



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 587 Report

This analysis was run 07/09/24 on database version 566.

Pham number 587 has 177 members, 16 are drafts.

Phages represented in each track:

- Track 1 : Kboogie_27, McGee_26, Pleione_29, Ading_27, Asterius_25, MoMoMixon_28, Ghost_27, Teardrop_26, IkeLoa_23, Ava3_28, Adlitam_27, Grungle_20, Amataga_27, Mangeria_30, Daffodil_29, LordLeafolot_32, Janiyra_27, Jemmno_27, Matsumoto_26, Jessibeth14_26, Shnickers_27, Izajani_28, Rizal_25, Delylah_28, Blackbrain_25, Astraea_28, Patter_27, I3_29, LifeSavor_28, Zeenon_29, Jaygup_27, DirtMonster_26, Pier_29, Phlegm_29, ArcherS7_26, EmToTheThree_30, NedWong_28, Zalkecks_29, Rabinovish_26, InterFolia_34, Colt_20, SrishMeg2525_26, FrayBell_33, YemiJoy2021_28, TinyTim_27, ChaylaJr_26, SmallFry_27, Chomp_25, Bangla1971_26, Bread_28, Lee7_26, ZygoTaiga_27, Phusco_27, Spud_29, Morizzled23_26, InigoMontoya_28, Atlantean_27, JustHall_26, Shrimp_27, Norm_27, Audrick_29, Babyland_26, Drazdys_27, Iota_24, Yucca_27, Khaleesi_26, ParkTD_26, Burrough_27, Loanshark_27, Latch_27, Tyke_29, Halldule_23, Basquiat_26, Darko_26, Gamgam_27, Capablanca_29, Pivoine_27, ScottMcG_27, Breeniome_27, Quasimodo_27, Gabriel_27, Ronan_22, Jedediah_27, Gizmo_29, LolaVinca_30, Shaqnato_23, PurduePete_26, Delilah_27, Pinkcreek_19, Kamryn_27, Cactojaque_24, ChickenPhender_26, FudgeTart_28, Guwapp_27, Nidhogg_28, CindyLou_27, Cane17_20, Melpomini_26, Pio_30, Dietrick_22, ErnieJ_28, HyRo_26, DrPhinkDaddy_27, Sebata_27, StubbySaigey_26, Derek_28, Willis_27, Littleton_27, FoxtrotP1_27, Bipolarisk_26, Stubby_25, ShiaLabeouf_27, Blackdragon_22, ValleyTerrace_27, Naval22_29, RoMag_22, YoungMoneyMata_27, Specks_32, Erdmann_28, Shelob_29, Mikro_25, Flabslab_28, Ngannou_25, QBert_25, EmmaElysia_25, JayJay_28, Megamind_27, EasyJones_26, StephanieG_27, BananaFence_28, Turret_25, Chargie21_26, LinStu_27, Spec_25, Roots515_27, Trinitium_26, Bonray_27, LRRHood_24, Fludd_26, SilverDipper_28, Alice_22, NuevoMundo_30, Issimir_26, Tortoise16_26, Lukilu_20, Salacia_29, Maby2021_28, Rahel_27, Essence_26, JPickles_25, MikeLiesIn_27, Catera_25, BackyardAgain_24, McWolfish_26, Wally_26, DTDevon_28, Momo_26, Naija_27, Napoleon13_26, Ewok_27, Shifa_24
- Track 2 : ET08_22, CharlieB_27, Koguma_23, Phox_26, Sprinklers_27, JulietS_22, Nappy_28, Dandelion_31, Sauce_28, BadAgartude_28, Cali_27, Yassified_24
- Track 3 : EggyFarm_31, BigCity_31, Grasshills_31
- Track 4 : Blubba_20

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

The start number called the most often in the published annotations is 4, it was called in 161 of the 161 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Ading_27, Adlitam_27, Alice_22, Amataga_27, ArcherS7_26, Asterius_25, Astraea_28, Atlantean_27, Audrick_29, Ava3_28, Babyland_26, BackyardAgain_24, BadAgartude_28, BananaFence_28, Bangla1971_26, Basquiat_26, BigCity_31, Bipolarisk_26, Blackbrain_25, Blackdragon_22, Blubba_20, Bonray_27, Bread_28, Breeniome_27, Burrough_27, Cactojaque_24, Cali_27, Cane17_20, Capablanca_29, Catera_25, Chargie21_26, CharlieB_27, ChaylaJr_26, ChickenPhender_26, Chomp_25, CindyLou_27, Colt_20, DTDevon_28, Daffodil_29, Dandelion_31, Darko_26, Delilah_27, Delylah_28, Derek_28, Dietrick_22, DirtMonster_26, DrPhinkDaddy_27, Drazdys_27, ET08_22, EasyJones_26, EggyFarm_31, EmToTheThree_30, EmmaElysia_25, Erdmann_28, ErnieJ_28, Essence_26, Ewok_27, Flabslab_28, Fludd_26, FoxtrotP1_27, FrayBell_33, FudgeTart_28, Gabriel_27, Gamgam_27, Ghost_27, Gizmo_29, Grasshills_31, Grungle_20, Guwapp_27, Halldule_23, HyRo_26, I3_29, IkeLoa_23, InigoMontoya_28, InterFolia_34, Iota_24, Issimir_26, Izajani_28, JPickles_25, Janiyra_27, JayJay_28, Jaygup_27, Jedediah_27, Jemmno_27, Jessibeth14_26, JulietS_22, JustHall_26, Kamryn_27, Kboogie_27, Khaleesi_26, Koguma_23, LRRHood_24, Latch_27, Lee7_26, LifeSavor_28, LinStu_27, Littleton_27, Loanshark_27, LolaVinca_30, LordLeafolot_32, Lukilu_20, Maby2021_28, Mangeria_30, Matsumoto_26, McGee_26, McWolfish_26, Megamind_27, Melpomini_26, MikeLiesIn_27, Mikro_25, MoMoMixon_28, Momo_26, Morizzled23_26, Naija_27, Napoleon13_26, Nappy_28, Naval22_29, NedWong_28, Ngannou_25, Nidhogg_28, Norm_27, NuevoMundo_30, ParkTD_26, Patter_27, Phlegm_29, Phox_26, Phusco_27, Pier_29, Pinkcreek_19, Pio_30, Pivoine_27, Pleione_29, PurduePete_26, QBert_25, Quasimodo_27, Rabinovish_26, Rahel_27, Rizal_25, RoMag_22, Ronan_22, Roots515_27, Salacia_29, Sauce_28, ScottMcG_27, Sebata_27, Shaqnato_23, Shelob_29, ShiaLabeouf_27, Shifa_24, Shnickers_27, Shrimp_27, SilverDipper_28, SmallFry_27, Spec_25, Specks_32, Sprinklers_27, Spud_29, SrishMeg2525_26, StephanieG_27, StubbySaigey_26, Stubby_25, Teardrop_26, TinyTim_27, Tortoise16_26, Trinitium_26, Turret_25, Tyke_29, ValleyTerrace_27, Wally_26, Willis_27, Yassified_24, YemiJoy2021_28, YoungMoneyMata_27, Yucca_27, Zalkecks_29, Zeenon_29, ZygoTaiga_27,

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

-

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

-

Summary by start number:

Start 4:

- Found in 177 of 177 (100.0%) of genes in pham
- Manual Annotations of this start: 161 of 161
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Ading_27 (C1), Adlitam_27 (C1), Alice_22 (C1), Amataga_27 (C1), ArcherS7_26 (C1), Asterius_25 (C1), Astraea_28 (C1), Atlantean_27 (C1), Audrick_29 (C1), Ava3_28 (C1), Babyland_26 (C1), BackyardAgain_24 (C1), BadAgartude_28 (C1), BananaFence_28 (C1),

Bangla1971_26 (C1), Basquiat_26 (C1), BigCity_31 (C1), Bipolarisk_26 (C1), Blackbrain_25 (C1), Blackdragon_22 (C1), Blubba_20 (C1), Bonray_27 (C1), Bread_28 (C1), Breeniome_27 (C1), Burrough_27 (C1), Cactojaque_24 (C1), Cali_27 (C1), Cane17_20 (C1), Capablanca_29 (C1), Catera_25 (C1), Chargie21_26 (C1), CharlieB_27 (C1), ChaylaJr_26 (C1), ChickenPhender_26 (C1), Chomp_25 (C1), CindyLou_27 (C1), Colt_20 (C1), DTDevon_28 (C1), Daffodil_29 (C1), Dandelion_31 (C1), Darko_26 (C1), Delilah_27 (C1), Delylah_28 (C1), Derek_28 (C1), Dietrick_22 (C1), DirtMonster_26 (C1), DrPhinkDaddy_27 (C1), Drazdys_27 (C1), ET08_22 (C1), EasyJones_26 (C1), EggyFarm_31 (C1), EmToTheThree_30 (C1), EmmaElysia_25 (C1), Erdmann_28 (C1), ErnieJ_28 (C1), Essence_26 (C1), Ewok_27 (C1), Flabslab_28 (C1), Fludd_26 (C1), FoxtrotP1_27 (C1), FrayBell_33 (C1), FudgeTart_28 (C1), Gabriel_27 (C1), Gamgam_27 (C1), Ghost_27 (C1), Gizmo_29 (C1), Grasshills_31 (C1), Grungle_20 (C1), Guwapp_27 (C1), Halldule_23 (C1), HyRo_26 (C1), I3_29 (C1), IkeLoa_23 (C1), InigoMontoya_28 (C1), InterFolia_34 (C1), Iota_24 (C1), Issimir_26 (C1), Izajani_28 (C1), JPickles_25 (C1), Janiyra_27 (C1), JayJay_28 (C1), Jaygup_27 (C1), Jediah_27 (C1), Jemmno_27 (C1), Jessibeth14_26 (C1), JulietS_22 (C1), JustHall_26 (C1), Kamryn_27 (C1), Kboogie_27 (C1), Khaleesi_26 (C1), Koguma_23 (C1), LRRHood_24 (C1), Latch_27 (C1), Lee7_26 (C1), LifeSavor_28 (C1), LinStu_27 (C1), Littleton_27 (C1), Loanshark_27 (C1), LolaVinca_30 (C1), LordLeafolot_32 (C1), Lukilu_20 (C1), Maby2021_28 (C1), Mangeria_30 (C1), Matsumoto_26 (C1), McGee_26 (C1), McWolfish_26 (C1), Megamind_27 (C1), Melpomini_26 (C1), MikeLiesIn_27 (C1), Mikro_25 (C1), MoMoMixon_28 (C1), Momo_26 (C1), Morizzled23_26 (C1), Naija_27 (C1), Napoleon13_26 (C1), Nappy_28 (C1), Naval22_29 (C1), NedWong_28 (C1), Ngannou_25 (C1), Nidhogg_28 (C1), Norm_27 (C1), NuevoMundo_30 (C1), ParkTD_26 (C1), Patter_27 (C1), Phlegm_29 (C1), Phox_26 (C1), Phusco_27 (C1), Pier_29 (C1), Pinkcreek_19 (C1), Pio_30 (C1), Pivoine_27 (C1), Pleione_29 (C1), PurduePete_26 (C1), QBert_25 (C1), Quasimodo_27 (C1), Rabinovish_26 (C1), Rahel_27 (C1), Rizal_25 (C1), RoMag_22 (C1), Ronan_22 (C1), Roots515_27 (C1), Salacia_29 (C1), Sauce_28 (C1), ScottMcG_27 (C1), Sebata_27 (C1), Shaqnato_23 (C1), Shelob_29 (C1), ShiaLabeouf_27 (C1), Shifa_24 (C1), Shnickers_27 (C1), Shrimp_27 (C1), SilverDipper_28 (C1), SmallFry_27 (C1), Spec_25 (C1), Specks_32 (C1), Sprinklers_27 (C1), Spud_29 (C1), SrishMeg2525_26 (C1), StephanieG_27 (C1), StubbySaigey_26 (C1), Stubby_25 (C1), Teardrop_26 (C1), TinyTim_27 (C1), Tortoise16_26 (C1), Trinitium_26 (C1), Turret_25 (C1), Tyke_29 (C1), ValleyTerrace_27 (C1), Wally_26 (C1), Willis_27 (C1), Yassified_24 (C1), YemiJoy2021_28 (C1), YoungMoneyMata_27 (C1), Yucca_27 (C1), Zalkecks_29 (C1), Zeenon_29 (C1), ZygoTaiga_27 (C1),

Summary by clusters:

There is one cluster represented in this pham: C1

Info for manual annotations of cluster C1:

- Start number 4 was manually annotated 161 times for cluster C1.

Gene Information:

Gene: Ading_27 Start: 8500, Stop: 8607, Start Num: 4

Candidate Starts for Ading_27:

(1, 8146), (Start: 4 @8500 has 161 MA's),

Gene: Adlitam_27 Start: 8517, Stop: 8624, Start Num: 4
Candidate Starts for Adlitam_27:
(1, 8163), (Start: 4 @8517 has 161 MA's),

Gene: Alice_22 Start: 7598, Stop: 7705, Start Num: 4
Candidate Starts for Alice_22:
(1, 7244), (Start: 4 @7598 has 161 MA's),

Gene: Amataga_27 Start: 8521, Stop: 8628, Start Num: 4
Candidate Starts for Amataga_27:
(1, 8167), (Start: 4 @8521 has 161 MA's),

Gene: ArcherS7_26 Start: 8517, Stop: 8624, Start Num: 4
Candidate Starts for ArcherS7_26:
(1, 8163), (Start: 4 @8517 has 161 MA's),

Gene: Asterius_25 Start: 8789, Stop: 8896, Start Num: 4
Candidate Starts for Asterius_25:
(1, 8435), (Start: 4 @8789 has 161 MA's),

Gene: Astraea_28 Start: 8694, Stop: 8801, Start Num: 4
Candidate Starts for Astraea_28:
(1, 8340), (Start: 4 @8694 has 161 MA's),

Gene: Atlantean_27 Start: 8521, Stop: 8628, Start Num: 4
Candidate Starts for Atlantean_27:
(1, 8167), (Start: 4 @8521 has 161 MA's),

Gene: Audrick_29 Start: 8500, Stop: 8607, Start Num: 4
Candidate Starts for Audrick_29:
(1, 8146), (Start: 4 @8500 has 161 MA's),

Gene: Ava3_28 Start: 9066, Stop: 9173, Start Num: 4
Candidate Starts for Ava3_28:
(1, 8712), (Start: 4 @9066 has 161 MA's),

Gene: Babyland_26 Start: 7962, Stop: 8069, Start Num: 4
Candidate Starts for Babyland_26:
(1, 7608), (Start: 4 @7962 has 161 MA's),

Gene: BackyardAgain_24 Start: 7946, Stop: 8053, Start Num: 4
Candidate Starts for BackyardAgain_24:
(1, 7592), (Start: 4 @7946 has 161 MA's),

Gene: BadAgartude_28 Start: 9156, Stop: 9263, Start Num: 4
Candidate Starts for BadAgartude_28:
(1, 8802), (3, 9084), (Start: 4 @9156 has 161 MA's),

Gene: BananaFence_28 Start: 8953, Stop: 9060, Start Num: 4
Candidate Starts for BananaFence_28:
(1, 8599), (Start: 4 @8953 has 161 MA's),

Gene: Bangla1971_26 Start: 8517, Stop: 8624, Start Num: 4
Candidate Starts for Bangla1971_26:
(1, 8163), (Start: 4 @8517 has 161 MA's),

Gene: Basquiat_26 Start: 7943, Stop: 8050, Start Num: 4
Candidate Starts for Basquiat_26:
(1, 7589), (Start: 4 @7943 has 161 MA's),

Gene: BigCity_31 Start: 10046, Stop: 10153, Start Num: 4
Candidate Starts for BigCity_31:
(1, 9689), (Start: 4 @10046 has 161 MA's),

Gene: Bipolarisk_26 Start: 8783, Stop: 8890, Start Num: 4
Candidate Starts for Bipolarisk_26:
(1, 8429), (Start: 4 @8783 has 161 MA's),

Gene: Blackbrain_25 Start: 7759, Stop: 7866, Start Num: 4
Candidate Starts for Blackbrain_25:
(1, 7405), (Start: 4 @7759 has 161 MA's),

Gene: Blackdragon_22 Start: 7557, Stop: 7664, Start Num: 4
Candidate Starts for Blackdragon_22:
(1, 7203), (Start: 4 @7557 has 161 MA's),

Gene: Blubba_20 Start: 7247, Stop: 7354, Start Num: 4
Candidate Starts for Blubba_20:
(1, 6893), (2, 7022), (Start: 4 @7247 has 161 MA's),

Gene: Bonray_27 Start: 9057, Stop: 9164, Start Num: 4
Candidate Starts for Bonray_27:
(1, 8703), (Start: 4 @9057 has 161 MA's),

Gene: Bread_28 Start: 9066, Stop: 9173, Start Num: 4
Candidate Starts for Bread_28:
(1, 8712), (Start: 4 @9066 has 161 MA's),

Gene: Breeniome_27 Start: 7940, Stop: 8047, Start Num: 4
Candidate Starts for Breeniome_27:
(1, 7586), (Start: 4 @7940 has 161 MA's),

Gene: Burrough_27 Start: 8783, Stop: 8890, Start Num: 4
Candidate Starts for Burrough_27:
(1, 8429), (Start: 4 @8783 has 161 MA's),

Gene: Cactojaque_24 Start: 7648, Stop: 7755, Start Num: 4
Candidate Starts for Cactojaque_24:
(1, 7294), (Start: 4 @7648 has 161 MA's),

Gene: Cali_27 Start: 10090, Stop: 10197, Start Num: 4
Candidate Starts for Cali_27:
(1, 9736), (3, 10018), (Start: 4 @10090 has 161 MA's),

Gene: Cane17_20 Start: 7119, Stop: 7226, Start Num: 4

Candidate Starts for Cane17_20:
(1, 6765), (Start: 4 @7119 has 161 MA's),

Gene: Capablanca_29 Start: 9646, Stop: 9753, Start Num: 4
Candidate Starts for Capablanca_29:
(1, 9292), (Start: 4 @9646 has 161 MA's),

Gene: Catera_25 Start: 7944, Stop: 8051, Start Num: 4
Candidate Starts for Catera_25:
(1, 7590), (Start: 4 @7944 has 161 MA's),

Gene: Chargie21_26 Start: 7943, Stop: 8050, Start Num: 4
Candidate Starts for Chargie21_26:
(1, 7589), (Start: 4 @7943 has 161 MA's),

Gene: CharlieB_27 Start: 8097, Stop: 8204, Start Num: 4
Candidate Starts for CharlieB_27:
(1, 7743), (3, 8025), (Start: 4 @8097 has 161 MA's),

Gene: ChaylaJr_26 Start: 8030, Stop: 8137, Start Num: 4
Candidate Starts for ChaylaJr_26:
(1, 7676), (Start: 4 @8030 has 161 MA's),

Gene: ChickenPhender_26 Start: 7988, Stop: 8095, Start Num: 4
Candidate Starts for ChickenPhender_26:
(1, 7634), (Start: 4 @7988 has 161 MA's),

Gene: Chomp_25 Start: 8521, Stop: 8628, Start Num: 4
Candidate Starts for Chomp_25:
(1, 8167), (Start: 4 @8521 has 161 MA's),

Gene: CindyLou_27 Start: 8521, Stop: 8628, Start Num: 4
Candidate Starts for CindyLou_27:
(1, 8167), (Start: 4 @8521 has 161 MA's),

Gene: Colt_20 Start: 7125, Stop: 7232, Start Num: 4
Candidate Starts for Colt_20:
(1, 6771), (Start: 4 @7125 has 161 MA's),

Gene: DTDevon_28 Start: 9685, Stop: 9792, Start Num: 4
Candidate Starts for DTDevon_28:
(1, 9331), (Start: 4 @9685 has 161 MA's),

Gene: Daffodil_29 Start: 9066, Stop: 9173, Start Num: 4
Candidate Starts for Daffodil_29:
(1, 8712), (Start: 4 @9066 has 161 MA's),

Gene: Dandelion_31 Start: 10380, Stop: 10487, Start Num: 4
Candidate Starts for Dandelion_31:
(1, 10026), (3, 10308), (Start: 4 @10380 has 161 MA's),

Gene: Darko_26 Start: 8922, Stop: 9029, Start Num: 4
Candidate Starts for Darko_26:

(1, 8568), (Start: 4 @8922 has 161 MA's),

Gene: Delilah_27 Start: 9066, Stop: 9173, Start Num: 4

Candidate Starts for Delilah_27:

(1, 8712), (Start: 4 @9066 has 161 MA's),

Gene: Delylah_28 Start: 8849, Stop: 8956, Start Num: 4

Candidate Starts for Delylah_28:

(1, 8495), (Start: 4 @8849 has 161 MA's),

Gene: Derek_28 Start: 8478, Stop: 8585, Start Num: 4

Candidate Starts for Derek_28:

(1, 8124), (Start: 4 @8478 has 161 MA's),

Gene: Dietrick_22 Start: 7716, Stop: 7823, Start Num: 4

Candidate Starts for Dietrick_22:

(1, 7362), (Start: 4 @7716 has 161 MA's),

Gene: DirtMonster_26 Start: 9610, Stop: 9717, Start Num: 4

Candidate Starts for DirtMonster_26:

(1, 9256), (Start: 4 @9610 has 161 MA's),

Gene: DrPhinkDaddy_27 Start: 9063, Stop: 9170, Start Num: 4

Candidate Starts for DrPhinkDaddy_27:

(1, 8709), (Start: 4 @9063 has 161 MA's),

Gene: Drazdys_27 Start: 8851, Stop: 8958, Start Num: 4

Candidate Starts for Drazdys_27:

(1, 8497), (Start: 4 @8851 has 161 MA's),

Gene: ET08_22 Start: 8525, Stop: 8632, Start Num: 4

Candidate Starts for ET08_22:

(1, 8171), (3, 8453), (Start: 4 @8525 has 161 MA's),

Gene: EasyJones_26 Start: 7690, Stop: 7797, Start Num: 4

Candidate Starts for EasyJones_26:

(1, 7336), (Start: 4 @7690 has 161 MA's),

Gene: EggyFarm_31 Start: 10046, Stop: 10153, Start Num: 4

Candidate Starts for EggyFarm_31:

(1, 9689), (Start: 4 @10046 has 161 MA's),

Gene: EmToTheThree_30 Start: 10480, Stop: 10587, Start Num: 4

Candidate Starts for EmToTheThree_30:

(1, 10126), (Start: 4 @10480 has 161 MA's),

Gene: EmmaElysia_25 Start: 7708, Stop: 7815, Start Num: 4

Candidate Starts for EmmaElysia_25:

(1, 7354), (Start: 4 @7708 has 161 MA's),

Gene: Erdmann_28 Start: 9066, Stop: 9173, Start Num: 4

Candidate Starts for Erdmann_28:

(1, 8712), (Start: 4 @9066 has 161 MA's),

Gene: ErnieJ_28 Start: 8889, Stop: 8996, Start Num: 4
Candidate Starts for ErnieJ_28:
(1, 8535), (Start: 4 @8889 has 161 MA's),

Gene: Essence_26 Start: 8243, Stop: 8350, Start Num: 4
Candidate Starts for Essence_26:
(1, 7889), (Start: 4 @8243 has 161 MA's),

Gene: Ewok_27 Start: 9069, Stop: 9176, Start Num: 4
Candidate Starts for Ewok_27:
(1, 8715), (Start: 4 @9069 has 161 MA's),

Gene: Flabslab_28 Start: 8999, Stop: 9106, Start Num: 4
Candidate Starts for Flabslab_28:
(1, 8645), (Start: 4 @8999 has 161 MA's),

Gene: Fludd_26 Start: 7944, Stop: 8051, Start Num: 4
Candidate Starts for Fludd_26:
(1, 7590), (Start: 4 @7944 has 161 MA's),

Gene: FoxtrotP1_27 Start: 9394, Stop: 9501, Start Num: 4
Candidate Starts for FoxtrotP1_27:
(1, 9040), (Start: 4 @9394 has 161 MA's),

Gene: FrayBell_33 Start: 10637, Stop: 10744, Start Num: 4
Candidate Starts for FrayBell_33:
(1, 10283), (Start: 4 @10637 has 161 MA's),

Gene: FudgeTart_28 Start: 9066, Stop: 9173, Start Num: 4
Candidate Starts for FudgeTart_28:
(1, 8712), (Start: 4 @9066 has 161 MA's),

Gene: Gabriel_27 Start: 7940, Stop: 8047, Start Num: 4
Candidate Starts for Gabriel_27:
(1, 7586), (Start: 4 @7940 has 161 MA's),

Gene: Gamgam_27 Start: 8521, Stop: 8628, Start Num: 4
Candidate Starts for Gamgam_27:
(1, 8167), (Start: 4 @8521 has 161 MA's),

Gene: Ghost_27 Start: 8521, Stop: 8628, Start Num: 4
Candidate Starts for Ghost_27:
(1, 8167), (Start: 4 @8521 has 161 MA's),

Gene: Gizmo_29 Start: 9068, Stop: 9175, Start Num: 4
Candidate Starts for Gizmo_29:
(1, 8714), (Start: 4 @9068 has 161 MA's),

Gene: Grasshills_31 Start: 10046, Stop: 10153, Start Num: 4
Candidate Starts for Grasshills_31:
(1, 9689), (Start: 4 @10046 has 161 MA's),

Gene: Grungle_20 Start: 6640, Stop: 6747, Start Num: 4
Candidate Starts for Grungle_20:
(1, 6286), (Start: 4 @6640 has 161 MA's),

Gene: Guwapp_27 Start: 8478, Stop: 8585, Start Num: 4
Candidate Starts for Guwapp_27:
(1, 8124), (Start: 4 @8478 has 161 MA's),

Gene: Halldule_23 Start: 7310, Stop: 7417, Start Num: 4
Candidate Starts for Halldule_23:
(1, 6956), (Start: 4 @7310 has 161 MA's),

Gene: HyRo_26 Start: 9256, Stop: 9363, Start Num: 4
Candidate Starts for HyRo_26:
(1, 8902), (Start: 4 @9256 has 161 MA's),

Gene: I3_29 Start: 9633, Stop: 9740, Start Num: 4
Candidate Starts for I3_29:
(1, 9279), (Start: 4 @9633 has 161 MA's),

Gene: IkeLoa_23 Start: 8367, Stop: 8474, Start Num: 4
Candidate Starts for IkeLoa_23:
(1, 8013), (Start: 4 @8367 has 161 MA's),

Gene: InigoMontoya_28 Start: 8482, Stop: 8589, Start Num: 4
Candidate Starts for InigoMontoya_28:
(1, 8128), (Start: 4 @8482 has 161 MA's),

Gene: InterFolia_34 Start: 11172, Stop: 11279, Start Num: 4
Candidate Starts for InterFolia_34:
(1, 10818), (Start: 4 @11172 has 161 MA's),

Gene: Iota_24 Start: 8601, Stop: 8708, Start Num: 4
Candidate Starts for Iota_24:
(1, 8247), (Start: 4 @8601 has 161 MA's),

Gene: Issimir_26 Start: 9061, Stop: 9168, Start Num: 4
Candidate Starts for Issimir_26:
(1, 8707), (Start: 4 @9061 has 161 MA's),

Gene: Izajani_28 Start: 9066, Stop: 9173, Start Num: 4
Candidate Starts for Izajani_28:
(1, 8712), (Start: 4 @9066 has 161 MA's),

Gene: JPickles_25 Start: 7718, Stop: 7825, Start Num: 4
Candidate Starts for JPickles_25:
(1, 7364), (Start: 4 @7718 has 161 MA's),

Gene: Janiyra_27 Start: 8500, Stop: 8607, Start Num: 4
Candidate Starts for Janiyra_27:
(1, 8146), (Start: 4 @8500 has 161 MA's),

Gene: JayJay_28 Start: 9034, Stop: 9141, Start Num: 4

Candidate Starts for JayJay_28:
(1, 8680), (Start: 4 @9034 has 161 MA's),

Gene: Jaygup_27 Start: 8517, Stop: 8624, Start Num: 4
Candidate Starts for Jaygup_27:
(1, 8163), (Start: 4 @8517 has 161 MA's),

Gene: Jedediah_27 Start: 7986, Stop: 8093, Start Num: 4
Candidate Starts for Jedediah_27:
(1, 7632), (Start: 4 @7986 has 161 MA's),

Gene: Jemmno_27 Start: 8521, Stop: 8628, Start Num: 4
Candidate Starts for Jemmno_27:
(1, 8167), (Start: 4 @8521 has 161 MA's),

Gene: Jessibeth14_26 Start: 8789, Stop: 8896, Start Num: 4
Candidate Starts for Jessibeth14_26:
(1, 8435), (Start: 4 @8789 has 161 MA's),

Gene: JulietS_22 Start: 6943, Stop: 7050, Start Num: 4
Candidate Starts for JulietS_22:
(1, 6589), (3, 6871), (Start: 4 @6943 has 161 MA's),

Gene: JustHall_26 Start: 8966, Stop: 9073, Start Num: 4
Candidate Starts for JustHall_26:
(1, 8612), (Start: 4 @8966 has 161 MA's),

Gene: Kamryn_27 Start: 8845, Stop: 8952, Start Num: 4
Candidate Starts for Kamryn_27:
(1, 8491), (Start: 4 @8845 has 161 MA's),

Gene: Kboogie_27 Start: 7999, Stop: 8106, Start Num: 4
Candidate Starts for Kboogie_27:
(1, 7645), (Start: 4 @7999 has 161 MA's),

Gene: Khaleesi_26 Start: 8816, Stop: 8923, Start Num: 4
Candidate Starts for Khaleesi_26:
(1, 8462), (Start: 4 @8816 has 161 MA's),

Gene: Koguma_23 Start: 7286, Stop: 7393, Start Num: 4
Candidate Starts for Koguma_23:
(1, 6932), (3, 7214), (Start: 4 @7286 has 161 MA's),

Gene: LRRHood_24 Start: 9209, Stop: 9316, Start Num: 4
Candidate Starts for LRRHood_24:
(1, 8855), (Start: 4 @9209 has 161 MA's),

Gene: Latch_27 Start: 8521, Stop: 8628, Start Num: 4
Candidate Starts for Latch_27:
(1, 8167), (Start: 4 @8521 has 161 MA's),

Gene: Lee7_26 Start: 9063, Stop: 9170, Start Num: 4
Candidate Starts for Lee7_26:

(1, 8709), (Start: 4 @9063 has 161 MA's),

Gene: LifeSavor_28 Start: 8517, Stop: 8624, Start Num: 4

Candidate Starts for LifeSavor_28:

(1, 8163), (Start: 4 @8517 has 161 MA's),

Gene: LinStu_27 Start: 9419, Stop: 9526, Start Num: 4

Candidate Starts for LinStu_27:

(1, 9065), (Start: 4 @9419 has 161 MA's),

Gene: Littleton_27 Start: 8521, Stop: 8628, Start Num: 4

Candidate Starts for Littleton_27:

(1, 8167), (Start: 4 @8521 has 161 MA's),

Gene: Loanshark_27 Start: 9066, Stop: 9173, Start Num: 4

Candidate Starts for Loanshark_27:

(1, 8712), (Start: 4 @9066 has 161 MA's),

Gene: LolaVinca_30 Start: 10278, Stop: 10385, Start Num: 4

Candidate Starts for LolaVinca_30:

(1, 9924), (Start: 4 @10278 has 161 MA's),

Gene: LordLeafolot_32 Start: 10636, Stop: 10743, Start Num: 4

Candidate Starts for LordLeafolot_32:

(1, 10282), (Start: 4 @10636 has 161 MA's),

Gene: Lukilu_20 Start: 7660, Stop: 7767, Start Num: 4

Candidate Starts for Lukilu_20:

(1, 7306), (Start: 4 @7660 has 161 MA's),

Gene: Maby2021_28 Start: 9066, Stop: 9173, Start Num: 4

Candidate Starts for Maby2021_28:

(1, 8712), (Start: 4 @9066 has 161 MA's),

Gene: Mangeria_30 Start: 9592, Stop: 9699, Start Num: 4

Candidate Starts for Mangeria_30:

(1, 9238), (Start: 4 @9592 has 161 MA's),

Gene: Matsumoto_26 Start: 8482, Stop: 8589, Start Num: 4

Candidate Starts for Matsumoto_26:

(1, 8128), (Start: 4 @8482 has 161 MA's),

Gene: McGee_26 Start: 7708, Stop: 7815, Start Num: 4

Candidate Starts for McGee_26:

(1, 7354), (Start: 4 @7708 has 161 MA's),

Gene: McWolfish_26 Start: 8816, Stop: 8923, Start Num: 4

Candidate Starts for McWolfish_26:

(1, 8462), (Start: 4 @8816 has 161 MA's),

Gene: Megamind_27 Start: 9057, Stop: 9164, Start Num: 4

Candidate Starts for Megamind_27:

(1, 8703), (Start: 4 @9057 has 161 MA's),

Gene: Melpomini_26 Start: 7923, Stop: 8030, Start Num: 4
Candidate Starts for Melpomini_26:
(1, 7569), (Start: 4 @7923 has 161 MA's),

Gene: MikeLiesIn_27 Start: 9066, Stop: 9173, Start Num: 4
Candidate Starts for MikeLiesIn_27:
(1, 8712), (Start: 4 @9066 has 161 MA's),

Gene: Mikro_25 Start: 9552, Stop: 9659, Start Num: 4
Candidate Starts for Mikro_25:
(1, 9198), (Start: 4 @9552 has 161 MA's),

Gene: MoMoMixon_28 Start: 9383, Stop: 9490, Start Num: 4
Candidate Starts for MoMoMixon_28:
(1, 9029), (Start: 4 @9383 has 161 MA's),

Gene: Momo_26 Start: 8521, Stop: 8628, Start Num: 4
Candidate Starts for Momo_26:
(1, 8167), (Start: 4 @8521 has 161 MA's),

Gene: Morizzled23_26 Start: 7923, Stop: 8030, Start Num: 4
Candidate Starts for Morizzled23_26:
(1, 7569), (Start: 4 @7923 has 161 MA's),

Gene: Naija_27 Start: 8521, Stop: 8628, Start Num: 4
Candidate Starts for Naija_27:
(1, 8167), (Start: 4 @8521 has 161 MA's),

Gene: Napoleon13_26 Start: 7942, Stop: 8049, Start Num: 4
Candidate Starts for Napoleon13_26:
(1, 7588), (Start: 4 @7942 has 161 MA's),

Gene: Nappy_28 Start: 9230, Stop: 9337, Start Num: 4
Candidate Starts for Nappy_28:
(1, 8876), (3, 9158), (Start: 4 @9230 has 161 MA's),

Gene: Naval22_29 Start: 9106, Stop: 9213, Start Num: 4
Candidate Starts for Naval22_29:
(1, 8752), (Start: 4 @9106 has 161 MA's),

Gene: NedWong_28 Start: 9066, Stop: 9173, Start Num: 4
Candidate Starts for NedWong_28:
(1, 8712), (Start: 4 @9066 has 161 MA's),

Gene: Ngannou_25 Start: 7697, Stop: 7804, Start Num: 4
Candidate Starts for Ngannou_25:
(1, 7343), (Start: 4 @7697 has 161 MA's),

Gene: Nidhogg_28 Start: 9136, Stop: 9243, Start Num: 4
Candidate Starts for Nidhogg_28:
(1, 8782), (Start: 4 @9136 has 161 MA's),

Gene: Norm_27 Start: 9066, Stop: 9173, Start Num: 4
Candidate Starts for Norm_27:
(1, 8712), (Start: 4 @9066 has 161 MA's),

Gene: NuevoMundo_30 Start: 10123, Stop: 10230, Start Num: 4
Candidate Starts for NuevoMundo_30:
(1, 9769), (Start: 4 @10123 has 161 MA's),

Gene: ParkTD_26 Start: 9066, Stop: 9173, Start Num: 4
Candidate Starts for ParkTD_26:
(1, 8712), (Start: 4 @9066 has 161 MA's),

Gene: Patter_27 Start: 8538, Stop: 8645, Start Num: 4
Candidate Starts for Patter_27:
(1, 8184), (Start: 4 @8538 has 161 MA's),

Gene: Phlegm_29 Start: 8521, Stop: 8628, Start Num: 4
Candidate Starts for Phlegm_29:
(1, 8167), (Start: 4 @8521 has 161 MA's),

Gene: Phox_26 Start: 9233, Stop: 9340, Start Num: 4
Candidate Starts for Phox_26:
(1, 8879), (3, 9161), (Start: 4 @9233 has 161 MA's),

Gene: Phusco_27 Start: 8517, Stop: 8624, Start Num: 4
Candidate Starts for Phusco_27:
(1, 8163), (Start: 4 @8517 has 161 MA's),

Gene: Pier_29 Start: 9224, Stop: 9331, Start Num: 4
Candidate Starts for Pier_29:
(1, 8870), (Start: 4 @9224 has 161 MA's),

Gene: Pinkcreek_19 Start: 6928, Stop: 7035, Start Num: 4
Candidate Starts for Pinkcreek_19:
(1, 6574), (Start: 4 @6928 has 161 MA's),

Gene: Pio_30 Start: 9915, Stop: 10022, Start Num: 4
Candidate Starts for Pio_30:
(1, 9561), (Start: 4 @9915 has 161 MA's),

Gene: Pivoine_27 Start: 8521, Stop: 8628, Start Num: 4
Candidate Starts for Pivoine_27:
(1, 8167), (Start: 4 @8521 has 161 MA's),

Gene: Pleione_29 Start: 9066, Stop: 9173, Start Num: 4
Candidate Starts for Pleione_29:
(1, 8712), (Start: 4 @9066 has 161 MA's),

Gene: PurduePete_26 Start: 8783, Stop: 8890, Start Num: 4
Candidate Starts for PurduePete_26:
(1, 8429), (Start: 4 @8783 has 161 MA's),

Gene: QBert_25 Start: 9233, Stop: 9340, Start Num: 4

Candidate Starts for QBert_25:
(1, 8879), (Start: 4 @9233 has 161 MA's),

Gene: Quasimodo_27 Start: 9481, Stop: 9588, Start Num: 4
Candidate Starts for Quasimodo_27:
(1, 9127), (Start: 4 @9481 has 161 MA's),

Gene: Rabinovish_26 Start: 9521, Stop: 9628, Start Num: 4
Candidate Starts for Rabinovish_26:
(1, 9167), (Start: 4 @9521 has 161 MA's),

Gene: Rahel_27 Start: 8517, Stop: 8624, Start Num: 4
Candidate Starts for Rahel_27:
(1, 8163), (Start: 4 @8517 has 161 MA's),

Gene: Rizal_25 Start: 7983, Stop: 8090, Start Num: 4
Candidate Starts for Rizal_25:
(1, 7629), (Start: 4 @7983 has 161 MA's),

Gene: RoMag_22 Start: 8318, Stop: 8425, Start Num: 4
Candidate Starts for RoMag_22:
(1, 7964), (Start: 4 @8318 has 161 MA's),

Gene: Ronan_22 Start: 6629, Stop: 6736, Start Num: 4
Candidate Starts for Ronan_22:
(1, 6275), (Start: 4 @6629 has 161 MA's),

Gene: Roots515_27 Start: 9065, Stop: 9172, Start Num: 4
Candidate Starts for Roots515_27:
(1, 8711), (Start: 4 @9065 has 161 MA's),

Gene: Salacia_29 Start: 9066, Stop: 9173, Start Num: 4
Candidate Starts for Salacia_29:
(1, 8712), (Start: 4 @9066 has 161 MA's),

Gene: Sauce_28 Start: 9196, Stop: 9303, Start Num: 4
Candidate Starts for Sauce_28:
(1, 8842), (3, 9124), (Start: 4 @9196 has 161 MA's),

Gene: ScottMcG_27 Start: 9376, Stop: 9483, Start Num: 4
Candidate Starts for ScottMcG_27:
(1, 9022), (Start: 4 @9376 has 161 MA's),

Gene: Sebata_27 Start: 9419, Stop: 9526, Start Num: 4
Candidate Starts for Sebata_27:
(1, 9065), (Start: 4 @9419 has 161 MA's),

Gene: Shaqnato_23 Start: 7643, Stop: 7750, Start Num: 4
Candidate Starts for Shaqnato_23:
(1, 7289), (Start: 4 @7643 has 161 MA's),

Gene: Shelob_29 Start: 9951, Stop: 10058, Start Num: 4
Candidate Starts for Shelob_29:

(1, 9597), (Start: 4 @9951 has 161 MA's),

Gene: ShiaLabeouf_27 Start: 8517, Stop: 8624, Start Num: 4

Candidate Starts for ShiaLabeouf_27:

(1, 8163), (Start: 4 @8517 has 161 MA's),

Gene: Shifa_24 Start: 8702, Stop: 8809, Start Num: 4

Candidate Starts for Shifa_24:

(1, 8348), (Start: 4 @8702 has 161 MA's),

Gene: Shnickers_27 Start: 8517, Stop: 8624, Start Num: 4

Candidate Starts for Shnickers_27:

(1, 8163), (Start: 4 @8517 has 161 MA's),

Gene: Shrimp_27 Start: 9070, Stop: 9177, Start Num: 4

Candidate Starts for Shrimp_27:

(1, 8716), (Start: 4 @9070 has 161 MA's),

Gene: SilverDipper_28 Start: 8521, Stop: 8628, Start Num: 4

Candidate Starts for SilverDipper_28:

(1, 8167), (Start: 4 @8521 has 161 MA's),

Gene: SmallFry_27 Start: 8517, Stop: 8624, Start Num: 4

Candidate Starts for SmallFry_27:

(1, 8163), (Start: 4 @8517 has 161 MA's),

Gene: Spec_25 Start: 8523, Stop: 8630, Start Num: 4

Candidate Starts for Spec_25:

(1, 8169), (Start: 4 @8523 has 161 MA's),

Gene: Specks_32 Start: 10355, Stop: 10462, Start Num: 4

Candidate Starts for Specks_32:

(1, 10001), (Start: 4 @10355 has 161 MA's),

Gene: Sprinklers_27 Start: 8558, Stop: 8665, Start Num: 4

Candidate Starts for Sprinklers_27:

(1, 8204), (3, 8486), (Start: 4 @8558 has 161 MA's),

Gene: Spud_29 Start: 9915, Stop: 10022, Start Num: 4

Candidate Starts for Spud_29:

(1, 9561), (Start: 4 @9915 has 161 MA's),

Gene: SrishMeg2525_26 Start: 8783, Stop: 8890, Start Num: 4

Candidate Starts for SrishMeg2525_26:

(1, 8429), (Start: 4 @8783 has 161 MA's),

Gene: StephanieG_27 Start: 9249, Stop: 9356, Start Num: 4

Candidate Starts for StephanieG_27:

(1, 8895), (Start: 4 @9249 has 161 MA's),

Gene: Stubby_25 Start: 8329, Stop: 8436, Start Num: 4

Candidate Starts for Stubby_25:

(1, 7975), (Start: 4 @8329 has 161 MA's),

Gene: StubbySaigey_26 Start: 7709, Stop: 7816, Start Num: 4
Candidate Starts for StubbySaigey_26:
(1, 7355), (Start: 4 @7709 has 161 MA's),

Gene: Teardrop_26 Start: 7982, Stop: 8089, Start Num: 4
Candidate Starts for Teardrop_26:
(1, 7628), (Start: 4 @7982 has 161 MA's),

Gene: TinyTim_27 Start: 9066, Stop: 9173, Start Num: 4
Candidate Starts for TinyTim_27:
(1, 8712), (Start: 4 @9066 has 161 MA's),

Gene: Tortoise16_26 Start: 8517, Stop: 8624, Start Num: 4
Candidate Starts for Tortoise16_26:
(1, 8163), (Start: 4 @8517 has 161 MA's),

Gene: Trinitium_26 Start: 7958, Stop: 8065, Start Num: 4
Candidate Starts for Trinitium_26:
(1, 7604), (Start: 4 @7958 has 161 MA's),

Gene: Turret_25 Start: 7697, Stop: 7804, Start Num: 4
Candidate Starts for Turret_25:
(1, 7343), (Start: 4 @7697 has 161 MA's),

Gene: Tyke_29 Start: 9929, Stop: 10036, Start Num: 4
Candidate Starts for Tyke_29:
(1, 9575), (Start: 4 @9929 has 161 MA's),

Gene: ValleyTerrace_27 Start: 8521, Stop: 8628, Start Num: 4
Candidate Starts for ValleyTerrace_27:
(1, 8167), (Start: 4 @8521 has 161 MA's),

Gene: Wally_26 Start: 7944, Stop: 8051, Start Num: 4
Candidate Starts for Wally_26:
(1, 7590), (Start: 4 @7944 has 161 MA's),

Gene: Willis_27 Start: 8961, Stop: 9068, Start Num: 4
Candidate Starts for Willis_27:
(1, 8607), (Start: 4 @8961 has 161 MA's),

Gene: Yassified_24 Start: 7721, Stop: 7828, Start Num: 4
Candidate Starts for Yassified_24:
(1, 7367), (3, 7649), (Start: 4 @7721 has 161 MA's),

Gene: YemiJoy2021_28 Start: 9066, Stop: 9173, Start Num: 4
Candidate Starts for YemiJoy2021_28:
(1, 8712), (Start: 4 @9066 has 161 MA's),

Gene: YoungMoneyMata_27 Start: 8272, Stop: 8379, Start Num: 4
Candidate Starts for YoungMoneyMata_27:
(1, 7918), (Start: 4 @8272 has 161 MA's),

Gene: Yucca_27 Start: 8988, Stop: 9095, Start Num: 4
Candidate Starts for Yucca_27:
(1, 8634), (Start: 4 @8988 has 161 MA's),

Gene: Zalkecks_29 Start: 9070, Stop: 9177, Start Num: 4
Candidate Starts for Zalkecks_29:
(1, 8716), (Start: 4 @9070 has 161 MA's),

Gene: Zeenon_29 Start: 9058, Stop: 9165, Start Num: 4
Candidate Starts for Zeenon_29:
(1, 8704), (Start: 4 @9058 has 161 MA's),

Gene: ZygoTaiga_27 Start: 9066, Stop: 9173, Start Num: 4
Candidate Starts for ZygoTaiga_27:
(1, 8712), (Start: 4 @9066 has 161 MA's),