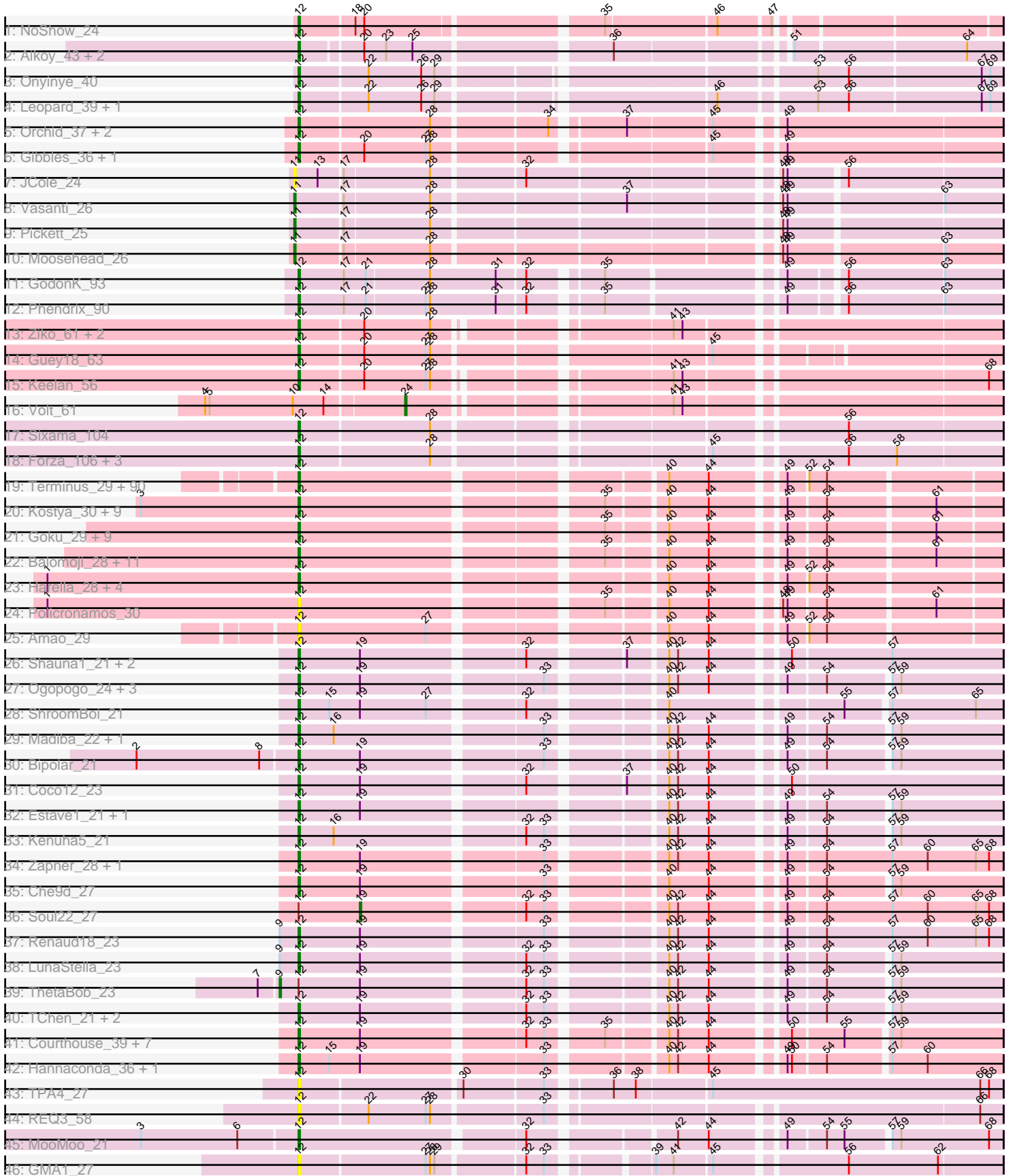


Pham 171210



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 171210 Report

This analysis was run 07/10/24 on database version 566.

Pham number 171210 has 198 members, 12 are drafts.

Phages represented in each track:

- Track 1 : NoShow_24
- Track 2 : Aikoy_43, Onyinye_44, Leopard_43
- Track 3 : Onyinye_40
- Track 4 : Leopard_39, Aikoy_39
- Track 5 : Orchid_37, Kampe_38, PatrickStar_38
- Track 6 : Gibbles_36, RobinSparkles_40
- Track 7 : JCole_24
- Track 8 : Vasanti_26
- Track 9 : Pickett_25
- Track 10 : Moosehead_26
- Track 11 : GodonK_93
- Track 12 : Phendrix_90
- Track 13 : Ziko_61, Ronaldo_61, Fryberger_58
- Track 14 : Guey18_63
- Track 15 : Keelan_56
- Track 16 : Volt_61
- Track 17 : Sixama_104
- Track 18 : Forza_106, Boopy_106, BlueNGold_105, Mareelih_104
- Track 19 : Terminus_29, Palpatine_29, Stark_30, 244_31, Gemini_32, Murica_28, Inca_28, BaboJay_28, ChosenOne_29, Elph10_30, Maxxinista_30, Moldemort_30, Emmina_30, Tarkin_31, DoctorDiddles_29, Hoonter_31, Bruin_29, Gage_31, Cjw1_29, BugsBunny_27, Hopey_31, Saints25_30, HanKaySha_30, Petra64142_31, ChotaBhai_29, Highbury_30, Contagion_28, Argent26_31, Xandras_31, Wiggin_32, HufflyPuff_28, Lilpickle_28, Quallification_30, Easy2Say_31, DrDrey_30, Paperbeatsrock_31, Holt_30, FireRed_29, Kimchi_31, Mosby_28, Willez_28, MISSy_28, StolenFromERC_31, Phaux_28, JeTaime_31, ShereKhan_31, Manda_30, Rimmer_28, StellaBean_29, Stank_32, MadamMonkfish_29, TBrady12_31, RiverMonster_29, MPhalcon_28, Teaspoon_30, Pumpkin_31, Tomaszewski_28, Ukulele_29, Pat3_28, Dumbo_29, Filch_30, Czyszczon1_30, xkcd_30, NoSleep_30, Phrux_29, Porky_29, Kanye_31, Pharsalus_30, Buck_28, Sassay_28, Adnama_32, Elite2014_28, BigBubba_30, SophKB_29, GoldenSpark_31, GooberAzure_31, Thresher_30, YassJohnny_30, Miniwave_29, Nimrod_29, Lilizi_31, OrionPax_30, AmericanBeauty_32, PhatBacter_29, Goldilocks_30, Simpliphy_30, Bench_31, Lilac_31, Murphy_30, Misfit_29, Cookies_29
- Track 20 : Kostya_30, Daikon_28, ShamWow_29, BilboSwaggins_29, Henry_30, Mindy_29, IHOP_29, Toto_29, Phaja_29, CrystalP_29

- Track 21 : Goku_29, Bask21_29, SirDuracell_28, Sotrice96_29, NelitzaMV_29, Marshmallow_29, Cactus_30, Eureka_29, Command613_30, Icee_28
- Track 22 : Balomoji_28, Dusk_28, BadStone_28, Tuco_30, Rakim_30, ABCat_28, Barbarian_28, Myrale_29, TeardropMSU_28, Gator_27, Asriel_28, Traaww1_27
- Track 23 : Harella_28, Nala_29, Flypotenuse_27, Glexan_27, Youngblood_29
- Track 24 : Policronamos_30
- Track 25 : Amao_29
- Track 26 : Shauna1_21, Phanphagia_21, Kingsley_22
- Track 27 : Ogopogo_24, Avani_27, Kersh_22, MadMen_22
- Track 28 : ShroomBoi_21
- Track 29 : Madiba_22, Demsculpinboyz_27
- Track 30 : Bipolar_21
- Track 31 : Coco12_23
- Track 32 : Estave1_21, Cornie_23
- Track 33 : Kenuha5_21
- Track 34 : Zapner_28, Jabbawokkie_29
- Track 35 : Che9d_27
- Track 36 : Soul22_27
- Track 37 : Renaud18_23
- Track 38 : LunaStella_23
- Track 39 : ThetaBob_23
- Track 40 : TChen_21, Pollywog_24, Yoshi_27
- Track 41 : Courthouse_39, Porcelain_38, Ariel_39, Lucky2013_39, Superphikiman_39, MiaZeal_39, Squint_38, DmpstrDiver_40
- Track 42 : Hannaconda_36, KashFlow_33
- Track 43 : TPA4_27
- Track 44 : REQ3_58
- Track 45 : MooMoo_21
- Track 46 : GMA1_27

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

The start number called the most often in the published annotations is 12, it was called in 180 of the 186 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- 244_31, ABCat_28, Adnama_32, Aikoy_39, Aikoy_43, Amao_29, AmericanBeauty_32, Argent26_31, Ariel_39, Asriel_28, Avani_27, BaboJay_28, BadStone_28, Balomoji_28, Barbarian_28, Bask21_29, Bench_31, BigBubba_30, BilboSwaggins_29, Bipolar_21, BlueNGold_105, Boopy_106, Bruin_29, Buck_28, BugsBunny_27, Cactus_30, Che9d_27, ChosenOne_29, ChotaBhai_29, Cjw1_29, Coco12_23, Command613_30, Contagion_28, Cookies_29, Cornie_23, Courthouse_39, CrystalP_29, Czyszczonek_30, Daikon_28, Demsculpinboyz_27, DmpstrDiver_40, DoctorDiddles_29, DrDrey_30, Dumbo_29, Dusk_28, Easy2Say_31, Elite2014_28, Elph10_30, Emmina_30, Estave1_21, Eureka_29, Filch_30, FireRed_29, Flypotenuse_27, Forza_106, Fryberger_58, GMA1_27, Gage_31, Gator_27, Gemini_32, Gibbles_36, Glexan_27, GodonK_93, Goku_29, GoldenSpark_31, Goldilocks_30, GooberAzure_31, Guey18_63, HanKaySha_30, Hannaconda_36, Harella_28, Henry_30, Highbury_30, Holt_30, Hoonter_31, Hopey_31, HuffyPuff_28, IHOP_29, Icee_28, Inca_28, Jabbawokkie_29,

JeTaime_31, Kampe_38, Kanye_31, KashFlow_33, Keelan_56, Kenuha5_21, Kersh_22, Kimchi_31, Kingsley_22, Kostya_30, Leopard_39, Leopard_43, Lilac_31, Lilizi_31, Lilpickle_28, Lucky2013_39, LunaStella_23, MISSy_28, MPhalcon_28, MadMen_22, MadamMonkfish_29, Madiba_22, Manda_30, Mareelih_104, Marshmallow_29, Maxxinista_30, MiaZeal_39, Mindy_29, Miniwave_29, Misfit_29, Moldemort_30, MooMoo_21, Mosby_28, Murica_28, Murphy_30, Myrale_29, Nala_29, NelitzaMV_29, Nimrod_29, NoShow_24, NoSleep_30, Ogopogo_24, Onyinye_40, Onyinye_44, Orchid_37, OrionPax_30, Palpatine_29, Paperbeatsrock_31, Pat3_28, PatrickStar_38, Petra64142_31, Phaja_29, Phanphagia_21, Pharsalus_30, PhatBacter_29, Phaux_28, Phendrix_90, Phrux_29, Policronamos_30, Pollywog_24, Porcelain_38, Porky_29, Pumpkin_31, Quallification_30, REQ3_58, Rakim_30, Renaud18_23, Rimmer_28, RiverMonster_29, RobinSparkles_40, Ronaldo_61, Saints25_30, Sassay_28, ShamWow_29, Shauna1_21, ShereKhan_31, ShroomBoi_21, Simpliphy_30, SirDuracell_28, Sixama_104, SophKB_29, Sotrice96_29, Squint_38, Stank_32, Stark_30, StellaBean_29, StolenFromERC_31, Superphikiman_39, TBrady12_31, TChen_21, TPA4_27, Tarkin_31, TeardropMSU_28, Teaspoon_30, Terminus_29, Thresher_30, Tomaszewski_28, Toto_29, Traaww1_27, Tuco_30, Ukulele_29, Wiggin_32, Willez_28, Xandras_31, YassJohnny_30, Yoshi_27, Youngblood_29, Zapner_28, Ziko_61, xkcd_30,

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

- Soul22_27, ThetaBob_23,

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

- JCole_24, Moosehead_26, Pickett_25, Vasanti_26, Volt_61,

Summary by start number:

Start 9:

- Found in 3 of 198 (1.5%) of genes in pham
- Manual Annotations of this start: 1 of 186
- Called 33.3% of time when present
- Phage (with cluster) where this start called: ThetaBob_23 (F4),

Start 11:

- Found in 4 of 198 (2.0%) of genes in pham
- Manual Annotations of this start: 3 of 186
- Called 100.0% of time when present
- Phage (with cluster) where this start called: JCole_24 (CZ2), Moosehead_26 (CZ6), Pickett_25 (CZ2), Vasanti_26 (CZ2),

Start 12:

- Found in 193 of 198 (97.5%) of genes in pham
- Manual Annotations of this start: 180 of 186
- Called 99.0% of time when present
- Phage (with cluster) where this start called: 244_31 (E), ABCat_28 (E), Adnama_32 (E), Aikoy_39 (AE), Aikoy_43 (AE), Amao_29 (E), AmericanBeauty_32 (E), Argent26_31 (E), Ariel_39 (J), Asriel_28 (E), Avani_27 (F2), BaboJay_28 (E), BadStone_28 (E), Balomoji_28 (E), Barbarian_28 (E), Bask21_29 (E), Bench_31 (E), BigBubba_30 (E), BilboSwaggins_29 (E), Bipolar_21 (F1), BlueNGold_105 (DS), Boopy_106 (DS), Bruin_29 (E), Buck_28 (E), BugsBunny_27 (E), Cactus_30 (E), Che9d_27 (F2), ChosenOne_29 (E), ChotaBhai_29 (E), Cjw1_29 (E), Coco12_23

(F1), Command613_30 (E), Contagion_28 (E), Cookies_29 (E), Cornie_23 (F5), Courthouse_39 (J), CrystalP_29 (E), Czyszczon1_30 (E), Daikon_28 (E), Demsculpinboyz_27 (F2), DmpstrDiver_40 (J), DoctorDiddles_29 (E), DrDrey_30 (E), Dumbo_29 (E), Dusk_28 (E), Easy2Say_31 (E), Elite2014_28 (E), Elph10_30 (E), Emmina_30 (E), Estave1_21 (F1), Eureka_29 (E), Filch_30 (E), FireRed_29 (E), Flypotenuse_27 (E), Forza_106 (DS), Fryberger_58 (DP), GMA1_27 (singleton), Gage_31 (E), Gator_27 (E), Gemini_32 (E), Gibbles_36 (CX), Glexan_27 (E), GodonK_93 (DK), Goku_29 (E), GoldenSpark_31 (E), Goldilocks_30 (E), GooberAzure_31 (E), Guey18_63 (DP), HanKaySha_30 (E), Hannaconda_36 (J), Harella_28 (E), Henry_30 (E), Highbury_30 (E), Holt_30 (E), Hoonter_31 (E), Hopey_31 (E), HufflyPuff_28 (E), IHOP_29 (E), Icee_28 (E), Inca_28 (E), Jabbawokkie_29 (F2), JeTaime_31 (E), Kampe_38 (CX), Kanye_31 (E), KashFlow_33 (J), Keelan_56 (DP), Kenuha5_21 (F1), Kersh_22 (F1), Kimchi_31 (E), Kingsley_22 (F1), Kostya_30 (E), Leopard_39 (AE), Leopard_43 (AE), Lilac_31 (E), Lilizi_31 (E), Lilpickle_28 (E), Lucky2013_39 (J), LunaStella_23 (F4), MISSy_28 (E), MPhalcon_28 (E), MadMen_22 (F1), MadamMonkfish_29 (E), Madiba_22 (F1), Manda_30 (E), Mareelih_104 (DS), Marshmallow_29 (E), Maxxinista_30 (E), MiaZeal_39 (J), Mindy_29 (E), Miniwave_29 (E), Misfit_29 (E), Moldemort_30 (E), MooMoo_21 (singleton), Mosby_28 (E), Murica_28 (E), Murphy_30 (E), Myrale_29 (E), Nala_29 (E), NelitzaMV_29 (E), Nimrod_29 (E), NoShow_24 (AB), NoSleep_30 (E), Ogopogo_24 (F1), Onyinye_40 (AE), Onyinye_44 (AE), Orchid_37 (CX), OrionPax_30 (E), Palpatine_29 (E), Paperbeatsrock_31 (E), Pat3_28 (E), PatrickStar_38 (CX), Petra64142_31 (E), Phaja_29 (E), Phanphagia_21 (F1), Pharsalus_30 (E), PhatBacter_29 (E), Phaux_28 (E), Phendrix_90 (DK), Phrux_29 (E), Policronamos_30 (E), Pollywog_24 (F1), Porcelain_38 (J), Porky_29 (E), Pumpkin_31 (E), Qualification_30 (E), REQ3_58 (singleton), Rakim_30 (E), Renaud18_23 (F4), Rimmer_28 (E), RiverMonster_29 (E), RobinSparkles_40 (CX), Ronaldo_61 (DP), Saints25_30 (E), Sassay_28 (E), ShamWow_29 (E), Shauna1_21 (F1), ShereKhan_31 (E), ShroomBoi_21 (F1), Simpliphy_30 (E), SirDuracell_28 (E), Sixama_104 (DS), SophKB_29 (E), Sotrice96_29 (E), Squint_38 (J), Stank_32 (E), Stark_30 (E), StellaBean_29 (E), StolenFromERC_31 (E), Superphikiman_39 (J), TBrady12_31 (E), TChen_21 (F4), TPA4_27 (singleton), Tarkin_31 (E), TeardropMSU_28 (E), Teaspoon_30 (E), Terminus_29 (E), Thresher_30 (E), Tomaszewski_28 (E), Toto_29 (E), Traaww1_27 (E), Tuco_30 (E), Ukulele_29 (E), Wiggin_32 (E), Willez_28 (E), Xandras_31 (E), YassJohnny_30 (E), Yoshi_27 (F2), Youngblood_29 (E), Zapner_28 (F2), Ziko_61 (DP), xkcd_30 (E),

Start 19:

- Found in 32 of 198 (16.2%) of genes in pham
- Manual Annotations of this start: 1 of 186
- Called 3.1% of time when present
- Phage (with cluster) where this start called: Soul22_27 (F2),

Start 24:

- Found in 1 of 198 (0.5%) of genes in pham
- Manual Annotations of this start: 1 of 186
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Volt_61 (DP),

Summary by clusters:

There are 15 clusters represented in this pham: F1, F2, AB, F4, DK, CZ2, J, CZ6, singleton, CX, E, AE, DS, DP, F5,

Info for manual annotations of cluster AB:

- Start number 12 was manually annotated 1 time for cluster AB.

Info for manual annotations of cluster AE:

- Start number 12 was manually annotated 6 times for cluster AE.

Info for manual annotations of cluster CX:

- Start number 12 was manually annotated 5 times for cluster CX.

Info for manual annotations of cluster CZ2:

- Start number 11 was manually annotated 2 times for cluster CZ2.

Info for manual annotations of cluster CZ6:

- Start number 11 was manually annotated 1 time for cluster CZ6.

Info for manual annotations of cluster DK:

- Start number 12 was manually annotated 2 times for cluster DK.

Info for manual annotations of cluster DP:

- Start number 12 was manually annotated 5 times for cluster DP.
- Start number 24 was manually annotated 1 time for cluster DP.

Info for manual annotations of cluster DS:

- Start number 12 was manually annotated 5 times for cluster DS.

Info for manual annotations of cluster E:

- Start number 12 was manually annotated 122 times for cluster E.

Info for manual annotations of cluster F1:

- Start number 12 was manually annotated 13 times for cluster F1.

Info for manual annotations of cluster F2:

- Start number 12 was manually annotated 6 times for cluster F2.
- Start number 19 was manually annotated 1 time for cluster F2.

Info for manual annotations of cluster F4:

- Start number 9 was manually annotated 1 time for cluster F4.
- Start number 12 was manually annotated 3 times for cluster F4.

Info for manual annotations of cluster F5:

- Start number 12 was manually annotated 1 time for cluster F5.

Info for manual annotations of cluster J:

- Start number 12 was manually annotated 10 times for cluster J.

Gene Information:

Gene: 244_31 Start: 28830, Stop: 29258, Start Num: 12

Candidate Starts for 244_31:

(Start: 12 @28830 has 180 MA's), (40, 29055), (44, 29082), (49, 29124), (52, 29136), (54, 29148),

Gene: ABCat_28 Start: 28541, Stop: 28969, Start Num: 12

Candidate Starts for ABCat_28:

(Start: 12 @28541 has 180 MA's), (35, 28730), (40, 28766), (44, 28793), (49, 28835), (54, 28859), (61, 28928),

Gene: Adnama_32 Start: 29057, Stop: 29485, Start Num: 12

Candidate Starts for Adnama_32:

(Start: 12 @29057 has 180 MA's), (40, 29282), (44, 29309), (49, 29351), (52, 29363), (54, 29375),

Gene: Aikoy_43 Start: 34014, Stop: 34448, Start Num: 12

Candidate Starts for Aikoy_43:

(Start: 12 @34014 has 180 MA's), (20, 34053), (23, 34068), (25, 34086), (36, 34209), (51, 34314), (64, 34425),

Gene: Aikoy_39 Start: 29482, Stop: 29922, Start Num: 12

Candidate Starts for Aikoy_39:

(Start: 12 @29482 has 180 MA's), (22, 29527), (26, 29563), (29, 29572), (46, 29740), (53, 29800), (56, 29821), (67, 29908), (69, 29914),

Gene: Amao_29 Start: 27754, Stop: 28182, Start Num: 12

Candidate Starts for Amao_29:

(Start: 12 @27754 has 180 MA's), (27, 27841), (40, 27979), (44, 28006), (49, 28048), (52, 28060), (54, 28072),

Gene: AmericanBeauty_32 Start: 28537, Stop: 28965, Start Num: 12

Candidate Starts for AmericanBeauty_32:

(Start: 12 @28537 has 180 MA's), (40, 28762), (44, 28789), (49, 28831), (52, 28843), (54, 28855),

Gene: Argent26_31 Start: 28540, Stop: 28968, Start Num: 12

Candidate Starts for Argent26_31:

(Start: 12 @28540 has 180 MA's), (40, 28765), (44, 28792), (49, 28834), (52, 28846), (54, 28858),

Gene: Ariel_39 Start: 33704, Stop: 34135, Start Num: 12

Candidate Starts for Ariel_39:

(Start: 12 @33704 has 180 MA's), (Start: 19 @33746 has 1 MA's), (32, 33848), (33, 33860), (35, 33893), (40, 33929), (42, 33935), (44, 33956), (50, 34001), (55, 34034), (57, 34061), (59, 34067),

Gene: Asriel_28 Start: 27410, Stop: 27838, Start Num: 12

Candidate Starts for Asriel_28:

(Start: 12 @27410 has 180 MA's), (35, 27599), (40, 27635), (44, 27662), (49, 27704), (54, 27728), (61, 27797),

Gene: Avani_27 Start: 23475, Stop: 23906, Start Num: 12

Candidate Starts for Avani_27:

(Start: 12 @23475 has 180 MA's), (Start: 19 @23517 has 1 MA's), (33, 23631), (40, 23700), (42, 23706), (44, 23727), (49, 23769), (54, 23793), (57, 23832), (59, 23838),

Gene: BaboJay_28 Start: 28100, Stop: 28528, Start Num: 12

Candidate Starts for BaboJay_28:

(Start: 12 @28100 has 180 MA's), (40, 28325), (44, 28352), (49, 28394), (52, 28406), (54, 28418),

Gene: BadStone_28 Start: 28541, Stop: 28969, Start Num: 12

Candidate Starts for BadStone_28:

(Start: 12 @28541 has 180 MA's), (35, 28730), (40, 28766), (44, 28793), (49, 28835), (54, 28859), (61, 28928),

Gene: Balomoji_28 Start: 28275, Stop: 28703, Start Num: 12

Candidate Starts for Balomoji_28:

(Start: 12 @28275 has 180 MA's), (35, 28464), (40, 28500), (44, 28527), (49, 28569), (54, 28593), (61, 28662),

Gene: Barbarian_28 Start: 27410, Stop: 27838, Start Num: 12

Candidate Starts for Barbarian_28:

(Start: 12 @27410 has 180 MA's), (35, 27599), (40, 27635), (44, 27662), (49, 27704), (54, 27728), (61, 27797),

Gene: Bask21_29 Start: 27727, Stop: 28155, Start Num: 12

Candidate Starts for Bask21_29:

(Start: 12 @27727 has 180 MA's), (35, 27916), (40, 27952), (44, 27979), (49, 28021), (54, 28045), (61, 28114),

Gene: Bench_31 Start: 28410, Stop: 28838, Start Num: 12

Candidate Starts for Bench_31:

(Start: 12 @28410 has 180 MA's), (40, 28635), (44, 28662), (49, 28704), (52, 28716), (54, 28728),

Gene: BigBubba_30 Start: 28313, Stop: 28741, Start Num: 12

Candidate Starts for BigBubba_30:

(Start: 12 @28313 has 180 MA's), (40, 28538), (44, 28565), (49, 28607), (52, 28619), (54, 28631),

Gene: BilboSwaggins_29 Start: 28549, Stop: 28977, Start Num: 12

Candidate Starts for BilboSwaggins_29:

(3, 28441), (Start: 12 @28549 has 180 MA's), (35, 28738), (40, 28774), (44, 28801), (49, 28843), (54, 28867), (61, 28936),

Gene: Bipolar_21 Start: 23745, Stop: 24176, Start Num: 12

Candidate Starts for Bipolar_21:

(2, 23637), (8, 23721), (Start: 12 @23745 has 180 MA's), (Start: 19 @23787 has 1 MA's), (33, 23901), (40, 23970), (42, 23976), (44, 23997), (49, 24039), (54, 24063), (57, 24102), (59, 24108),

Gene: BlueNGold_105 Start: 64502, Stop: 64939, Start Num: 12

Candidate Starts for BlueNGold_105:

(Start: 12 @64502 has 180 MA's), (28, 64589), (45, 64757), (56, 64838), (58, 64871),

Gene: Boopy_106 Start: 64514, Stop: 64951, Start Num: 12

Candidate Starts for Boopy_106:

(Start: 12 @64514 has 180 MA's), (28, 64601), (45, 64769), (56, 64850), (58, 64883),

Gene: Bruin_29 Start: 28570, Stop: 28998, Start Num: 12

Candidate Starts for Bruin_29:

(Start: 12 @28570 has 180 MA's), (40, 28795), (44, 28822), (49, 28864), (52, 28876), (54, 28888),

Gene: Buck_28 Start: 28506, Stop: 28934, Start Num: 12

Candidate Starts for Buck_28:

(Start: 12 @28506 has 180 MA's), (40, 28731), (44, 28758), (49, 28800), (52, 28812), (54, 28824),

Gene: BugsBunny_27 Start: 28139, Stop: 28567, Start Num: 12
Candidate Starts for BugsBunny_27:
(Start: 12 @28139 has 180 MA's), (40, 28364), (44, 28391), (49, 28433), (52, 28445), (54, 28457),

Gene: Cactus_30 Start: 27760, Stop: 28188, Start Num: 12
Candidate Starts for Cactus_30:
(Start: 12 @27760 has 180 MA's), (35, 27949), (40, 27985), (44, 28012), (49, 28054), (54, 28078), (61, 28147),

Gene: Che9d_27 Start: 23483, Stop: 23914, Start Num: 12
Candidate Starts for Che9d_27:
(Start: 12 @23483 has 180 MA's), (Start: 19 @23525 has 1 MA's), (33, 23639), (40, 23708), (44, 23735), (49, 23777), (54, 23801), (57, 23840), (59, 23846),

Gene: ChosenOne_29 Start: 27758, Stop: 28186, Start Num: 12
Candidate Starts for ChosenOne_29:
(Start: 12 @27758 has 180 MA's), (40, 27983), (44, 28010), (49, 28052), (52, 28064), (54, 28076),

Gene: ChotaBhai_29 Start: 27796, Stop: 28224, Start Num: 12
Candidate Starts for ChotaBhai_29:
(Start: 12 @27796 has 180 MA's), (40, 28021), (44, 28048), (49, 28090), (52, 28102), (54, 28114),

Gene: Cjw1_29 Start: 29310, Stop: 29738, Start Num: 12
Candidate Starts for Cjw1_29:
(Start: 12 @29310 has 180 MA's), (40, 29535), (44, 29562), (49, 29604), (52, 29616), (54, 29628),

Gene: Coco12_23 Start: 24119, Stop: 24556, Start Num: 12
Candidate Starts for Coco12_23:
(Start: 12 @24119 has 180 MA's), (Start: 19 @24161 has 1 MA's), (32, 24263), (37, 24320), (40, 24344), (42, 24350), (44, 24371), (50, 24416),

Gene: Command613_30 Start: 28816, Stop: 29244, Start Num: 12
Candidate Starts for Command613_30:
(Start: 12 @28816 has 180 MA's), (35, 29005), (40, 29041), (44, 29068), (49, 29110), (54, 29134), (61, 29203),

Gene: Contagion_28 Start: 28054, Stop: 28482, Start Num: 12
Candidate Starts for Contagion_28:
(Start: 12 @28054 has 180 MA's), (40, 28279), (44, 28306), (49, 28348), (52, 28360), (54, 28372),

Gene: Cookies_29 Start: 28419, Stop: 28847, Start Num: 12
Candidate Starts for Cookies_29:
(Start: 12 @28419 has 180 MA's), (40, 28644), (44, 28671), (49, 28713), (52, 28725), (54, 28737),

Gene: Cornie_23 Start: 24610, Stop: 25041, Start Num: 12
Candidate Starts for Cornie_23:
(Start: 12 @24610 has 180 MA's), (Start: 19 @24652 has 1 MA's), (40, 24835), (42, 24841), (44, 24862), (49, 24904), (54, 24928), (57, 24967), (59, 24973),

Gene: Courthouse_39 Start: 34108, Stop: 34539, Start Num: 12
Candidate Starts for Courthouse_39:
(Start: 12 @34108 has 180 MA's), (Start: 19 @34150 has 1 MA's), (32, 34252), (33, 34264), (35, 34297), (40, 34333), (42, 34339), (44, 34360), (50, 34405), (55, 34438), (57, 34465), (59, 34471),

Gene: CrystalP_29 Start: 28549, Stop: 28977, Start Num: 12

Candidate Starts for CrystalP_29:

(3, 28441), (Start: 12 @28549 has 180 MA's), (35, 28738), (40, 28774), (44, 28801), (49, 28843), (54, 28867), (61, 28936),

Gene: Czyszczone1_30 Start: 28295, Stop: 28723, Start Num: 12

Candidate Starts for Czyszczone1_30:

(Start: 12 @28295 has 180 MA's), (40, 28520), (44, 28547), (49, 28589), (52, 28601), (54, 28613),

Gene: Daikon_28 Start: 28287, Stop: 28715, Start Num: 12

Candidate Starts for Daikon_28:

(3, 28179), (Start: 12 @28287 has 180 MA's), (35, 28476), (40, 28512), (44, 28539), (49, 28581), (54, 28605), (61, 28674),

Gene: Demsculpinboyz_27 Start: 23468, Stop: 23899, Start Num: 12

Candidate Starts for Demsculpinboyz_27:

(Start: 12 @23468 has 180 MA's), (16, 23492), (33, 23624), (40, 23693), (42, 23699), (44, 23720), (49, 23762), (54, 23786), (57, 23825), (59, 23831),

Gene: DmpstrDiver_40 Start: 36756, Stop: 37187, Start Num: 12

Candidate Starts for DmpstrDiver_40:

(Start: 12 @36756 has 180 MA's), (Start: 19 @36798 has 1 MA's), (32, 36900), (33, 36912), (35, 36945), (40, 36981), (42, 36987), (44, 37008), (50, 37053), (55, 37086), (57, 37113), (59, 37119),

Gene: DoctorDiddles_29 Start: 27712, Stop: 28140, Start Num: 12

Candidate Starts for DoctorDiddles_29:

(Start: 12 @27712 has 180 MA's), (40, 27937), (44, 27964), (49, 28006), (52, 28018), (54, 28030),

Gene: DrDrey_30 Start: 29042, Stop: 29470, Start Num: 12

Candidate Starts for DrDrey_30:

(Start: 12 @29042 has 180 MA's), (40, 29267), (44, 29294), (49, 29336), (52, 29348), (54, 29360),

Gene: Dumbo_29 Start: 28017, Stop: 28445, Start Num: 12

Candidate Starts for Dumbo_29:

(Start: 12 @28017 has 180 MA's), (40, 28242), (44, 28269), (49, 28311), (52, 28323), (54, 28335),

Gene: Dusk_28 Start: 28201, Stop: 28629, Start Num: 12

Candidate Starts for Dusk_28:

(Start: 12 @28201 has 180 MA's), (35, 28390), (40, 28426), (44, 28453), (49, 28495), (54, 28519), (61, 28588),

Gene: Easy2Say_31 Start: 29800, Stop: 30228, Start Num: 12

Candidate Starts for Easy2Say_31:

(Start: 12 @29800 has 180 MA's), (40, 30025), (44, 30052), (49, 30094), (52, 30106), (54, 30118),

Gene: Elite2014_28 Start: 27757, Stop: 28185, Start Num: 12

Candidate Starts for Elite2014_28:

(Start: 12 @27757 has 180 MA's), (40, 27982), (44, 28009), (49, 28051), (52, 28063), (54, 28075),

Gene: Elph10_30 Start: 28020, Stop: 28448, Start Num: 12

Candidate Starts for Elph10_30:

(Start: 12 @28020 has 180 MA's), (40, 28245), (44, 28272), (49, 28314), (52, 28326), (54, 28338),

Gene: Emmina_30 Start: 28378, Stop: 28806, Start Num: 12
Candidate Starts for Emmina_30:
(Start: 12 @28378 has 180 MA's), (40, 28603), (44, 28630), (49, 28672), (52, 28684), (54, 28696),

Gene: Estave1_21 Start: 23840, Stop: 24271, Start Num: 12
Candidate Starts for Estave1_21:
(Start: 12 @23840 has 180 MA's), (Start: 19 @23882 has 1 MA's), (40, 24065), (42, 24071), (44, 24092), (49, 24134), (54, 24158), (57, 24197), (59, 24203),

Gene: Eureka_29 Start: 28533, Stop: 28961, Start Num: 12
Candidate Starts for Eureka_29:
(Start: 12 @28533 has 180 MA's), (35, 28722), (40, 28758), (44, 28785), (49, 28827), (54, 28851), (61, 28920),

Gene: Filch_30 Start: 28308, Stop: 28736, Start Num: 12
Candidate Starts for Filch_30:
(Start: 12 @28308 has 180 MA's), (40, 28533), (44, 28560), (49, 28602), (52, 28614), (54, 28626),

Gene: FireRed_29 Start: 28578, Stop: 29006, Start Num: 12
Candidate Starts for FireRed_29:
(Start: 12 @28578 has 180 MA's), (40, 28803), (44, 28830), (49, 28872), (52, 28884), (54, 28896),

Gene: Flypotenuse_27 Start: 28146, Stop: 28574, Start Num: 12
Candidate Starts for Flypotenuse_27:
(1, 27975), (Start: 12 @28146 has 180 MA's), (40, 28371), (44, 28398), (49, 28440), (52, 28452), (54, 28464),

Gene: Forza_106 Start: 64430, Stop: 64867, Start Num: 12
Candidate Starts for Forza_106:
(Start: 12 @64430 has 180 MA's), (28, 64517), (45, 64685), (56, 64766), (58, 64799),

Gene: Fryberger_58 Start: 31819, Stop: 32250, Start Num: 12
Candidate Starts for Fryberger_58:
(Start: 12 @31819 has 180 MA's), (20, 31861), (28, 31906), (41, 32044), (43, 32050),

Gene: GMA1_27 Start: 21102, Stop: 21533, Start Num: 12
Candidate Starts for GMA1_27:
(Start: 12 @21102 has 180 MA's), (27, 21186), (28, 21189), (29, 21192), (32, 21246), (33, 21258), (39, 21315), (41, 21327), (45, 21351), (56, 21432), (62, 21492),

Gene: Gage_31 Start: 28540, Stop: 28968, Start Num: 12
Candidate Starts for Gage_31:
(Start: 12 @28540 has 180 MA's), (40, 28765), (44, 28792), (49, 28834), (52, 28846), (54, 28858),

Gene: Gator_27 Start: 28157, Stop: 28585, Start Num: 12
Candidate Starts for Gator_27:
(Start: 12 @28157 has 180 MA's), (35, 28346), (40, 28382), (44, 28409), (49, 28451), (54, 28475), (61, 28544),

Gene: Gemini_32 Start: 29057, Stop: 29485, Start Num: 12
Candidate Starts for Gemini_32:
(Start: 12 @29057 has 180 MA's), (40, 29282), (44, 29309), (49, 29351), (52, 29363), (54, 29375),

Gene: Gibbles_36 Start: 39171, Stop: 39608, Start Num: 12

Candidate Starts for Gibbles_36:

(Start: 12 @39171 has 180 MA's), (20, 39213), (27, 39255), (28, 39258), (45, 39426), (49, 39465),

Gene: Glexan_27 Start: 28146, Stop: 28574, Start Num: 12

Candidate Starts for Glexan_27:

(1, 27975), (Start: 12 @28146 has 180 MA's), (40, 28371), (44, 28398), (49, 28440), (52, 28452), (54, 28464),

Gene: GodonK_93 Start: 56582, Stop: 57016, Start Num: 12

Candidate Starts for GodonK_93:

(Start: 12 @56582 has 180 MA's), (17, 56612), (21, 56627), (28, 56669), (31, 56714), (32, 56732), (35, 56774), (49, 56882), (56, 56915), (63, 56978),

Gene: Goku_29 Start: 28262, Stop: 28690, Start Num: 12

Candidate Starts for Goku_29:

(Start: 12 @28262 has 180 MA's), (35, 28451), (40, 28487), (44, 28514), (49, 28556), (54, 28580), (61, 28649),

Gene: GoldenSpark_31 Start: 28540, Stop: 28968, Start Num: 12

Candidate Starts for GoldenSpark_31:

(Start: 12 @28540 has 180 MA's), (40, 28765), (44, 28792), (49, 28834), (52, 28846), (54, 28858),

Gene: Goldilocks_30 Start: 27960, Stop: 28388, Start Num: 12

Candidate Starts for Goldilocks_30:

(Start: 12 @27960 has 180 MA's), (40, 28185), (44, 28212), (49, 28254), (52, 28266), (54, 28278),

Gene: GooberAzure_31 Start: 28540, Stop: 28968, Start Num: 12

Candidate Starts for GooberAzure_31:

(Start: 12 @28540 has 180 MA's), (40, 28765), (44, 28792), (49, 28834), (52, 28846), (54, 28858),

Gene: Guey18_63 Start: 33017, Stop: 33448, Start Num: 12

Candidate Starts for Guey18_63:

(Start: 12 @33017 has 180 MA's), (20, 33059), (27, 33101), (28, 33104), (45, 33275),

Gene: HanKaySha_30 Start: 28292, Stop: 28720, Start Num: 12

Candidate Starts for HanKaySha_30:

(Start: 12 @28292 has 180 MA's), (40, 28517), (44, 28544), (49, 28586), (52, 28598), (54, 28610),

Gene: Hannaconda_36 Start: 32698, Stop: 33129, Start Num: 12

Candidate Starts for Hannaconda_36:

(Start: 12 @32698 has 180 MA's), (15, 32719), (Start: 19 @32740 has 1 MA's), (33, 32854), (40, 32923), (42, 32929), (44, 32950), (49, 32992), (50, 32995), (54, 33016), (57, 33055), (60, 33079),

Gene: Harella_28 Start: 28662, Stop: 29090, Start Num: 12

Candidate Starts for Harella_28:

(1, 28491), (Start: 12 @28662 has 180 MA's), (40, 28887), (44, 28914), (49, 28956), (52, 28968), (54, 28980),

Gene: Henry_30 Start: 28549, Stop: 28977, Start Num: 12

Candidate Starts for Henry_30:

(3, 28441), (Start: 12 @28549 has 180 MA's), (35, 28738), (40, 28774), (44, 28801), (49, 28843), (54, 28867), (61, 28936),

Gene: Highbury_30 Start: 28208, Stop: 28636, Start Num: 12

Candidate Starts for Highbury_30:

(Start: 12 @28208 has 180 MA's), (40, 28433), (44, 28460), (49, 28502), (52, 28514), (54, 28526),

Gene: Holt_30 Start: 27827, Stop: 28255, Start Num: 12

Candidate Starts for Holt_30:

(Start: 12 @27827 has 180 MA's), (40, 28052), (44, 28079), (49, 28121), (52, 28133), (54, 28145),

Gene: Hoonter_31 Start: 28540, Stop: 28968, Start Num: 12

Candidate Starts for Hoonter_31:

(Start: 12 @28540 has 180 MA's), (40, 28765), (44, 28792), (49, 28834), (52, 28846), (54, 28858),

Gene: Hokey_31 Start: 28827, Stop: 29255, Start Num: 12

Candidate Starts for Hokey_31:

(Start: 12 @28827 has 180 MA's), (40, 29052), (44, 29079), (49, 29121), (52, 29133), (54, 29145),

Gene: HufflyPuff_28 Start: 28534, Stop: 28962, Start Num: 12

Candidate Starts for HufflyPuff_28:

(Start: 12 @28534 has 180 MA's), (40, 28759), (44, 28786), (49, 28828), (52, 28840), (54, 28852),

Gene: IHOP_29 Start: 28725, Stop: 29153, Start Num: 12

Candidate Starts for IHOP_29:

(3, 28617), (Start: 12 @28725 has 180 MA's), (35, 28914), (40, 28950), (44, 28977), (49, 29019), (54, 29043), (61, 29112),

Gene: Icee_28 Start: 28207, Stop: 28635, Start Num: 12

Candidate Starts for Icee_28:

(Start: 12 @28207 has 180 MA's), (35, 28396), (40, 28432), (44, 28459), (49, 28501), (54, 28525), (61, 28594),

Gene: Inca_28 Start: 27229, Stop: 27657, Start Num: 12

Candidate Starts for Inca_28:

(Start: 12 @27229 has 180 MA's), (40, 27454), (44, 27481), (49, 27523), (52, 27535), (54, 27547),

Gene: JCole_24 Start: 20984, Stop: 21424, Start Num: 11

Candidate Starts for JCole_24:

(Start: 11 @20984 has 3 MA's), (13, 20999), (17, 21014), (28, 21071), (32, 21128), (48, 21284), (49, 21287), (56, 21323),

Gene: Jabbawokkie_29 Start: 24166, Stop: 24603, Start Num: 12

Candidate Starts for Jabbawokkie_29:

(Start: 12 @24166 has 180 MA's), (Start: 19 @24208 has 1 MA's), (33, 24322), (40, 24391), (42, 24397), (44, 24418), (49, 24460), (54, 24484), (57, 24529), (60, 24553), (65, 24586), (68, 24595),

Gene: JeTaime_31 Start: 29351, Stop: 29779, Start Num: 12

Candidate Starts for JeTaime_31:

(Start: 12 @29351 has 180 MA's), (40, 29576), (44, 29603), (49, 29645), (52, 29657), (54, 29669),

Gene: Kampe_38 Start: 38735, Stop: 39172, Start Num: 12

Candidate Starts for Kampe_38:

(Start: 12 @38735 has 180 MA's), (28, 38822), (34, 38894), (37, 38936), (45, 38990), (49, 39029),

Gene: Kanye_31 Start: 29536, Stop: 29964, Start Num: 12

Candidate Starts for Kanye_31:

(Start: 12 @29536 has 180 MA's), (40, 29761), (44, 29788), (49, 29830), (52, 29842), (54, 29854),

Gene: KashFlow_33 Start: 32319, Stop: 32750, Start Num: 12

Candidate Starts for KashFlow_33:

(Start: 12 @32319 has 180 MA's), (15, 32340), (Start: 19 @32361 has 1 MA's), (33, 32475), (40, 32544), (42, 32550), (44, 32571), (49, 32613), (50, 32616), (54, 32637), (57, 32676), (60, 32700),

Gene: Keelan_56 Start: 31817, Stop: 32248, Start Num: 12

Candidate Starts for Keelan_56:

(Start: 12 @31817 has 180 MA's), (20, 31859), (27, 31901), (28, 31904), (41, 32042), (43, 32048), (68, 32240),

Gene: Kenuha5_21 Start: 23861, Stop: 24292, Start Num: 12

Candidate Starts for Kenuha5_21:

(Start: 12 @23861 has 180 MA's), (16, 23885), (32, 24005), (33, 24017), (40, 24086), (42, 24092), (44, 24113), (49, 24155), (54, 24179), (57, 24218), (59, 24224),

Gene: Kersh_22 Start: 23904, Stop: 24335, Start Num: 12

Candidate Starts for Kersh_22:

(Start: 12 @23904 has 180 MA's), (Start: 19 @23946 has 1 MA's), (33, 24060), (40, 24129), (42, 24135), (44, 24156), (49, 24198), (54, 24222), (57, 24261), (59, 24267),

Gene: Kimchi_31 Start: 28543, Stop: 28971, Start Num: 12

Candidate Starts for Kimchi_31:

(Start: 12 @28543 has 180 MA's), (40, 28768), (44, 28795), (49, 28837), (52, 28849), (54, 28861),

Gene: Kingsley_22 Start: 23580, Stop: 24017, Start Num: 12

Candidate Starts for Kingsley_22:

(Start: 12 @23580 has 180 MA's), (Start: 19 @23622 has 1 MA's), (32, 23724), (37, 23781), (40, 23805), (42, 23811), (44, 23832), (50, 23877), (57, 23943),

Gene: Kostya_30 Start: 28550, Stop: 28978, Start Num: 12

Candidate Starts for Kostya_30:

(3, 28442), (Start: 12 @28550 has 180 MA's), (35, 28739), (40, 28775), (44, 28802), (49, 28844), (54, 28868), (61, 28937),

Gene: Leopard_43 Start: 34302, Stop: 34736, Start Num: 12

Candidate Starts for Leopard_43:

(Start: 12 @34302 has 180 MA's), (20, 34341), (23, 34356), (25, 34374), (36, 34497), (51, 34602), (64, 34713),

Gene: Leopard_39 Start: 29770, Stop: 30210, Start Num: 12

Candidate Starts for Leopard_39:

(Start: 12 @29770 has 180 MA's), (22, 29815), (26, 29851), (29, 29860), (46, 30028), (53, 30088), (56, 30109), (67, 30196), (69, 30202),

Gene: Lilac_31 Start: 28047, Stop: 28475, Start Num: 12

Candidate Starts for Lilac_31:

(Start: 12 @28047 has 180 MA's), (40, 28272), (44, 28299), (49, 28341), (52, 28353), (54, 28365),

Gene: Lilizi_31 Start: 28255, Stop: 28683, Start Num: 12
Candidate Starts for Lilizi_31:
(Start: 12 @28255 has 180 MA's), (40, 28480), (44, 28507), (49, 28549), (52, 28561), (54, 28573),

Gene: Lilpickle_28 Start: 27757, Stop: 28185, Start Num: 12
Candidate Starts for Lilpickle_28:
(Start: 12 @27757 has 180 MA's), (40, 27982), (44, 28009), (49, 28051), (52, 28063), (54, 28075),

Gene: Lucky2013_39 Start: 34235, Stop: 34666, Start Num: 12
Candidate Starts for Lucky2013_39:
(Start: 12 @34235 has 180 MA's), (Start: 19 @34277 has 1 MA's), (32, 34379), (33, 34391), (35, 34424), (40, 34460), (42, 34466), (44, 34487), (50, 34532), (55, 34565), (57, 34592), (59, 34598),

Gene: LunaStella_23 Start: 24249, Stop: 24680, Start Num: 12
Candidate Starts for LunaStella_23:
(Start: 9 @24237 has 1 MA's), (Start: 12 @24249 has 180 MA's), (Start: 19 @24291 has 1 MA's), (32, 24393), (33, 24405), (40, 24474), (42, 24480), (44, 24501), (49, 24543), (54, 24567), (57, 24606), (59, 24612),

Gene: MISSy_28 Start: 28062, Stop: 28490, Start Num: 12
Candidate Starts for MISSy_28:
(Start: 12 @28062 has 180 MA's), (40, 28287), (44, 28314), (49, 28356), (52, 28368), (54, 28380),

Gene: MPhalcon_28 Start: 28056, Stop: 28484, Start Num: 12
Candidate Starts for MPhalcon_28:
(Start: 12 @28056 has 180 MA's), (40, 28281), (44, 28308), (49, 28350), (52, 28362), (54, 28374),

Gene: MadMen_22 Start: 23958, Stop: 24389, Start Num: 12
Candidate Starts for MadMen_22:
(Start: 12 @23958 has 180 MA's), (Start: 19 @24000 has 1 MA's), (33, 24114), (40, 24183), (42, 24189), (44, 24210), (49, 24252), (54, 24276), (57, 24315), (59, 24321),

Gene: MadamMonkfish_29 Start: 27968, Stop: 28396, Start Num: 12
Candidate Starts for MadamMonkfish_29:
(Start: 12 @27968 has 180 MA's), (40, 28193), (44, 28220), (49, 28262), (52, 28274), (54, 28286),

Gene: Madiba_22 Start: 23608, Stop: 24039, Start Num: 12
Candidate Starts for Madiba_22:
(Start: 12 @23608 has 180 MA's), (16, 23632), (33, 23764), (40, 23833), (42, 23839), (44, 23860), (49, 23902), (54, 23926), (57, 23965), (59, 23971),

Gene: Manda_30 Start: 29035, Stop: 29463, Start Num: 12
Candidate Starts for Manda_30:
(Start: 12 @29035 has 180 MA's), (40, 29260), (44, 29287), (49, 29329), (52, 29341), (54, 29353),

Gene: Mareelih_104 Start: 63932, Stop: 64369, Start Num: 12
Candidate Starts for Mareelih_104:
(Start: 12 @63932 has 180 MA's), (28, 64019), (45, 64187), (56, 64268), (58, 64301),

Gene: Marshmallow_29 Start: 28547, Stop: 28975, Start Num: 12
Candidate Starts for Marshmallow_29:

(Start: 12 @28547 has 180 MA's), (35, 28736), (40, 28772), (44, 28799), (49, 28841), (54, 28865), (61, 28934),

Gene: Maxxinista_30 Start: 28017, Stop: 28445, Start Num: 12

Candidate Starts for Maxxinista_30:

(Start: 12 @28017 has 180 MA's), (40, 28242), (44, 28269), (49, 28311), (52, 28323), (54, 28335),

Gene: MiaZeal_39 Start: 33919, Stop: 34350, Start Num: 12

Candidate Starts for MiaZeal_39:

(Start: 12 @33919 has 180 MA's), (Start: 19 @33961 has 1 MA's), (32, 34063), (33, 34075), (35, 34108), (40, 34144), (42, 34150), (44, 34171), (50, 34216), (55, 34249), (57, 34276), (59, 34282),

Gene: Mindy_29 Start: 28327, Stop: 28755, Start Num: 12

Candidate Starts for Mindy_29:

(3, 28219), (Start: 12 @28327 has 180 MA's), (35, 28516), (40, 28552), (44, 28579), (49, 28621), (54, 28645), (61, 28714),

Gene: Miniwave_29 Start: 28747, Stop: 29175, Start Num: 12

Candidate Starts for Miniwave_29:

(Start: 12 @28747 has 180 MA's), (40, 28972), (44, 28999), (49, 29041), (52, 29053), (54, 29065),

Gene: Misfit_29 Start: 28637, Stop: 29065, Start Num: 12

Candidate Starts for Misfit_29:

(Start: 12 @28637 has 180 MA's), (40, 28862), (44, 28889), (49, 28931), (52, 28943), (54, 28955),

Gene: Moldemort_30 Start: 28292, Stop: 28720, Start Num: 12

Candidate Starts for Moldemort_30:

(Start: 12 @28292 has 180 MA's), (40, 28517), (44, 28544), (49, 28586), (52, 28598), (54, 28610),

Gene: MooMoo_21 Start: 23416, Stop: 23847, Start Num: 12

Candidate Starts for MooMoo_21:

(3, 23311), (6, 23377), (Start: 12 @23416 has 180 MA's), (32, 23560), (42, 23647), (44, 23668), (49, 23710), (54, 23734), (55, 23746), (57, 23773), (59, 23779), (68, 23839),

Gene: Moosehead_26 Start: 21145, Stop: 21585, Start Num: 11

Candidate Starts for Moosehead_26:

(Start: 11 @21145 has 3 MA's), (17, 21175), (28, 21232), (48, 21445), (49, 21448), (63, 21547),

Gene: Mosby_28 Start: 28054, Stop: 28482, Start Num: 12

Candidate Starts for Mosby_28:

(Start: 12 @28054 has 180 MA's), (40, 28279), (44, 28306), (49, 28348), (52, 28360), (54, 28372),

Gene: Murica_28 Start: 28534, Stop: 28962, Start Num: 12

Candidate Starts for Murica_28:

(Start: 12 @28534 has 180 MA's), (40, 28759), (44, 28786), (49, 28828), (52, 28840), (54, 28852),

Gene: Murphy_30 Start: 28529, Stop: 28957, Start Num: 12

Candidate Starts for Murphy_30:

(Start: 12 @28529 has 180 MA's), (40, 28754), (44, 28781), (49, 28823), (52, 28835), (54, 28847),

Gene: Myrale_29 Start: 28412, Stop: 28840, Start Num: 12

Candidate Starts for Myrale_29:

(Start: 12 @28412 has 180 MA's), (35, 28601), (40, 28637), (44, 28664), (49, 28706), (54, 28730), (61, 28799),

Gene: Nala_29 Start: 28568, Stop: 28996, Start Num: 12

Candidate Starts for Nala_29:

(1, 28397), (Start: 12 @28568 has 180 MA's), (40, 28793), (44, 28820), (49, 28862), (52, 28874), (54, 28886),

Gene: NelitzaMV_29 Start: 28617, Stop: 29045, Start Num: 12

Candidate Starts for NelitzaMV_29:

(Start: 12 @28617 has 180 MA's), (35, 28806), (40, 28842), (44, 28869), (49, 28911), (54, 28935), (61, 29004),

Gene: Nimrod_29 Start: 28792, Stop: 29220, Start Num: 12

Candidate Starts for Nimrod_29:

(Start: 12 @28792 has 180 MA's), (40, 29017), (44, 29044), (49, 29086), (52, 29098), (54, 29110),

Gene: NoShow_24 Start: 22544, Stop: 22975, Start Num: 12

Candidate Starts for NoShow_24:

(Start: 12 @22544 has 180 MA's), (18, 22580), (20, 22586), (35, 22733), (46, 22805), (47, 22838),

Gene: NoSleep_30 Start: 28289, Stop: 28717, Start Num: 12

Candidate Starts for NoSleep_30:

(Start: 12 @28289 has 180 MA's), (40, 28514), (44, 28541), (49, 28583), (52, 28595), (54, 28607),

Gene: Ogopogo_24 Start: 24068, Stop: 24499, Start Num: 12

Candidate Starts for Ogopogo_24:

(Start: 12 @24068 has 180 MA's), (Start: 19 @24110 has 1 MA's), (33, 24224), (40, 24293), (42, 24299), (44, 24320), (49, 24362), (54, 24386), (57, 24425), (59, 24431),

Gene: Onyinye_40 Start: 29649, Stop: 30089, Start Num: 12

Candidate Starts for Onyinye_40:

(Start: 12 @29649 has 180 MA's), (22, 29694), (26, 29730), (29, 29739), (53, 29967), (56, 29988), (67, 30075), (69, 30081),

Gene: Onyinye_44 Start: 34181, Stop: 34615, Start Num: 12

Candidate Starts for Onyinye_44:

(Start: 12 @34181 has 180 MA's), (20, 34220), (23, 34235), (25, 34253), (36, 34376), (51, 34481), (64, 34592),

Gene: Orchid_37 Start: 38736, Stop: 39173, Start Num: 12

Candidate Starts for Orchid_37:

(Start: 12 @38736 has 180 MA's), (28, 38823), (34, 38895), (37, 38937), (45, 38991), (49, 39030),

Gene: OrionPax_30 Start: 28295, Stop: 28723, Start Num: 12

Candidate Starts for OrionPax_30:

(Start: 12 @28295 has 180 MA's), (40, 28520), (44, 28547), (49, 28589), (52, 28601), (54, 28613),

Gene: Palpatine_29 Start: 28564, Stop: 28992, Start Num: 12

Candidate Starts for Palpatine_29:

(Start: 12 @28564 has 180 MA's), (40, 28789), (44, 28816), (49, 28858), (52, 28870), (54, 28882),

Gene: Paperbeatsrock_31 Start: 29530, Stop: 29958, Start Num: 12

Candidate Starts for Paperbeatsrock_31:

(Start: 12 @29530 has 180 MA's), (40, 29755), (44, 29782), (49, 29824), (52, 29836), (54, 29848),

Gene: Pat3_28 Start: 27276, Stop: 27704, Start Num: 12

Candidate Starts for Pat3_28:

(Start: 12 @27276 has 180 MA's), (40, 27501), (44, 27528), (49, 27570), (52, 27582), (54, 27594),

Gene: PatrickStar_38 Start: 38735, Stop: 39172, Start Num: 12

Candidate Starts for PatrickStar_38:

(Start: 12 @38735 has 180 MA's), (28, 38822), (34, 38894), (37, 38936), (45, 38990), (49, 39029),

Gene: Petra64142_31 Start: 29010, Stop: 29438, Start Num: 12

Candidate Starts for Petra64142_31:

(Start: 12 @29010 has 180 MA's), (40, 29235), (44, 29262), (49, 29304), (52, 29316), (54, 29328),

Gene: Phaja_29 Start: 28725, Stop: 29153, Start Num: 12

Candidate Starts for Phaja_29:

(3, 28617), (Start: 12 @28725 has 180 MA's), (35, 28914), (40, 28950), (44, 28977), (49, 29019), (54, 29043), (61, 29112),

Gene: Phanphagia_21 Start: 23774, Stop: 24211, Start Num: 12

Candidate Starts for Phanphagia_21:

(Start: 12 @23774 has 180 MA's), (Start: 19 @23816 has 1 MA's), (32, 23918), (37, 23975), (40, 23999), (42, 24005), (44, 24026), (50, 24071), (57, 24137),

Gene: Pharsalus_30 Start: 29330, Stop: 29758, Start Num: 12

Candidate Starts for Pharsalus_30:

(Start: 12 @29330 has 180 MA's), (40, 29555), (44, 29582), (49, 29624), (52, 29636), (54, 29648),

Gene: PhatBacter_29 Start: 28578, Stop: 29006, Start Num: 12

Candidate Starts for PhatBacter_29:

(Start: 12 @28578 has 180 MA's), (40, 28803), (44, 28830), (49, 28872), (52, 28884), (54, 28896),

Gene: Phaux_28 Start: 28576, Stop: 29004, Start Num: 12

Candidate Starts for Phaux_28:

(Start: 12 @28576 has 180 MA's), (40, 28801), (44, 28828), (49, 28870), (52, 28882), (54, 28894),

Gene: Phendrix_90 Start: 56293, Stop: 56727, Start Num: 12

Candidate Starts for Phendrix_90:

(Start: 12 @56293 has 180 MA's), (17, 56323), (21, 56338), (27, 56377), (28, 56380), (31, 56425), (32, 56443), (35, 56485), (49, 56593), (56, 56626), (63, 56689),

Gene: Phrux_29 Start: 28291, Stop: 28719, Start Num: 12

Candidate Starts for Phrux_29:

(Start: 12 @28291 has 180 MA's), (40, 28516), (44, 28543), (49, 28585), (52, 28597), (54, 28609),

Gene: Pickett_25 Start: 20874, Stop: 21314, Start Num: 11

Candidate Starts for Pickett_25:

(Start: 11 @20874 has 3 MA's), (17, 20904), (28, 20961), (48, 21174), (49, 21177),

Gene: Policronamos_30 Start: 28576, Stop: 29004, Start Num: 12

Candidate Starts for Policronamos_30:

(1, 28405), (Start: 12 @28576 has 180 MA's), (35, 28765), (40, 28801), (44, 28828), (48, 28867), (49, 28870), (54, 28894), (61, 28963),

Gene: Pollywog_24 Start: 24938, Stop: 25369, Start Num: 12

Candidate Starts for Pollywog_24:

(Start: 12 @24938 has 180 MA's), (Start: 19 @24980 has 1 MA's), (32, 25082), (33, 25094), (40, 25163), (42, 25169), (44, 25190), (49, 25232), (54, 25256), (57, 25295), (59, 25301),

Gene: Porcelain_38 Start: 33919, Stop: 34350, Start Num: 12

Candidate Starts for Porcelain_38:

(Start: 12 @33919 has 180 MA's), (Start: 19 @33961 has 1 MA's), (32, 34063), (33, 34075), (35, 34108), (40, 34144), (42, 34150), (44, 34171), (50, 34216), (55, 34249), (57, 34276), (59, 34282),

Gene: Porky_29 Start: 28387, Stop: 28815, Start Num: 12

Candidate Starts for Porky_29:

(Start: 12 @28387 has 180 MA's), (40, 28612), (44, 28639), (49, 28681), (52, 28693), (54, 28705),

Gene: Pumpkin_31 Start: 28627, Stop: 29055, Start Num: 12

Candidate Starts for Pumpkin_31:

(Start: 12 @28627 has 180 MA's), (40, 28852), (44, 28879), (49, 28921), (52, 28933), (54, 28945),

Gene: Quallification_30 Start: 28756, Stop: 29184, Start Num: 12

Candidate Starts for Quallification_30:

(Start: 12 @28756 has 180 MA's), (40, 28981), (44, 29008), (49, 29050), (52, 29062), (54, 29074),

Gene: REQ3_58 Start: 37388, Stop: 37825, Start Num: 12

Candidate Starts for REQ3_58:

(Start: 12 @37388 has 180 MA's), (22, 37433), (27, 37472), (28, 37475), (33, 37544), (66, 37811),

Gene: Rakim_30 Start: 28655, Stop: 29083, Start Num: 12

Candidate Starts for Rakim_30:

(Start: 12 @28655 has 180 MA's), (35, 28844), (40, 28880), (44, 28907), (49, 28949), (54, 28973), (61, 29042),

Gene: Renaud18_23 Start: 24145, Stop: 24582, Start Num: 12

Candidate Starts for Renaud18_23:

(Start: 9 @24133 has 1 MA's), (Start: 12 @24145 has 180 MA's), (Start: 19 @24187 has 1 MA's), (33, 24301), (40, 24370), (42, 24376), (44, 24397), (49, 24439), (54, 24463), (57, 24508), (60, 24532), (65, 24565), (68, 24574),

Gene: Rimmer_28 Start: 28116, Stop: 28544, Start Num: 12

Candidate Starts for Rimmer_28:

(Start: 12 @28116 has 180 MA's), (40, 28341), (44, 28368), (49, 28410), (52, 28422), (54, 28434),

Gene: RiverMonster_29 Start: 28305, Stop: 28733, Start Num: 12

Candidate Starts for RiverMonster_29:

(Start: 12 @28305 has 180 MA's), (40, 28530), (44, 28557), (49, 28599), (52, 28611), (54, 28623),

Gene: RobinSparkles_40 Start: 39653, Stop: 40090, Start Num: 12

Candidate Starts for RobinSparkles_40:

(Start: 12 @39653 has 180 MA's), (20, 39695), (27, 39737), (28, 39740), (45, 39908), (49, 39947),

Gene: Ronaldo_61 Start: 32718, Stop: 33149, Start Num: 12

Candidate Starts for Ronaldo_61:
(Start: 12 @32718 has 180 MA's), (20, 32760), (28, 32805), (41, 32943), (43, 32949),

Gene: Saints25_30 Start: 28208, Stop: 28636, Start Num: 12
Candidate Starts for Saints25_30:
(Start: 12 @28208 has 180 MA's), (40, 28433), (44, 28460), (49, 28502), (52, 28514), (54, 28526),

Gene: Sassay_28 Start: 28054, Stop: 28482, Start Num: 12
Candidate Starts for Sassay_28:
(Start: 12 @28054 has 180 MA's), (40, 28279), (44, 28306), (49, 28348), (52, 28360), (54, 28372),

Gene: ShamWow_29 Start: 28549, Stop: 28977, Start Num: 12
Candidate Starts for ShamWow_29:
(3, 28441), (Start: 12 @28549 has 180 MA's), (35, 28738), (40, 28774), (44, 28801), (49, 28843), (54, 28867), (61, 28936),

Gene: Shauna1_21 Start: 23777, Stop: 24214, Start Num: 12
Candidate Starts for Shauna1_21:
(Start: 12 @23777 has 180 MA's), (Start: 19 @23819 has 1 MA's), (32, 23921), (37, 23978), (40, 24002), (42, 24008), (44, 24029), (50, 24074), (57, 24140),

Gene: ShereKhan_31 Start: 29533, Stop: 29961, Start Num: 12
Candidate Starts for ShereKhan_31:
(Start: 12 @29533 has 180 MA's), (40, 29758), (44, 29785), (49, 29827), (52, 29839), (54, 29851),

Gene: ShroomBoi_21 Start: 23747, Stop: 24178, Start Num: 12
Candidate Starts for ShroomBoi_21:
(Start: 12 @23747 has 180 MA's), (15, 23768), (Start: 19 @23789 has 1 MA's), (27, 23834), (32, 23891), (40, 23972), (55, 24077), (57, 24104), (65, 24161),

Gene: Simpliphy_30 Start: 28295, Stop: 28723, Start Num: 12
Candidate Starts for Simpliphy_30:
(Start: 12 @28295 has 180 MA's), (40, 28520), (44, 28547), (49, 28589), (52, 28601), (54, 28613),

Gene: SirDuracell_28 Start: 27214, Stop: 27642, Start Num: 12
Candidate Starts for SirDuracell_28:
(Start: 12 @27214 has 180 MA's), (35, 27403), (40, 27439), (44, 27466), (49, 27508), (54, 27532), (61, 27601),

Gene: Sixama_104 Start: 63936, Stop: 64373, Start Num: 12
Candidate Starts for Sixama_104:
(Start: 12 @63936 has 180 MA's), (28, 64023), (56, 64272),

Gene: SophKB_29 Start: 28549, Stop: 28977, Start Num: 12
Candidate Starts for SophKB_29:
(Start: 12 @28549 has 180 MA's), (40, 28774), (44, 28801), (49, 28843), (52, 28855), (54, 28867),

Gene: Sotrice96_29 Start: 28503, Stop: 28931, Start Num: 12
Candidate Starts for Sotrice96_29:
(Start: 12 @28503 has 180 MA's), (35, 28692), (40, 28728), (44, 28755), (49, 28797), (54, 28821), (61, 28890),

Gene: Soul22_27 Start: 23516, Stop: 23911, Start Num: 19

Candidate Starts for Soul22_27:

(Start: 12 @23474 has 180 MA's), (Start: 19 @23516 has 1 MA's), (32, 23618), (33, 23630), (40, 23699), (42, 23705), (44, 23726), (49, 23768), (54, 23792), (57, 23837), (60, 23861), (65, 23894), (68, 23903),

Gene: Squint_38 Start: 34038, Stop: 34469, Start Num: 12

Candidate Starts for Squint_38:

(Start: 12 @34038 has 180 MA's), (Start: 19 @34080 has 1 MA's), (32, 34182), (33, 34194), (35, 34227), (40, 34263), (42, 34269), (44, 34290), (50, 34335), (55, 34368), (57, 34395), (59, 34401),

Gene: Stank_32 Start: 29056, Stop: 29484, Start Num: 12

Candidate Starts for Stank_32:

(Start: 12 @29056 has 180 MA's), (40, 29281), (44, 29308), (49, 29350), (52, 29362), (54, 29374),

Gene: Stark_30 Start: 28308, Stop: 28736, Start Num: 12

Candidate Starts for Stark_30:

(Start: 12 @28308 has 180 MA's), (40, 28533), (44, 28560), (49, 28602), (52, 28614), (54, 28626),

Gene: StellaBean_29 Start: 28549, Stop: 28977, Start Num: 12

Candidate Starts for StellaBean_29:

(Start: 12 @28549 has 180 MA's), (40, 28774), (44, 28801), (49, 28843), (52, 28855), (54, 28867),

Gene: StolenFromERC_31 Start: 28540, Stop: 28968, Start Num: 12

Candidate Starts for StolenFromERC_31:

(Start: 12 @28540 has 180 MA's), (40, 28765), (44, 28792), (49, 28834), (52, 28846), (54, 28858),

Gene: Superphikiman_39 Start: 34101, Stop: 34532, Start Num: 12

Candidate Starts for Superphikiman_39:

(Start: 12 @34101 has 180 MA's), (Start: 19 @34143 has 1 MA's), (32, 34245), (33, 34257), (35, 34290), (40, 34326), (42, 34332), (44, 34353), (50, 34398), (55, 34431), (57, 34458), (59, 34464),

Gene: TBrady12_31 Start: 28540, Stop: 28968, Start Num: 12

Candidate Starts for TBrady12_31:

(Start: 12 @28540 has 180 MA's), (40, 28765), (44, 28792), (49, 28834), (52, 28846), (54, 28858),

Gene: TChen_21 Start: 24250, Stop: 24681, Start Num: 12

Candidate Starts for TChen_21:

(Start: 12 @24250 has 180 MA's), (Start: 19 @24292 has 1 MA's), (32, 24394), (33, 24406), (40, 24475), (42, 24481), (44, 24502), (49, 24544), (54, 24568), (57, 24607), (59, 24613),

Gene: TPA4_27 Start: 25382, Stop: 25834, Start Num: 12

Candidate Starts for TPA4_27:

(Start: 12 @25382 has 180 MA's), (30, 25487), (33, 25538), (36, 25574), (38, 25589), (45, 25637), (66, 25820), (68, 25826),

Gene: Tarkin_31 Start: 29539, Stop: 29967, Start Num: 12

Candidate Starts for Tarkin_31:

(Start: 12 @29539 has 180 MA's), (40, 29764), (44, 29791), (49, 29833), (52, 29845), (54, 29857),

Gene: TeardropMSU_28 Start: 28449, Stop: 28877, Start Num: 12

Candidate Starts for TeardropMSU_28:

(Start: 12 @28449 has 180 MA's), (35, 28638), (40, 28674), (44, 28701), (49, 28743), (54, 28767), (61, 28836),

Gene: Teaspoon_30 Start: 28503, Stop: 28931, Start Num: 12

Candidate Starts for Teaspoon_30:

(Start: 12 @28503 has 180 MA's), (40, 28728), (44, 28755), (49, 28797), (52, 28809), (54, 28821),

Gene: Terminus_29 Start: 28637, Stop: 29065, Start Num: 12

Candidate Starts for Terminus_29:

(Start: 12 @28637 has 180 MA's), (40, 28862), (44, 28889), (49, 28931), (52, 28943), (54, 28955),

Gene: ThetaBob_23 Start: 24052, Stop: 24495, Start Num: 9

Candidate Starts for ThetaBob_23:

(7, 24040), (Start: 9 @24052 has 1 MA's), (Start: 12 @24064 has 180 MA's), (Start: 19 @24106 has 1 MA's), (32, 24208), (33, 24220), (40, 24289), (42, 24295), (44, 24316), (49, 24358), (54, 24382), (57, 24421), (59, 24427),

Gene: Thresher_30 Start: 29304, Stop: 29732, Start Num: 12

Candidate Starts for Thresher_30:

(Start: 12 @29304 has 180 MA's), (40, 29529), (44, 29556), (49, 29598), (52, 29610), (54, 29622),

Gene: Tomaszewski_28 Start: 28147, Stop: 28575, Start Num: 12

Candidate Starts for Tomaszewski_28:

(Start: 12 @28147 has 180 MA's), (40, 28372), (44, 28399), (49, 28441), (52, 28453), (54, 28465),

Gene: Toto_29 Start: 28549, Stop: 28977, Start Num: 12

Candidate Starts for Toto_29:

(3, 28441), (Start: 12 @28549 has 180 MA's), (35, 28738), (40, 28774), (44, 28801), (49, 28843), (54, 28867), (61, 28936),

Gene: Traaww1_27 Start: 28187, Stop: 28615, Start Num: 12

Candidate Starts for Traaww1_27:

(Start: 12 @28187 has 180 MA's), (35, 28376), (40, 28412), (44, 28439), (49, 28481), (54, 28505), (61, 28574),

Gene: Tuco_30 Start: 29057, Stop: 29485, Start Num: 12

Candidate Starts for Tuco_30:

(Start: 12 @29057 has 180 MA's), (35, 29246), (40, 29282), (44, 29309), (49, 29351), (54, 29375), (61, 29444),

Gene: Ukulele_29 Start: 28308, Stop: 28736, Start Num: 12

Candidate Starts for Ukulele_29:

(Start: 12 @28308 has 180 MA's), (40, 28533), (44, 28560), (49, 28602), (52, 28614), (54, 28626),

Gene: Vasanti_26 Start: 21864, Stop: 22304, Start Num: 11

Candidate Starts for Vasanti_26:

(Start: 11 @21864 has 3 MA's), (17, 21894), (28, 21951), (37, 22074), (48, 22164), (49, 22167), (63, 22266),

Gene: Volt_61 Start: 32951, Stop: 33313, Start Num: 24

Candidate Starts for Volt_61:

(4, 32819), (5, 32822), (10, 32879), (14, 32900), (Start: 24 @32951 has 1 MA's), (41, 33107), (43, 33113),

Gene: Wiggin_32 Start: 29054, Stop: 29482, Start Num: 12

Candidate Starts for Wiggin_32:

(Start: 12 @29054 has 180 MA's), (40, 29279), (44, 29306), (49, 29348), (52, 29360), (54, 29372),

Gene: Willez_28 Start: 28054, Stop: 28482, Start Num: 12

Candidate Starts for Willez_28:

(Start: 12 @28054 has 180 MA's), (40, 28279), (44, 28306), (49, 28348), (52, 28360), (54, 28372),

Gene: Xandras_31 Start: 28540, Stop: 28968, Start Num: 12

Candidate Starts for Xandras_31:

(Start: 12 @28540 has 180 MA's), (40, 28765), (44, 28792), (49, 28834), (52, 28846), (54, 28858),

Gene: YassJohnny_30 Start: 29065, Stop: 29493, Start Num: 12

Candidate Starts for YassJohnny_30:

(Start: 12 @29065 has 180 MA's), (40, 29290), (44, 29317), (49, 29359), (52, 29371), (54, 29383),

Gene: Yoshi_27 Start: 23473, Stop: 23904, Start Num: 12

Candidate Starts for Yoshi_27:

(Start: 12 @23473 has 180 MA's), (Start: 19 @23515 has 1 MA's), (32, 23617), (33, 23629), (40, 23698), (42, 23704), (44, 23725), (49, 23767), (54, 23791), (57, 23830), (59, 23836),

Gene: Youngblood_29 Start: 28710, Stop: 29138, Start Num: 12

Candidate Starts for Youngblood_29:

(1, 28539), (Start: 12 @28710 has 180 MA's), (40, 28935), (44, 28962), (49, 29004), (52, 29016), (54, 29028),

Gene: Zapner_28 Start: 24167, Stop: 24604, Start Num: 12

Candidate Starts for Zapner_28:

(Start: 12 @24167 has 180 MA's), (Start: 19 @24209 has 1 MA's), (33, 24323), (40, 24392), (42, 24398), (44, 24419), (49, 24461), (54, 24485), (57, 24530), (60, 24554), (65, 24587), (68, 24596),

Gene: Ziko_61 Start: 32704, Stop: 33135, Start Num: 12

Candidate Starts for Ziko_61:

(Start: 12 @32704 has 180 MA's), (20, 32746), (28, 32791), (41, 32929), (43, 32935),

Gene: xkcd_30 Start: 28719, Stop: 29147, Start Num: 12

Candidate Starts for xkcd_30:

(Start: 12 @28719 has 180 MA's), (40, 28944), (44, 28971), (49, 29013), (52, 29025), (54, 29037),