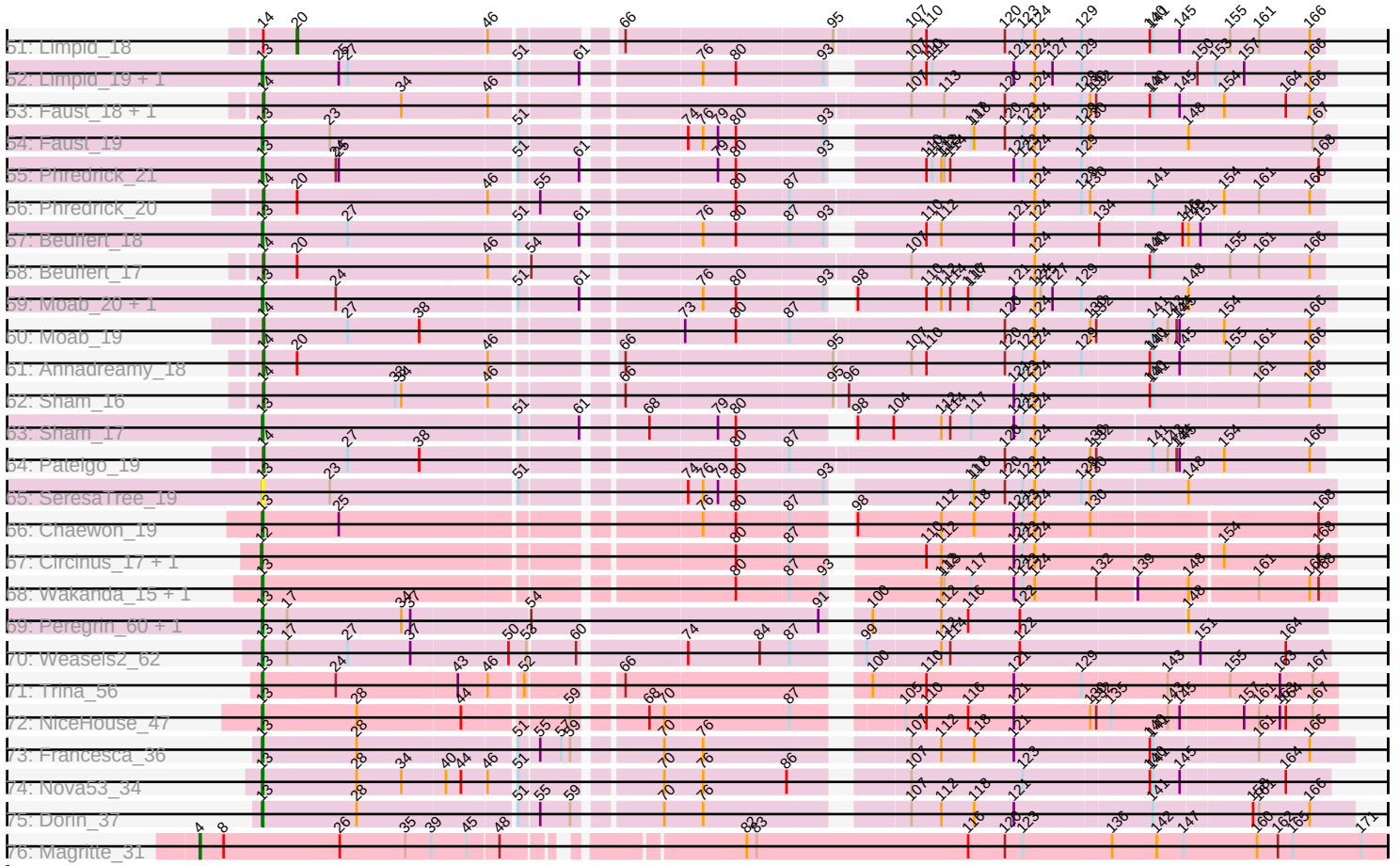


Pham 328749



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 328749 Report

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

Pham number 328749 has 158 members, 10 are drafts.

Phages represented in each track:

- Track 1 : DanielleIgnace_21
- Track 2 : Kitkat_29, BeatusComedenti_28
- Track 3 : KelleEzio_28
- Track 4 : Pepperwood_42, Deutsch_41, WashU_42, Scheme_42
- Track 5 : HangryHippo_42, PacManQ_41, Cross_42, BlueOtter_42, Lululemon_41, Watermoore_41, Cursive_39, Leo04_42
- Track 6 : Coogler_42, ArianaSWT_45, Larnav_42
- Track 7 : Squillium_40, Eliot67_39, Navo_39, Liandry_40, PinkiePie_39, Paradiddles_37, PynkPanther_39, FreddyDRoo_40
- Track 8 : LilMartin_39, Angela_39, MulchMansion_39
- Track 9 : Bmoc_40
- Track 10 : Cadmus_40, Daubenski_43
- Track 11 : LilSaint_41
- Track 12 : EGole_43
- Track 13 : Sushi23_42
- Track 14 : Shuckle_40
- Track 15 : Jay2Jay_46
- Track 16 : Riptide_39, Anedea_39
- Track 17 : Warpy_46
- Track 18 : Davielle_38, WhereRU_38, Persimmon_37
- Track 19 : Evy_43, Targaryen_43
- Track 20 : Bartholomune_40
- Track 21 : Peebs_41
- Track 22 : Mildred21_40
- Track 23 : Marsus_39
- Track 24 : Samisti12_41
- Track 25 : Tribute_40
- Track 26 : Braelyn_40, NootNoot_37
- Track 27 : Spilled_44, SaltySpitoon_44, Jollison_43, KentuckyRacer_44, TomSawyer_42, Rikishi_44, Gibbi_47, AcciDwight_48, Wipeout_41, JimJam_44, Bordeaux_42, PumpkinSpice_43, Birchlyn_41, Amabiko_44, Daisy123_48, Starbow_42, MindFlayer_42, CeilingFan_43, Spelly_44, Quarant19_44, Battuta_42, Tuesday_48
- Track 28 : IchabodCrane_41, Karimac_43, Brizzy_43
- Track 29 : StarPlatinum_43, LukeCage_43
- Track 30 : AngryGiraffe_43, Genie2_44, Yaboi_44
- Track 31 : Stanimal_44, BoomerJR_44

- Track 32 : Wofford_42
- Track 33 : Tomas_45
- Track 34 : Mugiwara_43
- Track 35 : Sollertia_44
- Track 36 : Elmer_46
- Track 37 : Enygma_41
- Track 38 : Francob_18
- Track 39 : Blueeyedbeauty_20
- Track 40 : Comrade_20, Karp_19, Belfort_21, Westy_20
- Track 41 : Blueeyedbeauty_21
- Track 42 : Gilson_22, MeganTheeKilla_20, DeluluLabubu_20, Forrest_22, Maupel_22, Emma1919_22, Jada_20
- Track 43 : Gilson_23, MeganTheeKilla_21, Forrest_23, Maupel_23, DeluluLabubu_21, Emma1919_23, Jada_21
- Track 44 : SparkleGoddess_20, Stigma_20
- Track 45 : SparkleGoddess_19, Comrade_19, Karp_18, Stigma_19, Belfort_20, Westy_19
- Track 46 : TunaTartare_17
- Track 47 : TunaTartare_18
- Track 48 : Francob_19
- Track 49 : Kenrey_22
- Track 50 : Kenrey_23
- Track 51 : Limpid_18
- Track 52 : Limpid_19, Annadreamy_19
- Track 53 : Faust_18, SeresaTree_18
- Track 54 : Faust_19
- Track 55 : Phredrick_21
- Track 56 : Phredrick_20
- Track 57 : Beuffert_18
- Track 58 : Beuffert_17
- Track 59 : Moab_20, Patelgo_20
- Track 60 : Moab_19
- Track 61 : Annadreamy_18
- Track 62 : Sham_16
- Track 63 : Sham_17
- Track 64 : Patelgo_19
- Track 65 : SeresaTree_19
- Track 66 : Chaewon_19
- Track 67 : Circinus_17, BillNye_15
- Track 68 : Wakanda_15, Muntaha_15
- Track 69 : Peregrin_60, Grayson_62
- Track 70 : Weasels2_62
- Track 71 : Trina_56
- Track 72 : NiceHouse_47
- Track 73 : Francesca_36
- Track 74 : Nova53_34
- Track 75 : Dorin_37
- Track 76 : Magritte_31

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

The start number called the most often in the published annotations is 13, it was called in 116 of the 148 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- AcciDwight_48, Amabiko_44, Anedea_39, Angela_39, AngryGiraffe_43, Annadreamy_19, ArianaSWT_45, Bartholomune_40, Battuta_42, Belfort_21, Beuffert_18, Birchlyn_41, BlueOtter_42, Blueeyedbeauty_21, Bmoc_40, BoomerJR_44, Bordeaux_42, Braelyn_40, Brizzy_43, Cadmus_40, CeilingFan_43, Chaewon_19, Comrade_20, Coogler_42, Cross_42, Cursive_39, Daisy123_48, Daubenski_43, Davielle_38, DeluluLabubu_21, Dorin_37, EGole_43, Eliot67_39, Elmer_46, Emma1919_23, Enygma_41, Evy_43, Faust_19, Forrest_23, Francesca_36, Francob_19, FreddyDRoo_40, Genie2_44, Gibbi_47, Gilson_23, Grayson_62, HangryHippo_42, IchabodCrane_41, Jada_21, Jay2Jay_46, JimJam_44, Jollison_43, Karimac_43, Karp_19, Kenrey_23, KentuckyRacer_44, Larnav_42, Leo04_42, Liandry_40, LilMartin_39, LilSaint_41, Limpid_19, LukeCage_43, Lululemon_41, Marsus_39, MaupeL_23, MeganTheeKilla_21, Mildred21_40, MindFlayer_42, Moab_20, Mugiwarra_43, MulchMansion_39, Muntaha_15, Navo_39, NiceHouse_47, NootNoot_37, Nova53_34, PacManQ_41, Paradiddles_37, Patelgo_20, Peebs_41, Pepperwood_42, Peregrin_60, Persimmon_37, Phredrick_21, PinkiePie_39, PumpkinSpice_43, PynkPanther_39, Quarant19_44, Rikishi_44, Riptide_39, SaltySpittoon_44, Samisti12_41, Scheme_42, SeresaTree_19, Sham_17, Shuckle_40, Sollertia_44, SparkleGoddess_20, Spelly_44, Spilled_44, Squillum_40, Stanimal_44, StarPlatinum_43, Starbow_42, Stigma_20, Sushi23_42, Targaryen_43, Teutsch_41, TomSawyer_42, Tribute_40, Trina_56, Tuesday_48, TunaTartare_18, Wakanda_15, Warpy_46, WashU_42, Watermoore_41, Weasels2_62, Westy_20, WhereRU_38, Wipeout_41, Wofford_42, Yaboi_44,

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

- BeatusComedenti_28, DanielleIgnace_21, KellEzio_28, Kitkat_29,

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

- Annadreamy_18, Belfort_20, Beuffert_17, BillNye_15, Blueeyedbeauty_20, Circinus_17, Comrade_19, DeluluLabubu_20, Emma1919_22, Faust_18, Forrest_22, Francob_18, Gilson_22, Jada_20, Karp_18, Kenrey_22, Limpid_18, Magritte_31, MaupeL_22, MeganTheeKilla_20, Moab_19, Patelgo_19, Phredrick_20, SeresaTree_18, Sham_16, SparkleGoddess_19, Stigma_19, Tomas_45, TunaTartare_17, Westy_19,

Summary by start number:

Start 4:

- Found in 5 of 158 (3.2%) of genes in pham
- Manual Annotations of this start: 4 of 148
- Called 80.0% of time when present
- Phage (with cluster) where this start called: BeatusComedenti_28 (AT), KellEzio_28 (AT), Kitkat_29 (AT), Magritte_31 (singleton),

Start 5:

- Found in 4 of 158 (2.5%) of genes in pham
- Manual Annotations of this start: 1 of 148
- Called 25.0% of time when present

- Phage (with cluster) where this start called: DanielleIgnace_21 (AT),

Start 12:

- Found in 3 of 158 (1.9%) of genes in pham
- Manual Annotations of this start: 3 of 148
- Called 100.0% of time when present
- Phage (with cluster) where this start called: BillNye_15 (BK2), Circinus_17 (BK2), Tomas_45 (BE2),

Start 13:

- Found in 128 of 158 (81.0%) of genes in pham
- Manual Annotations of this start: 116 of 148
- Called 96.9% of time when present
- Phage (with cluster) where this start called: AcciDwight_48 (BE2), Amabiko_44 (BE2), Anedea_39 (BE1), Angela_39 (BE1), AngryGiraffe_43 (BE2), Annadreamy_19 (BK1), ArianaSWT_45 (BE1), Bartholomune_40 (BE1), Battuta_42 (BE2), Belfort_21 (BK1), Beuffert_18 (BK1), Birchlyn_41 (BE2), BlueOtter_42 (BE1), Blueeyedbeauty_21 (BK1), Bmoc_40 (BE1), BoomerJR_44 (BE2), Bordeaux_42 (BE2), Braelyn_40 (BE1), Brizzy_43 (BE2), Cadmus_40 (BE1), CeilingFan_43 (BE2), Chaewon_19 (BK2), Comrade_20 (BK1), Coogler_42 (BE1), Cross_42 (BE1), Cursive_39 (BE1), Daisy123_48 (BE2), Daubenski_43 (BE1), Davielle_38 (BE1), DeluluLabubu_21 (BK1), Dorin_37 (CG), EGole_43 (BE1), Eliot67_39 (BE1), Elmer_46 (BE2), Emma1919_23 (BK1), Enygma_41 (BE2), Evy_43 (BE1), Faust_19 (BK1), Forrest_23 (BK1), Francesca_36 (CG), Francob_19 (BK1), FreddyDRoo_40 (BE1), Genie2_44 (BE2), Gibbi_47 (BE2), Gilson_23 (BK1), Grayson_62 (CB), HangryHippo_42 (BE1), IchabodCrane_41 (BE2), Jada_21 (BK1), Jay2Jay_46 (BE1), JimJam_44 (BE2), Jollison_43 (BE2), Karimac_43 (BE2), Karp_19 (BK1), Kenrey_23 (BK1), KentuckyRacer_44 (BE2), Larnav_42 (BE1), Leo04_42 (BE1), Liandry_40 (BE1), LilMartin_39 (BE1), LilSaint_41 (BE1), Limpid_19 (BK1), LukeCage_43 (BE2), Lululemon_41 (BE1), Marsus_39 (BE1), Maupel_23 (BK1), MeganTheeKilla_21 (BK1), Mildred21_40 (BE1), MindFlayer_42 (BE2), Moab_20 (BK1), Mugiwara_43 (BE2), MulchMansion_39 (BE1), Muntaha_15 (BK2), Navo_39 (BE1), NiceHouse_47 (CE), NootNoot_37 (BE1), Nova53_34 (CG), PacManQ_41 (BE1), Paradiddles_37 (BE1), Patelgo_20 (BK1), Peebs_41 (BE1), Pepperwood_42 (BE1), Peregrin_60 (CB), Persimmon_37 (BE1), Phredrick_21 (BK1), PinkiePie_39 (BE1), PumpkinSpice_43 (BE2), PynkPanther_39 (BE1), Quarant19_44 (BE2), Rikishi_44 (BE2), Riptide_39 (BE1), SaltySpittoon_44 (BE2), Samisti12_41 (BE1), Scheme_42 (BE1), SeresaTree_19 (BK1), Sham_17 (BK1), Shuckle_40 (BE1), Sollertia_44 (BE2), SparkleGoddess_20 (BK1), Spelly_44 (BE2), Spilled_44 (BE2), Squillum_40 (BE1), Stanimal_44 (BE2), StarPlatinum_43 (BE2), Starbow_42 (BE2), Stigma_20 (BK1), Sushi23_42 (BE1), Targaryen_43 (BE1), Deutsch_41 (BE1), TomSawyer_42 (BE2), Tribute_40 (BE1), Trina_56 (CE), Tuesday_48 (BE2), TunaTartare_18 (BK1), Wakanda_15 (BK2), Warpy_46 (BE1), WashU_42 (BE1), Watermoore_41 (BE1), Weasels2_62 (CB), Westy_20 (BK1), WhereRU_38 (BE1), Wipeout_41 (BE2), Wofford_42 (BE2), Yaboi_44 (BE2),

Start 14:

- Found in 26 of 158 (16.5%) of genes in pham
- Manual Annotations of this start: 23 of 148
- Called 96.2% of time when present
- Phage (with cluster) where this start called: Annadreamy_18 (BK1), Belfort_20 (BK1), Beuffert_17 (BK1), Blueeyedbeauty_20 (BK1), Comrade_19 (BK1), DeluluLabubu_20 (BK1), Emma1919_22 (BK1), Faust_18 (BK1), Forrest_22 (BK1),

Francob_18 (BK1), Gilson_22 (BK1), Jada_20 (BK1), Karp_18 (BK1), Kenrey_22 (BK1), Maupe_22 (BK1), MeganTheeKilla_20 (BK1), Moab_19 (BK1), Patelgo_19 (BK1), Phredrick_20 (BK1), SeresaTree_18 (BK1), Sham_16 (BK1), SparkleGoddess_19 (BK1), Stigma_19 (BK1), TunaTartare_17 (BK1), Westy_19 (BK1),

Start 20:

- Found in 70 of 158 (44.3%) of genes in pham
- Manual Annotations of this start: 1 of 148
- Called 1.4% of time when present
- Phage (with cluster) where this start called: Limpid_18 (BK1),

Summary by clusters:

There are 9 clusters represented in this pham: singleton, CB, CG, CE, BK1, BK2, BE2, BE1, AT,

Info for manual annotations of cluster AT:

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

Info for manual annotations of cluster BE1:

- Start number 13 was manually annotated 48 times for cluster BE1.

Info for manual annotations of cluster BE2:

- Start number 12 was manually annotated 1 time for cluster BE2.
- Start number 13 was manually annotated 33 times for cluster BE2.

Info for manual annotations of cluster BK1:

- Start number 13 was manually annotated 24 times for cluster BK1.
- Start number 14 was manually annotated 23 times for cluster BK1.
- Start number 20 was manually annotated 1 time for cluster BK1.

Info for manual annotations of cluster BK2:

- Start number 12 was manually annotated 2 times for cluster BK2.
- Start number 13 was manually annotated 3 times for cluster BK2.

Info for manual annotations of cluster CB:

- Start number 13 was manually annotated 3 times for cluster CB.

Info for manual annotations of cluster CE:

- Start number 13 was manually annotated 2 times for cluster CE.

Info for manual annotations of cluster CG:

- Start number 13 was manually annotated 3 times for cluster CG.

Gene Information:

Gene: AcciDwight_48 Start: 18442, Stop: 19410, Start Num: 13

Candidate Starts for AcciDwight_48:

(Start: 13 @18442 has 116 MA's), (24, 18514), (51, 18688), (62, 18754), (74, 18829), (76, 18844), (80, 18877), (98, 18967), (115, 19060), (117, 19078), (124, 19141), (141, 19252), (166, 19402),

Gene: Amabiko_44 Start: 18487, Stop: 19455, Start Num: 13

Candidate Starts for Amabiko_44:

(Start: 13 @18487 has 116 MA's), (24, 18559), (51, 18733), (62, 18799), (74, 18874), (76, 18889), (80, 18922), (98, 19012), (115, 19105), (117, 19123), (124, 19186), (141, 19297), (166, 19447),

Gene: Anedea_39 Start: 17361, Stop: 18329, Start Num: 13

Candidate Starts for Anedea_39:

(Start: 13 @17361 has 116 MA's), (Start: 20 @17394 has 1 MA's), (22, 17418), (24, 17433), (46, 17583), (51, 17607), (62, 17673), (74, 17748), (75, 17757), (76, 17763), (80, 17796), (98, 17886), (110, 17952), (115, 17979), (116, 17994), (117, 17997), (124, 18060), (139, 18156), (141, 18171), (144, 18195), (145, 18198), (154, 18237), (161, 18270), (166, 18321),

Gene: Angela_39 Start: 17342, Stop: 18310, Start Num: 13

Candidate Starts for Angela_39:

(Start: 13 @17342 has 116 MA's), (Start: 20 @17375 has 1 MA's), (22, 17399), (24, 17414), (46, 17564), (51, 17588), (56, 17624), (62, 17654), (74, 17729), (76, 17744), (80, 17777), (117, 17978), (124, 18041), (139, 18137), (141, 18152), (144, 18176), (161, 18251), (164, 18278), (166, 18302),

Gene: AngryGiraffe_43 Start: 18430, Stop: 19398, Start Num: 13

Candidate Starts for AngryGiraffe_43:

(Start: 13 @18430 has 116 MA's), (24, 18502), (46, 18652), (51, 18676), (56, 18712), (62, 18742), (74, 18817), (76, 18832), (80, 18865), (98, 18955), (101, 18973), (108, 19009), (113, 19039), (117, 19066), (124, 19129), (141, 19240), (161, 19339), (166, 19390),

Gene: Annadreamy_19 Start: 6675, Stop: 7664, Start Num: 13

Candidate Starts for Annadreamy_19:

(Start: 13 @6675 has 116 MA's), (25, 6750), (27, 6759), (51, 6918), (61, 6975), (76, 7077), (80, 7110), (93, 7191), (107, 7251), (110, 7266), (111, 7272), (121, 7353), (124, 7374), (127, 7392), (129, 7419), (150, 7527), (153, 7545), (157, 7572), (166, 7638),

Gene: Annadreamy_18 Start: 5683, Stop: 6678, Start Num: 14

Candidate Starts for Annadreamy_18:

(Start: 14 @5683 has 23 MA's), (Start: 20 @5716 has 1 MA's), (46, 5902), (66, 6007), (95, 6208), (107, 6280), (110, 6295), (120, 6373), (123, 6391), (124, 6403), (129, 6448), (140, 6511), (141, 6514), (145, 6541), (155, 6586), (161, 6613), (166, 6664),

Gene: ArianaSWT_45 Start: 18556, Stop: 19524, Start Num: 13

Candidate Starts for ArianaSWT_45:

(Start: 13 @18556 has 116 MA's), (Start: 20 @18589 has 1 MA's), (22, 18613), (24, 18628), (51, 18802), (62, 18868), (74, 18943), (76, 18958), (80, 18991), (115, 19174), (117, 19192), (123, 19243), (124, 19255), (137, 19330), (139, 19351), (141, 19366), (161, 19465), (166, 19516),

Gene: Bartholomune_40 Start: 17250, Stop: 18218, Start Num: 13

Candidate Starts for Bartholomune_40:

(Start: 13 @17250 has 116 MA's), (Start: 20 @17283 has 1 MA's), (22, 17307), (24, 17322), (49, 17487), (51, 17496), (62, 17562), (74, 17637), (76, 17652), (80, 17685), (115, 17868), (117, 17886), (124, 17949), (141, 18060), (145, 18087), (161, 18159), (166, 18210),

Gene: Battuta_42 Start: 18463, Stop: 19431, Start Num: 13

Candidate Starts for Battuta_42:

(Start: 13 @18463 has 116 MA's), (24, 18535), (51, 18709), (62, 18775), (74, 18850), (76, 18865), (80, 18898), (98, 18988), (115, 19081), (117, 19099), (124, 19162), (141, 19273), (166, 19423),

Gene: BeatusComedenti_28 Start: 15501, Stop: 16601, Start Num: 4

Candidate Starts for BeatusComedenti_28:

(Start: 4 @15501 has 4 MA's), (Start: 5 @15507 has 1 MA's), (11, 15558), (Start: 13 @15564 has 116 MA's), (16, 15585), (31, 15690), (45, 15765), (48, 15798), (63, 15903), (64, 15906), (69, 15957), (78, 16008), (83, 16053), (88, 16101), (90, 16113), (103, 16179), (109, 16215), (121, 16305), (123, 16314), (125, 16332), (126, 16335), (128, 16359), (138, 16407), (170, 16596),

Gene: Belfort_20 Start: 6432, Stop: 7430, Start Num: 14

Candidate Starts for Belfort_20:

(Start: 14 @6432 has 23 MA's), (46, 6651), (80, 6867), (87, 6918), (94, 6954), (124, 7155), (129, 7200), (130, 7209), (135, 7227), (141, 7266), (143, 7281), (154, 7332), (166, 7416),

Gene: Belfort_21 Start: 7427, Stop: 8410, Start Num: 13

Candidate Starts for Belfort_21:

(Start: 13 @7427 has 116 MA's), (24, 7499), (49, 7661), (51, 7670), (61, 7727), (76, 7829), (79, 7844), (80, 7862), (84, 7886), (87, 7913), (93, 7943), (110, 8018), (112, 8033), (114, 8042), (116, 8060), (117, 8063), (123, 8114), (124, 8126), (125, 8132), (129, 8171), (167, 8393),

Gene: Beuffert_18 Start: 6325, Stop: 7311, Start Num: 13

Candidate Starts for Beuffert_18:

(Start: 13 @6325 has 116 MA's), (27, 6409), (51, 6568), (61, 6625), (76, 6727), (80, 6760), (87, 6811), (93, 6841), (110, 6916), (112, 6931), (121, 7003), (124, 7024), (134, 7087), (146, 7165), (148, 7171), (151, 7183),

Gene: Beuffert_17 Start: 5333, Stop: 6328, Start Num: 14

Candidate Starts for Beuffert_17:

(Start: 14 @5333 has 23 MA's), (Start: 20 @5366 has 1 MA's), (46, 5552), (54, 5585), (107, 5930), (124, 6053), (140, 6161), (141, 6164), (155, 6236), (161, 6263), (166, 6314),

Gene: BillNye_15 Start: 6124, Stop: 7107, Start Num: 12

Candidate Starts for BillNye_15:

(Start: 12 @6124 has 3 MA's), (80, 6559), (87, 6610), (110, 6715), (112, 6730), (121, 6802), (123, 6811), (124, 6823), (154, 6997), (168, 7090),

Gene: Birchlyn_41 Start: 16344, Stop: 17312, Start Num: 13

Candidate Starts for Birchlyn_41:

(Start: 13 @16344 has 116 MA's), (24, 16416), (51, 16590), (62, 16656), (74, 16731), (76, 16746), (80, 16779), (98, 16869), (115, 16962), (117, 16980), (124, 17043), (141, 17154), (166, 17304),

Gene: BlueOtter_42 Start: 18593, Stop: 19561, Start Num: 13

Candidate Starts for BlueOtter_42:

(Start: 13 @18593 has 116 MA's), (Start: 20 @18626 has 1 MA's), (22, 18650), (24, 18665), (51, 18839), (62, 18905), (74, 18980), (76, 18995), (80, 19028), (117, 19229), (123, 19280), (124, 19292), (137, 19367), (139, 19388), (141, 19403), (144, 19427), (154, 19469), (161, 19502), (166, 19553),

Gene: Blueeyedbeauty_20 Start: 6177, Stop: 7172, Start Num: 14

Candidate Starts for Blueeyedbeauty_20:

(Start: 14 @6177 has 23 MA's), (Start: 20 @6210 has 1 MA's), (46, 6396), (124, 6897), (140, 7005), (141, 7008), (155, 7080), (161, 7107), (166, 7158),

Gene: Blueeyedbeauty_21 Start: 7169, Stop: 8152, Start Num: 13

Candidate Starts for Blueeyedbeauty_21:

(Start: 13 @7169 has 116 MA's), (25, 7244), (27, 7253), (36, 7313), (51, 7412), (61, 7469), (68, 7520), (79, 7586), (80, 7604), (87, 7655), (93, 7685), (110, 7760), (111, 7766), (112, 7775), (114, 7784), (121, 7847), (123, 7856), (124, 7868), (129, 7913), (145, 8003), (152, 8036), (166, 8132),

Gene: Bmoc_40 Start: 17645, Stop: 18613, Start Num: 13

Candidate Starts for Bmoc_40:

(3, 17468), (7, 17603), (Start: 13 @17645 has 116 MA's), (Start: 20 @17678 has 1 MA's), (22, 17702), (24, 17717), (46, 17867), (51, 17891), (62, 17957), (74, 18032), (76, 18047), (80, 18080), (98, 18170), (110, 18236), (115, 18263), (116, 18278), (117, 18281), (124, 18344), (139, 18440), (141, 18455), (144, 18479), (145, 18482), (161, 18554), (166, 18605),

Gene: BoomerJR_44 Start: 18319, Stop: 19287, Start Num: 13

Candidate Starts for BoomerJR_44:

(Start: 13 @18319 has 116 MA's), (24, 18391), (46, 18541), (51, 18565), (56, 18601), (62, 18631), (74, 18706), (76, 18721), (80, 18754), (98, 18844), (101, 18862), (108, 18898), (113, 18928), (117, 18955), (124, 19018), (141, 19129), (161, 19228), (166, 19279),

Gene: Bordeaux_42 Start: 18616, Stop: 19584, Start Num: 13

Candidate Starts for Bordeaux_42:

(Start: 13 @18616 has 116 MA's), (24, 18688), (51, 18862), (62, 18928), (74, 19003), (76, 19018), (80, 19051), (98, 19141), (115, 19234), (117, 19252), (124, 19315), (141, 19426), (166, 19576),

Gene: Braelyn_40 Start: 17513, Stop: 18481, Start Num: 13

Candidate Starts for Braelyn_40:

(Start: 13 @17513 has 116 MA's), (Start: 20 @17546 has 1 MA's), (22, 17570), (24, 17585), (49, 17750), (51, 17759), (55, 17777), (62, 17825), (74, 17900), (76, 17915), (80, 17948), (115, 18131), (117, 18149), (124, 18212), (141, 18323), (145, 18350), (161, 18422), (166, 18473),

Gene: Brizzy_43 Start: 18137, Stop: 19105, Start Num: 13

Candidate Starts for Brizzy_43:

(Start: 13 @18137 has 116 MA's), (24, 18209), (51, 18383), (56, 18419), (62, 18449), (74, 18524), (76, 18539), (80, 18572), (98, 18662), (115, 18755), (117, 18773), (124, 18836), (141, 18947), (166, 19097),

Gene: Cadmus_40 Start: 18112, Stop: 19080, Start Num: 13

Candidate Starts for Cadmus_40:

(9, 18082), (Start: 13 @18112 has 116 MA's), (Start: 20 @18145 has 1 MA's), (22, 18169), (24, 18184), (29, 18217), (46, 18334), (51, 18358), (62, 18424), (74, 18499), (76, 18514), (80, 18547), (117, 18748), (123, 18799), (124, 18811), (137, 18886), (139, 18907), (141, 18922), (161, 19021), (166, 19072),

Gene: CeilingFan_43 Start: 18376, Stop: 19344, Start Num: 13

Candidate Starts for CeilingFan_43:

(Start: 13 @18376 has 116 MA's), (24, 18448), (51, 18622), (62, 18688), (74, 18763), (76, 18778), (80, 18811), (98, 18901), (115, 18994), (117, 19012), (124, 19075), (141, 19186), (166, 19336),

Gene: Chaewon_19 Start: 5902, Stop: 6885, Start Num: 13

Candidate Starts for Chaewon_19:

(Start: 13 @5902 has 116 MA's), (25, 5977), (76, 6304), (80, 6337), (87, 6388), (98, 6424), (112, 6508), (118, 6541), (121, 6580), (123, 6589), (124, 6601), (130, 6655), (168, 6868),

Gene: Circinus_17 Start: 6264, Stop: 7247, Start Num: 12

Candidate Starts for Circinus_17:

(Start: 12 @6264 has 3 MA's), (80, 6699), (87, 6750), (110, 6855), (112, 6870), (121, 6942), (123, 6951), (124, 6963), (154, 7137), (168, 7230),

Gene: Comrade_20 Start: 7042, Stop: 8025, Start Num: 13

Candidate Starts for Comrade_20:

(Start: 13 @7042 has 116 MA's), (24, 7114), (49, 7276), (51, 7285), (61, 7342), (76, 7444), (79, 7459), (80, 7477), (84, 7501), (87, 7528), (93, 7558), (110, 7633), (112, 7648), (114, 7657), (116, 7675), (117, 7678), (123, 7729), (124, 7741), (125, 7747), (129, 7786), (167, 8008),

Gene: Comrade_19 Start: 6047, Stop: 7045, Start Num: 14

Candidate Starts for Comrade_19:

(Start: 14 @6047 has 23 MA's), (46, 6266), (80, 6482), (87, 6533), (94, 6569), (124, 6770), (129, 6815), (130, 6824), (135, 6842), (141, 6881), (143, 6896), (154, 6947), (166, 7031),

Gene: Coogler_42 Start: 18620, Stop: 19588, Start Num: 13

Candidate Starts for Coogler_42:

(Start: 13 @18620 has 116 MA's), (Start: 20 @18653 has 1 MA's), (22, 18677), (24, 18692), (51, 18866), (62, 18932), (74, 19007), (76, 19022), (80, 19055), (115, 19238), (117, 19256), (123, 19307), (124, 19319), (137, 19394), (139, 19415), (141, 19430), (161, 19529), (166, 19580),

Gene: Cross_42 Start: 18594, Stop: 19562, Start Num: 13

Candidate Starts for Cross_42:

(Start: 13 @18594 has 116 MA's), (Start: 20 @18627 has 1 MA's), (22, 18651), (24, 18666), (51, 18840), (62, 18906), (74, 18981), (76, 18996), (80, 19029), (117, 19230), (123, 19281), (124, 19293), (137, 19368), (139, 19389), (141, 19404), (144, 19428), (154, 19470), (161, 19503), (166, 19554),

Gene: Cursive_39 Start: 17411, Stop: 18379, Start Num: 13

Candidate Starts for Cursive_39:

(Start: 13 @17411 has 116 MA's), (Start: 20 @17444 has 1 MA's), (22, 17468), (24, 17483), (51, 17657), (62, 17723), (74, 17798), (76, 17813), (80, 17846), (117, 18047), (123, 18098), (124, 18110), (137, 18185), (139, 18206), (141, 18221), (144, 18245), (154, 18287), (161, 18320), (166, 18371),

Gene: Daisy123_48 Start: 18235, Stop: 19203, Start Num: 13

Candidate Starts for Daisy123_48:

(Start: 13 @18235 has 116 MA's), (24, 18307), (51, 18481), (62, 18547), (74, 18622), (76, 18637), (80, 18670), (98, 18760), (115, 18853), (117, 18871), (124, 18934), (141, 19045), (166, 19195),

Gene: DanielleIgnace_21 Start: 14674, Stop: 15762, Start Num: 5

Candidate Starts for DanielleIgnace_21:

(1, 14479), (2, 14482), (Start: 4 @14668 has 4 MA's), (Start: 5 @14674 has 1 MA's), (6, 14680), (11, 14725), (Start: 13 @14731 has 116 MA's), (15, 14737), (16, 14752), (18, 14758), (19, 14764), (21, 14773), (30, 14851), (31, 14857), (32, 14860), (41, 14914), (42, 14920), (45, 14932), (58, 15031), (63, 15064), (64, 15067), (65, 15070), (67, 15088), (69, 15118), (71, 15130), (77, 15166), (90, 15274), (97, 15304), (106, 15361), (119, 15427), (121, 15466), (123, 15475), (125, 15493), (126, 15496), (127, 15505), (128, 15520), (133, 15550), (138, 15568), (142, 15604), (149, 15640), (156, 15679), (167, 15745), (169, 15754), (170, 15757),

Gene: Daubenski_43 Start: 18876, Stop: 19844, Start Num: 13

Candidate Starts for Daubenski_43:

(9, 18846), (Start: 13 @18876 has 116 MA's), (Start: 20 @18909 has 1 MA's), (22, 18933), (24, 18948), (29, 18981), (46, 19098), (51, 19122), (62, 19188), (74, 19263), (76, 19278), (80, 19311), (117, 19512), (123, 19563), (124, 19575), (137, 19650), (139, 19671), (141, 19686), (161, 19785), (166, 19836),

Gene: Davielle_38 Start: 16933, Stop: 17901, Start Num: 13

Candidate Starts for Davielle_38:

(Start: 13 @16933 has 116 MA's), (Start: 20 @16966 has 1 MA's), (22, 16990), (24, 17005), (49, 17170), (51, 17179), (55, 17197), (62, 17245), (74, 17320), (76, 17335), (80, 17368), (117, 17569), (124, 17632), (141, 17743), (145, 17770), (161, 17842), (166, 17893),

Gene: DeluluLabubu_20 Start: 5928, Stop: 6926, Start Num: 14

Candidate Starts for DeluluLabubu_20:

(Start: 14 @5928 has 23 MA's), (Start: 20 @5961 has 1 MA's), (46, 6147), (80, 6363), (87, 6414), (102, 6498), (108, 6531), (124, 6651), (126, 6660), (129, 6696), (130, 6705), (135, 6723), (141, 6762), (154, 6828), (161, 6861), (166, 6912),

Gene: DeluluLabubu_21 Start: 6923, Stop: 7903, Start Num: 13

Candidate Starts for DeluluLabubu_21:

(Start: 13 @6923 has 116 MA's), (Start: 20 @6956 has 1 MA's), (24, 6995), (51, 7166), (61, 7223), (73, 7307), (76, 7325), (80, 7358), (93, 7439), (110, 7514), (113, 7532), (123, 7610), (124, 7622), (129, 7667), (131, 7679), (134, 7685), (139, 7718), (146, 7763), (148, 7769), (151, 7781), (163, 7853),

Gene: Dorin_37 Start: 15814, Stop: 16821, Start Num: 13

Candidate Starts for Dorin_37:

(Start: 13 @15814 has 116 MA's), (28, 15907), (51, 16057), (55, 16075), (59, 16105), (70, 16180), (76, 16219), (107, 16396), (112, 16426), (118, 16459), (121, 16498), (141, 16627), (158, 16720), (161, 16726), (166, 16777),

Gene: EGole_43 Start: 19491, Stop: 20459, Start Num: 13

Candidate Starts for EGole_43:

(Start: 13 @19491 has 116 MA's), (Start: 20 @19524 has 1 MA's), (22, 19548), (24, 19563), (29, 19596), (51, 19737), (62, 19803), (74, 19878), (76, 19893), (80, 19926), (89, 19998), (92, 20007), (108, 20070), (117, 20127), (124, 20190), (141, 20301), (161, 20400), (166, 20451),

Gene: Eliot67_39 Start: 17248, Stop: 18216, Start Num: 13

Candidate Starts for Eliot67_39:

(Start: 13 @17248 has 116 MA's), (Start: 20 @17281 has 1 MA's), (22, 17305), (24, 17320), (49, 17485), (51, 17494), (55, 17512), (62, 17560), (74, 17635), (76, 17650), (80, 17683), (87, 17734), (117, 17884), (124, 17947), (141, 18058), (145, 18085), (161, 18157), (166, 18208),

Gene: Elmer_46 Start: 19386, Stop: 20354, Start Num: 13

Candidate Starts for Elmer_46:

(Start: 13 @19386 has 116 MA's), (24, 19458), (46, 19608), (51, 19632), (62, 19698), (74, 19773), (76, 19788), (80, 19821), (92, 19902), (101, 19929), (113, 19995), (117, 20022), (124, 20085), (130, 20139), (141, 20196), (154, 20262), (161, 20295), (166, 20346),

Gene: Emma1919_22 Start: 6623, Stop: 7621, Start Num: 14

Candidate Starts for Emma1919_22:

(Start: 14 @6623 has 23 MA's), (Start: 20 @6656 has 1 MA's), (46, 6842), (80, 7058), (87, 7109), (102, 7193), (108, 7226), (124, 7346), (126, 7355), (129, 7391), (130, 7400), (135, 7418), (141, 7457), (154, 7523), (161, 7556), (166, 7607),

Gene: Emma1919_23 Start: 7618, Stop: 8598, Start Num: 13

Candidate Starts for Emma1919_23:

(Start: 13 @7618 has 116 MA's), (Start: 20 @7651 has 1 MA's), (24, 7690), (51, 7861), (61, 7918), (73, 8002), (76, 8020), (80, 8053), (93, 8134), (110, 8209), (113, 8227), (123, 8305), (124, 8317), (129,

8362), (131, 8374), (134, 8380), (139, 8413), (146, 8458), (148, 8464), (151, 8476), (163, 8548),

Gene: Enygma_41 Start: 17886, Stop: 18854, Start Num: 13

Candidate Starts for Enygma_41:

(Start: 13 @17886 has 116 MA's), (24, 17958), (46, 18108), (51, 18132), (56, 18168), (62, 18198), (74, 18273), (76, 18288), (80, 18321), (98, 18411), (101, 18429), (117, 18522), (124, 18585), (132, 18645), (141, 18696), (148, 18729), (161, 18795), (166, 18846),

Gene: Evy_43 Start: 18609, Stop: 19577, Start Num: 13

Candidate Starts for Evy_43:

(Start: 13 @18609 has 116 MA's), (Start: 20 @18642 has 1 MA's), (24, 18681), (29, 18714), (46, 18831), (51, 18855), (62, 18921), (74, 18996), (76, 19011), (80, 19044), (89, 19116), (105, 19179), (108, 19188), (117, 19245), (124, 19308), (141, 19419), (157, 19503), (161, 19518), (164, 19545), (166, 19569),

Gene: Faust_18 Start: 5942, Stop: 6940, Start Num: 14

Candidate Starts for Faust_18:

(Start: 14 @5942 has 23 MA's), (34, 6080), (46, 6161), (107, 6542), (113, 6575), (120, 6635), (124, 6665), (129, 6710), (130, 6719), (132, 6725), (140, 6773), (141, 6776), (145, 6803), (154, 6842), (164, 6902), (166, 6926),

Gene: Faust_19 Start: 6937, Stop: 7926, Start Num: 13

Candidate Starts for Faust_19:

(Start: 13 @6937 has 116 MA's), (23, 7003), (51, 7180), (74, 7324), (76, 7339), (79, 7354), (80, 7372), (93, 7453), (117, 7573), (118, 7576), (120, 7606), (123, 7624), (124, 7636), (129, 7681), (130, 7690), (148, 7780), (167, 7903),

Gene: Forrest_23 Start: 7741, Stop: 8721, Start Num: 13

Candidate Starts for Forrest_23:

(Start: 13 @7741 has 116 MA's), (Start: 20 @7774 has 1 MA's), (24, 7813), (51, 7984), (61, 8041), (73, 8125), (76, 8143), (80, 8176), (93, 8257), (110, 8332), (113, 8350), (123, 8428), (124, 8440), (129, 8485), (131, 8497), (134, 8503), (139, 8536), (146, 8581), (148, 8587), (151, 8599), (163, 8671),

Gene: Forrest_22 Start: 6746, Stop: 7744, Start Num: 14

Candidate Starts for Forrest_22:

(Start: 14 @6746 has 23 MA's), (Start: 20 @6779 has 1 MA's), (46, 6965), (80, 7181), (87, 7232), (102, 7316), (108, 7349), (124, 7469), (126, 7478), (129, 7514), (130, 7523), (135, 7541), (141, 7580), (154, 7646), (161, 7679), (166, 7730),

Gene: Francesca_36 Start: 15936, Stop: 16943, Start Num: 13

Candidate Starts for Francesca_36:

(Start: 13 @15936 has 116 MA's), (28, 16029), (51, 16179), (55, 16197), (57, 16218), (59, 16227), (70, 16302), (76, 16341), (107, 16518), (112, 16548), (118, 16581), (121, 16620), (140, 16746), (141, 16749), (161, 16848), (166, 16899),

Gene: Francob_18 Start: 5541, Stop: 6542, Start Num: 14

Candidate Starts for Francob_18:

(Start: 14 @5541 has 23 MA's), (95, 6066), (102, 6108), (107, 6138), (113, 6171), (116, 6195), (121, 6240), (124, 6261), (137, 6336), (140, 6369), (141, 6372), (148, 6405), (154, 6438), (161, 6471), (164, 6498), (166, 6522),

Gene: Francob_19 Start: 6539, Stop: 7519, Start Num: 13

Candidate Starts for Francob_19:

(Start: 13 @6539 has 116 MA's), (24, 6611), (51, 6782), (61, 6839), (76, 6941), (80, 6974), (110, 7130), (111, 7136), (112, 7145), (114, 7154), (123, 7226), (124, 7238), (129, 7283), (131, 7295), (134, 7301), (144, 7373), (146, 7379), (148, 7385), (151, 7397),

Gene: FreddyDRoo_40 Start: 17248, Stop: 18216, Start Num: 13

Candidate Starts for FreddyDRoo_40:

(Start: 13 @17248 has 116 MA's), (Start: 20 @17281 has 1 MA's), (22, 17305), (24, 17320), (49, 17485), (51, 17494), (55, 17512), (62, 17560), (74, 17635), (76, 17650), (80, 17683), (87, 17734), (117, 17884), (124, 17947), (141, 18058), (145, 18085), (161, 18157), (166, 18208),

Gene: Genie2_44 Start: 18433, Stop: 19401, Start Num: 13

Candidate Starts for Genie2_44:

(Start: 13 @18433 has 116 MA's), (24, 18505), (46, 18655), (51, 18679), (56, 18715), (62, 18745), (74, 18820), (76, 18835), (80, 18868), (98, 18958), (101, 18976), (108, 19012), (113, 19042), (117, 19069), (124, 19132), (141, 19243), (161, 19342), (166, 19393),

Gene: Gibbi_47 Start: 18236, Stop: 19204, Start Num: 13

Candidate Starts for Gibbi_47:

(Start: 13 @18236 has 116 MA's), (24, 18308), (51, 18482), (62, 18548), (74, 18623), (76, 18638), (80, 18671), (98, 18761), (115, 18854), (117, 18872), (124, 18935), (141, 19046), (166, 19196),

Gene: Gilson_22 Start: 6576, Stop: 7574, Start Num: 14

Candidate Starts for Gilson_22:

(Start: 14 @6576 has 23 MA's), (Start: 20 @6609 has 1 MA's), (46, 6795), (80, 7011), (87, 7062), (102, 7146), (108, 7179), (124, 7299), (126, 7308), (129, 7344), (130, 7353), (135, 7371), (141, 7410), (154, 7476), (161, 7509), (166, 7560),

Gene: Gilson_23 Start: 7571, Stop: 8551, Start Num: 13

Candidate Starts for Gilson_23:

(Start: 13 @7571 has 116 MA's), (Start: 20 @7604 has 1 MA's), (24, 7643), (51, 7814), (61, 7871), (73, 7955), (76, 7973), (80, 8006), (93, 8087), (110, 8162), (113, 8180), (123, 8258), (124, 8270), (129, 8315), (131, 8327), (134, 8333), (139, 8366), (146, 8411), (148, 8417), (151, 8429), (163, 8501),

Gene: Grayson_62 Start: 23169, Stop: 24161, Start Num: 13

Candidate Starts for Grayson_62:

(Start: 13 @23169 has 116 MA's), (17, 23193), (34, 23307), (37, 23316), (54, 23427), (91, 23697), (100, 23724), (112, 23790), (116, 23817), (122, 23868), (148, 24027),

Gene: HangryHippo_42 Start: 18593, Stop: 19561, Start Num: 13

Candidate Starts for HangryHippo_42:

(Start: 13 @18593 has 116 MA's), (Start: 20 @18626 has 1 MA's), (22, 18650), (24, 18665), (51, 18839), (62, 18905), (74, 18980), (76, 18995), (80, 19028), (117, 19229), (123, 19280), (124, 19292), (137, 19367), (139, 19388), (141, 19403), (144, 19427), (154, 19469), (161, 19502), (166, 19553),

Gene: IchabodCrane_41 Start: 18190, Stop: 19158, Start Num: 13

Candidate Starts for IchabodCrane_41:

(Start: 13 @18190 has 116 MA's), (24, 18262), (51, 18436), (56, 18472), (62, 18502), (74, 18577), (76, 18592), (80, 18625), (98, 18715), (115, 18808), (117, 18826), (124, 18889), (141, 19000), (166, 19150),

Gene: Jada_20 Start: 5928, Stop: 6926, Start Num: 14

Candidate Starts for Jada_20:

(Start: 14 @5928 has 23 MA's), (Start: 20 @5961 has 1 MA's), (46, 6147), (80, 6363), (87, 6414), (102, 6498), (108, 6531), (124, 6651), (126, 6660), (129, 6696), (130, 6705), (135, 6723), (141, 6762), (154, 6828), (161, 6861), (166, 6912),

Gene: Jada_21 Start: 6923, Stop: 7903, Start Num: 13

Candidate Starts for Jada_21:

(Start: 13 @6923 has 116 MA's), (Start: 20 @6956 has 1 MA's), (24, 6995), (51, 7166), (61, 7223), (73, 7307), (76, 7325), (80, 7358), (93, 7439), (110, 7514), (113, 7532), (123, 7610), (124, 7622), (129, 7667), (131, 7679), (134, 7685), (139, 7718), (146, 7763), (148, 7769), (151, 7781), (163, 7853),

Gene: Jay2Jay_46 Start: 18907, Stop: 19875, Start Num: 13

Candidate Starts for Jay2Jay_46:

(Start: 13 @18907 has 116 MA's), (Start: 20 @18940 has 1 MA's), (24, 18979), (29, 19012), (46, 19129), (51, 19153), (62, 19219), (72, 19282), (74, 19294), (76, 19309), (80, 19342), (89, 19414), (105, 19477), (108, 19486), (117, 19543), (124, 19606), (130, 19660), (141, 19717), (157, 19801), (161, 19816), (164, 19843), (166, 19867),

Gene: JimJam_44 Start: 18564, Stop: 19532, Start Num: 13

Candidate Starts for JimJam_44:

(Start: 13 @18564 has 116 MA's), (24, 18636), (51, 18810), (62, 18876), (74, 18951), (76, 18966), (80, 18999), (98, 19089), (115, 19182), (117, 19200), (124, 19263), (141, 19374), (166, 19524),

Gene: Jollison_43 Start: 18444, Stop: 19412, Start Num: 13

Candidate Starts for Jollison_43:

(Start: 13 @18444 has 116 MA's), (24, 18516), (51, 18690), (62, 18756), (74, 18831), (76, 18846), (80, 18879), (98, 18969), (115, 19062), (117, 19080), (124, 19143), (141, 19254), (166, 19404),

Gene: Karimac_43 Start: 18593, Stop: 19561, Start Num: 13

Candidate Starts for Karimac_43:

(Start: 13 @18593 has 116 MA's), (24, 18665), (51, 18839), (56, 18875), (62, 18905), (74, 18980), (76, 18995), (80, 19028), (98, 19118), (115, 19211), (117, 19229), (124, 19292), (141, 19403), (166, 19553),

Gene: Karp_19 Start: 6643, Stop: 7626, Start Num: 13

Candidate Starts for Karp_19:

(Start: 13 @6643 has 116 MA's), (24, 6715), (49, 6877), (51, 6886), (61, 6943), (76, 7045), (79, 7060), (80, 7078), (84, 7102), (87, 7129), (93, 7159), (110, 7234), (112, 7249), (114, 7258), (116, 7276), (117, 7279), (123, 7330), (124, 7342), (125, 7348), (129, 7387), (167, 7609),

Gene: Karp_18 Start: 5648, Stop: 6646, Start Num: 14

Candidate Starts for Karp_18:

(Start: 14 @5648 has 23 MA's), (46, 5867), (80, 6083), (87, 6134), (94, 6170), (124, 6371), (129, 6416), (130, 6425), (135, 6443), (141, 6482), (143, 6497), (154, 6548), (166, 6632),

Gene: KellEzio_28 Start: 15503, Stop: 16603, Start Num: 4

Candidate Starts for KellEzio_28:

(Start: 4 @15503 has 4 MA's), (Start: 5 @15509 has 1 MA's), (Start: 13 @15566 has 116 MA's), (16, 15587), (31, 15692), (45, 15767), (48, 15800), (63, 15905), (64, 15908), (69, 15959), (78, 16010), (83, 16055), (88, 16103), (90, 16115), (103, 16181), (109, 16217), (121, 16307), (123, 16316), (125, 16334), (126, 16337), (128, 16361), (138, 16409), (170, 16598),

Gene: Kenrey_22 Start: 6628, Stop: 7626, Start Num: 14

Candidate Starts for Kenrey_22:

(Start: 14 @6628 has 23 MA's), (Start: 20 @6661 has 1 MA's), (46, 6847), (55, 6889), (80, 7063), (81, 7069), (87, 7114), (124, 7351), (130, 7405), (141, 7462), (154, 7528), (161, 7561), (166, 7612),

Gene: Kenrey_23 Start: 7623, Stop: 8606, Start Num: 13

Candidate Starts for Kenrey_23:

(Start: 13 @7623 has 116 MA's), (24, 7695), (51, 7866), (61, 7923), (79, 8040), (80, 8058), (93, 8139), (98, 8145), (110, 8214), (112, 8229), (113, 8232), (114, 8238), (121, 8301), (123, 8310), (124, 8322), (129, 8367), (168, 8595),

Gene: KentuckyRacer_44 Start: 18377, Stop: 19345, Start Num: 13

Candidate Starts for KentuckyRacer_44:

(Start: 13 @18377 has 116 MA's), (24, 18449), (51, 18623), (62, 18689), (74, 18764), (76, 18779), (80, 18812), (98, 18902), (115, 18995), (117, 19013), (124, 19076), (141, 19187), (166, 19337),

Gene: Kitkat_29 Start: 15621, Stop: 16721, Start Num: 4

Candidate Starts for Kitkat_29:

(Start: 4 @15621 has 4 MA's), (Start: 5 @15627 has 1 MA's), (11, 15678), (Start: 13 @15684 has 116 MA's), (16, 15705), (31, 15810), (45, 15885), (48, 15918), (63, 16023), (64, 16026), (69, 16077), (78, 16128), (83, 16173), (88, 16221), (90, 16233), (103, 16299), (109, 16335), (121, 16425), (123, 16434), (125, 16452), (126, 16455), (128, 16479), (138, 16527), (170, 16716),

Gene: Larnav_42 Start: 18579, Stop: 19547, Start Num: 13

Candidate Starts for Larnav_42:

(Start: 13 @18579 has 116 MA's), (Start: 20 @18612 has 1 MA's), (22, 18636), (24, 18651), (51, 18825), (62, 18891), (74, 18966), (76, 18981), (80, 19014), (115, 19197), (117, 19215), (123, 19266), (124, 19278), (137, 19353), (139, 19374), (141, 19389), (161, 19488), (166, 19539),

Gene: Leo04_42 Start: 18592, Stop: 19560, Start Num: 13

Candidate Starts for Leo04_42:

(Start: 13 @18592 has 116 MA's), (Start: 20 @18625 has 1 MA's), (22, 18649), (24, 18664), (51, 18838), (62, 18904), (74, 18979), (76, 18994), (80, 19027), (117, 19228), (123, 19279), (124, 19291), (137, 19366), (139, 19387), (141, 19402), (144, 19426), (154, 19468), (161, 19501), (166, 19552),

Gene: Liandry_40 Start: 17247, Stop: 18215, Start Num: 13

Candidate Starts for Liandry_40:

(Start: 13 @17247 has 116 MA's), (Start: 20 @17280 has 1 MA's), (22, 17304), (24, 17319), (49, 17484), (51, 17493), (55, 17511), (62, 17559), (74, 17634), (76, 17649), (80, 17682), (87, 17733), (117, 17883), (124, 17946), (141, 18057), (145, 18084), (161, 18156), (166, 18207),

Gene: LilMartin_39 Start: 17290, Stop: 18258, Start Num: 13

Candidate Starts for LilMartin_39:

(Start: 13 @17290 has 116 MA's), (Start: 20 @17323 has 1 MA's), (22, 17347), (24, 17362), (46, 17512), (51, 17536), (56, 17572), (62, 17602), (74, 17677), (76, 17692), (80, 17725), (117, 17926), (124, 17989), (139, 18085), (141, 18100), (144, 18124), (161, 18199), (164, 18226), (166, 18250),

Gene: LilSaint_41 Start: 17536, Stop: 18504, Start Num: 13

Candidate Starts for LilSaint_41:

(Start: 13 @17536 has 116 MA's), (Start: 20 @17569 has 1 MA's), (22, 17593), (24, 17608), (46, 17758), (51, 17782), (62, 17848), (74, 17923), (75, 17932), (76, 17938), (80, 17971), (98, 18061), (115, 18154), (116, 18169), (117, 18172), (124, 18235), (139, 18331), (141, 18346), (144, 18370), (145, 18373), (154, 18412), (161, 18445), (166, 18496),

Gene: Limpid_18 Start: 5715, Stop: 6677, Start Num: 20

Candidate Starts for Limpid_18:

(Start: 14 @5682 has 23 MA's), (Start: 20 @5715 has 1 MA's), (46, 5901), (66, 6006), (95, 6207), (107, 6279), (110, 6294), (120, 6372), (123, 6390), (124, 6402), (129, 6447), (140, 6510), (141, 6513), (145, 6540), (155, 6585), (161, 6612), (166, 6663),

Gene: Limpid_19 Start: 6674, Stop: 7663, Start Num: 13

Candidate Starts for Limpid_19:

(Start: 13 @6674 has 116 MA's), (25, 6749), (27, 6758), (51, 6917), (61, 6974), (76, 7076), (80, 7109), (93, 7190), (107, 7250), (110, 7265), (111, 7271), (121, 7352), (124, 7373), (127, 7391), (129, 7418), (150, 7526), (153, 7544), (157, 7571), (166, 7637),

Gene: LukeCage_43 Start: 18229, Stop: 19197, Start Num: 13

Candidate Starts for LukeCage_43:

(Start: 13 @18229 has 116 MA's), (24, 18301), (46, 18451), (51, 18475), (62, 18541), (74, 18616), (76, 18631), (80, 18664), (113, 18838), (117, 18865), (124, 18928), (135, 19000), (141, 19039), (154, 19105), (161, 19138), (166, 19189),

Gene: Lululemon_41 Start: 17973, Stop: 18941, Start Num: 13

Candidate Starts for Lululemon_41:

(Start: 13 @17973 has 116 MA's), (Start: 20 @18006 has 1 MA's), (22, 18030), (24, 18045), (51, 18219), (62, 18285), (74, 18360), (76, 18375), (80, 18408), (117, 18609), (123, 18660), (124, 18672), (137, 18747), (139, 18768), (141, 18783), (144, 18807), (154, 18849), (161, 18882), (166, 18933),

Gene: Magritte_31 Start: 28204, Stop: 29334, Start Num: 4

Candidate Starts for Magritte_31:

(Start: 4 @28204 has 4 MA's), (8, 28228), (26, 28345), (35, 28411), (39, 28435), (45, 28471), (48, 28498), (82, 28693), (83, 28702), (116, 28915), (120, 28951), (123, 28969), (136, 29059), (142, 29104), (147, 29131), (160, 29203), (162, 29224), (165, 29239), (171, 29308),

Gene: Marsus_39 Start: 17060, Stop: 18028, Start Num: 13

Candidate Starts for Marsus_39:

(Start: 13 @17060 has 116 MA's), (Start: 20 @17093 has 1 MA's), (22, 17117), (24, 17132), (51, 17306), (56, 17342), (62, 17372), (74, 17447), (76, 17462), (80, 17495), (85, 17540), (117, 17696), (124, 17759), (139, 17855), (141, 17870), (145, 17897), (161, 17969), (164, 17996), (166, 18020),

Gene: Maupel_22 Start: 6576, Stop: 7574, Start Num: 14

Candidate Starts for Maupel_22:

(Start: 14 @6576 has 23 MA's), (Start: 20 @6609 has 1 MA's), (46, 6795), (80, 7011), (87, 7062), (102, 7146), (108, 7179), (124, 7299), (126, 7308), (129, 7344), (130, 7353), (135, 7371), (141, 7410), (154, 7476), (161, 7509), (166, 7560),

Gene: Maupel_23 Start: 7571, Stop: 8551, Start Num: 13

Candidate Starts for Maupel_23:

(Start: 13 @7571 has 116 MA's), (Start: 20 @7604 has 1 MA's), (24, 7643), (51, 7814), (61, 7871), (73, 7955), (76, 7973), (80, 8006), (93, 8087), (110, 8162), (113, 8180), (123, 8258), (124, 8270), (129, 8315), (131, 8327), (134, 8333), (139, 8366), (146, 8411), (148, 8417), (151, 8429), (163, 8501),

Gene: MeganTheeKilla_21 Start: 6932, Stop: 7912, Start Num: 13

Candidate Starts for MeganTheeKilla_21:

(Start: 13 @6932 has 116 MA's), (Start: 20 @6965 has 1 MA's), (24, 7004), (51, 7175), (61, 7232), (73, 7316), (76, 7334), (80, 7367), (93, 7448), (110, 7523), (113, 7541), (123, 7619), (124, 7631), (129, 7676), (131, 7688), (134, 7694), (139, 7727), (146, 7772), (148, 7778), (151, 7790), (163, 7862),

Gene: MeganTheeKilla_20 Start: 5937, Stop: 6935, Start Num: 14

Candidate Starts for MeganTheeKilla_20:

(Start: 14 @5937 has 23 MA's), (Start: 20 @5970 has 1 MA's), (46, 6156), (80, 6372), (87, 6423), (102, 6507), (108, 6540), (124, 6660), (126, 6669), (129, 6705), (130, 6714), (135, 6732), (141, 6771), (154, 6837), (161, 6870), (166, 6921),

Gene: Mildred21_40 Start: 17494, Stop: 18462, Start Num: 13

Candidate Starts for Mildred21_40:

(10, 17473), (Start: 13 @17494 has 116 MA's), (Start: 20 @17527 has 1 MA's), (22, 17551), (24, 17566), (51, 17740), (55, 17758), (62, 17806), (74, 17881), (76, 17896), (80, 17929), (98, 18019), (115, 18112), (117, 18130), (124, 18193), (141, 18304), (145, 18331), (154, 18370), (161, 18403), (166, 18454),

Gene: MindFlayer_42 Start: 18097, Stop: 19065, Start Num: 13

Candidate Starts for MindFlayer_42:

(Start: 13 @18097 has 116 MA's), (24, 18169), (51, 18343), (62, 18409), (74, 18484), (76, 18499), (80, 18532), (98, 18622), (115, 18715), (117, 18733), (124, 18796), (141, 18907), (166, 19057),

Gene: Moab_20 Start: 7083, Stop: 8072, Start Num: 13

Candidate Starts for Moab_20:

(Start: 13 @7083 has 116 MA's), (24, 7155), (51, 7326), (61, 7383), (76, 7485), (80, 7518), (93, 7599), (98, 7605), (110, 7674), (112, 7689), (114, 7698), (116, 7716), (117, 7719), (121, 7761), (124, 7782), (125, 7788), (127, 7800), (129, 7827), (148, 7926),

Gene: Moab_19 Start: 6088, Stop: 7086, Start Num: 14

Candidate Starts for Moab_19:

(Start: 14 @6088 has 23 MA's), (27, 6172), (38, 6244), (73, 6472), (80, 6523), (87, 6574), (120, 6781), (124, 6811), (130, 6865), (132, 6871), (141, 6922), (143, 6937), (144, 6946), (145, 6949), (154, 6988), (166, 7072),

Gene: Mugiwara_43 Start: 18292, Stop: 19260, Start Num: 13

Candidate Starts for Mugiwara_43:

(Start: 13 @18292 has 116 MA's), (24, 18364), (51, 18538), (62, 18604), (74, 18679), (76, 18694), (80, 18727), (98, 18817), (117, 18928), (124, 18991), (141, 19102), (154, 19168), (159, 19198), (166, 19252),

Gene: MulchMansion_39 Start: 17290, Stop: 18258, Start Num: 13

Candidate Starts for MulchMansion_39:

(Start: 13 @17290 has 116 MA's), (Start: 20 @17323 has 1 MA's), (22, 17347), (24, 17362), (46, 17512), (51, 17536), (56, 17572), (62, 17602), (74, 17677), (76, 17692), (80, 17725), (117, 17926), (124, 17989), (139, 18085), (141, 18100), (144, 18124), (161, 18199), (164, 18226), (166, 18250),

Gene: Muntaha_15 Start: 5791, Stop: 6774, Start Num: 13

Candidate Starts for Muntaha_15:

(Start: 13 @5791 has 116 MA's), (80, 6226), (87, 6277), (93, 6307), (112, 6397), (113, 6400), (117, 6427), (121, 6469), (123, 6478), (124, 6490), (132, 6550), (139, 6583), (148, 6634), (161, 6697), (166, 6748), (168, 6757),

Gene: Navo_39 Start: 17409, Stop: 18377, Start Num: 13

Candidate Starts for Navo_39:

(Start: 13 @17409 has 116 MA's), (Start: 20 @17442 has 1 MA's), (22, 17466), (24, 17481), (49, 17646), (51, 17655), (55, 17673), (62, 17721), (74, 17796), (76, 17811), (80, 17844), (87, 17895), (117, 18045), (124, 18108), (141, 18219), (145, 18246), (161, 18318), (166, 18369),

Gene: NiceHouse_47 Start: 19185, Stop: 20171, Start Num: 13

Candidate Starts for NiceHouse_47:

(Start: 13 @19185 has 116 MA's), (28, 19278), (44, 19380), (59, 19476), (68, 19536), (70, 19551), (87, 19674), (105, 19755), (110, 19776), (116, 19818), (121, 19863), (130, 19938), (132, 19944), (135, 19956), (143, 20010), (145, 20022), (157, 20079), (161, 20094), (163, 20115), (164, 20121), (167, 20148),

Gene: NootNoot_37 Start: 16295, Stop: 17263, Start Num: 13

Candidate Starts for NootNoot_37:

(Start: 13 @16295 has 116 MA's), (Start: 20 @16328 has 1 MA's), (22, 16352), (24, 16367), (49, 16532), (51, 16541), (55, 16559), (62, 16607), (74, 16682), (76, 16697), (80, 16730), (115, 16913), (117, 16931), (124, 16994), (141, 17105), (145, 17132), (161, 17204), (166, 17255),

Gene: Nova53_34 Start: 15961, Stop: 16944, Start Num: 13

Candidate Starts for Nova53_34:

(Start: 13 @15961 has 116 MA's), (28, 16054), (34, 16099), (40, 16141), (44, 16156), (46, 16180), (51, 16204), (70, 16327), (76, 16366), (86, 16450), (107, 16543), (123, 16654), (140, 16771), (141, 16774), (145, 16801), (164, 16900),

Gene: PacManQ_41 Start: 17973, Stop: 18941, Start Num: 13

Candidate Starts for PacManQ_41:

(Start: 13 @17973 has 116 MA's), (Start: 20 @18006 has 1 MA's), (22, 18030), (24, 18045), (51, 18219), (62, 18285), (74, 18360), (76, 18375), (80, 18408), (117, 18609), (123, 18660), (124, 18672), (137, 18747), (139, 18768), (141, 18783), (144, 18807), (154, 18849), (161, 18882), (166, 18933),

Gene: Paradiddles_37 Start: 16420, Stop: 17388, Start Num: 13

Candidate Starts for Paradiddles_37:

(Start: 13 @16420 has 116 MA's), (Start: 20 @16453 has 1 MA's), (22, 16477), (24, 16492), (49, 16657), (51, 16666), (55, 16684), (62, 16732), (74, 16807), (76, 16822), (80, 16855), (87, 16906), (117, 17056), (124, 17119), (141, 17230), (145, 17257), (161, 17329), (166, 17380),

Gene: Patelgo_20 Start: 6697, Stop: 7686, Start Num: 13

Candidate Starts for Patelgo_20:

(Start: 13 @6697 has 116 MA's), (24, 6769), (51, 6940), (61, 6997), (76, 7099), (80, 7132), (93, 7213), (98, 7219), (110, 7288), (112, 7303), (114, 7312), (116, 7330), (117, 7333), (121, 7375), (124, 7396), (125, 7402), (127, 7414), (129, 7441), (148, 7540),

Gene: Patelgo_19 Start: 5702, Stop: 6700, Start Num: 14

Candidate Starts for Patelgo_19:

(Start: 14 @5702 has 23 MA's), (27, 5786), (38, 5858), (80, 6137), (87, 6188), (120, 6395), (124, 6425), (130, 6479), (132, 6485), (141, 6536), (143, 6551), (144, 6560), (145, 6563), (154, 6602), (166, 6686),

Gene: Peebs_41 Start: 18331, Stop: 19299, Start Num: 13

Candidate Starts for Peebs_41:

(Start: 13 @18331 has 116 MA's), (Start: 20 @18364 has 1 MA's), (22, 18388), (24, 18403), (51, 18577), (74, 18718), (76, 18733), (80, 18766), (87, 18817), (115, 18949), (117, 18967), (123, 19018), (124, 19030), (137, 19105), (139, 19126), (141, 19141), (154, 19207), (161, 19240), (166, 19291),

Gene: Pepperwood_42 Start: 18468, Stop: 19436, Start Num: 13

Candidate Starts for Pepperwood_42:

(Start: 13 @18468 has 116 MA's), (Start: 20 @18501 has 1 MA's), (22, 18525), (24, 18540), (51, 18714), (62, 18780), (74, 18855), (76, 18870), (80, 18903), (115, 19086), (117, 19104), (123, 19155),

(124, 19167), (137, 19242), (139, 19263), (141, 19278), (154, 19344), (161, 19377), (166, 19428),

Gene: Peregrin_60 Start: 22335, Stop: 23327, Start Num: 13

Candidate Starts for Peregrin_60:

(Start: 13 @22335 has 116 MA's), (17, 22359), (34, 22473), (37, 22482), (54, 22593), (91, 22863), (100, 22890), (112, 22956), (116, 22983), (122, 23034), (148, 23193),

Gene: Persimmon_37 Start: 16343, Stop: 17311, Start Num: 13

Candidate Starts for Persimmon_37:

(Start: 13 @16343 has 116 MA's), (Start: 20 @16376 has 1 MA's), (22, 16400), (24, 16415), (49, 16580), (51, 16589), (55, 16607), (62, 16655), (74, 16730), (76, 16745), (80, 16778), (117, 16979), (124, 17042), (141, 17153), (145, 17180), (161, 17252), (166, 17303),

Gene: Phredrick_21 Start: 6829, Stop: 7812, Start Num: 13

Candidate Starts for Phredrick_21:

(Start: 13 @6829 has 116 MA's), (24, 6901), (25, 6904), (51, 7072), (61, 7129), (79, 7246), (80, 7264), (93, 7345), (110, 7420), (111, 7426), (112, 7435), (113, 7438), (114, 7444), (121, 7507), (123, 7516), (124, 7528), (129, 7573), (168, 7801),

Gene: Phredrick_20 Start: 5834, Stop: 6832, Start Num: 14

Candidate Starts for Phredrick_20:

(Start: 14 @5834 has 23 MA's), (Start: 20 @5867 has 1 MA's), (46, 6053), (55, 6095), (80, 6269), (87, 6320), (124, 6557), (129, 6602), (130, 6611), (141, 6668), (154, 6734), (161, 6767), (166, 6818),

Gene: PinkiePie_39 Start: 17247, Stop: 18215, Start Num: 13

Candidate Starts for PinkiePie_39:

(Start: 13 @17247 has 116 MA's), (Start: 20 @17280 has 1 MA's), (22, 17304), (24, 17319), (49, 17484), (51, 17493), (55, 17511), (62, 17559), (74, 17634), (76, 17649), (80, 17682), (87, 17733), (117, 17883), (124, 17946), (141, 18057), (145, 18084), (161, 18156), (166, 18207),

Gene: PumpkinSpice_43 Start: 18487, Stop: 19455, Start Num: 13

Candidate Starts for PumpkinSpice_43:

(Start: 13 @18487 has 116 MA's), (24, 18559), (51, 18733), (62, 18799), (74, 18874), (76, 18889), (80, 18922), (98, 19012), (115, 19105), (117, 19123), (124, 19186), (141, 19297), (166, 19447),

Gene: PynkPanther_39 Start: 17461, Stop: 18429, Start Num: 13

Candidate Starts for PynkPanther_39:

(Start: 13 @17461 has 116 MA's), (Start: 20 @17494 has 1 MA's), (22, 17518), (24, 17533), (49, 17698), (51, 17707), (55, 17725), (62, 17773), (74, 17848), (76, 17863), (80, 17896), (87, 17947), (117, 18097), (124, 18160), (141, 18271), (145, 18298), (161, 18370), (166, 18421),

Gene: Quaran19_44 Start: 18478, Stop: 19446, Start Num: 13

Candidate Starts for Quaran19_44:

(Start: 13 @18478 has 116 MA's), (24, 18550), (51, 18724), (62, 18790), (74, 18865), (76, 18880), (80, 18913), (98, 19003), (115, 19096), (117, 19114), (124, 19177), (141, 19288), (166, 19438),

Gene: Rikishi_44 Start: 18393, Stop: 19361, Start Num: 13

Candidate Starts for Rikishi_44:

(Start: 13 @18393 has 116 MA's), (24, 18465), (51, 18639), (62, 18705), (74, 18780), (76, 18795), (80, 18828), (98, 18918), (115, 19011), (117, 19029), (124, 19092), (141, 19203), (166, 19353),

Gene: Riptide_39 Start: 17087, Stop: 18055, Start Num: 13

Candidate Starts for Riptide_39:

(Start: 13 @17087 has 116 MA's), (Start: 20 @17120 has 1 MA's), (22, 17144), (24, 17159), (46, 17309), (51, 17333), (62, 17399), (74, 17474), (75, 17483), (76, 17489), (80, 17522), (98, 17612), (110, 17678), (115, 17705), (116, 17720), (117, 17723), (124, 17786), (139, 17882), (141, 17897), (144, 17921), (145, 17924), (154, 17963), (161, 17996), (166, 18047),

Gene: SaltySpittoon_44 Start: 18487, Stop: 19455, Start Num: 13

Candidate Starts for SaltySpittoon_44:

(Start: 13 @18487 has 116 MA's), (24, 18559), (51, 18733), (62, 18799), (74, 18874), (76, 18889), (80, 18922), (98, 19012), (115, 19105), (117, 19123), (124, 19186), (141, 19297), (166, 19447),

Gene: Samisti12_41 Start: 19060, Stop: 20028, Start Num: 13

Candidate Starts for Samisti12_41:

(Start: 13 @19060 has 116 MA's), (Start: 20 @19093 has 1 MA's), (22, 19117), (24, 19132), (51, 19306), (62, 19372), (74, 19447), (76, 19462), (80, 19495), (115, 19678), (117, 19696), (123, 19747), (124, 19759), (130, 19813), (137, 19834), (139, 19855), (141, 19870), (154, 19936), (161, 19969), (166, 20020),

Gene: Scheme_42 Start: 18479, Stop: 19447, Start Num: 13

Candidate Starts for Scheme_42:

(Start: 13 @18479 has 116 MA's), (Start: 20 @18512 has 1 MA's), (22, 18536), (24, 18551), (51, 18725), (62, 18791), (74, 18866), (76, 18881), (80, 18914), (115, 19097), (117, 19115), (123, 19166), (124, 19178), (137, 19253), (139, 19274), (141, 19289), (154, 19355), (161, 19388), (166, 19439),

Gene: SeresaTree_19 Start: 6327, Stop: 7316, Start Num: 13

Candidate Starts for SeresaTree_19:

(Start: 13 @6327 has 116 MA's), (23, 6393), (51, 6570), (74, 6714), (76, 6729), (79, 6744), (80, 6762), (93, 6843), (117, 6963), (118, 6966), (120, 6996), (123, 7014), (124, 7026), (129, 7071), (130, 7080), (148, 7170),

Gene: SeresaTree_18 Start: 5332, Stop: 6330, Start Num: 14

Candidate Starts for SeresaTree_18:

(Start: 14 @5332 has 23 MA's), (34, 5470), (46, 5551), (107, 5932), (113, 5965), (120, 6025), (124, 6055), (129, 6100), (130, 6109), (132, 6115), (140, 6163), (141, 6166), (145, 6193), (154, 6232), (164, 6292), (166, 6316),

Gene: Sham_16 Start: 5125, Stop: 6132, Start Num: 14

Candidate Starts for Sham_16:

(Start: 14 @5125 has 23 MA's), (33, 5257), (34, 5263), (46, 5344), (66, 5452), (95, 5653), (96, 5665), (121, 5830), (123, 5839), (124, 5851), (140, 5959), (141, 5962), (161, 6061), (166, 6112),

Gene: Sham_17 Start: 6129, Stop: 7118, Start Num: 13

Candidate Starts for Sham_17:

(Start: 13 @6129 has 116 MA's), (51, 6372), (61, 6429), (68, 6480), (79, 6546), (80, 6564), (98, 6651), (104, 6687), (112, 6735), (114, 6744), (117, 6765), (121, 6807), (123, 6816), (124, 6828),

Gene: Shuckle_40 Start: 18784, Stop: 19752, Start Num: 13

Candidate Starts for Shuckle_40:

(Start: 13 @18784 has 116 MA's), (Start: 20 @18817 has 1 MA's), (22, 18841), (24, 18856), (51, 19030), (62, 19096), (74, 19171), (76, 19186), (80, 19219), (87, 19270), (115, 19402), (117, 19420), (123, 19471), (124, 19483), (137, 19558), (139, 19579), (141, 19594), (154, 19660), (161, 19693), (166, 19744),

Gene: Sollertia_44 Start: 18433, Stop: 19401, Start Num: 13

Candidate Starts for Sollertia_44:

(Start: 13 @18433 has 116 MA's), (24, 18505), (46, 18655), (51, 18679), (56, 18715), (62, 18745), (72, 18808), (74, 18820), (76, 18835), (80, 18868), (98, 18958), (101, 18976), (108, 19012), (113, 19042), (117, 19069), (124, 19132), (141, 19243), (161, 19342), (166, 19393),

Gene: SparkleGoddess_20 Start: 7041, Stop: 8024, Start Num: 13

Candidate Starts for SparkleGoddess_20:

(Start: 13 @7041 has 116 MA's), (24, 7113), (49, 7275), (51, 7284), (61, 7341), (76, 7443), (79, 7458), (80, 7476), (84, 7500), (93, 7557), (105, 7611), (110, 7632), (112, 7647), (114, 7656), (116, 7674), (117, 7677), (123, 7728), (124, 7740), (125, 7746), (129, 7785), (167, 8007),

Gene: SparkleGoddess_19 Start: 6046, Stop: 7044, Start Num: 14

Candidate Starts for SparkleGoddess_19:

(Start: 14 @6046 has 23 MA's), (46, 6265), (80, 6481), (87, 6532), (94, 6568), (124, 6769), (129, 6814), (130, 6823), (135, 6841), (141, 6880), (143, 6895), (154, 6946), (166, 7030),

Gene: Spelly_44 Start: 18442, Stop: 19410, Start Num: 13

Candidate Starts for Spelly_44:

(Start: 13 @18442 has 116 MA's), (24, 18514), (51, 18688), (62, 18754), (74, 18829), (76, 18844), (80, 18877), (98, 18967), (115, 19060), (117, 19078), (124, 19141), (141, 19252), (166, 19402),

Gene: Spilled_44 Start: 18196, Stop: 19164, Start Num: 13

Candidate Starts for Spilled_44:

(Start: 13 @18196 has 116 MA's), (24, 18268), (51, 18442), (62, 18508), (74, 18583), (76, 18598), (80, 18631), (98, 18721), (115, 18814), (117, 18832), (124, 18895), (141, 19006), (166, 19156),

Gene: Squillum_40 Start: 17248, Stop: 18216, Start Num: 13

Candidate Starts for Squillum_40:

(Start: 13 @17248 has 116 MA's), (Start: 20 @17281 has 1 MA's), (22, 17305), (24, 17320), (49, 17485), (51, 17494), (55, 17512), (62, 17560), (74, 17635), (76, 17650), (80, 17683), (87, 17734), (117, 17884), (124, 17947), (141, 18058), (145, 18085), (161, 18157), (166, 18208),

Gene: Stanimal_44 Start: 18322, Stop: 19290, Start Num: 13

Candidate Starts for Stanimal_44:

(Start: 13 @18322 has 116 MA's), (24, 18394), (46, 18544), (51, 18568), (56, 18604), (62, 18634), (74, 18709), (76, 18724), (80, 18757), (98, 18847), (101, 18865), (108, 18901), (113, 18931), (117, 18958), (124, 19021), (141, 19132), (161, 19231), (166, 19282),

Gene: StarPlatinum_43 Start: 18438, Stop: 19406, Start Num: 13

Candidate Starts for StarPlatinum_43:

(Start: 13 @18438 has 116 MA's), (24, 18510), (46, 18660), (51, 18684), (62, 18750), (74, 18825), (76, 18840), (80, 18873), (113, 19047), (117, 19074), (124, 19137), (135, 19209), (141, 19248), (154, 19314), (161, 19347), (166, 19398),

Gene: Starbow_42 Start: 18463, Stop: 19431, Start Num: 13

Candidate Starts for Starbow_42:

(Start: 13 @18463 has 116 MA's), (24, 18535), (51, 18709), (62, 18775), (74, 18850), (76, 18865), (80, 18898), (98, 18988), (115, 19081), (117, 19099), (124, 19162), (141, 19273), (166, 19423),

Gene: Stigma_20 Start: 7045, Stop: 8028, Start Num: 13

Candidate Starts for Stigma_20:

(Start: 13 @7045 has 116 MA's), (24, 7117), (49, 7279), (51, 7288), (61, 7345), (76, 7447), (79, 7462), (80, 7480), (84, 7504), (93, 7561), (105, 7615), (110, 7636), (112, 7651), (114, 7660), (116, 7678),

(117, 7681), (123, 7732), (124, 7744), (125, 7750), (129, 7789), (167, 8011),

Gene: Stigma_19 Start: 6050, Stop: 7048, Start Num: 14

Candidate Starts for Stigma_19:

(Start: 14 @6050 has 23 MA's), (46, 6269), (80, 6485), (87, 6536), (94, 6572), (124, 6773), (129, 6818), (130, 6827), (135, 6845), (141, 6884), (143, 6899), (154, 6950), (166, 7034),

Gene: Sushi23_42 Start: 18693, Stop: 19661, Start Num: 13

Candidate Starts for Sushi23_42:

(Start: 13 @18693 has 116 MA's), (Start: 20 @18726 has 1 MA's), (22, 18750), (24, 18765), (51, 18939), (62, 19005), (74, 19080), (76, 19095), (80, 19128), (115, 19311), (117, 19329), (123, 19380), (124, 19392), (137, 19467), (139, 19488), (141, 19503), (144, 19527), (154, 19569), (161, 19602), (166, 19653),

Gene: Targaryen_43 Start: 19465, Stop: 20433, Start Num: 13

Candidate Starts for Targaryen_43:

(Start: 13 @19465 has 116 MA's), (Start: 20 @19498 has 1 MA's), (24, 19537), (29, 19570), (46, 19687), (51, 19711), (62, 19777), (74, 19852), (76, 19867), (80, 19900), (89, 19972), (105, 20035), (108, 20044), (117, 20101), (124, 20164), (141, 20275), (157, 20359), (161, 20374), (164, 20401), (166, 20425),

Gene: Deutsch_41 Start: 18386, Stop: 19354, Start Num: 13

Candidate Starts for Deutsch_41:

(Start: 13 @18386 has 116 MA's), (Start: 20 @18419 has 1 MA's), (22, 18443), (24, 18458), (51, 18632), (62, 18698), (74, 18773), (76, 18788), (80, 18821), (115, 19004), (117, 19022), (123, 19073), (124, 19085), (137, 19160), (139, 19181), (141, 19196), (154, 19262), (161, 19295), (166, 19346),

Gene: TomSawyer_42 Start: 18081, Stop: 19049, Start Num: 13

Candidate Starts for TomSawyer_42:

(Start: 13 @18081 has 116 MA's), (24, 18153), (51, 18327), (62, 18393), (74, 18468), (76, 18483), (80, 18516), (98, 18606), (115, 18699), (117, 18717), (124, 18780), (141, 18891), (166, 19041),

Gene: Tomas_45 Start: 20307, Stop: 21275, Start Num: 12

Candidate Starts for Tomas_45:

(Start: 12 @20307 has 3 MA's), (24, 20379), (25, 20382), (46, 20529), (47, 20532), (51, 20553), (62, 20619), (75, 20703), (76, 20709), (80, 20742), (89, 20814), (98, 20832), (115, 20925), (117, 20943), (124, 21006), (141, 21117), (154, 21183), (166, 21267),

Gene: Tribute_40 Start: 18159, Stop: 19127, Start Num: 13

Candidate Starts for Tribute_40:

(Start: 13 @18159 has 116 MA's), (Start: 20 @18192 has 1 MA's), (22, 18216), (24, 18231), (51, 18405), (62, 18471), (74, 18546), (76, 18561), (80, 18594), (115, 18777), (117, 18795), (123, 18846), (124, 18858), (137, 18933), (139, 18954), (141, 18969), (154, 19035), (166, 19119),

Gene: Trina_56 Start: 22621, Stop: 23610, Start Num: 13

Candidate Starts for Trina_56:

(Start: 13 @22621 has 116 MA's), (24, 22693), (43, 22813), (46, 22840), (52, 22870), (66, 22948), (100, 23164), (110, 23215), (121, 23302), (129, 23368), (143, 23449), (155, 23506), (163, 23554), (167, 23587),

Gene: Tuesday_48 Start: 18625, Stop: 19593, Start Num: 13

Candidate Starts for Tuesday_48:

(Start: 13 @18625 has 116 MA's), (24, 18697), (51, 18871), (62, 18937), (74, 19012), (76, 19027), (80, 19060), (98, 19150), (115, 19243), (117, 19261), (124, 19324), (141, 19435), (166, 19585),

Gene: TunaTartare_17 Start: 5406, Stop: 6413, Start Num: 14

Candidate Starts for TunaTartare_17:

(Start: 14 @5406 has 23 MA's), (33, 5538), (38, 5562), (46, 5625), (66, 5733), (95, 5934), (96, 5946), (124, 6132), (140, 6240), (141, 6243), (145, 6270), (148, 6276), (161, 6342), (164, 6369), (166, 6393),

Gene: TunaTartare_18 Start: 6410, Stop: 7399, Start Num: 13

Candidate Starts for TunaTartare_18:

(Start: 13 @6410 has 116 MA's), (51, 6653), (55, 6671), (61, 6710), (68, 6761), (79, 6827), (80, 6845), (93, 6926), (104, 6968), (110, 7001), (112, 7016), (114, 7025), (117, 7046), (121, 7088), (123, 7097), (124, 7109), (150, 7262),

Gene: Wakanda_15 Start: 5948, Stop: 6931, Start Num: 13

Candidate Starts for Wakanda_15:

(Start: 13 @5948 has 116 MA's), (80, 6383), (87, 6434), (93, 6464), (112, 6554), (113, 6557), (117, 6584), (121, 6626), (123, 6635), (124, 6647), (132, 6707), (139, 6740), (148, 6791), (161, 6854), (166, 6905), (168, 6914),

Gene: Warpy_46 Start: 18928, Stop: 19896, Start Num: 13

Candidate Starts for Warpy_46:

(Start: 13 @18928 has 116 MA's), (Start: 20 @18961 has 1 MA's), (24, 19000), (29, 19033), (51, 19174), (62, 19240), (72, 19303), (74, 19315), (76, 19330), (80, 19363), (89, 19435), (105, 19498), (108, 19507), (117, 19564), (124, 19627), (130, 19681), (141, 19738), (157, 19822), (161, 19837), (164, 19864), (166, 19888),

Gene: WashU_42 Start: 18471, Stop: 19439, Start Num: 13

Candidate Starts for WashU_42:

(Start: 13 @18471 has 116 MA's), (Start: 20 @18504 has 1 MA's), (22, 18528), (24, 18543), (51, 18717), (62, 18783), (74, 18858), (76, 18873), (80, 18906), (115, 19089), (117, 19107), (123, 19158), (124, 19170), (137, 19245), (139, 19266), (141, 19281), (154, 19347), (161, 19380), (166, 19431),

Gene: Watermoore_41 Start: 18594, Stop: 19562, Start Num: 13

Candidate Starts for Watermoore_41:

(Start: 13 @18594 has 116 MA's), (Start: 20 @18627 has 1 MA's), (22, 18651), (24, 18666), (51, 18840), (62, 18906), (74, 18981), (76, 18996), (80, 19029), (117, 19230), (123, 19281), (124, 19293), (137, 19368), (139, 19389), (141, 19404), (144, 19428), (154, 19470), (161, 19503), (166, 19554),

Gene: Weasels2_62 Start: 22742, Stop: 23737, Start Num: 13

Candidate Starts for Weasels2_62:

(Start: 13 @22742 has 116 MA's), (17, 22766), (27, 22826), (37, 22889), (50, 22982), (53, 23000), (60, 23045), (74, 23141), (84, 23213), (87, 23243), (99, 23291), (112, 23363), (114, 23372), (122, 23441), (151, 23612), (164, 23693),

Gene: Westy_20 Start: 7045, Stop: 8028, Start Num: 13

Candidate Starts for Westy_20:

(Start: 13 @7045 has 116 MA's), (24, 7117), (49, 7279), (51, 7288), (61, 7345), (76, 7447), (79, 7462), (80, 7480), (84, 7504), (87, 7531), (93, 7561), (110, 7636), (112, 7651), (114, 7660), (116, 7678), (117, 7681), (123, 7732), (124, 7744), (125, 7750), (129, 7789), (167, 8011),

Gene: Westy_19 Start: 6050, Stop: 7048, Start Num: 14

Candidate Starts for Westy_19:

(Start: 14 @6050 has 23 MA's), (46, 6269), (80, 6485), (87, 6536), (94, 6572), (124, 6773), (129, 6818), (130, 6827), (135, 6845), (141, 6884), (143, 6899), (154, 6950), (166, 7034),

Gene: WhereRU_38 Start: 16933, Stop: 17901, Start Num: 13

Candidate Starts for WhereRU_38:

(Start: 13 @16933 has 116 MA's), (Start: 20 @16966 has 1 MA's), (22, 16990), (24, 17005), (49, 17170), (51, 17179), (55, 17197), (62, 17245), (74, 17320), (76, 17335), (80, 17368), (117, 17569), (124, 17632), (141, 17743), (145, 17770), (161, 17842), (166, 17893),

Gene: Wipeout_41 Start: 18241, Stop: 19209, Start Num: 13

Candidate Starts for Wipeout_41:

(Start: 13 @18241 has 116 MA's), (24, 18313), (51, 18487), (62, 18553), (74, 18628), (76, 18643), (80, 18676), (98, 18766), (115, 18859), (117, 18877), (124, 18940), (141, 19051), (166, 19201),

Gene: Wofford_42 Start: 18864, Stop: 19832, Start Num: 13

Candidate Starts for Wofford_42:

(Start: 13 @18864 has 116 MA's), (24, 18936), (46, 19086), (51, 19110), (62, 19176), (74, 19251), (76, 19266), (80, 19299), (92, 19380), (113, 19473), (117, 19500), (124, 19563), (130, 19617), (141, 19674), (154, 19740), (161, 19773), (166, 19824),

Gene: Yaboi_44 Start: 18410, Stop: 19378, Start Num: 13

Candidate Starts for Yaboi_44:

(Start: 13 @18410 has 116 MA's), (24, 18482), (46, 18632), (51, 18656), (56, 18692), (62, 18722), (74, 18797), (76, 18812), (80, 18845), (98, 18935), (101, 18953), (108, 18989), (113, 19019), (117, 19046), (124, 19109), (141, 19220), (161, 19319), (166, 19370),