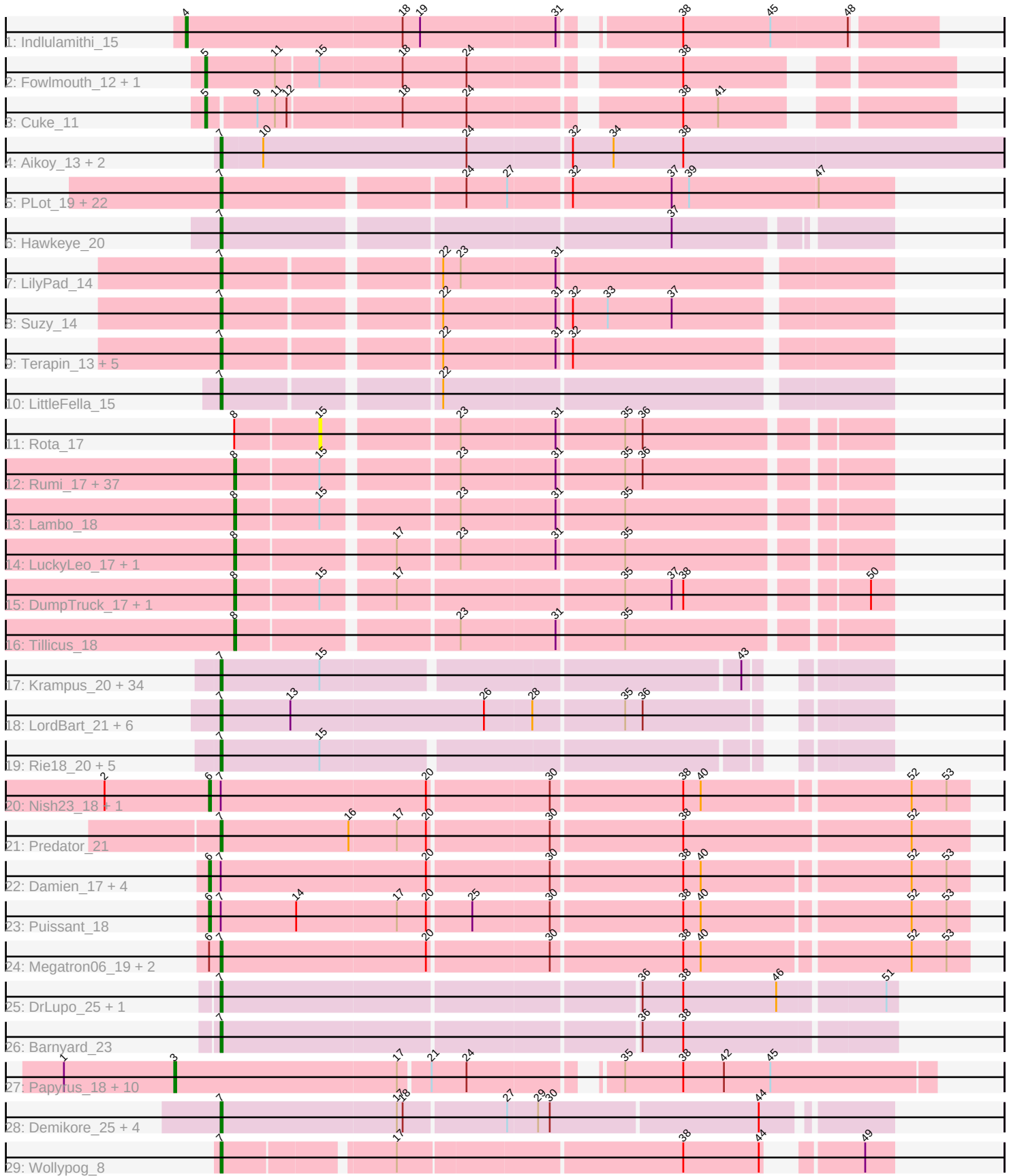


Pham 330548



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 330548 Report

This analysis was run 09/05/26 on database version 662.

Pham number 330548 has 165 members, 16 are drafts.

Phages represented in each track:

- Track 1 : Indlulamithi_15
- Track 2 : Fowlmouth_12, MrMiyagi_12
- Track 3 : Cuke_11
- Track 4 : Aikoy_13, Onyinye_14, Leopard_13
- Track 5 : PLOT_19, Mopey_18, WaldoWhy_19, Visconti_18, Gumball_17, KandZ_18, Helpful_19, Delton_18, SirHarley_17, Thoth_18, Adjutor_19, BigMama_16, Chill_19, Prager_18, Penelope2018_18, SuperheroCarly_18, Troll4_18, Erk16_18, Giuseppe_18, PBI1_19, Phalaborwa_18, Nova_18, Butterscotch_18
- Track 6 : Hawkeye_20
- Track 7 : LilyPad_14
- Track 8 : Suzy_14
- Track 9 : Terapin_13, BiteSize_13, Djokovic_13, Beyoncage_13, Madi_13, Sienna_13
- Track 10 : LittleFella_15
- Track 11 : Rota_17
- Track 12 : Rumi_17, Astralis_16, OtterstedtS21_18, Fulcrum_19, Charminar_16, Ranch_18, Alyssamiracle_17, Stormer_16, Gibbin_19, Lila22_18, Genamy16_17, Mima20_17, Sampudon_18, ParvusTarda_18, Patos_19, DaviePasture_18, DoobyDoo_17, GretelLyn_18, Nettle_17, MoiGyank_20, Riduram_16, Avian_16, Sadboi_18, LavAbarElk_16, Jalebi_18, Alephilan_16, Zany_17, Wojtek_17, Pywacket_17, BirthdayBoy_19, NovaSharks_17, Jamemuya19_16, Yikes_19, NorManre_19, RazorC_16, GOATification_19, Rukungu_18, Erutan_18
- Track 13 : Lambo_18
- Track 14 : LuckyLeo_17, Apeppi_16
- Track 15 : DumpTruck_17, Xenia2_18
- Track 16 : Tillicus_18
- Track 17 : Krampus_20, SafetyGuy_20, SilentWarrior_19, Neptune_20, Snakehole_21, CoolCookie_20, Dauntless_19, Chivey_19, Pharpay_20, Gilda_20, Anakin_20, Rachella_20, Erudite_19, FreddieHg_19, Haunter_20, Aesir_19, Kate_20, DannyDe_19, Annapurna_19, OhDear_20, Potty_20, Artiphact_20, AnnaSerena_20, Tedro_20, MortySmith_18, PhunaPhoke_20, Cybele_20, JDawG_19, OverHedge_20, NarutoRun_20, JingleBells_19, Crestdrop_19, Hiddenleaf_19, Poultruss_19, Tiggy93_20
- Track 18 : LordBart_21, Ajin_21, RikSengupta_21, Kors_21, Bramble_21, TinyMiny_21, Sparcetus_21
- Track 19 : Rie18_20, WinnieLou_21, Hager_21, Tongui_19, Karate_19, FountainFog_19

- Track 20 : Nish23_18, Cborch11_18
- Track 21 : Predator_21
- Track 22 : Damien_17, Phreeze_17, Beckerton_17, Konstantine_22, BobtimousPrime_19
- Track 23 : Puissant_18
- Track 24 : Megatron06_19, Thumb_17, Oaker_17
- Track 25 : DrLupo_25, AmandaPanda_24
- Track 26 : Barnyard_23
- Track 27 : Papyrus_18, MontyDev_18, Nilo_19, Gimesa_19, Candle_18, Weiss13_18, Riparian_18, Send513_18, Yelo_18, Zenon_19, Rope_18
- Track 28 : Demikore_25, SuperSonics_24, Labelle_24, Madruga_23, Patience_25
- Track 29 : Wollypog_8

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

The start number called the most often in the published annotations is 7, it was called in 88 of the 149 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Adjutor_19, Aesir_19, Aikoy_13, Ajin_21, AmandaPanda_24, Anakin_20, AnnaSerena_20, Annapurna_19, Artiphact_20, Barnyard_23, Beyoncage_13, BigMama_16, BiteSize_13, Bramble_21, Butterscotch_18, Chill_19, Chivey_19, CoolCookie_20, Crestdrop_19, Cybele_20, DannyDe_19, Dauntless_19, Delton_18, Demikore_25, Djokovic_13, DrLupo_25, Erk16_18, Erudite_19, FountainFog_19, FreddieHg_19, Gilda_20, Giuseppe_18, Gumball_17, Hager_21, Haunter_20, Hawkeye_20, Helpful_19, Hiddenleaf_19, JDawG_19, JingleBells_19, KandZ_18, Karate_19, Kate_20, Kors_21, Krampus_20, Labelle_24, Leopard_13, LilyPad_14, LittleFella_15, LordBart_21, Madi_13, Madruga_23, Megatron06_19, Mopey_18, MortySmith_18, NarutoRun_20, Neptune_20, Nova_18, Oaker_17, OhDear_20, Onyinye_14, OverHedge_20, PBI1_19, PLOT_19, Patience_25, Penelope2018_18, Phalaborwa_18, Pharpay_20, PhunaPhoke_20, Potty_20, Poultruss_19, Prager_18, Predator_21, Rachella_20, Rie18_20, RikSengupta_21, SafetyGuy_20, Sienna_13, SilentWarrior_19, SirHarley_17, Snakehole_21, Sparcetuss_21, SuperSonics_24, SuperheroCarly_18, Suzy_14, Tedro_20, Terapin_13, Thoth_18, Thumb_17, Tiggy93_20, TinyMiny_21, Tongui_19, Troll4_18, Visconti_18, WaldoWhy_19, WinnieLou_21, Wollypog_8,

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

- Beckerton_17, BobtimousPrime_19, Cborch11_18, Damien_17, Konstantine_22, Nish23_18, Phreeze_17, Puissant_18,

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

- Alephilan_16, Alyssamiracle_17, Apeppi_16, Astralis_16, Avian_16, BirthdayBoy_19, Candle_18, Charminar_16, Cuke_11, DaviePasture_18, DoobyDoo_17, DumpTruck_17, Erutan_18, Fowlmouth_12, Fulcrum_19, GOATification_19, Genamy16_17, Gibbin_19, Gimesa_19, GretellYn_18, Indlulamithi_15, Jalebi_18, Jamemuya19_16, Lambo_18, LavAbarElk_16, Lila22_18, LuckyLeo_17, Mima20_17, MoiGyank_20, MontyDev_18, MrMiyagi_12, Nettle_17, Nilo_19, NorManre_19, NovaSharks_17, OtterstedtS21_18, Papyrus_18, ParvusTarda_18, Patos_19, Pywacket_17, Ranch_18, RazorC_16, Riduram_16,

Riparian_18, Rope_18, Rota_17, Rukungu_18, Rumi_17, Sadboi_18, Sampudon_18, Send513_18, Stormer_16, Tillicus_18, Weiss13_18, Wojtek_17, Xenia2_18, Yelo_18, Yikes_19, Zany_17, Zenon_19,

Summary by start number:

Start 3:

- Found in 11 of 165 (6.7%) of genes in pham
- Manual Annotations of this start: 10 of 149
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Candle_18 (R), Gimesa_19 (R), MontyDev_18 (R), Nilo_19 (R), Papyrus_18 (R), Riparian_18 (R), Rope_18 (R), Send513_18 (R), Weiss13_18 (R), Yelo_18 (R), Zenon_19 (R),

Start 4:

- Found in 1 of 165 (0.6%) of genes in pham
- Manual Annotations of this start: 1 of 149
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Indlulamithi_15 (AC),

Start 5:

- Found in 3 of 165 (1.8%) of genes in pham
- Manual Annotations of this start: 3 of 149
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Cuke_11 (AC), Fowlmouth_12 (AC), MrMiyagi_12 (AC),

Start 6:

- Found in 11 of 165 (6.7%) of genes in pham
- Manual Annotations of this start: 7 of 149
- Called 72.7% of time when present
- Phage (with cluster) where this start called: Beckerton_17 (H1), BobtimousPrime_19 (H1), Cborch11_18 (H1), Damien_17 (H1), Konstantine_22 (H1), Nish23_18 (H1), Phreeze_17 (H1), Puissant_18 (H1),

Start 7:

- Found in 105 of 165 (63.6%) of genes in pham
- Manual Annotations of this start: 88 of 149
- Called 92.4% of time when present
- Phage (with cluster) where this start called: Adjutor_19 (D1), Aesir_19 (EF), Aikoy_13 (AE), Ajin_21 (EF), AmandaPanda_24 (H2), Anakin_20 (EF), AnnaSerena_20 (EF), Annapurna_19 (EF), Artiphact_20 (EF), Barnyard_23 (H2), Beyoncage_13 (DG1), BigMama_16 (D1), BiteSize_13 (DG1), Bramble_21 (EF), Butterscotch_18 (D1), Chill_19 (D1), Chivey_19 (EF), CoolCookie_20 (EF), Crestdrop_19 (EF), Cybele_20 (EF), DannyDe_19 (EF), Dauntless_19 (EF), Delton_18 (D1), Demikore_25 (U), Djokovic_13 (DG1), DrLupo_25 (H2), Erk16_18 (D1), Erudite_19 (EF), FountainFog_19 (EF), FreddieHg_19 (EF), Gilda_20 (EF), Giuseppe_18 (D1), Gumball_17 (D1), Hager_21 (EF), Haunter_20 (EF), Hawkeye_20 (D2), Helpful_19 (D1), Hiddenleaf_19 (EF), JDawG_19 (EF), JingleBells_19 (EF), KandZ_18 (D1), Karate_19 (EF), Kate_20 (EF), Kors_21 (EF), Krampus_20 (EF), Labelle_24 (U), Leopard_13 (AE), LilyPad_14 (DG1), LittleFella_15 (DG2), LordBart_21 (EF), Madi_13 (DG1), Madruga_23 (U), Megatron06_19 (H1), Mopey_18 (D1), MortySmith_18 (EF), NarutoRun_20 (EF), Neptune_20 (EF), Nova_18 (D1),

Oaker_17 (H1), OhDear_20 (EF), Onyinye_14 (AE), OverHedge_20 (EF), PBI1_19 (D1), PLOT_19 (D1), Patience_25 (U), Penelope2018_18 (D1), Phalaborwa_18 (D1), Pharpay_20 (EF), PhunaPhoke_20 (EF), Potty_20 (EF), Poultress_19 (EF), Prager_18 (D1), Predator_21 (H1), Rachella_20 (EF), Rie18_20 (EF), RikSengupta_21 (EF), SafetyGuy_20 (EF), Sienna_13 (DG1), SilentWarrior_19 (EF), SirHarley_17 (D1), Snakehole_21 (EF), Sparcetus_21 (EF), SuperSonics_24 (U), SuperheroCarly_18 (D1), Suzy_14 (DG1), Tedro_20 (EF), Terapin_13 (DG1), Thoth_18 (D1), Thumb_17 (H1), Tiggy93_20 (EF), TinyMiny_21 (EF), Tongui_19 (EF), Troll4_18 (D1), Visconti_18 (D1), WaldoWhy_19 (D1), WinnieLou_21 (EF), Wollypog_8 (singleton),

Start 8:

- Found in 45 of 165 (27.3%) of genes in pham
- Manual Annotations of this start: 40 of 149
- Called 97.8% of time when present
- Phage (with cluster) where this start called: Alephlan_16 (DV), Alyssamiracle_17 (DV), Apeppi_16 (DV), Astralis_16 (DV), Avian_16 (DV), BirthdayBoy_19 (DV), Charminar_16 (DV), DaviePasture_18 (DV), DoobyDoo_17 (DV), DumpTruck_17 (DV), Erutan_18 (DV), Fulcrum_19 (DV), GOATification_19 (DV), Genamy16_17 (DV), Gibbin_19 (DV), GretelLyn_18 (DV), Jalebi_18 (DV), Jamemuya19_16 (DV), Lambo_18 (DV), LavAbarElk_16 (DV), Lila22_18 (DV), LuckyLeo_17 (DV), Mima20_17 (DV), MoiGyank_20 (DV), Nettle_17 (DV), NorManre_19 (DV), NovaSharks_17 (DV), OtterstedtS21_18 (DV), ParvusTarda_18 (DV), Patos_19 (DV), Pywacket_17 (DV), Ranch_18 (DV), RazorC_16 (DV), Riduram_16 (DV), Rukungu_18 (DV), Rumi_17 (DV), Sadboi_18 (DV), Sampudon_18 (DV), Stormer_16 (DV), Tillicus_18 (DV), Wojtek_17 (DV), Xenia2_18 (DV), Yikes_19 (DV), Zany_17 (DV),

Start 15:

- Found in 85 of 165 (51.5%) of genes in pham
- No Manual Annotations of this start.
- Called 1.2% of time when present
- Phage (with cluster) where this start called: Rota_17 (DV),

Summary by clusters:

There are 13 clusters represented in this pham: AC, H1, AE, H2, EF, singleton, DG2, R, U, DV, DG1, D2, D1,

Info for manual annotations of cluster AC:

- Start number 4 was manually annotated 1 time for cluster AC.
- Start number 5 was manually annotated 3 times for cluster AC.

Info for manual annotations of cluster AE:

- Start number 7 was manually annotated 3 times for cluster AE.

Info for manual annotations of cluster D1:

- Start number 7 was manually annotated 22 times for cluster D1.

Info for manual annotations of cluster D2:

- Start number 7 was manually annotated 1 time for cluster D2.

Info for manual annotations of cluster DG1:

- Start number 7 was manually annotated 8 times for cluster DG1.

Info for manual annotations of cluster DG2:

- Start number 7 was manually annotated 1 time for cluster DG2.

Info for manual annotations of cluster DV:

- Start number 8 was manually annotated 40 times for cluster DV.

Info for manual annotations of cluster EF:

- Start number 7 was manually annotated 43 times for cluster EF.

Info for manual annotations of cluster H1:

- Start number 6 was manually annotated 7 times for cluster H1.
- Start number 7 was manually annotated 4 times for cluster H1.

Info for manual annotations of cluster H2:

- Start number 7 was manually annotated 2 times for cluster H2.

Info for manual annotations of cluster R:

- Start number 3 was manually annotated 10 times for cluster R.

Info for manual annotations of cluster U:

- Start number 7 was manually annotated 3 times for cluster U.

Gene Information:

Gene: Adjutor_19 Start: 12400, Stop: 12732, Start Num: 7

Candidate Starts for Adjutor_19:

(Start: 7 @12400 has 88 MA's), (24, 12517), (27, 12538), (32, 12568), (37, 12619), (39, 12628), (47, 12694),

Gene: Aesir_19 Start: 11130, Stop: 11438, Start Num: 7

Candidate Starts for Aesir_19:

(Start: 7 @11130 has 88 MA's), (15, 11181), (43, 11385),

Gene: Aikoy_13 Start: 4647, Stop: 5045, Start Num: 7

Candidate Starts for Aikoy_13:

(Start: 7 @4647 has 88 MA's), (10, 4668), (24, 4773), (32, 4824), (34, 4845), (38, 4881),

Gene: Ajin_21 Start: 11286, Stop: 11603, Start Num: 7

Candidate Starts for Ajin_21:

(Start: 7 @11286 has 88 MA's), (13, 11322), (26, 11421), (28, 11445), (35, 11490), (36, 11499),

Gene: Alephilan_16 Start: 12943, Stop: 13254, Start Num: 8

Candidate Starts for Alephilan_16:

(Start: 8 @12943 has 40 MA's), (15, 12985), (23, 13048), (31, 13096), (35, 13129), (36, 13138),

Gene: Alyssamiracle_17 Start: 11350, Stop: 11661, Start Num: 8

Candidate Starts for Alyssamiracle_17:

(Start: 8 @11350 has 40 MA's), (15, 11392), (23, 11455), (31, 11503), (35, 11536), (36, 11545),

Gene: AmandaPanda_24 Start: 14352, Stop: 14684, Start Num: 7
Candidate Starts for AmandaPanda_24:
(Start: 7 @14352 has 88 MA's), (36, 14559), (38, 14580), (46, 14628), (51, 14679),

Gene: Anakin_20 Start: 11340, Stop: 11648, Start Num: 7
Candidate Starts for Anakin_20:
(Start: 7 @11340 has 88 MA's), (15, 11391), (43, 11595),

Gene: AnnaSerena_20 Start: 11349, Stop: 11657, Start Num: 7
Candidate Starts for AnnaSerena_20:
(Start: 7 @11349 has 88 MA's), (15, 11400), (43, 11604),

Gene: Annapurna_19 Start: 10549, Stop: 10857, Start Num: 7
Candidate Starts for Annapurna_19:
(Start: 7 @10549 has 88 MA's), (15, 10600), (43, 10804),

Gene: Apeppi_16 Start: 13065, Stop: 13376, Start Num: 8
Candidate Starts for Apeppi_16:
(Start: 8 @13065 has 40 MA's), (17, 13140), (23, 13170), (31, 13218), (35, 13251),

Gene: Artiphact_20 Start: 11341, Stop: 11649, Start Num: 7
Candidate Starts for Artiphact_20:
(Start: 7 @11341 has 88 MA's), (15, 11392), (43, 11596),

Gene: Astralis_16 Start: 11350, Stop: 11661, Start Num: 8
Candidate Starts for Astralis_16:
(Start: 8 @11350 has 40 MA's), (15, 11392), (23, 11455), (31, 11503), (35, 11536), (36, 11545),

Gene: Avian_16 Start: 11350, Stop: 11661, Start Num: 8
Candidate Starts for Avian_16:
(Start: 8 @11350 has 40 MA's), (15, 11392), (23, 11455), (31, 11503), (35, 11536), (36, 11545),

Gene: Barnyard_23 Start: 13941, Stop: 14273, Start Num: 7
Candidate Starts for Barnyard_23:
(Start: 7 @13941 has 88 MA's), (36, 14148), (38, 14169),

Gene: Beckerton_17 Start: 12784, Stop: 13161, Start Num: 6
Candidate Starts for Beckerton_17:
(Start: 6 @12784 has 7 MA's), (Start: 7 @12790 has 88 MA's), (20, 12895), (30, 12955), (38, 13021), (40, 13030), (52, 13132), (53, 13150),

Gene: Beyoncage_13 Start: 8817, Stop: 9137, Start Num: 7
Candidate Starts for Beyoncage_13:
(Start: 7 @8817 has 88 MA's), (22, 8919), (31, 8976), (32, 8982),

Gene: BigMama_16 Start: 12476, Stop: 12808, Start Num: 7
Candidate Starts for BigMama_16:
(Start: 7 @12476 has 88 MA's), (24, 12593), (27, 12614), (32, 12644), (37, 12695), (39, 12704), (47, 12770),

Gene: BirthdayBoy_19 Start: 13796, Stop: 14107, Start Num: 8
Candidate Starts for BirthdayBoy_19:
(Start: 8 @13796 has 40 MA's), (15, 13838), (23, 13901), (31, 13949), (35, 13982), (36, 13991),

Gene: BiteSize_13 Start: 8817, Stop: 9137, Start Num: 7

Candidate Starts for BiteSize_13:

(Start: 7 @8817 has 88 MA's), (22, 8919), (31, 8976), (32, 8982),

Gene: BobtimousPrime_19 Start: 12704, Stop: 13081, Start Num: 6

Candidate Starts for BobtimousPrime_19:

(Start: 6 @12704 has 7 MA's), (Start: 7 @12710 has 88 MA's), (20, 12815), (30, 12875), (38, 12941), (40, 12950), (52, 13052), (53, 13070),

Gene: Bramble_21 Start: 11251, Stop: 11568, Start Num: 7

Candidate Starts for Bramble_21:

(Start: 7 @11251 has 88 MA's), (13, 11287), (26, 11386), (28, 11410), (35, 11455), (36, 11464),

Gene: Butterscotch_18 Start: 12460, Stop: 12792, Start Num: 7

Candidate Starts for Butterscotch_18:

(Start: 7 @12460 has 88 MA's), (24, 12577), (27, 12598), (32, 12628), (37, 12679), (39, 12688), (47, 12754),

Gene: Candle_18 Start: 12792, Stop: 13160, Start Num: 3

Candidate Starts for Candle_18:

(1, 12735), (Start: 3 @12792 has 10 MA's), (17, 12906), (21, 12921), (24, 12939), (35, 13002), (38, 13032), (42, 13053), (45, 13077),

Gene: Cborch11_18 Start: 12247, Stop: 12624, Start Num: 6

Candidate Starts for Cborch11_18:

(2, 12193), (Start: 6 @12247 has 7 MA's), (Start: 7 @12253 has 88 MA's), (20, 12358), (30, 12418), (38, 12484), (40, 12493), (52, 12595), (53, 12613),

Gene: Charminar_16 Start: 11350, Stop: 11661, Start Num: 8

Candidate Starts for Charminar_16:

(Start: 8 @11350 has 40 MA's), (15, 11392), (23, 11455), (31, 11503), (35, 11536), (36, 11545),

Gene: Chill_19 Start: 12466, Stop: 12798, Start Num: 7

Candidate Starts for Chill_19:

(Start: 7 @12466 has 88 MA's), (24, 12583), (27, 12604), (32, 12634), (37, 12685), (39, 12694), (47, 12760),

Gene: Chivey_19 Start: 10542, Stop: 10850, Start Num: 7

Candidate Starts for Chivey_19:

(Start: 7 @10542 has 88 MA's), (15, 10593), (43, 10797),

Gene: CoolCookie_20 Start: 11347, Stop: 11655, Start Num: 7

Candidate Starts for CoolCookie_20:

(Start: 7 @11347 has 88 MA's), (15, 11398), (43, 11602),

Gene: Crestdrop_19 Start: 10416, Stop: 10724, Start Num: 7

Candidate Starts for Crestdrop_19:

(Start: 7 @10416 has 88 MA's), (15, 10467), (43, 10671),

Gene: Cuke_11 Start: 7988, Stop: 8332, Start Num: 5

Candidate Starts for Cuke_11:

(Start: 5 @7988 has 3 MA's), (9, 8012), (11, 8021), (12, 8027), (18, 8084), (24, 8117), (38, 8213), (41, 8231),

Gene: Cybele_20 Start: 11317, Stop: 11625, Start Num: 7

Candidate Starts for Cybele_20:

(Start: 7 @11317 has 88 MA's), (15, 11368), (43, 11572),

Gene: Damien_17 Start: 12246, Stop: 12623, Start Num: 6

Candidate Starts for Damien_17:

(Start: 6 @12246 has 7 MA's), (Start: 7 @12252 has 88 MA's), (20, 12357), (30, 12417), (38, 12483), (40, 12492), (52, 12594), (53, 12612),

Gene: DannyDe_19 Start: 10534, Stop: 10842, Start Num: 7

Candidate Starts for DannyDe_19:

(Start: 7 @10534 has 88 MA's), (15, 10585), (43, 10789),

Gene: Dauntless_19 Start: 11059, Stop: 11367, Start Num: 7

Candidate Starts for Dauntless_19:

(Start: 7 @11059 has 88 MA's), (15, 11110), (43, 11314),

Gene: DaviePasture_18 Start: 13553, Stop: 13864, Start Num: 8

Candidate Starts for DaviePasture_18:

(Start: 8 @13553 has 40 MA's), (15, 13595), (23, 13658), (31, 13706), (35, 13739), (36, 13748),

Gene: Delton_18 Start: 12472, Stop: 12804, Start Num: 7

Candidate Starts for Delton_18:

(Start: 7 @12472 has 88 MA's), (24, 12589), (27, 12610), (32, 12640), (37, 12691), (39, 12700), (47, 12766),

Gene: Demikore_25 Start: 15499, Stop: 15828, Start Num: 7

Candidate Starts for Demikore_25:

(Start: 7 @15499 has 88 MA's), (17, 15589), (18, 15592), (27, 15643), (29, 15658), (30, 15664), (44, 15769),

Gene: Djokovic_13 Start: 8817, Stop: 9137, Start Num: 7

Candidate Starts for Djokovic_13:

(Start: 7 @8817 has 88 MA's), (22, 8919), (31, 8976), (32, 8982),

Gene: DoobyDoo_17 Start: 12730, Stop: 13041, Start Num: 8

Candidate Starts for DoobyDoo_17:

(Start: 8 @12730 has 40 MA's), (15, 12772), (23, 12835), (31, 12883), (35, 12916), (36, 12925),

Gene: DrLupo_25 Start: 14352, Stop: 14684, Start Num: 7

Candidate Starts for DrLupo_25:

(Start: 7 @14352 has 88 MA's), (36, 14559), (38, 14580), (46, 14628), (51, 14679),

Gene: DumpTruck_17 Start: 12984, Stop: 13295, Start Num: 8

Candidate Starts for DumpTruck_17:

(Start: 8 @12984 has 40 MA's), (15, 13026), (17, 13059), (35, 13170), (37, 13194), (38, 13200), (50, 13284),

Gene: Erk16_18 Start: 12463, Stop: 12795, Start Num: 7

Candidate Starts for Erk16_18:

(Start: 7 @12463 has 88 MA's), (24, 12580), (27, 12601), (32, 12631), (37, 12682), (39, 12691), (47, 12757),

Gene: Erudite_19 Start: 11059, Stop: 11367, Start Num: 7

Candidate Starts for Erudite_19:

(Start: 7 @11059 has 88 MA's), (15, 11110), (43, 11314),

Gene: Erutan_18 Start: 13243, Stop: 13554, Start Num: 8

Candidate Starts for Erutan_18:

(Start: 8 @13243 has 40 MA's), (15, 13285), (23, 13348), (31, 13396), (35, 13429), (36, 13438),

Gene: FountainFog_19 Start: 10668, Stop: 10976, Start Num: 7

Candidate Starts for FountainFog_19:

(Start: 7 @10668 has 88 MA's), (15, 10719),

Gene: Fowlmouth_12 Start: 8156, Stop: 8503, Start Num: 5

Candidate Starts for Fowlmouth_12:

(Start: 5 @8156 has 3 MA's), (11, 8192), (15, 8213), (18, 8255), (24, 8288), (38, 8384),

Gene: FreddieHg_19 Start: 10558, Stop: 10866, Start Num: 7

Candidate Starts for FreddieHg_19:

(Start: 7 @10558 has 88 MA's), (15, 10609), (43, 10813),

Gene: Fulcrum_19 Start: 13776, Stop: 14087, Start Num: 8

Candidate Starts for Fulcrum_19:

(Start: 8 @13776 has 40 MA's), (15, 13818), (23, 13881), (31, 13929), (35, 13962), (36, 13971),

Gene: GOATification_19 Start: 13776, Stop: 14087, Start Num: 8

Candidate Starts for GOATification_19:

(Start: 8 @13776 has 40 MA's), (15, 13818), (23, 13881), (31, 13929), (35, 13962), (36, 13971),

Gene: Genamy16_17 Start: 11350, Stop: 11661, Start Num: 8

Candidate Starts for Genamy16_17:

(Start: 8 @11350 has 40 MA's), (15, 11392), (23, 11455), (31, 11503), (35, 11536), (36, 11545),

Gene: Gibbin_19 Start: 13836, Stop: 14147, Start Num: 8

Candidate Starts for Gibbin_19:

(Start: 8 @13836 has 40 MA's), (15, 13878), (23, 13941), (31, 13989), (35, 14022), (36, 14031),

Gene: Gilda_20 Start: 11341, Stop: 11649, Start Num: 7

Candidate Starts for Gilda_20:

(Start: 7 @11341 has 88 MA's), (15, 11392), (43, 11596),

Gene: Gimesa_19 Start: 12602, Stop: 12970, Start Num: 3

Candidate Starts for Gimesa_19:

(1, 12545), (Start: 3 @12602 has 10 MA's), (17, 12716), (21, 12731), (24, 12749), (35, 12812), (38, 12842), (42, 12863), (45, 12887),

Gene: Giuseppe_18 Start: 12452, Stop: 12784, Start Num: 7

Candidate Starts for Giuseppe_18:

(Start: 7 @12452 has 88 MA's), (24, 12569), (27, 12590), (32, 12620), (37, 12671), (39, 12680), (47, 12746),

Gene: Gretellyn_18 Start: 14110, Stop: 14421, Start Num: 8

Candidate Starts for Gretellyn_18:

(Start: 8 @14110 has 40 MA's), (15, 14152), (23, 14215), (31, 14263), (35, 14296), (36, 14305),

Gene: Gumball_17 Start: 12410, Stop: 12742, Start Num: 7

Candidate Starts for Gumball_17:

(Start: 7 @12410 has 88 MA's), (24, 12527), (27, 12548), (32, 12578), (37, 12629), (39, 12638), (47, 12704),

Gene: Hager_21 Start: 10912, Stop: 11220, Start Num: 7

Candidate Starts for Hager_21:

(Start: 7 @10912 has 88 MA's), (15, 10963),

Gene: Haunter_20 Start: 10754, Stop: 11062, Start Num: 7

Candidate Starts for Haunter_20:

(Start: 7 @10754 has 88 MA's), (15, 10805), (43, 11009),

Gene: Hawkeye_20 Start: 12347, Stop: 12667, Start Num: 7

Candidate Starts for Hawkeye_20:

(Start: 7 @12347 has 88 MA's), (37, 12566),

Gene: Helpful_19 Start: 12460, Stop: 12792, Start Num: 7

Candidate Starts for Helpful_19:

(Start: 7 @12460 has 88 MA's), (24, 12577), (27, 12598), (32, 12628), (37, 12679), (39, 12688), (47, 12754),

Gene: Hiddenleaf_19 Start: 10542, Stop: 10850, Start Num: 7

Candidate Starts for Hiddenleaf_19:

(Start: 7 @10542 has 88 MA's), (15, 10593), (43, 10797),

Gene: Indlulamithi_15 Start: 10237, Stop: 10599, Start Num: 4

Candidate Starts for Indlulamithi_15:

(Start: 4 @10237 has 1 MA's), (18, 10348), (19, 10357), (31, 10426), (38, 10474), (45, 10519), (48, 10558),

Gene: JDawG_19 Start: 11124, Stop: 11432, Start Num: 7

Candidate Starts for JDawG_19:

(Start: 7 @11124 has 88 MA's), (15, 11175), (43, 11379),

Gene: Jalebi_18 Start: 14286, Stop: 14597, Start Num: 8

Candidate Starts for Jalebi_18:

(Start: 8 @14286 has 40 MA's), (15, 14328), (23, 14391), (31, 14439), (35, 14472), (36, 14481),

Gene: Jamemuya19_16 Start: 11350, Stop: 11661, Start Num: 8

Candidate Starts for Jamemuya19_16:

(Start: 8 @11350 has 40 MA's), (15, 11392), (23, 11455), (31, 11503), (35, 11536), (36, 11545),

Gene: JingleBells_19 Start: 10623, Stop: 10931, Start Num: 7

Candidate Starts for JingleBells_19:

(Start: 7 @10623 has 88 MA's), (15, 10674), (43, 10878),

Gene: KandZ_18 Start: 12560, Stop: 12892, Start Num: 7

Candidate Starts for KandZ_18:

(Start: 7 @12560 has 88 MA's), (24, 12677), (27, 12698), (32, 12728), (37, 12779), (39, 12788), (47, 12854),

Gene: Karate_19 Start: 10762, Stop: 11070, Start Num: 7

Candidate Starts for Karate_19:

(Start: 7 @10762 has 88 MA's), (15, 10813),

Gene: Kate_20 Start: 11349, Stop: 11657, Start Num: 7

Candidate Starts for Kate_20:

(Start: 7 @11349 has 88 MA's), (15, 11400), (43, 11604),

Gene: Konstantine_22 Start: 13448, Stop: 13825, Start Num: 6

Candidate Starts for Konstantine_22:

(Start: 6 @13448 has 7 MA's), (Start: 7 @13454 has 88 MA's), (20, 13559), (30, 13619), (38, 13685), (40, 13694), (52, 13796), (53, 13814),

Gene: Kors_21 Start: 11332, Stop: 11649, Start Num: 7

Candidate Starts for Kors_21:

(Start: 7 @11332 has 88 MA's), (13, 11368), (26, 11467), (28, 11491), (35, 11536), (36, 11545),

Gene: Krampus_20 Start: 11347, Stop: 11655, Start Num: 7

Candidate Starts for Krampus_20:

(Start: 7 @11347 has 88 MA's), (15, 11398), (43, 11602),

Gene: Labelle_24 Start: 15501, Stop: 15830, Start Num: 7

Candidate Starts for Labelle_24:

(Start: 7 @15501 has 88 MA's), (17, 15591), (18, 15594), (27, 15645), (29, 15660), (30, 15666), (44, 15771),

Gene: Lambo_18 Start: 13780, Stop: 14091, Start Num: 8

Candidate Starts for Lambo_18:

(Start: 8 @13780 has 40 MA's), (15, 13822), (23, 13885), (31, 13933), (35, 13966),

Gene: LavAbarElk_16 Start: 12213, Stop: 12524, Start Num: 8

Candidate Starts for LavAbarElk_16:

(Start: 8 @12213 has 40 MA's), (15, 12255), (23, 12318), (31, 12366), (35, 12399), (36, 12408),

Gene: Leopard_13 Start: 4825, Stop: 5223, Start Num: 7

Candidate Starts for Leopard_13:

(Start: 7 @4825 has 88 MA's), (10, 4846), (24, 4951), (32, 5002), (34, 5023), (38, 5059),

Gene: Lila22_18 Start: 13734, Stop: 14045, Start Num: 8

Candidate Starts for Lila22_18:

(Start: 8 @13734 has 40 MA's), (15, 13776), (23, 13839), (31, 13887), (35, 13920), (36, 13929),

Gene: LilyPad_14 Start: 9536, Stop: 9856, Start Num: 7

Candidate Starts for LilyPad_14:

(Start: 7 @9536 has 88 MA's), (22, 9638), (23, 9647), (31, 9695),

Gene: LittleFella_15 Start: 11437, Stop: 11757, Start Num: 7

Candidate Starts for LittleFella_15:

(Start: 7 @11437 has 88 MA's), (22, 11539),

Gene: LordBart_21 Start: 11248, Stop: 11565, Start Num: 7
Candidate Starts for LordBart_21:
(Start: 7 @11248 has 88 MA's), (13, 11284), (26, 11383), (28, 11407), (35, 11452), (36, 11461),

Gene: LuckyLeo_17 Start: 13065, Stop: 13376, Start Num: 8
Candidate Starts for LuckyLeo_17:
(Start: 8 @13065 has 40 MA's), (17, 13140), (23, 13170), (31, 13218), (35, 13251),

Gene: Madi_13 Start: 8817, Stop: 9137, Start Num: 7
Candidate Starts for Madi_13:
(Start: 7 @8817 has 88 MA's), (22, 8919), (31, 8976), (32, 8982),

Gene: Madruga_23 Start: 15170, Stop: 15499, Start Num: 7
Candidate Starts for Madruga_23:
(Start: 7 @15170 has 88 MA's), (17, 15260), (18, 15263), (27, 15314), (29, 15329), (30, 15335), (44, 15440),

Gene: Megatron06_19 Start: 12787, Stop: 13158, Start Num: 7
Candidate Starts for Megatron06_19:
(Start: 6 @12781 has 7 MA's), (Start: 7 @12787 has 88 MA's), (20, 12892), (30, 12952), (38, 13018), (40, 13027), (52, 13129), (53, 13147),

Gene: Mima20_17 Start: 13463, Stop: 13774, Start Num: 8
Candidate Starts for Mima20_17:
(Start: 8 @13463 has 40 MA's), (15, 13505), (23, 13568), (31, 13616), (35, 13649), (36, 13658),

Gene: MoiGyank_20 Start: 14147, Stop: 14458, Start Num: 8
Candidate Starts for MoiGyank_20:
(Start: 8 @14147 has 40 MA's), (15, 14189), (23, 14252), (31, 14300), (35, 14333), (36, 14342),

Gene: MontyDev_18 Start: 12450, Stop: 12818, Start Num: 3
Candidate Starts for MontyDev_18:
(1, 12393), (Start: 3 @12450 has 10 MA's), (17, 12564), (21, 12579), (24, 12597), (35, 12660), (38, 12690), (42, 12711), (45, 12735),

Gene: Mopey_18 Start: 12460, Stop: 12792, Start Num: 7
Candidate Starts for Mopey_18:
(Start: 7 @12460 has 88 MA's), (24, 12577), (27, 12598), (32, 12628), (37, 12679), (39, 12688), (47, 12754),

Gene: MortySmith_18 Start: 10521, Stop: 10829, Start Num: 7
Candidate Starts for MortySmith_18:
(Start: 7 @10521 has 88 MA's), (15, 10572), (43, 10776),

Gene: MrMiyagi_12 Start: 8156, Stop: 8503, Start Num: 5
Candidate Starts for MrMiyagi_12:
(Start: 5 @8156 has 3 MA's), (11, 8192), (15, 8213), (18, 8255), (24, 8288), (38, 8384),

Gene: NarutoRun_20 Start: 11340, Stop: 11648, Start Num: 7
Candidate Starts for NarutoRun_20:
(Start: 7 @11340 has 88 MA's), (15, 11391), (43, 11595),

Gene: Neptune_20 Start: 11317, Stop: 11625, Start Num: 7

Candidate Starts for Neptune_20:

(Start: 7 @11317 has 88 MA's), (15, 11368), (43, 11572),

Gene: Nettle_17 Start: 14010, Stop: 14321, Start Num: 8

Candidate Starts for Nettle_17:

(Start: 8 @14010 has 40 MA's), (15, 14052), (23, 14115), (31, 14163), (35, 14196), (36, 14205),

Gene: Nilo_19 Start: 12789, Stop: 13157, Start Num: 3

Candidate Starts for Nilo_19:

(1, 12732), (Start: 3 @12789 has 10 MA's), (17, 12903), (21, 12918), (24, 12936), (35, 12999), (38, 13029), (42, 13050), (45, 13074),

Gene: Nish23_18 Start: 12247, Stop: 12624, Start Num: 6

Candidate Starts for Nish23_18:

(2, 12193), (Start: 6 @12247 has 7 MA's), (Start: 7 @12253 has 88 MA's), (20, 12358), (30, 12418), (38, 12484), (40, 12493), (52, 12595), (53, 12613),

Gene: NorManre_19 Start: 13342, Stop: 13653, Start Num: 8

Candidate Starts for NorManre_19:

(Start: 8 @13342 has 40 MA's), (15, 13384), (23, 13447), (31, 13495), (35, 13528), (36, 13537),

Gene: Nova_18 Start: 12887, Stop: 13219, Start Num: 7

Candidate Starts for Nova_18:

(Start: 7 @12887 has 88 MA's), (24, 13004), (27, 13025), (32, 13055), (37, 13106), (39, 13115), (47, 13181),

Gene: NovaSharks_17 Start: 11350, Stop: 11661, Start Num: 8

Candidate Starts for NovaSharks_17:

(Start: 8 @11350 has 40 MA's), (15, 11392), (23, 11455), (31, 11503), (35, 11536), (36, 11545),

Gene: Oaker_17 Start: 12511, Stop: 12882, Start Num: 7

Candidate Starts for Oaker_17:

(Start: 6 @12505 has 7 MA's), (Start: 7 @12511 has 88 MA's), (20, 12616), (30, 12676), (38, 12742), (40, 12751), (52, 12853), (53, 12871),

Gene: OhDear_20 Start: 11346, Stop: 11654, Start Num: 7

Candidate Starts for OhDear_20:

(Start: 7 @11346 has 88 MA's), (15, 11397), (43, 11601),

Gene: Onyinye_14 Start: 4813, Stop: 5211, Start Num: 7

Candidate Starts for Onyinye_14:

(Start: 7 @4813 has 88 MA's), (10, 4834), (24, 4939), (32, 4990), (34, 5011), (38, 5047),

Gene: OtterstedtS21_18 Start: 13432, Stop: 13743, Start Num: 8

Candidate Starts for OtterstedtS21_18:

(Start: 8 @13432 has 40 MA's), (15, 13474), (23, 13537), (31, 13585), (35, 13618), (36, 13627),

Gene: OverHedge_20 Start: 11314, Stop: 11622, Start Num: 7

Candidate Starts for OverHedge_20:

(Start: 7 @11314 has 88 MA's), (15, 11365), (43, 11569),

Gene: PBI1_19 Start: 12391, Stop: 12723, Start Num: 7

Candidate Starts for PBI1_19:

(Start: 7 @12391 has 88 MA's), (24, 12508), (27, 12529), (32, 12559), (37, 12610), (39, 12619), (47, 12685),

Gene: PLOT_19 Start: 12463, Stop: 12795, Start Num: 7

Candidate Starts for PLOT_19:

(Start: 7 @12463 has 88 MA's), (24, 12580), (27, 12601), (32, 12631), (37, 12682), (39, 12691), (47, 12757),

Gene: Papyrus_18 Start: 12451, Stop: 12819, Start Num: 3

Candidate Starts for Papyrus_18:

(1, 12394), (Start: 3 @12451 has 10 MA's), (17, 12565), (21, 12580), (24, 12598), (35, 12661), (38, 12691), (42, 12712), (45, 12736),

Gene: ParvusTarda_18 Start: 12914, Stop: 13225, Start Num: 8

Candidate Starts for ParvusTarda_18:

(Start: 8 @12914 has 40 MA's), (15, 12956), (23, 13019), (31, 13067), (35, 13100), (36, 13109),

Gene: Patience_25 Start: 16060, Stop: 16389, Start Num: 7

Candidate Starts for Patience_25:

(Start: 7 @16060 has 88 MA's), (17, 16150), (18, 16153), (27, 16204), (29, 16219), (30, 16225), (44, 16330),

Gene: Patos_19 Start: 13342, Stop: 13653, Start Num: 8

Candidate Starts for Patos_19:

(Start: 8 @13342 has 40 MA's), (15, 13384), (23, 13447), (31, 13495), (35, 13528), (36, 13537),

Gene: Penelope2018_18 Start: 12460, Stop: 12792, Start Num: 7

Candidate Starts for Penelope2018_18:

(Start: 7 @12460 has 88 MA's), (24, 12577), (27, 12598), (32, 12628), (37, 12679), (39, 12688), (47, 12754),

Gene: Phalaborwa_18 Start: 12493, Stop: 12825, Start Num: 7

Candidate Starts for Phalaborwa_18:

(Start: 7 @12493 has 88 MA's), (24, 12610), (27, 12631), (32, 12661), (37, 12712), (39, 12721), (47, 12787),

Gene: Pharpay_20 Start: 11362, Stop: 11670, Start Num: 7

Candidate Starts for Pharpay_20:

(Start: 7 @11362 has 88 MA's), (15, 11413), (43, 11617),

Gene: Phreeze_17 Start: 12246, Stop: 12623, Start Num: 6

Candidate Starts for Phreeze_17:

(Start: 6 @12246 has 7 MA's), (Start: 7 @12252 has 88 MA's), (20, 12357), (30, 12417), (38, 12483), (40, 12492), (52, 12594), (53, 12612),

Gene: PhunaPhoke_20 Start: 11335, Stop: 11643, Start Num: 7

Candidate Starts for PhunaPhoke_20:

(Start: 7 @11335 has 88 MA's), (15, 11386), (43, 11590),

Gene: Potty_20 Start: 11340, Stop: 11648, Start Num: 7

Candidate Starts for Potty_20:

(Start: 7 @11340 has 88 MA's), (15, 11391), (43, 11595),

Gene: Poultress_19 Start: 11113, Stop: 11421, Start Num: 7

Candidate Starts for Poultress_19:

(Start: 7 @11113 has 88 MA's), (15, 11164), (43, 11368),

Gene: Prager_18 Start: 12472, Stop: 12804, Start Num: 7

Candidate Starts for Prager_18:

(Start: 7 @12472 has 88 MA's), (24, 12589), (27, 12610), (32, 12640), (37, 12691), (39, 12700), (47, 12766),

Gene: Predator_21 Start: 13774, Stop: 14148, Start Num: 7

Candidate Starts for Predator_21:

(Start: 7 @13774 has 88 MA's), (16, 13840), (17, 13864), (20, 13879), (30, 13939), (38, 14005), (52, 14119),

Gene: Puissant_18 Start: 12702, Stop: 13079, Start Num: 6

Candidate Starts for Puissant_18:

(Start: 6 @12702 has 7 MA's), (Start: 7 @12708 has 88 MA's), (14, 12747), (17, 12798), (20, 12813), (25, 12834), (30, 12873), (38, 12939), (40, 12948), (52, 13050), (53, 13068),

Gene: Pywacket_17 Start: 14271, Stop: 14582, Start Num: 8

Candidate Starts for Pywacket_17:

(Start: 8 @14271 has 40 MA's), (15, 14313), (23, 14376), (31, 14424), (35, 14457), (36, 14466),

Gene: Rachella_20 Start: 11343, Stop: 11651, Start Num: 7

Candidate Starts for Rachella_20:

(Start: 7 @11343 has 88 MA's), (15, 11394), (43, 11598),

Gene: Ranch_18 Start: 12280, Stop: 12591, Start Num: 8

Candidate Starts for Ranch_18:

(Start: 8 @12280 has 40 MA's), (15, 12322), (23, 12385), (31, 12433), (35, 12466), (36, 12475),

Gene: RazorC_16 Start: 11350, Stop: 11661, Start Num: 8

Candidate Starts for RazorC_16:

(Start: 8 @11350 has 40 MA's), (15, 11392), (23, 11455), (31, 11503), (35, 11536), (36, 11545),

Gene: Riduram_16 Start: 11320, Stop: 11631, Start Num: 8

Candidate Starts for Riduram_16:

(Start: 8 @11320 has 40 MA's), (15, 11362), (23, 11425), (31, 11473), (35, 11506), (36, 11515),

Gene: Rie18_20 Start: 10694, Stop: 11002, Start Num: 7

Candidate Starts for Rie18_20:

(Start: 7 @10694 has 88 MA's), (15, 10745),

Gene: RikSengupta_21 Start: 11369, Stop: 11686, Start Num: 7

Candidate Starts for RikSengupta_21:

(Start: 7 @11369 has 88 MA's), (13, 11405), (26, 11504), (28, 11528), (35, 11573), (36, 11582),

Gene: Riparian_18 Start: 12250, Stop: 12618, Start Num: 3

Candidate Starts for Riparian_18:

(1, 12193), (Start: 3 @12250 has 10 MA's), (17, 12364), (21, 12379), (24, 12397), (35, 12460), (38, 12490), (42, 12511), (45, 12535),

Gene: Rope_18 Start: 12442, Stop: 12810, Start Num: 3

Candidate Starts for Rope_18:

(1, 12385), (Start: 3 @12442 has 10 MA's), (17, 12556), (21, 12571), (24, 12589), (35, 12652), (38, 12682), (42, 12703), (45, 12727),

Gene: Rota_17 Start: 13280, Stop: 13549, Start Num: 15

Candidate Starts for Rota_17:

(Start: 8 @13238 has 40 MA's), (15, 13280), (23, 13343), (31, 13391), (35, 13424), (36, 13433),

Gene: Rukungu_18 Start: 13979, Stop: 14290, Start Num: 8

Candidate Starts for Rukungu_18:

(Start: 8 @13979 has 40 MA's), (15, 14021), (23, 14084), (31, 14132), (35, 14165), (36, 14174),

Gene: Rumi_17 Start: 11350, Stop: 11661, Start Num: 8

Candidate Starts for Rumi_17:

(Start: 8 @11350 has 40 MA's), (15, 11392), (23, 11455), (31, 11503), (35, 11536), (36, 11545),

Gene: Sadboi_18 Start: 14110, Stop: 14421, Start Num: 8

Candidate Starts for Sadboi_18:

(Start: 8 @14110 has 40 MA's), (15, 14152), (23, 14215), (31, 14263), (35, 14296), (36, 14305),

Gene: SafetyGuy_20 Start: 11346, Stop: 11654, Start Num: 7

Candidate Starts for SafetyGuy_20:

(Start: 7 @11346 has 88 MA's), (15, 11397), (43, 11601),

Gene: Sampudon_18 Start: 14286, Stop: 14597, Start Num: 8

Candidate Starts for Sampudon_18:

(Start: 8 @14286 has 40 MA's), (15, 14328), (23, 14391), (31, 14439), (35, 14472), (36, 14481),

Gene: Send513_18 Start: 12792, Stop: 13160, Start Num: 3

Candidate Starts for Send513_18:

(1, 12735), (Start: 3 @12792 has 10 MA's), (17, 12906), (21, 12921), (24, 12939), (35, 13002), (38, 13032), (42, 13053), (45, 13077),

Gene: Sienna_13 Start: 8817, Stop: 9137, Start Num: 7

Candidate Starts for Sienna_13:

(Start: 7 @8817 has 88 MA's), (22, 8919), (31, 8976), (32, 8982),

Gene: SilentWarrior_19 Start: 10550, Stop: 10858, Start Num: 7

Candidate Starts for SilentWarrior_19:

(Start: 7 @10550 has 88 MA's), (15, 10601), (43, 10805),

Gene: SirHarley_17 Start: 12392, Stop: 12724, Start Num: 7

Candidate Starts for SirHarley_17:

(Start: 7 @12392 has 88 MA's), (24, 12509), (27, 12530), (32, 12560), (37, 12611), (39, 12620), (47, 12686),

Gene: Snakehole_21 Start: 10639, Stop: 10947, Start Num: 7

Candidate Starts for Snakehole_21:

(Start: 7 @10639 has 88 MA's), (15, 10690), (43, 10894),

Gene: Sparcetus_21 Start: 11248, Stop: 11565, Start Num: 7

Candidate Starts for Sparcetus_21:

(Start: 7 @11248 has 88 MA's), (13, 11284), (26, 11383), (28, 11407), (35, 11452), (36, 11461),

Gene: Stormer_16 Start: 11350, Stop: 11661, Start Num: 8

Candidate Starts for Stormer_16:

(Start: 8 @11350 has 40 MA's), (15, 11392), (23, 11455), (31, 11503), (35, 11536), (36, 11545),

Gene: SuperSonics_24 Start: 15227, Stop: 15556, Start Num: 7

Candidate Starts for SuperSonics_24:

(Start: 7 @15227 has 88 MA's), (17, 15317), (18, 15320), (27, 15371), (29, 15386), (30, 15392), (44, 15497),

Gene: SuperheroCarly_18 Start: 12322, Stop: 12654, Start Num: 7

Candidate Starts for SuperheroCarly_18:

(Start: 7 @12322 has 88 MA's), (24, 12439), (27, 12460), (32, 12490), (37, 12541), (39, 12550), (47, 12616),

Gene: Suzy_14 Start: 10045, Stop: 10365, Start Num: 7

Candidate Starts for Suzy_14:

(Start: 7 @10045 has 88 MA's), (22, 10147), (31, 10204), (32, 10210), (33, 10228), (37, 10261),

Gene: Tedro_20 Start: 10813, Stop: 11121, Start Num: 7

Candidate Starts for Tedro_20:

(Start: 7 @10813 has 88 MA's), (15, 10864), (43, 11068),

Gene: Terapin_13 Start: 8817, Stop: 9137, Start Num: 7

Candidate Starts for Terapin_13:

(Start: 7 @8817 has 88 MA's), (22, 8919), (31, 8976), (32, 8982),

Gene: Thoth_18 Start: 12457, Stop: 12789, Start Num: 7

Candidate Starts for Thoth_18:

(Start: 7 @12457 has 88 MA's), (24, 12574), (27, 12595), (32, 12625), (37, 12676), (39, 12685), (47, 12751),

Gene: Thumb_17 Start: 12253, Stop: 12624, Start Num: 7

Candidate Starts for Thumb_17:

(Start: 6 @12247 has 7 MA's), (Start: 7 @12253 has 88 MA's), (20, 12358), (30, 12418), (38, 12484), (40, 12493), (52, 12595), (53, 12613),

Gene: Tiggy93_20 Start: 11346, Stop: 11654, Start Num: 7

Candidate Starts for Tiggy93_20:

(Start: 7 @11346 has 88 MA's), (15, 11397), (43, 11601),

Gene: Tillicus_18 Start: 12659, Stop: 12970, Start Num: 8

Candidate Starts for Tillicus_18:

(Start: 8 @12659 has 40 MA's), (23, 12764), (31, 12812), (35, 12845),

Gene: TinyMiny_21 Start: 11267, Stop: 11584, Start Num: 7

Candidate Starts for TinyMiny_21:

(Start: 7 @11267 has 88 MA's), (13, 11303), (26, 11402), (28, 11426), (35, 11471), (36, 11480),

Gene: Tongui_19 Start: 10686, Stop: 10994, Start Num: 7

Candidate Starts for Tongui_19:

(Start: 7 @10686 has 88 MA's), (15, 10737),

Gene: Troll4_18 Start: 12461, Stop: 12793, Start Num: 7
Candidate Starts for Troll4_18:
(Start: 7 @12461 has 88 MA's), (24, 12578), (27, 12599), (32, 12629), (37, 12680), (39, 12689), (47, 12755),

Gene: Visconti_18 Start: 12470, Stop: 12802, Start Num: 7
Candidate Starts for Visconti_18:
(Start: 7 @12470 has 88 MA's), (24, 12587), (27, 12608), (32, 12638), (37, 12689), (39, 12698), (47, 12764),

Gene: WaldoWhy_19 Start: 12466, Stop: 12798, Start Num: 7
Candidate Starts for WaldoWhy_19:
(Start: 7 @12466 has 88 MA's), (24, 12583), (27, 12604), (32, 12634), (37, 12685), (39, 12694), (47, 12760),

Gene: Weiss13_18 Start: 12482, Stop: 12850, Start Num: 3
Candidate Starts for Weiss13_18:
(1, 12425), (Start: 3 @12482 has 10 MA's), (17, 12596), (21, 12611), (24, 12629), (35, 12692), (38, 12722), (42, 12743), (45, 12767),

Gene: WinnieLou_21 Start: 10981, Stop: 11289, Start Num: 7
Candidate Starts for WinnieLou_21:
(Start: 7 @10981 has 88 MA's), (15, 11032),

Gene: Wojtek_17 Start: 12987, Stop: 13298, Start Num: 8
Candidate Starts for Wojtek_17:
(Start: 8 @12987 has 40 MA's), (15, 13029), (23, 13092), (31, 13140), (35, 13173), (36, 13182),

Gene: Wollypog_8 Start: 7934, Stop: 8242, Start Num: 7
Candidate Starts for Wollypog_8:
(Start: 7 @7934 has 88 MA's), (17, 8015), (38, 8156), (44, 8195), (49, 8228),

Gene: Xenia2_18 Start: 13026, Stop: 13337, Start Num: 8
Candidate Starts for Xenia2_18:
(Start: 8 @13026 has 40 MA's), (15, 13068), (17, 13101), (35, 13212), (37, 13236), (38, 13242), (50, 13326),

Gene: Yelo_18 Start: 12792, Stop: 13160, Start Num: 3
Candidate Starts for Yelo_18:
(1, 12735), (Start: 3 @12792 has 10 MA's), (17, 12906), (21, 12921), (24, 12939), (35, 13002), (38, 13032), (42, 13053), (45, 13077),

Gene: Yikes_19 Start: 14371, Stop: 14682, Start Num: 8
Candidate Starts for Yikes_19:
(Start: 8 @14371 has 40 MA's), (15, 14413), (23, 14476), (31, 14524), (35, 14557), (36, 14566),

Gene: Zany_17 Start: 13500, Stop: 13811, Start Num: 8
Candidate Starts for Zany_17:
(Start: 8 @13500 has 40 MA's), (15, 13542), (23, 13605), (31, 13653), (35, 13686), (36, 13695),

Gene: Zenon_19 Start: 12794, Stop: 13162, Start Num: 3
Candidate Starts for Zenon_19:

(1, 12737), (Start: 3 @12794 has 10 MA's), (17, 12908), (21, 12923), (24, 12941), (35, 13004), (38, 13034), (42, 13055), (45, 13079),