiringLine_10 Start: 5938, Stop: 6375, Start Num: 5
Candidate Starts for FiringLine_10:
(2, 5842), (Start: 5 @5938 has 174 MA's), (9, 5992), (13, 6115), (15, 6157), (18, 6178), (23, 6241), (27, 6283), (30, 6304),

Gene: First_0010 Start: 5985, Stop: 6446, Start Num: 5
Candidate Starts for First_0010:
(1, 5817), (Start: 5 @5985 has 174 MA's), (10, 6054), (13, 6162), (16, 6213), (22, 6285), (23, 6288), (25, 6309),

Gene: Florean_9 Start: 5420, Stop: 5881, Start Num: 5
Candidate Starts for Florean_9:
(Start: 5 @5420 has 174 MA's), (11, 5552), (13, 5597), (14, 5627), (15, 5642), (18, 5663), (22, 5723), (23, 5726),

Gene: Flux_9 Start: 5420, Stop: 5881, Start Num: 5
Candidate Starts for Flux_9:
(Start: 5 @5420 has 174 MA's), (11, 5552), (13, 5597), (14, 5627), (15, 5642), (18, 5663), (22, 5723), (23, 5726),

Gene: Funston_9 Start: 5420, Stop: 5881, Start Num: 5
Candidate Starts for Funston_9:
(Start: 5 @5420 has 174 MA's), (11, 5552), (13, 5597), (14, 5627), (15, 5642), (18, 5663), (22, 5723), (23, 5726),

Gene: Gadost_9 Start: 5424, Stop: 5885, Start Num: 5
Candidate Starts for Gadost_9:
(Start: 5 @5424 has 174 MA's), (11, 5556), (13, 5601), (14, 5631), (15, 5646), (18, 5667), (22, 5727), (23, 5730),

Gene: GaugeLDP_12 Start: 7318, Stop: 7788, Start Num: 4
Candidate Starts for GaugeLDP_12:
(2, 7225), (3, 7303), (Start: 4 @7318 has 6 MA's), (6, 7330), (12, 7489), (13, 7495), (15, 7537), (17, 7549), (25, 7642),

Gene: Georgie2_11 Start: 5939, Stop: 6376, Start Num: 5
Candidate Starts for Georgie2_11:
(2, 5843), (Start: 5 @5939 has 174 MA's), (9, 5993), (13, 6116), (15, 6158), (18, 6179), (23, 6242), (27, 6284), (30, 6305),

Gene: HamSlice_8 Start: 5421, Stop: 5882, Start Num: 5
Candidate Starts for HamSlice_8:
(Start: 5 @5421 has 174 MA's), (11, 5553), (13, 5598), (14, 5628), (15, 5643), (18, 5664), (22, 5724), (23, 5727),

Gene: Happiness_9 Start: 5425, Stop: 5886, Start Num: 5
Candidate Starts for Happiness_9:

(Start: 5 @5425 has 174 MA's), (11, 5557), (13, 5602), (14, 5632), (15, 5647), (18, 5668), (22, 5728), (23, 5731),

Gene: Holli_9 Start: 5213, Stop: 5674, Start Num: 5
Candidate Starts for Holli_9:
(Start: 5 @5213 has 174 MA's), (11, 5345), (13, 5390), (14, 5420), (15, 5435), (18, 5456), (22, 5516), (23, 5519),

Gene: Houdini22_9 Start: 5424, Stop: 5885, Start Num: 5
Candidate Starts for Houdini22_9:
(Start: 5 @5424 has 174 MA's), (11, 5556), (13, 5601), (14, 5631), (15, 5646), (18, 5667), (22, 5727), (23, 5730),

Gene: Huxley_9 Start: 5493, Stop: 5945, Start Num: 5
Candidate Starts for Huxley_9:
(2, 5400), (Start: 5 @5493 has 174 MA's), (10, 5562), (12, 5664), (13, 5670), (18, 5736), (23, 5799), (30, 5874),

Gene: ICleared_9 Start: 5420, Stop: 5881, Start Num: 5
Candidate Starts for ICleared_9:
(Start: 5 @5420 has 174 MA's), (11, 5552), (13, 5597), (14, 5627), (15, 5642), (18, 5663), (22, 5723), (23, 5726),

Gene: Iceman_9 Start: 5420, Stop: 5881, Start Num: 5
Candidate Starts for Iceman_9:
(Start: 5 @5420 has 174 MA's), (11, 5552), (13, 5597), (14, 5627), (15, 5642), (18, 5663), (22, 5723), (23, 5726),

Gene: Iracema64_9 Start: 5406, Stop: 5858, Start Num: 5
Candidate Starts for Iracema64_9:
(2, 5313), (Start: 5 @5406 has 174 MA's), (10, 5475), (13, 5583), (18, 5649), (23, 5712), (30, 5787), (34, 5817),

Gene: IronMan_12 Start: 7666, Stop: 8154, Start Num: 4
Candidate Starts for IronMan_12:
(Start: 4 @7666 has 6 MA's), (8, 7711), (9, 7720), (15, 7885), (25, 7990),

Gene: Jaan_13 Start: 8050, Stop: 8544, Start Num: 5
Candidate Starts for Jaan_13:
(1, 7873), (Start: 5 @8050 has 174 MA's), (9, 8104), (13, 8227), (21, 8341), (25, 8374),

Gene: Jaykayelowell_9 Start: 5419, Stop: 5880, Start Num: 5
Candidate Starts for Jaykayelowell_9:
(Start: 5 @5419 has 174 MA's), (11, 5551), (13, 5596), (14, 5626), (15, 5641), (18, 5662), (22, 5722), (23, 5725),

Gene: Jerm_12 Start: 6372, Stop: 6836, Start Num: 5
Candidate Starts for Jerm_12:
(Start: 5 @6372 has 174 MA's), (10, 6441), (13, 6549), (15, 6591), (16, 6600), (22, 6672), (25, 6696),

Gene: JetBlade_9 Start: 5420, Stop: 5881, Start Num: 5
Candidate Starts for JetBlade_9:

(Start: 5 @5420 has 174 MA's), (11, 5552), (13, 5597), (14, 5627), (15, 5642), (18, 5663), (22, 5723), (23, 5726),

Gene: JoongJeon_9 Start: 5420, Stop: 5881, Start Num: 5
Candidate Starts for JoongJeon_9:
(Start: 5 @5420 has 174 MA's), (11, 5552), (13, 5597), (14, 5627), (15, 5642), (18, 5663), (22, 5723), (23, 5726),

Gene: KFPoly_9 Start: 5420, Stop: 5881, Start Num: 5
Candidate Starts for KFPoly_9:
(Start: 5 @5420 has 174 MA's), (11, 5552), (13, 5597), (14, 5627), (15, 5642), (18, 5663), (22, 5723), (23, 5726),

Gene: Kampy_9 Start: 5421, Stop: 5882, Start Num: 5
Candidate Starts for Kampy_9:
(Start: 5 @5421 has 174 MA's), (11, 5553), (13, 5598), (14, 5628), (15, 5643), (18, 5664), (22, 5724), (23, 5727),

Gene: Katalie136_9 Start: 5429, Stop: 5890, Start Num: 5
Candidate Starts for Katalie136_9:
(Start: 5 @5429 has 174 MA's), (10, 5498), (17, 5663), (18, 5672), (21, 5723), (23, 5735), (35, 5858),

Gene: KekoraPapaka_8 Start: 5420, Stop: 5881, Start Num: 5
Candidate Starts for KekoraPapaka_8:
(Start: 5 @5420 has 174 MA's), (11, 5552), (13, 5597), (14, 5627), (15, 5642), (18, 5663), (22, 5723), (23, 5726),

Gene: Kerberos_13 Start: 6175, Stop: 6600, Start Num: 5
Candidate Starts for Kerberos_13:
(Start: 5 @6175 has 174 MA's), (15, 6394), (19, 6424),

Gene: Kingmustik0402_9 Start: 5412, Stop: 5873, Start Num: 5
Candidate Starts for Kingmustik0402_9:
(Start: 5 @5412 has 174 MA's), (11, 5544), (13, 5589), (14, 5619), (15, 5634), (18, 5655), (22, 5715), (23, 5718),

Gene: Kinmap_9 Start: 5941, Stop: 6426, Start Num: 5
Candidate Starts for Kinmap_9:
(Start: 5 @5941 has 174 MA's), (9, 5995), (13, 6118), (18, 6184), (21, 6235), (24, 6259), (28, 6322), (31, 6349), (32, 6361),

Gene: Koan_9 Start: 5420, Stop: 5881, Start Num: 5
Candidate Starts for Koan_9:
(Start: 5 @5420 has 174 MA's), (11, 5552), (13, 5597), (14, 5627), (15, 5642), (18, 5663), (22, 5723), (23, 5726),

Gene: Koreni_8 Start: 5069, Stop: 5530, Start Num: 5
Candidate Starts for Koreni_8:
(Start: 5 @5069 has 174 MA's), (11, 5201), (13, 5246), (14, 5276), (15, 5291), (18, 5312), (22, 5372), (23, 5375),

Gene: Kratark_9 Start: 5424, Stop: 5876, Start Num: 5
Candidate Starts for Kratark_9:

(Start: 5 @5424 has 174 MA's), (11, 5556), (13, 5601), (18, 5667), (23, 5730), (30, 5805),

Gene: Kyee_9 Start: 5421, Stop: 5882, Start Num: 5
Candidate Starts for Kyee_9:
(Start: 5 @5421 has 174 MA's), (11, 5553), (13, 5598), (14, 5628), (15, 5643), (18, 5664), (22, 5724), (23, 5727),

Gene: LHTSCC_9 Start: 5406, Stop: 5858, Start Num: 5
Candidate Starts for LHTSCC_9:
(2, 5313), (Start: 5 @5406 has 174 MA's), (10, 5475), (12, 5577), (13, 5583), (18, 5649), (23, 5712), (30, 5787),

Gene: Landor_11 Start: 7717, Stop: 8196, Start Num: 4
Candidate Starts for Landor_11:
(Start: 4 @7717 has 6 MA's), (13, 7894), (15, 7936), (17, 7948), (25, 8041),

Gene: LappelDuVide_9 Start: 5420, Stop: 5881, Start Num: 5
Candidate Starts for LappelDuVide_9:
(Start: 5 @5420 has 174 MA's), (11, 5552), (13, 5597), (14, 5627), (15, 5642), (18, 5663), (22, 5723), (23, 5726),

Gene: Lemur_9 Start: 5420, Stop: 5881, Start Num: 5
Candidate Starts for Lemur_9:
(Start: 5 @5420 has 174 MA's), (11, 5552), (13, 5597), (14, 5627), (15, 5642), (18, 5663), (22, 5723), (23, 5726),

Gene: LeoAvram_9 Start: 5420, Stop: 5881, Start Num: 5
Candidate Starts for LeoAvram_9:
(Start: 5 @5420 has 174 MA's), (11, 5552), (13, 5597), (14, 5627), (15, 5642), (18, 5663), (22, 5723), (23, 5726),

Gene: Leogania_12 Start: 8106, Stop: 8570, Start Num: 5
Candidate Starts for Leogania_12:
(2, 8013), (Start: 5 @8106 has 174 MA's), (10, 8175), (15, 8328), (16, 8337), (22, 8409), (25, 8433),

Gene: LilTurb_12 Start: 6431, Stop: 6895, Start Num: 5
Candidate Starts for LilTurb_12:
(Start: 5 @6431 has 174 MA's), (10, 6500), (13, 6608), (15, 6650), (16, 6659), (22, 6731), (25, 6755),

Gene: LittleB_9 Start: 5420, Stop: 5881, Start Num: 5
Candidate Starts for LittleB_9:
(Start: 5 @5420 has 174 MA's), (11, 5552), (13, 5597), (14, 5627), (15, 5642), (18, 5663), (22, 5723), (23, 5726),

Gene: LochMonster_9 Start: 5404, Stop: 5856, Start Num: 5
Candidate Starts for LochMonster_9:
(2, 5311), (Start: 5 @5404 has 174 MA's), (10, 5473), (12, 5575), (13, 5581), (18, 5647), (23, 5710), (30, 5785), (34, 5815),

Gene: Lokk_13 Start: 7712, Stop: 8134, Start Num: 5
Candidate Starts for Lokk_13:
(2, 7619), (Start: 5 @7712 has 174 MA's), (8, 7757), (12, 7883), (15, 7931), (19, 7961),

Gene: Lorenzo_9 Start: 5420, Stop: 5881, Start Num: 5
Candidate Starts for Lorenzo_9:
(Start: 5 @5420 has 174 MA's), (11, 5552), (13, 5597), (14, 5627), (15, 5642), (18, 5663), (22, 5723), (23, 5726),

Gene: Lunsford_10 Start: 5420, Stop: 5881, Start Num: 5
Candidate Starts for Lunsford_10:
(Start: 5 @5420 has 174 MA's), (11, 5552), (13, 5597), (14, 5627), (15, 5642), (18, 5663), (22, 5723), (23, 5726),

Gene: Maverick_9 Start: 5420, Stop: 5881, Start Num: 5
Candidate Starts for Maverick_9:
(Start: 5 @5420 has 174 MA's), (11, 5552), (13, 5597), (14, 5627), (15, 5642), (18, 5663), (22, 5723), (23, 5726),

Gene: Maxo_9 Start: 5421, Stop: 5882, Start Num: 5
Candidate Starts for Maxo_9:
(Start: 5 @5421 has 174 MA's), (11, 5553), (13, 5598), (14, 5628), (15, 5643), (18, 5664), (22, 5724), (23, 5727),

Gene: Mayonnaise_9 Start: 5420, Stop: 5881, Start Num: 5
Candidate Starts for Mayonnaise_9:
(Start: 5 @5420 has 174 MA's), (11, 5552), (13, 5597), (14, 5627), (15, 5642), (18, 5663), (22, 5723), (23, 5726),

Gene: Mazhar510_9 Start: 5421, Stop: 5882, Start Num: 5
Candidate Starts for Mazhar510_9:
(Start: 5 @5421 has 174 MA's), (11, 5553), (13, 5598), (14, 5628), (15, 5643), (18, 5664), (22, 5724), (23, 5727),

Gene: Medusa_9 Start: 5420, Stop: 5881, Start Num: 5
Candidate Starts for Medusa_9:
(Start: 5 @5420 has 174 MA's), (11, 5552), (13, 5597), (14, 5627), (15, 5642), (18, 5663), (22, 5723), (23, 5726),

Gene: MeeZee_9 Start: 5420, Stop: 5881, Start Num: 5
Candidate Starts for MeeZee_9:
(Start: 5 @5420 has 174 MA's), (11, 5552), (13, 5597), (14, 5627), (15, 5642), (18, 5663), (22, 5723), (23, 5726),

Gene: Melvin_9 Start: 5420, Stop: 5881, Start Num: 5
Candidate Starts for Melvin_9:
(Start: 5 @5420 has 174 MA's), (11, 5552), (13, 5597), (14, 5627), (15, 5642), (18, 5663), (22, 5723), (23, 5726),

Gene: Miko_13 Start: 7681, Stop: 8103, Start Num: 5
Candidate Starts for Miko_13:
(2, 7588), (Start: 5 @7681 has 174 MA's), (8, 7726), (12, 7852), (15, 7900), (19, 7930),

Gene: Millski_9 Start: 5420, Stop: 5881, Start Num: 5
Candidate Starts for Millski_9:
(Start: 5 @5420 has 174 MA's), (11, 5552), (13, 5597), (14, 5627), (15, 5642), (18, 5663), (22, 5723), (23, 5726),

Gene: Morpher26_9 Start: 5429, Stop: 5890, Start Num: 5
Candidate Starts for Morpher26_9:
(Start: 5 @5429 has 174 MA's), (10, 5498), (12, 5600), (17, 5663), (18, 5672), (21, 5723), (23, 5735),
(35, 5858),

Gene: Morrow_9 Start: 5420, Stop: 5881, Start Num: 5
Candidate Starts for Morrow_9:
(Start: 5 @5420 has 174 MA's), (11, 5552), (13, 5597), (14, 5627), (15, 5642), (18, 5663), (22, 5723),
(23, 5726),

Gene: Mundrea_9 Start: 5391, Stop: 5843, Start Num: 5
Candidate Starts for Mundrea_9:
(2, 5298), (Start: 5 @5391 has 174 MA's), (10, 5460), (12, 5562), (13, 5568), (18, 5634), (23, 5697),
(30, 5772),

Gene: Naji_13 Start: 6175, Stop: 6600, Start Num: 5
Candidate Starts for Naji_13:
(Start: 5 @6175 has 174 MA's), (15, 6394), (19, 6424),

Gene: Nebs_9 Start: 5420, Stop: 5881, Start Num: 5
Candidate Starts for Nebs_9:
(Start: 5 @5420 has 174 MA's), (11, 5552), (13, 5597), (14, 5627), (15, 5642), (18, 5663), (22, 5723),
(23, 5726),

Gene: Nemo27_9 Start: 5419, Stop: 5880, Start Num: 5
Candidate Starts for Nemo27_9:
(Start: 5 @5419 has 174 MA's), (11, 5551), (13, 5596), (14, 5626), (15, 5641), (18, 5662), (22, 5722),
(23, 5725),

Gene: Noelle_9 Start: 5486, Stop: 5947, Start Num: 5
Candidate Starts for Noelle_9:
(Start: 5 @5486 has 174 MA's), (11, 5618), (13, 5663), (14, 5693), (15, 5708), (18, 5729), (22, 5789),
(23, 5792),

Gene: NorthStar_9 Start: 5420, Stop: 5881, Start Num: 5
Candidate Starts for NorthStar_9:
(Start: 5 @5420 has 174 MA's), (11, 5552), (13, 5597), (14, 5627), (15, 5642), (18, 5663), (22, 5723),
(23, 5726),

Gene: NotAPhaseMom_9 Start: 5424, Stop: 5885, Start Num: 5
Candidate Starts for NotAPhaseMom_9:
(Start: 5 @5424 has 174 MA's), (11, 5556), (13, 5601), (14, 5631), (15, 5646), (18, 5667), (22, 5727),
(23, 5730),

Gene: NothingSpecial_12 Start: 7983, Stop: 8459, Start Num: 5
Candidate Starts for NothingSpecial_12:
(2, 7890), (Start: 5 @7983 has 174 MA's), (10, 8052), (15, 8202), (22, 8283), (23, 8286), (25, 8307),
(26, 8328),

Gene: OKaNui_9 Start: 5185, Stop: 5646, Start Num: 5
Candidate Starts for OKaNui_9:

(Start: 5 @5185 has 174 MA's), (11, 5317), (13, 5362), (14, 5392), (15, 5407), (18, 5428), (22, 5488), (23, 5491),

Gene: Obama12_9 Start: 5408, Stop: 5860, Start Num: 5
Candidate Starts for Obama12_9:
(2, 5315), (Start: 5 @5408 has 174 MA's), (10, 5477), (12, 5579), (13, 5585), (18, 5651), (23, 5714), (30, 5789),

Gene: Ohfah_9 Start: 5420, Stop: 5881, Start Num: 5
Candidate Starts for Ohfah_9:
(Start: 5 @5420 has 174 MA's), (11, 5552), (13, 5597), (14, 5627), (15, 5642), (18, 5663), (22, 5723), (23, 5726),

Gene: Palestino_9 Start: 5420, Stop: 5881, Start Num: 5
Candidate Starts for Palestino_9:
(Start: 5 @5420 has 174 MA's), (11, 5552), (13, 5597), (14, 5627), (15, 5642), (18, 5663), (22, 5723), (23, 5726),

Gene: Peaches_9 Start: 5420, Stop: 5881, Start Num: 5
Candidate Starts for Peaches_9:
(Start: 5 @5420 has 174 MA's), (11, 5552), (13, 5597), (14, 5627), (15, 5642), (18, 5663), (22, 5723), (23, 5726),

Gene: Perplexer_9 Start: 5423, Stop: 5884, Start Num: 5
Candidate Starts for Perplexer_9:
(Start: 5 @5423 has 174 MA's), (10, 5492), (17, 5657), (18, 5666), (21, 5717), (23, 5729), (35, 5852),

Gene: PeterPeter_9 Start: 5420, Stop: 5881, Start Num: 5
Candidate Starts for PeterPeter_9:
(Start: 5 @5420 has 174 MA's), (11, 5552), (13, 5597), (14, 5627), (15, 5642), (18, 5663), (22, 5723), (23, 5726),

Gene: PetiteSangsue_9 Start: 5429, Stop: 5890, Start Num: 5
Candidate Starts for PetiteSangsue_9:
(Start: 5 @5429 has 174 MA's), (10, 5498), (17, 5663), (18, 5672), (21, 5723), (23, 5735), (35, 5858),

Gene: Phacado_9 Start: 5419, Stop: 5880, Start Num: 5
Candidate Starts for Phacado_9:
(Start: 5 @5419 has 174 MA's), (11, 5551), (13, 5596), (14, 5626), (15, 5641), (18, 5662), (22, 5722), (23, 5725),

Gene: Phaded_13 Start: 8049, Stop: 8543, Start Num: 5
Candidate Starts for Phaded_13:
(1, 7872), (Start: 5 @8049 has 174 MA's), (9, 8103), (13, 8226), (15, 8268), (21, 8340), (25, 8373),

Gene: Phelipe_9 Start: 5420, Stop: 5881, Start Num: 5
Candidate Starts for Phelipe_9:
(Start: 5 @5420 has 174 MA's), (11, 5552), (13, 5597), (14, 5627), (15, 5642), (18, 5663), (22, 5723), (23, 5726),

Gene: Phighter1804_9 Start: 5405, Stop: 5857, Start Num: 5
Candidate Starts for Phighter1804_9:

(2, 5312), (Start: 5 @5405 has 174 MA's), (10, 5474), (13, 5582), (18, 5648), (23, 5711), (30, 5786), (34, 5816),

Gene: Pipcraft_9 Start: 5420, Stop: 5881, Start Num: 5
Candidate Starts for Pipcraft_9:
(Start: 5 @5420 has 174 MA's), (11, 5552), (13, 5597), (14, 5627), (15, 5642), (18, 5663), (22, 5723), (23, 5726),

Gene: Polymorphads_9 Start: 5420, Stop: 5881, Start Num: 5
Candidate Starts for Polymorphads_9:
(Start: 5 @5420 has 174 MA's), (11, 5552), (13, 5597), (14, 5627), (15, 5642), (18, 5663), (22, 5723), (23, 5726),

Gene: Pomar16_13 Start: 6216, Stop: 6641, Start Num: 5
Candidate Starts for Pomar16_13:
(Start: 5 @6216 has 174 MA's), (15, 6435), (19, 6465),

Gene: Power_10 Start: 5938, Stop: 6375, Start Num: 5
Candidate Starts for Power_10:
(2, 5842), (Start: 5 @5938 has 174 MA's), (9, 5992), (13, 6115), (15, 6157), (18, 6178), (23, 6241), (27, 6283), (30, 6304),

Gene: Pukovnik_12 Start: 7625, Stop: 8104, Start Num: 4
Candidate Starts for Pukovnik_12:
(Start: 4 @7625 has 6 MA's), (13, 7802), (15, 7844), (17, 7856), (25, 7949),

Gene: Pumbaa_9 Start: 5404, Stop: 5856, Start Num: 5
Candidate Starts for Pumbaa_9:
(2, 5311), (Start: 5 @5404 has 174 MA's), (10, 5473), (12, 5575), (13, 5581), (18, 5647), (23, 5710), (30, 5785),

Gene: QueenBeesly_10 Start: 5938, Stop: 6375, Start Num: 5
Candidate Starts for QueenBeesly_10:
(2, 5842), (Start: 5 @5938 has 174 MA's), (9, 5992), (13, 6115), (15, 6157), (18, 6178), (23, 6241), (27, 6283), (30, 6304),

Gene: Rachaly_13 Start: 7710, Stop: 8132, Start Num: 5
Candidate Starts for Rachaly_13:
(2, 7617), (Start: 5 @7710 has 174 MA's), (8, 7755), (12, 7881), (15, 7929), (19, 7959),

Gene: Relief_9 Start: 5421, Stop: 5882, Start Num: 5
Candidate Starts for Relief_9:
(Start: 5 @5421 has 174 MA's), (11, 5553), (13, 5598), (14, 5628), (15, 5643), (18, 5664), (22, 5724), (23, 5727),

Gene: RockieBear_8 Start: 5420, Stop: 5881, Start Num: 5
Candidate Starts for RockieBear_8:
(Start: 5 @5420 has 174 MA's), (11, 5552), (13, 5597), (14, 5627), (15, 5642), (18, 5663), (22, 5723), (23, 5726),

Gene: Romney_9 Start: 5419, Stop: 5880, Start Num: 5
Candidate Starts for Romney_9:

(Start: 5 @5419 has 174 MA's), (11, 5551), (13, 5596), (14, 5626), (15, 5641), (18, 5662), (22, 5722), (23, 5725),

Gene: Roosevelt_9 Start: 5420, Stop: 5881, Start Num: 5
Candidate Starts for Roosevelt_9:
(Start: 5 @5420 has 174 MA's), (11, 5552), (13, 5597), (14, 5627), (15, 5642), (18, 5663), (22, 5723), (23, 5726),

Gene: Rosa24_8 Start: 5404, Stop: 5856, Start Num: 5
Candidate Starts for Rosa24_8:
(2, 5311), (Start: 5 @5404 has 174 MA's), (10, 5473), (12, 5575), (13, 5581), (18, 5647), (23, 5710), (30, 5785),

Gene: Ruin_9 Start: 5419, Stop: 5880, Start Num: 5
Candidate Starts for Ruin_9:
(Start: 5 @5419 has 174 MA's), (11, 5551), (13, 5596), (14, 5626), (15, 5641), (18, 5662), (22, 5722), (23, 5725),

Gene: Sabertooth_9 Start: 5420, Stop: 5881, Start Num: 5
Candidate Starts for Sabertooth_9:
(Start: 5 @5420 has 174 MA's), (11, 5552), (13, 5597), (14, 5627), (15, 5642), (18, 5663), (22, 5723), (23, 5726),

Gene: Scamp_9 Start: 5420, Stop: 5881, Start Num: 5
Candidate Starts for Scamp_9:
(Start: 5 @5420 has 174 MA's), (11, 5552), (13, 5597), (14, 5627), (15, 5642), (18, 5663), (22, 5723), (23, 5726),

Gene: SemperFi_12 Start: 6366, Stop: 6803, Start Num: 5
Candidate Starts for SemperFi_12:
(2, 6270), (Start: 5 @6366 has 174 MA's), (9, 6420), (13, 6543), (15, 6585), (18, 6606), (23, 6669), (27, 6711), (30, 6732),

Gene: SenorClean_9 Start: 5420, Stop: 5881, Start Num: 5
Candidate Starts for SenorClean_9:
(Start: 5 @5420 has 174 MA's), (11, 5552), (13, 5597), (14, 5627), (15, 5642), (18, 5663), (22, 5723), (23, 5726),

Gene: Shaka_9 Start: 5420, Stop: 5881, Start Num: 5
Candidate Starts for Shaka_9:
(Start: 5 @5420 has 174 MA's), (11, 5552), (13, 5597), (14, 5627), (15, 5642), (18, 5663), (22, 5723), (23, 5726),

Gene: SheldonCooper_9 Start: 5407, Stop: 5859, Start Num: 5
Candidate Starts for SheldonCooper_9:
(2, 5314), (Start: 5 @5407 has 174 MA's), (10, 5476), (12, 5578), (13, 5584), (18, 5650), (23, 5713), (30, 5788),

Gene: Shygu2_9 Start: 5423, Stop: 5884, Start Num: 5
Candidate Starts for Shygu2_9:
(Start: 5 @5423 has 174 MA's), (10, 5492), (12, 5594), (17, 5657), (18, 5666), (21, 5717), (23, 5729), (35, 5852),

Gene: Skipitt_9 Start: 5420, Stop: 5881, Start Num: 5
Candidate Starts for Skipitt_9:
(Start: 5 @5420 has 174 MA's), (11, 5552), (13, 5597), (14, 5627), (15, 5642), (18, 5663), (22, 5723), (23, 5726),

Gene: SnapTap_10 Start: 5938, Stop: 6375, Start Num: 5
Candidate Starts for SnapTap_10:
(2, 5842), (Start: 5 @5938 has 174 MA's), (9, 5992), (13, 6115), (15, 6157), (18, 6178), (23, 6241), (27, 6283), (30, 6304),

Gene: Sparxx_9 Start: 5420, Stop: 5881, Start Num: 5
Candidate Starts for Sparxx_9:
(Start: 5 @5420 has 174 MA's), (11, 5552), (13, 5597), (14, 5627), (15, 5642), (18, 5663), (22, 5723), (23, 5726),

Gene: Spino_9 Start: 5420, Stop: 5881, Start Num: 5
Candidate Starts for Spino_9:
(Start: 5 @5420 has 174 MA's), (11, 5552), (13, 5597), (14, 5627), (15, 5642), (18, 5663), (22, 5723), (23, 5726),

Gene: StarStuff_13 Start: 6175, Stop: 6600, Start Num: 5
Candidate Starts for StarStuff_13:
(Start: 5 @6175 has 174 MA's), (15, 6394), (19, 6424),

Gene: Stasia_10 Start: 5853, Stop: 6326, Start Num: 5
Candidate Starts for Stasia_10:
(1, 5676), (Start: 5 @5853 has 174 MA's), (8, 5898), (21, 6147), (23, 6159), (33, 6276),

Gene: SteMason_8 Start: 5420, Stop: 5881, Start Num: 5
Candidate Starts for SteMason_8:
(Start: 5 @5420 has 174 MA's), (11, 5552), (13, 5597), (14, 5627), (15, 5642), (18, 5663), (22, 5723), (23, 5726),

Gene: Sultana_9 Start: 5421, Stop: 5882, Start Num: 5
Candidate Starts for Sultana_9:
(Start: 5 @5421 has 174 MA's), (11, 5553), (13, 5598), (14, 5628), (15, 5643), (18, 5664), (23, 5727),

Gene: SweetiePie_10 Start: 5938, Stop: 6375, Start Num: 5
Candidate Starts for SweetiePie_10:
(2, 5842), (Start: 5 @5938 has 174 MA's), (9, 5992), (13, 6115), (15, 6157), (18, 6178), (23, 6241), (27, 6283), (30, 6304),

Gene: Taquarus_9 Start: 5423, Stop: 5884, Start Num: 5
Candidate Starts for Taquarus_9:
(Start: 5 @5423 has 174 MA's), (11, 5555), (13, 5600), (14, 5630), (15, 5645), (18, 5666), (22, 5726), (23, 5729),

Gene: Thanksgivukkah_9 Start: 5425, Stop: 5886, Start Num: 5
Candidate Starts for Thanksgivukkah_9:
(Start: 5 @5425 has 174 MA's), (11, 5557), (13, 5602), (14, 5632), (15, 5647), (18, 5668), (22, 5728), (23, 5731),

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

Candidate Starts for TinaFeyge_9:
(Start: 5 @5420 has 174 MA's), (11, 5552), (13, 5597), (14, 5627), (15, 5642), (18, 5663), (22, 5723),
(23, 5726),

Gene: Tinybot_8 Start: 5409, Stop: 5861, Start Num: 5
Candidate Starts for Tinybot_8:
(2, 5316), (Start: 5 @5409 has 174 MA's), (10, 5478), (12, 5580), (13, 5586), (18, 5652), (23, 5715),
(30, 5790),

Gene: TiroTheta9_9 Start: 5420, Stop: 5881, Start Num: 5
Candidate Starts for TiroTheta9_9:
(Start: 5 @5420 has 174 MA's), (11, 5552), (13, 5597), (14, 5627), (15, 5642), (18, 5663), (22, 5723),
(23, 5726),

Gene: Tomathan_13 Start: 6175, Stop: 6600, Start Num: 5
Candidate Starts for Tomathan_13:
(Start: 5 @6175 has 174 MA's), (15, 6394), (19, 6424),

Gene: Travvers_13 Start: 6175, Stop: 6600, Start Num: 5
Candidate Starts for Travvers_13:
(Start: 5 @6175 has 174 MA's), (15, 6394), (19, 6424),

Gene: Tristan_11 Start: 7718, Stop: 8206, Start Num: 4
Candidate Starts for Tristan_11:
(Start: 4 @7718 has 6 MA's), (8, 7763), (9, 7772), (15, 7937), (25, 8042),

Gene: TroyPia_9 Start: 5420, Stop: 5881, Start Num: 5
Candidate Starts for TroyPia_9:
(Start: 5 @5420 has 174 MA's), (11, 5552), (13, 5597), (14, 5627), (15, 5642), (18, 5663), (22, 5723),
(23, 5726),

Gene: Turbido_12 Start: 6434, Stop: 6898, Start Num: 5
Candidate Starts for Turbido_12:
(Start: 5 @6434 has 174 MA's), (10, 6503), (13, 6611), (15, 6653), (16, 6662), (22, 6734), (25, 6758),

Gene: TygerBlood_9 Start: 5422, Stop: 5883, Start Num: 5
Candidate Starts for TygerBlood_9:
(Start: 5 @5422 has 174 MA's), (11, 5554), (13, 5599), (14, 5629), (15, 5644), (18, 5665), (22, 5725),
(23, 5728),

Gene: Ulysses_8 Start: 5148, Stop: 5600, Start Num: 5
Candidate Starts for Ulysses_8:
(2, 5055), (Start: 5 @5148 has 174 MA's), (10, 5217), (12, 5319), (13, 5325), (18, 5391), (23, 5454),
(30, 5529),

Gene: VA6_10 Start: 5970, Stop: 6431, Start Num: 5
Candidate Starts for VA6_10:
(1, 5799), (Start: 5 @5970 has 174 MA's), (15, 6189), (20, 6252), (24, 6285),

Gene: VC3_13 Start: 6174, Stop: 6599, Start Num: 5
Candidate Starts for VC3_13:
(Start: 5 @6174 has 174 MA's), (15, 6393), (19, 6423),

Gene: Wander_9 Start: 5420, Stop: 5881, Start Num: 5
Candidate Starts for Wander_9:
(Start: 5 @5420 has 174 MA's), (11, 5552), (13, 5597), (14, 5627), (15, 5642), (18, 5663), (22, 5723), (23, 5726),

Gene: Wilbur_9 Start: 5419, Stop: 5880, Start Num: 5
Candidate Starts for Wilbur_9:
(Start: 5 @5419 has 174 MA's), (11, 5551), (13, 5596), (14, 5626), (15, 5641), (18, 5662), (22, 5722), (23, 5725),

Gene: Wile_9 Start: 5430, Stop: 5891, Start Num: 5
Candidate Starts for Wile_9:
(Start: 5 @5430 has 174 MA's), (10, 5499), (17, 5664), (18, 5673), (21, 5724), (23, 5736), (35, 5859),

Gene: Wizard007_9 Start: 5422, Stop: 5883, Start Num: 5
Candidate Starts for Wizard007_9:
(Start: 5 @5422 has 174 MA's), (11, 5554), (13, 5599), (14, 5629), (15, 5644), (18, 5665), (22, 5725), (23, 5728),

Gene: Xena_9 Start: 5429, Stop: 5878, Start Num: 5
Candidate Starts for Xena_9:
(Start: 5 @5429 has 174 MA's), (10, 5498), (17, 5663), (18, 5672), (21, 5723), (23, 5735), (29, 5801), (34, 5846),

Gene: XianYue_10 Start: 5913, Stop: 6362, Start Num: 5
Candidate Starts for XianYue_10:
(Start: 5 @5913 has 174 MA's), (7, 5955), (8, 5958), (15, 6132), (26, 6258),

Gene: YoSam321_9 Start: 5420, Stop: 5881, Start Num: 5
Candidate Starts for YoSam321_9:
(Start: 5 @5420 has 174 MA's), (11, 5552), (13, 5597), (14, 5627), (15, 5642), (18, 5663), (22, 5723), (23, 5726),