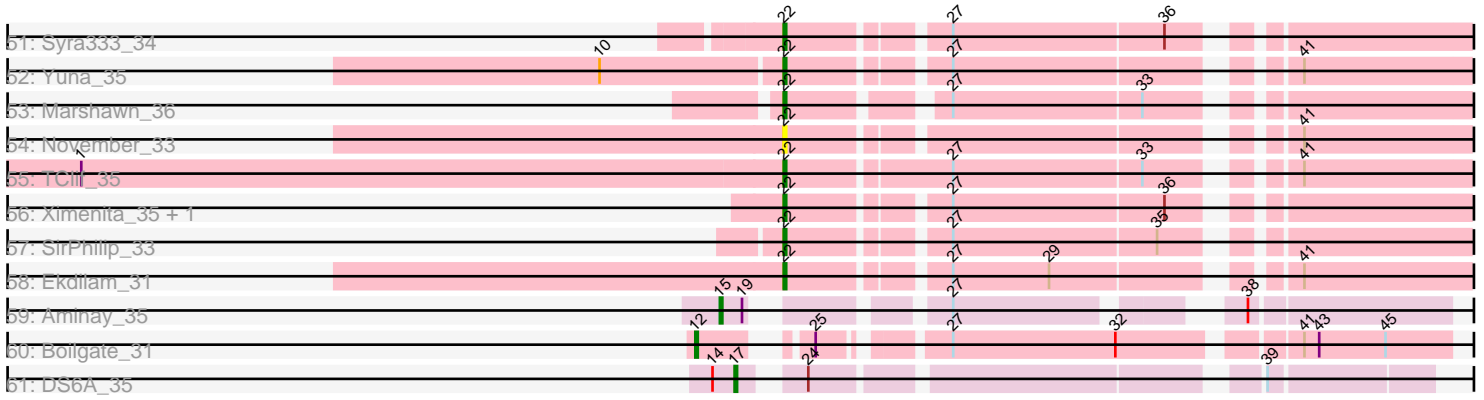


Pham 200010



Pham 200010



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 200010 Report

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

Pham number 200010 has 203 members, 14 are drafts.

Phages represented in each track:

- Track 1 : MalagasyRose_34
- Track 2 : Nergal_30
- Track 3 : Adonis_34, Blizzard_34, QuincyRose_33, Deby_34, BEEST_34, Piatt_34, Padfoot_34, Sulley_34, Zavala_34, Jayhawk_34, Slimphazie_34, Asayake_34, JAWS_34, Geraldini_34, MacKat_35, Angelica_34, Tachez_34, Mynx_34, Hyperbowlee_34, ShiaSurprise_34, Zabiza_34, Ganymede_35, MeaningOfLife_34, Beezoo_34, AlishaPH_34, ActinUp_34, Apocalypse_34, CaseJules_34, Veliki_34, Ramen_34, BarrelRoll_34, Pokerus_33, Emerson_34, TruffulaTree_34, Clipper_36, Padpat_34, HedwigODU_34, Atiba_34, Rapunzel97_34, Durfee_34, Boiiii_34, Adephagia_34, YoureAdopted_33
- Track 4 : Inky_34, Spock_34, Anaya_35, BaghaKamala_34, Belladonna_34, Capricorn_34, BGIluviae_34, CREW_34, Joy99_34, CallaLilly_35, Topper_34, Jeckyll_34, Twitch_34, Rosmarinus_34, Lunahalos_34, Peel_34, Llorens_34, Dalmuri_34, Jarvi_34, Homura_34
- Track 5 : TaiwanKao_35, LindNT_34, Tiri_34, TreyKay_34, CheetoDust_34, Prithvi_34, Megsy_34, CrimD_34
- Track 6 : Peanam_34, McMater_34, Shadow1_33, Richo_34, Dartin_34, Shaobing_34, Niklas_34
- Track 7 : Enkosi_30, Binglebops_30, Amelie_30, SgtBeansprout_30, Nikao_30, Torres_30, LilPharaoh_30, Nutello_30, Mdavu_30
- Track 8 : LastHope_34
- Track 9 : Chris_34
- Track 10 : Murucutumbu_34, LaterM_34
- Track 11 : Guanica15_34
- Track 12 : Illumine_34, Dole_34, Devera_34
- Track 13 : KiSi_34, LeMond_34, Scarlett_34
- Track 14 : Oscar_34
- Track 15 : Validus_34
- Track 16 : Bern_36
- Track 17 : Curiosium_35
- Track 18 : Urkel_34, SamuelLPlaqson_34, DrHayes_34
- Track 19 : Stinson_35
- Track 20 : Nibb_33
- Track 21 : Ageofdapage_34
- Track 22 : Yunkel11_34, Efra2_34
- Track 23 : MarkPhew_35
- Track 24 : Bella96_34

- Track 25 : TingHuaYa_34
- Track 26 : Findley_33, DismalFunk_33, Strobilo_33, Milly_33, Marcoliusprime_33, DismalStressor_33, ZoeJ_33
- Track 27 : TM4_35, Mufasa_34, BoostSeason_34
- Track 28 : Hurricane_35, TBond007_34, Pixie_34
- Track 29 : MacnCheese_35, Fefferhead_33, Amgine_32, Ellie_31
- Track 30 : Neighly_34, Larva_34, Psycho_34, Dadosky_34
- Track 31 : TribbleTrouble_33
- Track 32 : Keshu_35
- Track 33 : ShedlockHolmes_35
- Track 34 : Pharb_33
- Track 35 : Malthus_36, Mitti_35, Fionnbharth_35, Chancellor_35, Wintermute_35, Slarp_35, Juliette_37, SamScheppers_35, OmniCritical_35, Cheetobro_35, Ruthiejr_36, Taquito_35, Eponine_37
- Track 36 : Y10_35, Kraw_36, Y2_35
- Track 37 : Patt_35, MissDaisy_35, Reptar3000_35
- Track 38 : JF1_35
- Track 39 : Gengar_33, OkiRoe_33, Feyre_33
- Track 40 : Rando14_34
- Track 41 : Paola_33, Waterfoul_33, Thyatira_33, Guillsminger_33, Leston_33
- Track 42 : ViviJ_32
- Track 43 : Edugator_33
- Track 44 : SoSeph_33, Heftyboy_33
- Track 45 : Miryou_33
- Track 46 : InvictusManeo_33, AlleyCat_34, Collard_33, Agent47_33
- Track 47 : Kratio_32
- Track 48 : Omnicron_34
- Track 49 : Cain_34, Krueger_34, Phrank_34, Unicorn_34, Bryler_34, Tierra_34, Sunflower1121_33, PhelpsODU_34
- Track 50 : Amohnition_33, DarthP_33, Hammy_33
- Track 51 : Syra333_34
- Track 52 : Yuna_35
- Track 53 : Marshawn_36
- Track 54 : November_33
- Track 55 : TClif_35
- Track 56 : Ximenita_35, TiniBug_34
- Track 57 : SirPhilip_33
- Track 58 : Ekdilam_31
- Track 59 : Aminay_35
- Track 60 : Boilgate_31
- Track 61 : DS6A_35

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

The start number called the most often in the published annotations is 22, it was called in 155 of the 189 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- ActinUp_34, Adephegia_34, Adonis_34, Agent47_33, Ageofdapage_34, AlishaPH_34, AlleyCat_34, Amelie_30, Amgine_32, Amohnition_33, Anaya_35,

Angelica_34, Apocalypse_34, Asayake_34, Atiba_34, BEEST_34, BGlluviae_34, BaghaKamala_34, BarrelRoll_34, Beezoo_34, Bella96_34, Belladonna_34, Bern_36, Binglebops_30, Blizzard_34, Boiiii_34, Bryler_34, CREW_34, Cain_34, CallaLilly_35, Capricorn_34, CaseJules_34, CheetoDust_34, Chris_34, Clipper_36, Collard_33, CrimD_34, Curiosium_35, Dadosky_34, Dalmuri_34, DarthP_33, Dartin_34, Deby_34, Devera_34, Dole_34, DrHayes_34, Durfee_34, Edugator_33, Efra2_34, Ekdilam_31, Ellie_31, Emerson_34, Enkosi_30, Fefferhead_33, Feyre_33, Ganymede_35, Gengar_33, Geraldini_34, Guanica15_34, Guillsminger_33, Hammy_33, HedwigODU_34, Heftyboy_33, Homura_34, Hurricane_35, Hyperbowlee_34, Illumine_34, Inky_34, InvictusManeo_33, JAWS_34, Jarvi_34, Jayhawk_34, Jeckyll_34, Joy99_34, Keshu_35, KiSi_34, Kratio_32, Krueger_34, Larva_34, LastHope_34, LaterM_34, LeMond_34, Leston_33, LilPharaoh_30, LindNT_34, Llorens_34, Lunahalos_34, MacKat_35, MacnCheese_35, MalagasyRose_34, Marshawn_36, McMater_34, Mdavu_30, MeaningOfLife_34, Megsy_34, Miryou_33, Murucutumbu_34, Mynx_34, Neighly_34, Nergal_30, Nikao_30, Niklas_34, November_33, Nutello_30, OkiRoe_33, Omnicron_34, Oscar_34, Padfoot_34, Padpat_34, Paola_33, Peanam_34, Peel_34, Pharb_33, PhelpsODU_34, Phrank_34, Piatt_34, Pixie_34, Pokerus_33, Prithvi_34, Psycho_34, QuincyRose_33, Ramen_34, Rando14_34, Rapunzel97_34, Richo_34, Rosmarinus_34, SamuelLPlaqson_34, Scarlett_34, SgtBeansprout_30, Shadow1_33, Shaobing_34, ShedlockHolmes_35, ShiaSurprise_34, SirPhilip_33, Slimphazie_34, SoSeph_33, Spock_34, Stinson_35, Sulley_34, Sunflower1121_33, Syra333_34, TBond007_34, TClif_35, Tachez_34, TaiwanKao_35, Thyatira_33, Tierra_34, TiniBug_34, Tiri_34, Topper_34, Torres_30, TreyKay_34, TribbleTrouble_33, TruffulaTree_34, Twitch_34, Unicorn_34, Urkel_34, Validus_34, Veliki_34, Waterfoul_33, Ximenita_35, YoureAdopted_33, Yuna_35, Yunkel11_34, Zabiza_34, Zavala_34,

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

- MarkPhew_35, TingHuaYa_34, ViviJ_32,

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

- Aminay_35, Boilgate_31, BoostSeason_34, Chancellor_35, Cheetobro_35, DS6A_35, DismalFunk_33, DismalStressor_33, Eponine_37, Findley_33, Fionnbharth_35, JF1_35, Juliette_37, Kraw_36, Malthus_36, Marcoliusprime_33, Milly_33, MissDaisy_35, Mitti_35, Mufasa_34, Nibb_33, OmniCritical_35, Patt_35, Reptar3000_35, Ruthiejr_36, SamScheppers_35, Slarp_35, Strobilo_33, TM4_35, Taquito_35, Wintermute_35, Y10_35, Y2_35, ZoeJ_33,

Summary by start number:

Start 12:

- Found in 21 of 203 (10.3%) of genes in pham
- Manual Annotations of this start: 17 of 189
- Called 81.0% of time when present
- Phage (with cluster) where this start called: Boilgate_31 (K8), Chancellor_35 (K4), Cheetobro_35 (K4), Eponine_37 (K4), Fionnbharth_35 (K4), Juliette_37 (K4), Malthus_36 (K4), MissDaisy_35 (K4), Mitti_35 (K4), OmniCritical_35 (K4), Patt_35 (K4), Reptar3000_35 (K4), Ruthiejr_36 (K4), SamScheppers_35 (K4), Slarp_35 (K4), Taquito_35 (K4), Wintermute_35 (K4),

Start 13:

- Found in 17 of 203 (8.4%) of genes in pham
- Manual Annotations of this start: 1 of 189

- Called 5.9% of time when present
- Phage (with cluster) where this start called: JF1_35 (K4),

Start 15:

- Found in 1 of 203 (0.5%) of genes in pham
- Manual Annotations of this start: 1 of 189
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Aminay_35 (K7),

Start 16:

- Found in 2 of 203 (1.0%) of genes in pham
- Manual Annotations of this start: 1 of 189
- Called 50.0% of time when present
- Phage (with cluster) where this start called: MarkPhew_35 (K1),

Start 17:

- Found in 1 of 203 (0.5%) of genes in pham
- Manual Annotations of this start: 1 of 189
- Called 100.0% of time when present
- Phage (with cluster) where this start called: DS6A_35 (singleton),

Start 18:

- Found in 10 of 203 (4.9%) of genes in pham
- Manual Annotations of this start: 10 of 189
- Called 100.0% of time when present
- Phage (with cluster) where this start called: BoostSeason_34 (K2), DismalFunk_33 (K2), DismalStressor_33 (K2), Findley_33 (K2), Marcoliusprime_33 (K2), Milly_33 (K2), Mufasa_34 (K2), Strobilo_33 (K2), TM4_35 (K2), ZoeJ_33 (K2),

Start 20:

- Found in 1 of 203 (0.5%) of genes in pham
- Manual Annotations of this start: 1 of 189
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Nibb_33 (K1),

Start 22:

- Found in 169 of 203 (83.3%) of genes in pham
- Manual Annotations of this start: 155 of 189
- Called 98.2% of time when present
- Phage (with cluster) where this start called: ActinUp_34 (K1), Adephegia_34 (K1), Adonis_34 (K1), Agent47_33 (K5), Ageofdapage_34 (K1), AlishaPH_34 (K1), AlleyCat_34 (K5), Amelie_30 (K1), Amgine_32 (K6), Amohnition_33 (K6), Anaya_35 (K1), Angelica_34 (K1), Apocalypse_34 (K1), Asayake_34 (K1), Atiba_34 (K1), BEEST_34 (K1), BGlluviae_34 (K1), BaghaKamala_34 (K1), BarrelRoll_34 (K1), Beezoo_34 (K1), Bella96_34 (K1), Belladonna_34 (K1), Bern_36 (K1), Binglebops_30 (K1), Blizzard_34 (K1), Boiiii_34 (K1), Bryler_34 (K6), CREW_34 (K1), Cain_34 (K6), CallaLilly_35 (K1), Capricorn_34 (K1), CaseJules_34 (K1), CheetoDust_34 (K1), Chris_34 (K1), Clipper_36 (K1), Collard_33 (K5), CrimD_34 (K1), Curiosium_35 (K1), Dadosky_34 (K5), Dalmuri_34 (K1), DarthP_33 (K6), Dartin_34 (K1), Deby_34 (K1), Devera_34 (K1), Dole_34 (K1), DrHayes_34 (K1), Durfee_34 (K1), Edugator_33 (K5), Efra2_34 (K1), Ekdilam_31 (K6), Ellie_31 (K6), Emerson_34 (K1), Enkosi_30 (K1), Fefferhead_33 (K6), Feyre_33 (K5), Ganymede_35 (K1), Gengar_33 (K5), Geraldini_34 (K1), Guanica15_34 (K1), Guillsminger_33 (K5), Hammy_33 (K6),

HedwigODU_34 (K1), Heftyboy_33 (K5), Homura_34 (K1), Hurricane_35 (K3), Hyperbowlee_34 (K1), Illumine_34 (K1), Inky_34 (K1), InvictusManeo_33 (K5), JAWS_34 (K1), Jarvi_34 (K1), Jayhawk_34 (K1), Jeckyll_34 (K1), Joy99_34 (K1), Keshu_35 (K3), KiSi_34 (K1), Kratio_32 (K5), Krueger_34 (K6), Larva_34 (K5), LastHope_34 (K1), LaterM_34 (K1), LeMond_34 (K1), Leston_33 (K5), LilPharaoh_30 (K1), LindNT_34 (K1), Llorens_34 (K1), Lunahalos_34 (K1), MacKat_35 (K1), MacnCheese_35 (K3), MalagasyRose_34 (AG), Marshawn_36 (K6), McMater_34 (K1), Mdavu_30 (K1), MeaningOfLife_34 (K1), Megsy_34 (K1), Miryou_33 (K5), Murucutumbu_34 (K1), Mynx_34 (K1), Neighly_34 (K3), Nergal_30 (AG), Nikao_30 (K1), Niklas_34 (K1), November_33 (K6), Nutello_30 (K1), OkiRoe_33 (K5), Omnicron_34 (K5), Oscar_34 (K1), Padfoot_34 (K1), Padpat_34 (K1), Paola_33 (K5), Peanam_34 (K1), Peel_34 (K1), Pharb_33 (K3), PhelpsODU_34 (K6), Phrank_34 (K6), Piatt_34 (K1), Pixie_34 (K3), Pokerus_33 (K1), Prithvi_34 (K1), Psycho_34 (K5), QuincyRose_33 (K1), Ramen_34 (K1), Rando14_34 (K5), Rapunzel97_34 (K1), Richo_34 (K1), Rosmarinus_34 (K1), SamuelLPlaqson_34 (K1), Scarlett_34 (K1), SgtBeansprout_30 (K1), Shadow1_33 (K6), Shaobing_34 (K1), ShedlockHolmes_35 (K3), ShiaSurprise_34 (K1), SirPhilip_33 (K6), Slimphazie_34 (K1), SoSeph_33 (K5), Spock_34 (K1), Stinson_35 (K1), Sulley_34 (K1), Sunflower1121_33 (K6), Syra333_34 (K6), TBond007_34 (K3), TClif_35 (K6), Tachez_34 (K1), TaiwanKao_35 (K1), Thyatira_33 (K5), Tierra_34 (K6), TiniBug_34 (K1), Tiri_34 (K1), Topper_34 (K1), Torres_30 (K1), TreyKay_34 (K1), TribbleTrouble_33 (K3), TruffulaTree_34 (K1), Twitch_34 (K1), Unicorn_34 (K6), Urkel_34 (K1), Validus_34 (K1), Veliki_34 (K1), Waterfoul_33 (K5), Ximenita_35 (K6), YoureAdopted_33 (K1), Yuna_35 (K6), Yunkel11_34 (K1), Zabiza_34 (K1), Zavala_34 (K1),

Start 27:

- Found in 174 of 203 (85.7%) of genes in pham
- Manual Annotations of this start: 2 of 189
- Called 2.9% of time when present
- Phage (with cluster) where this start called: Kraw_36 (K4), TingHuaYa_34 (K1), ViviJ_32 (K5), Y10_35 (K4), Y2_35 (K4),

Summary by clusters:

There are 10 clusters represented in this pham: singleton, AG, K3, K2, K1, K7, K6, K5, K4, K8,

Info for manual annotations of cluster AG:

- Start number 22 was manually annotated 2 times for cluster AG.

Info for manual annotations of cluster K1:

- Start number 16 was manually annotated 1 time for cluster K1.
- Start number 20 was manually annotated 1 time for cluster K1.
- Start number 22 was manually annotated 101 times for cluster K1.

Info for manual annotations of cluster K2:

- Start number 18 was manually annotated 10 times for cluster K2.

Info for manual annotations of cluster K3:

- Start number 22 was manually annotated 8 times for cluster K3.

Info for manual annotations of cluster K4:

- Start number 12 was manually annotated 16 times for cluster K4.

- Start number 13 was manually annotated 1 time for cluster K4.
- Start number 27 was manually annotated 2 times for cluster K4.

Info for manual annotations of cluster K5:

- Start number 22 was manually annotated 22 times for cluster K5.

Info for manual annotations of cluster K6:

- Start number 22 was manually annotated 22 times for cluster K6.

Info for manual annotations of cluster K7:

- Start number 15 was manually annotated 1 time for cluster K7.

Info for manual annotations of cluster K8:

- Start number 12 was manually annotated 1 time for cluster K8.

Gene Information:

Gene: ActinUp_34 Start: 28124, Stop: 28375, Start Num: 22

Candidate Starts for ActinUp_34:

(10, 28064), (Start: 22 @28124 has 155 MA's), (Start: 27 @28181 has 2 MA's),

Gene: Adephagia_34 Start: 28121, Stop: 28372, Start Num: 22

Candidate Starts for Adephagia_34:

(10, 28061), (Start: 22 @28121 has 155 MA's), (Start: 27 @28178 has 2 MA's),

Gene: Adonis_34 Start: 28136, Stop: 28387, Start Num: 22

Candidate Starts for Adonis_34:

(10, 28076), (Start: 22 @28136 has 155 MA's), (Start: 27 @28193 has 2 MA's),

Gene: Agent47_33 Start: 28760, Stop: 29011, Start Num: 22

Candidate Starts for Agent47_33:

(Start: 22 @28760 has 155 MA's), (Start: 27 @28817 has 2 MA's), (33, 28892), (43, 28943), (45, 28970),

Gene: Ageofdapage_34 Start: 28061, Stop: 28333, Start Num: 22

Candidate Starts for Ageofdapage_34:

(Start: 22 @28061 has 155 MA's), (40, 28250),

Gene: AlishaPH_34 Start: 28114, Stop: 28365, Start Num: 22

Candidate Starts for AlishaPH_34:

(10, 28054), (Start: 22 @28114 has 155 MA's), (Start: 27 @28171 has 2 MA's),

Gene: AlleyCat_34 Start: 28691, Stop: 28942, Start Num: 22

Candidate Starts for AlleyCat_34:

(Start: 22 @28691 has 155 MA's), (Start: 27 @28748 has 2 MA's), (33, 28823), (43, 28874), (45, 28901),

Gene: Amelie_30 Start: 27546, Stop: 27797, Start Num: 22

Candidate Starts for Amelie_30:

(Start: 22 @27546 has 155 MA's), (Start: 27 @27603 has 2 MA's),

Gene: Amgine_32 Start: 28083, Stop: 28340, Start Num: 22
Candidate Starts for Amgine_32:
(Start: 22 @28083 has 155 MA's), (Start: 27 @28146 has 2 MA's), (29, 28185), (41, 28266),

Gene: Aminay_35 Start: 29809, Stop: 30045, Start Num: 15
Candidate Starts for Aminay_35:
(Start: 15 @29809 has 1 MA's), (19, 29818), (Start: 27 @29875 has 2 MA's), (38, 29968),

Gene: Amohnition_33 Start: 28517, Stop: 28768, Start Num: 22
Candidate Starts for Amohnition_33:
(10, 28454), (Start: 22 @28517 has 155 MA's), (29, 28613), (41, 28694),

Gene: Anaya_35 Start: 28149, Stop: 28400, Start Num: 22
Candidate Starts for Anaya_35:
(10, 28089), (Start: 22 @28149 has 155 MA's), (Start: 27 @28206 has 2 MA's),

Gene: Angelica_34 Start: 28071, Stop: 28322, Start Num: 22
Candidate Starts for Angelica_34:
(10, 28011), (Start: 22 @28071 has 155 MA's), (Start: 27 @28128 has 2 MA's),

Gene: Apocalypse_34 Start: 28092, Stop: 28343, Start Num: 22
Candidate Starts for Apocalypse_34:
(10, 28032), (Start: 22 @28092 has 155 MA's), (Start: 27 @28149 has 2 MA's),

Gene: Asayake_34 Start: 28155, Stop: 28406, Start Num: 22
Candidate Starts for Asayake_34:
(10, 28095), (Start: 22 @28155 has 155 MA's), (Start: 27 @28212 has 2 MA's),

Gene: Atiba_34 Start: 28084, Stop: 28335, Start Num: 22
Candidate Starts for Atiba_34:
(10, 28024), (Start: 22 @28084 has 155 MA's), (Start: 27 @28141 has 2 MA's),

Gene: BEEST_34 Start: 28155, Stop: 28406, Start Num: 22
Candidate Starts for BEEST_34:
(10, 28095), (Start: 22 @28155 has 155 MA's), (Start: 27 @28212 has 2 MA's),

Gene: BGlluviae_34 Start: 28155, Stop: 28406, Start Num: 22
Candidate Starts for BGlluviae_34:
(10, 28095), (Start: 22 @28155 has 155 MA's), (Start: 27 @28212 has 2 MA's),

Gene: BaghaKamala_34 Start: 28084, Stop: 28335, Start Num: 22
Candidate Starts for BaghaKamala_34:
(10, 28024), (Start: 22 @28084 has 155 MA's), (Start: 27 @28141 has 2 MA's),

Gene: BarrelRoll_34 Start: 28107, Stop: 28358, Start Num: 22
Candidate Starts for BarrelRoll_34:
(10, 28047), (Start: 22 @28107 has 155 MA's), (Start: 27 @28164 has 2 MA's),

Gene: Beezoo_34 Start: 28132, Stop: 28383, Start Num: 22
Candidate Starts for Beezoo_34:
(10, 28072), (Start: 22 @28132 has 155 MA's), (Start: 27 @28189 has 2 MA's),

Gene: Bella96_34 Start: 28025, Stop: 28276, Start Num: 22

Candidate Starts for Bella96_34:
(10, 27965), (Start: 22 @28025 has 155 MA's), (Start: 27 @28082 has 2 MA's), (36, 28166),

Gene: Belladonna_34 Start: 28155, Stop: 28406, Start Num: 22
Candidate Starts for Belladonna_34:
(10, 28095), (Start: 22 @28155 has 155 MA's), (Start: 27 @28212 has 2 MA's),

Gene: Bern_36 Start: 28064, Stop: 28315, Start Num: 22
Candidate Starts for Bern_36:
(10, 28004), (Start: 22 @28064 has 155 MA's), (36, 28205),

Gene: Biglebops_30 Start: 27546, Stop: 27797, Start Num: 22
Candidate Starts for Biglebops_30:
(Start: 22 @27546 has 155 MA's), (Start: 27 @27603 has 2 MA's),

Gene: Blizzard_34 Start: 28155, Stop: 28406, Start Num: 22
Candidate Starts for Blizzard_34:
(10, 28095), (Start: 22 @28155 has 155 MA's), (Start: 27 @28212 has 2 MA's),

Gene: Boiiii_34 Start: 28157, Stop: 28408, Start Num: 22
Candidate Starts for Boiiii_34:
(10, 28097), (Start: 22 @28157 has 155 MA's), (Start: 27 @28214 has 2 MA's),

Gene: Boilgate_31 Start: 29990, Stop: 30247, Start Num: 12
Candidate Starts for Boilgate_31:
(Start: 12 @29990 has 17 MA's), (25, 30020), (Start: 27 @30059 has 2 MA's), (32, 30125), (41, 30188),
(43, 30194), (45, 30221),

Gene: BoostSeason_34 Start: 27482, Stop: 27730, Start Num: 18
Candidate Starts for BoostSeason_34:
(8, 27398), (11, 27443), (Start: 18 @27482 has 10 MA's), (Start: 27 @27536 has 2 MA's),

Gene: Bryler_34 Start: 27447, Stop: 27698, Start Num: 22
Candidate Starts for Bryler_34:
(Start: 22 @27447 has 155 MA's), (Start: 27 @27504 has 2 MA's), (36, 27588), (41, 27624),

Gene: CREW_34 Start: 28155, Stop: 28406, Start Num: 22
Candidate Starts for CREW_34:
(10, 28095), (Start: 22 @28155 has 155 MA's), (Start: 27 @28212 has 2 MA's),

Gene: Cain_34 Start: 27435, Stop: 27686, Start Num: 22
Candidate Starts for Cain_34:
(Start: 22 @27435 has 155 MA's), (Start: 27 @27492 has 2 MA's), (36, 27576), (41, 27612),

Gene: CallaLilly_35 Start: 28078, Stop: 28329, Start Num: 22
Candidate Starts for CallaLilly_35:
(10, 28018), (Start: 22 @28078 has 155 MA's), (Start: 27 @28135 has 2 MA's),

Gene: Capricorn_34 Start: 28155, Stop: 28406, Start Num: 22
Candidate Starts for Capricorn_34:
(10, 28095), (Start: 22 @28155 has 155 MA's), (Start: 27 @28212 has 2 MA's),

Gene: CaseJules_34 Start: 28155, Stop: 28406, Start Num: 22

Candidate Starts for CaseJules_34:

(10, 28095), (Start: 22 @28155 has 155 MA's), (Start: 27 @28212 has 2 MA's),

Gene: Chancellor_35 Start: 29198, Stop: 29458, Start Num: 12

Candidate Starts for Chancellor_35:

(Start: 12 @29198 has 17 MA's), (Start: 13 @29204 has 1 MA's), (Start: 27 @29270 has 2 MA's), (32, 29336), (34, 29348), (37, 29363), (41, 29399), (45, 29432), (46, 29438),

Gene: CheetoDust_34 Start: 28132, Stop: 28383, Start Num: 22

Candidate Starts for CheetoDust_34:

(Start: 22 @28132 has 155 MA's), (Start: 27 @28189 has 2 MA's),

Gene: Cheetobro_35 Start: 29195, Stop: 29455, Start Num: 12

Candidate Starts for Cheetobro_35:

(Start: 12 @29195 has 17 MA's), (Start: 13 @29201 has 1 MA's), (Start: 27 @29267 has 2 MA's), (32, 29333), (34, 29345), (37, 29360), (41, 29396), (45, 29429), (46, 29435),

Gene: Chris_34 Start: 27872, Stop: 28120, Start Num: 22

Candidate Starts for Chris_34:

(11, 27821), (Start: 16 @27857 has 1 MA's), (Start: 22 @27872 has 155 MA's), (23, 27878), (29, 27965), (33, 28001),

Gene: Clipper_36 Start: 28132, Stop: 28383, Start Num: 22

Candidate Starts for Clipper_36:

(10, 28072), (Start: 22 @28132 has 155 MA's), (Start: 27 @28189 has 2 MA's),

Gene: Collard_33 Start: 28721, Stop: 28972, Start Num: 22

Candidate Starts for Collard_33:

(Start: 22 @28721 has 155 MA's), (Start: 27 @28778 has 2 MA's), (33, 28853), (43, 28904), (45, 28931),

Gene: CrimD_34 Start: 28089, Stop: 28340, Start Num: 22

Candidate Starts for CrimD_34:

(Start: 22 @28089 has 155 MA's), (Start: 27 @28146 has 2 MA's),

Gene: Curiosium_35 Start: 27915, Stop: 28166, Start Num: 22

Candidate Starts for Curiosium_35:

(Start: 22 @27915 has 155 MA's), (36, 28056),

Gene: DS6A_35 Start: 29978, Stop: 30217, Start Num: 17

Candidate Starts for DS6A_35:

(14, 29969), (Start: 17 @29978 has 1 MA's), (24, 29996), (39, 30155),

Gene: Dadosky_34 Start: 28692, Stop: 28943, Start Num: 22

Candidate Starts for Dadosky_34:

(Start: 22 @28692 has 155 MA's), (Start: 27 @28749 has 2 MA's), (33, 28824), (36, 28833), (43, 28875), (45, 28902),

Gene: Dalmuri_34 Start: 28155, Stop: 28406, Start Num: 22

Candidate Starts for Dalmuri_34:

(10, 28095), (Start: 22 @28155 has 155 MA's), (Start: 27 @28212 has 2 MA's),

Gene: DarthP_33 Start: 28439, Stop: 28690, Start Num: 22

Candidate Starts for DarthP_33:
(10, 28376), (Start: 22 @28439 has 155 MA's), (29, 28535), (41, 28616),

Gene: Dartin_34 Start: 27442, Stop: 27693, Start Num: 22
Candidate Starts for Dartin_34:
(Start: 22 @27442 has 155 MA's), (Start: 27 @27499 has 2 MA's), (36, 27583),

Gene: Deby_34 Start: 28089, Stop: 28340, Start Num: 22
Candidate Starts for Deby_34:
(10, 28029), (Start: 22 @28089 has 155 MA's), (Start: 27 @28146 has 2 MA's),

Gene: Devera_34 Start: 28150, Stop: 28401, Start Num: 22
Candidate Starts for Devera_34:
(Start: 22 @28150 has 155 MA's), (36, 28291),

Gene: DismalFunk_33 Start: 27394, Stop: 27642, Start Num: 18
Candidate Starts for DismalFunk_33:
(8, 27310), (11, 27355), (Start: 18 @27394 has 10 MA's), (Start: 27 @27448 has 2 MA's),

Gene: DismalStressor_33 Start: 27394, Stop: 27642, Start Num: 18
Candidate Starts for DismalStressor_33:
(8, 27310), (11, 27355), (Start: 18 @27394 has 10 MA's), (Start: 27 @27448 has 2 MA's),

Gene: Dole_34 Start: 28152, Stop: 28403, Start Num: 22
Candidate Starts for Dole_34:
(Start: 22 @28152 has 155 MA's), (36, 28293),

Gene: DrHayes_34 Start: 28065, Stop: 28316, Start Num: 22
Candidate Starts for DrHayes_34:
(Start: 22 @28065 has 155 MA's), (Start: 27 @28122 has 2 MA's), (36, 28206),

Gene: Durfee_34 Start: 28155, Stop: 28406, Start Num: 22
Candidate Starts for Durfee_34:
(10, 28095), (Start: 22 @28155 has 155 MA's), (Start: 27 @28212 has 2 MA's),

Gene: Edugator_33 Start: 28691, Stop: 28945, Start Num: 22
Candidate Starts for Edugator_33:
(Start: 22 @28691 has 155 MA's), (Start: 27 @28748 has 2 MA's), (33, 28823), (36, 28832), (43, 28874),

Gene: Efra2_34 Start: 27390, Stop: 27641, Start Num: 22
Candidate Starts for Efra2_34:
(Start: 22 @27390 has 155 MA's), (36, 27531),

Gene: Ekdilam_31 Start: 28197, Stop: 28448, Start Num: 22
Candidate Starts for Ekdilam_31:
(Start: 22 @28197 has 155 MA's), (Start: 27 @28254 has 2 MA's), (29, 28293), (41, 28374),

Gene: Ellie_31 Start: 28196, Stop: 28453, Start Num: 22
Candidate Starts for Ellie_31:
(Start: 22 @28196 has 155 MA's), (Start: 27 @28259 has 2 MA's), (29, 28298), (41, 28379),

Gene: Emerson_34 Start: 28115, Stop: 28366, Start Num: 22

Candidate Starts for Emerson_34:

(10, 28055), (Start: 22 @28115 has 155 MA's), (Start: 27 @28172 has 2 MA's),

Gene: Enkosi_30 Start: 27546, Stop: 27797, Start Num: 22

Candidate Starts for Enkosi_30:

(Start: 22 @27546 has 155 MA's), (Start: 27 @27603 has 2 MA's),

Gene: Eponine_37 Start: 29951, Stop: 30211, Start Num: 12

Candidate Starts for Eponine_37:

(Start: 12 @29951 has 17 MA's), (Start: 13 @29957 has 1 MA's), (Start: 27 @30023 has 2 MA's), (32, 30089), (34, 30101), (37, 30116), (41, 30152), (45, 30185), (46, 30191),

Gene: Fefferhead_33 Start: 28396, Stop: 28653, Start Num: 22

Candidate Starts for Fefferhead_33:

(Start: 22 @28396 has 155 MA's), (Start: 27 @28459 has 2 MA's), (29, 28498), (41, 28579),

Gene: Feyre_33 Start: 28605, Stop: 28859, Start Num: 22

Candidate Starts for Feyre_33:

(21, 28599), (Start: 22 @28605 has 155 MA's), (Start: 27 @28662 has 2 MA's), (33, 28737), (36, 28746), (43, 28788),

Gene: Findley_33 Start: 27386, Stop: 27631, Start Num: 18

Candidate Starts for Findley_33:

(8, 27302), (11, 27347), (Start: 18 @27386 has 10 MA's), (Start: 27 @27440 has 2 MA's),

Gene: Fionnbharth_35 Start: 29186, Stop: 29446, Start Num: 12

Candidate Starts for Fionnbharth_35:

(Start: 12 @29186 has 17 MA's), (Start: 13 @29192 has 1 MA's), (Start: 27 @29258 has 2 MA's), (32, 29324), (34, 29336), (37, 29351), (41, 29387), (45, 29420), (46, 29426),

Gene: Ganymede_35 Start: 28144, Stop: 28395, Start Num: 22

Candidate Starts for Ganymede_35:

(10, 28084), (Start: 22 @28144 has 155 MA's), (Start: 27 @28201 has 2 MA's),

Gene: Gengar_33 Start: 28715, Stop: 28969, Start Num: 22

Candidate Starts for Gengar_33:

(21, 28709), (Start: 22 @28715 has 155 MA's), (Start: 27 @28772 has 2 MA's), (33, 28847), (36, 28856), (43, 28898),

Gene: Geraldini_34 Start: 28132, Stop: 28383, Start Num: 22

Candidate Starts for Geraldini_34:

(10, 28072), (Start: 22 @28132 has 155 MA's), (Start: 27 @28189 has 2 MA's),

Gene: Guanica15_34 Start: 27407, Stop: 27658, Start Num: 22

Candidate Starts for Guanica15_34:

(Start: 22 @27407 has 155 MA's),

Gene: Guillsminger_33 Start: 28686, Stop: 28940, Start Num: 22

Candidate Starts for Guillsminger_33:

(4, 28512), (5, 28551), (21, 28680), (Start: 22 @28686 has 155 MA's), (Start: 27 @28743 has 2 MA's), (33, 28818), (43, 28869),

Gene: Hammy_33 Start: 28430, Stop: 28681, Start Num: 22

Candidate Starts for Hammy_33:
(10, 28367), (Start: 22 @28430 has 155 MA's), (29, 28526), (41, 28607),

Gene: HedwigODU_34 Start: 28124, Stop: 28375, Start Num: 22
Candidate Starts for HedwigODU_34:
(10, 28064), (Start: 22 @28124 has 155 MA's), (Start: 27 @28181 has 2 MA's),

Gene: Heftyboy_33 Start: 28832, Stop: 29086, Start Num: 22
Candidate Starts for Heftyboy_33:
(4, 28658), (5, 28697), (7, 28727), (14, 28814), (21, 28826), (Start: 22 @28832 has 155 MA's), (Start: 27 @28889 has 2 MA's), (33, 28964), (43, 29015),

Gene: Homura_34 Start: 28155, Stop: 28406, Start Num: 22
Candidate Starts for Homura_34:
(10, 28095), (Start: 22 @28155 has 155 MA's), (Start: 27 @28212 has 2 MA's),

Gene: Hurricane_35 Start: 28982, Stop: 29233, Start Num: 22
Candidate Starts for Hurricane_35:
(10, 28919), (Start: 22 @28982 has 155 MA's), (26, 29036), (Start: 27 @29039 has 2 MA's), (29, 29078), (44, 29189),

Gene: Hyperbowlee_34 Start: 28155, Stop: 28406, Start Num: 22
Candidate Starts for Hyperbowlee_34:
(10, 28095), (Start: 22 @28155 has 155 MA's), (Start: 27 @28212 has 2 MA's),

Gene: Illumine_34 Start: 28152, Stop: 28403, Start Num: 22
Candidate Starts for Illumine_34:
(Start: 22 @28152 has 155 MA's), (36, 28293),

Gene: Inky_34 Start: 28155, Stop: 28406, Start Num: 22
Candidate Starts for Inky_34:
(10, 28095), (Start: 22 @28155 has 155 MA's), (Start: 27 @28212 has 2 MA's),

Gene: InvictusManeo_33 Start: 28764, Stop: 29015, Start Num: 22
Candidate Starts for InvictusManeo_33:
(Start: 22 @28764 has 155 MA's), (Start: 27 @28821 has 2 MA's), (33, 28896), (43, 28947), (45, 28974),

Gene: JAWS_34 Start: 28109, Stop: 28360, Start Num: 22
Candidate Starts for JAWS_34:
(10, 28049), (Start: 22 @28109 has 155 MA's), (Start: 27 @28166 has 2 MA's),

Gene: JF1_35 Start: 29191, Stop: 29445, Start Num: 13
Candidate Starts for JF1_35:
(Start: 12 @29185 has 17 MA's), (Start: 13 @29191 has 1 MA's), (Start: 27 @29257 has 2 MA's), (32, 29323), (34, 29335), (37, 29350), (41, 29386), (45, 29419), (46, 29425),

Gene: Jarvi_34 Start: 28155, Stop: 28406, Start Num: 22
Candidate Starts for Jarvi_34:
(10, 28095), (Start: 22 @28155 has 155 MA's), (Start: 27 @28212 has 2 MA's),

Gene: Jayhawk_34 Start: 28122, Stop: 28373, Start Num: 22
Candidate Starts for Jayhawk_34:

(10, 28062), (Start: 22 @28122 has 155 MA's), (Start: 27 @28179 has 2 MA's),

Gene: Jeckyll_34 Start: 28155, Stop: 28406, Start Num: 22

Candidate Starts for Jeckyll_34:

(10, 28095), (Start: 22 @28155 has 155 MA's), (Start: 27 @28212 has 2 MA's),

Gene: Joy99_34 Start: 28084, Stop: 28335, Start Num: 22

Candidate Starts for Joy99_34:

(10, 28024), (Start: 22 @28084 has 155 MA's), (Start: 27 @28141 has 2 MA's),

Gene: Juliette_37 Start: 29344, Stop: 29604, Start Num: 12

Candidate Starts for Juliette_37:

(Start: 12 @29344 has 17 MA's), (Start: 13 @29350 has 1 MA's), (Start: 27 @29416 has 2 MA's), (32, 29482), (34, 29494), (37, 29509), (41, 29545), (45, 29578), (46, 29584),

Gene: Keshu_35 Start: 28970, Stop: 29221, Start Num: 22

Candidate Starts for Keshu_35:

(10, 28907), (Start: 22 @28970 has 155 MA's), (29, 29066), (45, 29180),

Gene: KiSi_34 Start: 27747, Stop: 27995, Start Num: 22

Candidate Starts for KiSi_34:

(11, 27696), (Start: 22 @27747 has 155 MA's), (23, 27753), (33, 27876),

Gene: Kratio_32 Start: 28395, Stop: 28646, Start Num: 22

Candidate Starts for Kratio_32:

(Start: 22 @28395 has 155 MA's), (Start: 27 @28452 has 2 MA's), (33, 28527), (42, 28575), (43, 28578), (45, 28605),

Gene: Kraw_36 Start: 29182, Stop: 29370, Start Num: 27

Candidate Starts for Kraw_36:

(Start: 12 @29110 has 17 MA's), (Start: 13 @29116 has 1 MA's), (Start: 27 @29182 has 2 MA's), (32, 29248), (34, 29260), (37, 29275), (41, 29311), (45, 29344), (46, 29350),

Gene: Krueger_34 Start: 27308, Stop: 27559, Start Num: 22

Candidate Starts for Krueger_34:

(Start: 22 @27308 has 155 MA's), (Start: 27 @27365 has 2 MA's), (36, 27449), (41, 27485),

Gene: Larva_34 Start: 28559, Stop: 28810, Start Num: 22

Candidate Starts for Larva_34:

(Start: 22 @28559 has 155 MA's), (Start: 27 @28616 has 2 MA's), (33, 28691), (36, 28700), (43, 28742), (45, 28769),

Gene: LastHope_34 Start: 27271, Stop: 27543, Start Num: 22

Candidate Starts for LastHope_34:

(Start: 22 @27271 has 155 MA's), (Start: 27 @27328 has 2 MA's), (36, 27412), (40, 27460),

Gene: LaterM_34 Start: 28069, Stop: 28320, Start Num: 22

Candidate Starts for LaterM_34:

(Start: 22 @28069 has 155 MA's), (36, 28210),

Gene: LeMond_34 Start: 27818, Stop: 28066, Start Num: 22

Candidate Starts for LeMond_34:

(11, 27767), (Start: 22 @27818 has 155 MA's), (23, 27824), (33, 27947),

Gene: Leston_33 Start: 28816, Stop: 29070, Start Num: 22

Candidate Starts for Leston_33:

(4, 28642), (5, 28681), (21, 28810), (Start: 22 @28816 has 155 MA's), (Start: 27 @28873 has 2 MA's), (33, 28948), (43, 28999),

Gene: LilPharaoh_30 Start: 27546, Stop: 27797, Start Num: 22

Candidate Starts for LilPharaoh_30:

(Start: 22 @27546 has 155 MA's), (Start: 27 @27603 has 2 MA's),

Gene: LindNT_34 Start: 28085, Stop: 28336, Start Num: 22

Candidate Starts for LindNT_34:

(Start: 22 @28085 has 155 MA's), (Start: 27 @28142 has 2 MA's),

Gene: Llorens_34 Start: 28155, Stop: 28406, Start Num: 22

Candidate Starts for Llorens_34:

(10, 28095), (Start: 22 @28155 has 155 MA's), (Start: 27 @28212 has 2 MA's),

Gene: Lunahalos_34 Start: 28155, Stop: 28406, Start Num: 22

Candidate Starts for Lunahalos_34:

(10, 28095), (Start: 22 @28155 has 155 MA's), (Start: 27 @28212 has 2 MA's),

Gene: MacKat_35 Start: 28132, Stop: 28383, Start Num: 22

Candidate Starts for MacKat_35:

(10, 28072), (Start: 22 @28132 has 155 MA's), (Start: 27 @28189 has 2 MA's),

Gene: MacnCheese_35 Start: 29023, Stop: 29301, Start Num: 22

Candidate Starts for MacnCheese_35:

(Start: 22 @29023 has 155 MA's), (Start: 27 @29080 has 2 MA's), (29, 29119), (41, 29200),

Gene: MalagasyRose_34 Start: 27443, Stop: 27676, Start Num: 22

Candidate Starts for MalagasyRose_34:

(Start: 22 @27443 has 155 MA's), (30, 27530), (31, 27545), (33, 27563), (43, 27605), (45, 27632),

Gene: Malthus_36 Start: 29110, Stop: 29370, Start Num: 12

Candidate Starts for Malthus_36:

(Start: 12 @29110 has 17 MA's), (Start: 13 @29116 has 1 MA's), (Start: 27 @29182 has 2 MA's), (32, 29248), (34, 29260), (37, 29275), (41, 29311), (45, 29344), (46, 29350),

Gene: Marcoliusprime_33 Start: 27394, Stop: 27642, Start Num: 18

Candidate Starts for Marcoliusprime_33:

(8, 27310), (11, 27355), (Start: 18 @27394 has 10 MA's), (Start: 27 @27448 has 2 MA's),

Gene: MarkPhew_35 Start: 27704, Stop: 27967, Start Num: 16

Candidate Starts for MarkPhew_35:

(Start: 16 @27704 has 1 MA's), (Start: 22 @27719 has 155 MA's), (23, 27725), (33, 27848),

Gene: Marshawn_36 Start: 28360, Stop: 28608, Start Num: 22

Candidate Starts for Marshawn_36:

(Start: 22 @28360 has 155 MA's), (Start: 27 @28414 has 2 MA's), (33, 28489),

Gene: McMater_34 Start: 27442, Stop: 27693, Start Num: 22

Candidate Starts for McMater_34:

(Start: 22 @27442 has 155 MA's), (Start: 27 @27499 has 2 MA's), (36, 27583),

Gene: Mdavu_30 Start: 27534, Stop: 27785, Start Num: 22

Candidate Starts for Mdavu_30:

(Start: 22 @27534 has 155 MA's), (Start: 27 @27591 has 2 MA's),

Gene: MeaningOfLife_34 Start: 28100, Stop: 28351, Start Num: 22

Candidate Starts for MeaningOfLife_34:

(10, 28040), (Start: 22 @28100 has 155 MA's), (Start: 27 @28157 has 2 MA's),

Gene: Megsy_34 Start: 28088, Stop: 28339, Start Num: 22

Candidate Starts for Megsy_34:

(Start: 22 @28088 has 155 MA's), (Start: 27 @28145 has 2 MA's),

Gene: Milly_33 Start: 27367, Stop: 27615, Start Num: 18

Candidate Starts for Milly_33:

(8, 27283), (11, 27328), (Start: 18 @27367 has 10 MA's), (Start: 27 @27421 has 2 MA's),

Gene: Miryou_33 Start: 28671, Stop: 28925, Start Num: 22

Candidate Starts for Miryou_33:

(4, 28497), (5, 28536), (Start: 22 @28671 has 155 MA's), (Start: 27 @28728 has 2 MA's), (33, 28803), (43, 28854),

Gene: MissDaisy_35 Start: 28953, Stop: 29213, Start Num: 12

Candidate Starts for MissDaisy_35:

(Start: 12 @28953 has 17 MA's), (32, 29091), (34, 29103), (37, 29118), (41, 29154), (45, 29187), (46, 29193),

Gene: Mitti_35 Start: 29111, Stop: 29371, Start Num: 12

Candidate Starts for Mitti_35:

(Start: 12 @29111 has 17 MA's), (Start: 13 @29117 has 1 MA's), (Start: 27 @29183 has 2 MA's), (32, 29249), (34, 29261), (37, 29276), (41, 29312), (45, 29345), (46, 29351),

Gene: Mufasa_34 Start: 27475, Stop: 27723, Start Num: 18

Candidate Starts for Mufasa_34:

(8, 27391), (11, 27436), (Start: 18 @27475 has 10 MA's), (Start: 27 @27529 has 2 MA's),

Gene: Murucutumbu_34 Start: 28088, Stop: 28339, Start Num: 22

Candidate Starts for Murucutumbu_34:

(Start: 22 @28088 has 155 MA's), (36, 28229),

Gene: Mynx_34 Start: 28138, Stop: 28389, Start Num: 22

Candidate Starts for Mynx_34:

(10, 28078), (Start: 22 @28138 has 155 MA's), (Start: 27 @28195 has 2 MA's),

Gene: Neighly_34 Start: 28558, Stop: 28809, Start Num: 22

Candidate Starts for Neighly_34:

(Start: 22 @28558 has 155 MA's), (Start: 27 @28615 has 2 MA's), (33, 28690), (36, 28699), (43, 28741), (45, 28768),

Gene: Nergal_30 Start: 25836, Stop: 26081, Start Num: 22

Candidate Starts for Nergal_30:

(10, 25770), (Start: 22 @25836 has 155 MA's), (Start: 27 @25893 has 2 MA's),

Gene: Nibb_33 Start: 27286, Stop: 27534, Start Num: 20

Candidate Starts for Nibb_33:

(Start: 20 @27286 has 1 MA's), (33, 27415),

Gene: Nikao_30 Start: 27546, Stop: 27797, Start Num: 22

Candidate Starts for Nikao_30:

(Start: 22 @27546 has 155 MA's), (Start: 27 @27603 has 2 MA's),

Gene: Niklas_34 Start: 27445, Stop: 27696, Start Num: 22

Candidate Starts for Niklas_34:

(Start: 22 @27445 has 155 MA's), (Start: 27 @27502 has 2 MA's), (36, 27586),

Gene: November_33 Start: 28358, Stop: 28609, Start Num: 22

Candidate Starts for November_33:

(Start: 22 @28358 has 155 MA's), (41, 28535),

Gene: Nutello_30 Start: 27546, Stop: 27797, Start Num: 22

Candidate Starts for Nutello_30:

(Start: 22 @27546 has 155 MA's), (Start: 27 @27603 has 2 MA's),

Gene: OkiRoe_33 Start: 28688, Stop: 28942, Start Num: 22

Candidate Starts for OkiRoe_33:

(21, 28682), (Start: 22 @28688 has 155 MA's), (Start: 27 @28745 has 2 MA's), (33, 28820), (36, 28829), (43, 28871),

Gene: OmniCritical_35 Start: 29095, Stop: 29355, Start Num: 12

Candidate Starts for OmniCritical_35:

(Start: 12 @29095 has 17 MA's), (Start: 13 @29101 has 1 MA's), (Start: 27 @29167 has 2 MA's), (32, 29233), (34, 29245), (37, 29260), (41, 29296), (45, 29329), (46, 29335),

Gene: Omnicron_34 Start: 27596, Stop: 27847, Start Num: 22

Candidate Starts for Omnicron_34:

(2, 27383), (3, 27389), (4, 27419), (5, 27458), (6, 27470), (9, 27524), (21, 27590), (Start: 22 @27596 has 155 MA's), (Start: 27 @27653 has 2 MA's), (28, 27683), (41, 27773), (43, 27779), (45, 27806),

Gene: Oscar_34 Start: 27820, Stop: 28068, Start Num: 22

Candidate Starts for Oscar_34:

(Start: 22 @27820 has 155 MA's), (23, 27826), (33, 27949),

Gene: Padfoot_34 Start: 28155, Stop: 28406, Start Num: 22

Candidate Starts for Padfoot_34:

(10, 28095), (Start: 22 @28155 has 155 MA's), (Start: 27 @28212 has 2 MA's),

Gene: Padpat_34 Start: 28115, Stop: 28366, Start Num: 22

Candidate Starts for Padpat_34:

(10, 28055), (Start: 22 @28115 has 155 MA's), (Start: 27 @28172 has 2 MA's),

Gene: Paola_33 Start: 28686, Stop: 28940, Start Num: 22

Candidate Starts for Paola_33:

(4, 28512), (5, 28551), (21, 28680), (Start: 22 @28686 has 155 MA's), (Start: 27 @28743 has 2 MA's), (33, 28818), (43, 28869),

Gene: Patt_35 Start: 28929, Stop: 29189, Start Num: 12
Candidate Starts for Patt_35:
(Start: 12 @28929 has 17 MA's), (32, 29067), (34, 29079), (37, 29094), (41, 29130), (45, 29163), (46, 29169),

Gene: Peanam_34 Start: 27442, Stop: 27693, Start Num: 22
Candidate Starts for Peanam_34:
(Start: 22 @27442 has 155 MA's), (Start: 27 @27499 has 2 MA's), (36, 27583),

Gene: Peel_34 Start: 28155, Stop: 28406, Start Num: 22
Candidate Starts for Peel_34:
(10, 28095), (Start: 22 @28155 has 155 MA's), (Start: 27 @28212 has 2 MA's),

Gene: Pharb_33 Start: 28285, Stop: 28536, Start Num: 22
Candidate Starts for Pharb_33:
(Start: 22 @28285 has 155 MA's), (Start: 27 @28342 has 2 MA's), (29, 28381), (45, 28495),

Gene: PhelpsODU_34 Start: 27473, Stop: 27724, Start Num: 22
Candidate Starts for PhelpsODU_34:
(Start: 22 @27473 has 155 MA's), (Start: 27 @27530 has 2 MA's), (36, 27614), (41, 27650),

Gene: Phrank_34 Start: 27423, Stop: 27674, Start Num: 22
Candidate Starts for Phrank_34:
(Start: 22 @27423 has 155 MA's), (Start: 27 @27480 has 2 MA's), (36, 27564), (41, 27600),

Gene: Piatt_34 Start: 28155, Stop: 28406, Start Num: 22
Candidate Starts for Piatt_34:
(10, 28095), (Start: 22 @28155 has 155 MA's), (Start: 27 @28212 has 2 MA's),

Gene: Pixie_34 Start: 28524, Stop: 28775, Start Num: 22
Candidate Starts for Pixie_34:
(10, 28461), (Start: 22 @28524 has 155 MA's), (26, 28578), (Start: 27 @28581 has 2 MA's), (29, 28620), (44, 28731),

Gene: Pokerus_33 Start: 28072, Stop: 28323, Start Num: 22
Candidate Starts for Pokerus_33:
(10, 28012), (Start: 22 @28072 has 155 MA's), (Start: 27 @28129 has 2 MA's),

Gene: Prithvi_34 Start: 28085, Stop: 28336, Start Num: 22
Candidate Starts for Prithvi_34:
(Start: 22 @28085 has 155 MA's), (Start: 27 @28142 has 2 MA's),

Gene: Psycho_34 Start: 28689, Stop: 28940, Start Num: 22
Candidate Starts for Psycho_34:
(Start: 22 @28689 has 155 MA's), (Start: 27 @28746 has 2 MA's), (33, 28821), (36, 28830), (43, 28872), (45, 28899),

Gene: QuincyRose_33 Start: 28144, Stop: 28395, Start Num: 22
Candidate Starts for QuincyRose_33:
(10, 28084), (Start: 22 @28144 has 155 MA's), (Start: 27 @28201 has 2 MA's),

Gene: Ramen_34 Start: 28121, Stop: 28372, Start Num: 22
Candidate Starts for Ramen_34:

(10, 28061), (Start: 22 @28121 has 155 MA's), (Start: 27 @28178 has 2 MA's),

Gene: Rando14_34 Start: 27550, Stop: 27801, Start Num: 22

Candidate Starts for Rando14_34:

(Start: 22 @27550 has 155 MA's), (23, 27556), (Start: 27 @27607 has 2 MA's), (28, 27637), (43, 27733), (45, 27760),

Gene: Rapunzel97_34 Start: 28122, Stop: 28373, Start Num: 22

Candidate Starts for Rapunzel97_34:

(10, 28062), (Start: 22 @28122 has 155 MA's), (Start: 27 @28179 has 2 MA's),

Gene: Reptar3000_35 Start: 28920, Stop: 29180, Start Num: 12

Candidate Starts for Reptar3000_35:

(Start: 12 @28920 has 17 MA's), (32, 29058), (34, 29070), (37, 29085), (41, 29121), (45, 29154), (46, 29160),

Gene: Richo_34 Start: 27442, Stop: 27693, Start Num: 22

Candidate Starts for Richo_34:

(Start: 22 @27442 has 155 MA's), (Start: 27 @27499 has 2 MA's), (36, 27583),

Gene: Rosmarinus_34 Start: 28143, Stop: 28394, Start Num: 22

Candidate Starts for Rosmarinus_34:

(10, 28083), (Start: 22 @28143 has 155 MA's), (Start: 27 @28200 has 2 MA's),

Gene: Ruthiejr_36 Start: 29076, Stop: 29336, Start Num: 12

Candidate Starts for Ruthiejr_36:

(Start: 12 @29076 has 17 MA's), (Start: 13 @29082 has 1 MA's), (Start: 27 @29148 has 2 MA's), (32, 29214), (34, 29226), (37, 29241), (41, 29277), (45, 29310), (46, 29316),

Gene: SamScheppers_35 Start: 29589, Stop: 29849, Start Num: 12

Candidate Starts for SamScheppers_35:

(Start: 12 @29589 has 17 MA's), (Start: 13 @29595 has 1 MA's), (Start: 27 @29661 has 2 MA's), (32, 29727), (34, 29739), (37, 29754), (41, 29790), (45, 29823), (46, 29829),

Gene: SamuelLPlaqson_34 Start: 28065, Stop: 28316, Start Num: 22

Candidate Starts for SamuelLPlaqson_34:

(Start: 22 @28065 has 155 MA's), (Start: 27 @28122 has 2 MA's), (36, 28206),

Gene: Scarlett_34 Start: 27820, Stop: 28068, Start Num: 22

Candidate Starts for Scarlett_34:

(11, 27769), (Start: 22 @27820 has 155 MA's), (23, 27826), (33, 27949),

Gene: SgtBeansprout_30 Start: 27546, Stop: 27797, Start Num: 22

Candidate Starts for SgtBeansprout_30:

(Start: 22 @27546 has 155 MA's), (Start: 27 @27603 has 2 MA's),

Gene: Shadow1_33 Start: 27290, Stop: 27541, Start Num: 22

Candidate Starts for Shadow1_33:

(Start: 22 @27290 has 155 MA's), (Start: 27 @27347 has 2 MA's), (36, 27431),

Gene: Shaobing_34 Start: 27442, Stop: 27693, Start Num: 22

Candidate Starts for Shaobing_34:

(Start: 22 @27442 has 155 MA's), (Start: 27 @27499 has 2 MA's), (36, 27583),

Gene: ShedlockHolmes_35 Start: 29046, Stop: 29297, Start Num: 22
Candidate Starts for ShedlockHolmes_35:
(10, 28983), (Start: 22 @29046 has 155 MA's), (26, 29100), (Start: 27 @29103 has 2 MA's), (29, 29142), (44, 29253),

Gene: ShiaSurprise_34 Start: 28155, Stop: 28406, Start Num: 22
Candidate Starts for ShiaSurprise_34:
(10, 28095), (Start: 22 @28155 has 155 MA's), (Start: 27 @28212 has 2 MA's),

Gene: SirPhilip_33 Start: 26921, Stop: 27172, Start Num: 22
Candidate Starts for SirPhilip_33:
(Start: 22 @26921 has 155 MA's), (Start: 27 @26978 has 2 MA's), (35, 27059),

Gene: Slarp_35 Start: 29198, Stop: 29458, Start Num: 12
Candidate Starts for Slarp_35:
(Start: 12 @29198 has 17 MA's), (Start: 13 @29204 has 1 MA's), (Start: 27 @29270 has 2 MA's), (32, 29336), (34, 29348), (37, 29363), (41, 29399), (45, 29432), (46, 29438),

Gene: Slimphazie_34 Start: 28122, Stop: 28373, Start Num: 22
Candidate Starts for Slimphazie_34:
(10, 28062), (Start: 22 @28122 has 155 MA's), (Start: 27 @28179 has 2 MA's),

Gene: SoSeph_33 Start: 28832, Stop: 29086, Start Num: 22
Candidate Starts for SoSeph_33:
(4, 28658), (5, 28697), (7, 28727), (14, 28814), (21, 28826), (Start: 22 @28832 has 155 MA's), (Start: 27 @28889 has 2 MA's), (33, 28964), (43, 29015),

Gene: Spock_34 Start: 28155, Stop: 28406, Start Num: 22
Candidate Starts for Spock_34:
(10, 28095), (Start: 22 @28155 has 155 MA's), (Start: 27 @28212 has 2 MA's),

Gene: Stinson_35 Start: 28357, Stop: 28608, Start Num: 22
Candidate Starts for Stinson_35:
(Start: 22 @28357 has 155 MA's), (36, 28498),

Gene: Strobilo_33 Start: 27367, Stop: 27612, Start Num: 18
Candidate Starts for Strobilo_33:
(8, 27283), (11, 27328), (Start: 18 @27367 has 10 MA's), (Start: 27 @27421 has 2 MA's),

Gene: Sulley_34 Start: 28088, Stop: 28339, Start Num: 22
Candidate Starts for Sulley_34:
(10, 28028), (Start: 22 @28088 has 155 MA's), (Start: 27 @28145 has 2 MA's),

Gene: Sunflower1121_33 Start: 27308, Stop: 27559, Start Num: 22
Candidate Starts for Sunflower1121_33:
(Start: 22 @27308 has 155 MA's), (Start: 27 @27365 has 2 MA's), (36, 27449), (41, 27485),

Gene: Syra333_34 Start: 27309, Stop: 27560, Start Num: 22
Candidate Starts for Syra333_34:
(Start: 22 @27309 has 155 MA's), (Start: 27 @27366 has 2 MA's), (36, 27450),

Gene: TBond007_34 Start: 28523, Stop: 28774, Start Num: 22

Candidate Starts for TBond007_34:

(10, 28460), (Start: 22 @28523 has 155 MA's), (26, 28577), (Start: 27 @28580 has 2 MA's), (29, 28619), (44, 28730),

Gene: TClif_35 Start: 27881, Stop: 28138, Start Num: 22

Candidate Starts for TClif_35:

(1, 27608), (Start: 22 @27881 has 155 MA's), (Start: 27 @27944 has 2 MA's), (33, 28019), (41, 28064),

Gene: TM4_35 Start: 27573, Stop: 27821, Start Num: 18

Candidate Starts for TM4_35:

(8, 27489), (11, 27534), (Start: 18 @27573 has 10 MA's), (Start: 27 @27627 has 2 MA's),

Gene: Tachez_34 Start: 28084, Stop: 28335, Start Num: 22

Candidate Starts for Tachez_34:

(10, 28024), (Start: 22 @28084 has 155 MA's), (Start: 27 @28141 has 2 MA's),

Gene: TaiwanKao_35 Start: 28085, Stop: 28336, Start Num: 22

Candidate Starts for TaiwanKao_35:

(Start: 22 @28085 has 155 MA's), (Start: 27 @28142 has 2 MA's),

Gene: Taquito_35 Start: 29636, Stop: 29896, Start Num: 12

Candidate Starts for Taquito_35:

(Start: 12 @29636 has 17 MA's), (Start: 13 @29642 has 1 MA's), (Start: 27 @29708 has 2 MA's), (32, 29774), (34, 29786), (37, 29801), (41, 29837), (45, 29870), (46, 29876),

Gene: Thyatira_33 Start: 28686, Stop: 28940, Start Num: 22

Candidate Starts for Thyatira_33:

(4, 28512), (5, 28551), (21, 28680), (Start: 22 @28686 has 155 MA's), (Start: 27 @28743 has 2 MA's), (33, 28818), (43, 28869),

Gene: Tierra_34 Start: 28144, Stop: 28395, Start Num: 22

Candidate Starts for Tierra_34:

(Start: 22 @28144 has 155 MA's), (Start: 27 @28201 has 2 MA's), (36, 28285), (41, 28321),

Gene: TingHuaYa_34 Start: 27313, Stop: 27528, Start Num: 27

Candidate Starts for TingHuaYa_34:

(Start: 22 @27256 has 155 MA's), (Start: 27 @27313 has 2 MA's), (36, 27397), (40, 27445),

Gene: TiniBug_34 Start: 28061, Stop: 28312, Start Num: 22

Candidate Starts for TiniBug_34:

(Start: 22 @28061 has 155 MA's), (Start: 27 @28118 has 2 MA's), (36, 28202),

Gene: Tiri_34 Start: 28136, Stop: 28387, Start Num: 22

Candidate Starts for Tiri_34:

(Start: 22 @28136 has 155 MA's), (Start: 27 @28193 has 2 MA's),

Gene: Topper_34 Start: 28155, Stop: 28406, Start Num: 22

Candidate Starts for Topper_34:

(10, 28095), (Start: 22 @28155 has 155 MA's), (Start: 27 @28212 has 2 MA's),

Gene: Torres_30 Start: 27546, Stop: 27797, Start Num: 22

Candidate Starts for Torres_30:

(Start: 22 @27546 has 155 MA's), (Start: 27 @27603 has 2 MA's),

Gene: TreyKay_34 Start: 28085, Stop: 28336, Start Num: 22
Candidate Starts for TreyKay_34:
(Start: 22 @28085 has 155 MA's), (Start: 27 @28142 has 2 MA's),

Gene: TribelTrouble_33 Start: 28580, Stop: 28831, Start Num: 22
Candidate Starts for TribelTrouble_33:
(Start: 22 @28580 has 155 MA's), (Start: 27 @28637 has 2 MA's), (41, 28757),

Gene: TruffulaTree_34 Start: 28118, Stop: 28369, Start Num: 22
Candidate Starts for TruffulaTree_34:
(10, 28058), (Start: 22 @28118 has 155 MA's), (Start: 27 @28175 has 2 MA's),

Gene: Twitch_34 Start: 28155, Stop: 28406, Start Num: 22
Candidate Starts for Twitch_34:
(10, 28095), (Start: 22 @28155 has 155 MA's), (Start: 27 @28212 has 2 MA's),

Gene: Unicorn_34 Start: 27473, Stop: 27724, Start Num: 22
Candidate Starts for Unicorn_34:
(Start: 22 @27473 has 155 MA's), (Start: 27 @27530 has 2 MA's), (36, 27614), (41, 27650),

Gene: Urkel_34 Start: 28065, Stop: 28316, Start Num: 22
Candidate Starts for Urkel_34:
(Start: 22 @28065 has 155 MA's), (Start: 27 @28122 has 2 MA's), (36, 28206),

Gene: Validus_34 Start: 27374, Stop: 27625, Start Num: 22
Candidate Starts for Validus_34:
(Start: 22 @27374 has 155 MA's), (Start: 27 @27431 has 2 MA's), (36, 27515),

Gene: Veliki_34 Start: 28158, Stop: 28409, Start Num: 22
Candidate Starts for Veliki_34:
(10, 28098), (Start: 22 @28158 has 155 MA's), (Start: 27 @28215 has 2 MA's),

Gene: ViviJ_32 Start: 28578, Stop: 28772, Start Num: 27
Candidate Starts for ViviJ_32:
(Start: 22 @28521 has 155 MA's), (Start: 27 @28578 has 2 MA's), (33, 28653), (43, 28704), (45, 28731),

Gene: Waterfoul_33 Start: 28710, Stop: 28964, Start Num: 22
Candidate Starts for Waterfoul_33:
(4, 28536), (5, 28575), (21, 28704), (Start: 22 @28710 has 155 MA's), (Start: 27 @28767 has 2 MA's), (33, 28842), (43, 28893),

Gene: Wintermute_35 Start: 29185, Stop: 29445, Start Num: 12
Candidate Starts for Wintermute_35:
(Start: 12 @29185 has 17 MA's), (Start: 13 @29191 has 1 MA's), (Start: 27 @29257 has 2 MA's), (32, 29323), (34, 29335), (37, 29350), (41, 29386), (45, 29419), (46, 29425),

Gene: Ximenita_35 Start: 27494, Stop: 27745, Start Num: 22
Candidate Starts for Ximenita_35:
(Start: 22 @27494 has 155 MA's), (Start: 27 @27551 has 2 MA's), (36, 27635),

Gene: Y10_35 Start: 29257, Stop: 29445, Start Num: 27

Candidate Starts for Y10_35:

(Start: 12 @29185 has 17 MA's), (Start: 13 @29191 has 1 MA's), (Start: 27 @29257 has 2 MA's), (32, 29323), (34, 29335), (37, 29350), (41, 29386), (45, 29419), (46, 29425),

Gene: Y2_35 Start: 29257, Stop: 29445, Start Num: 27

Candidate Starts for Y2_35:

(Start: 12 @29185 has 17 MA's), (Start: 13 @29191 has 1 MA's), (Start: 27 @29257 has 2 MA's), (32, 29323), (34, 29335), (37, 29350), (41, 29386), (45, 29419), (46, 29425),

Gene: YoureAdopted_33 Start: 28091, Stop: 28342, Start Num: 22

Candidate Starts for YoureAdopted_33:

(10, 28031), (Start: 22 @28091 has 155 MA's), (Start: 27 @28148 has 2 MA's),

Gene: Yuna_35 Start: 27890, Stop: 28141, Start Num: 22

Candidate Starts for Yuna_35:

(10, 27818), (Start: 22 @27890 has 155 MA's), (Start: 27 @27947 has 2 MA's), (41, 28067),

Gene: Yunkel11_34 Start: 27406, Stop: 27657, Start Num: 22

Candidate Starts for Yunkel11_34:

(Start: 22 @27406 has 155 MA's), (36, 27547),

Gene: Zabiza_34 Start: 28122, Stop: 28373, Start Num: 22

Candidate Starts for Zabiza_34:

(10, 28062), (Start: 22 @28122 has 155 MA's), (Start: 27 @28179 has 2 MA's),

Gene: Zavala_34 Start: 28097, Stop: 28348, Start Num: 22

Candidate Starts for Zavala_34:

(10, 28037), (Start: 22 @28097 has 155 MA's), (Start: 27 @28154 has 2 MA's),

Gene: ZoeJ_33 Start: 27372, Stop: 27620, Start Num: 18

Candidate Starts for ZoeJ_33:

(8, 27288), (11, 27333), (Start: 18 @27372 has 10 MA's), (Start: 27 @27426 has 2 MA's),