

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 301191 Report

This analysis was run 06/08/26 on database version 649.

Pham number 301191 has 120 members, 27 are drafts.

Phages represented in each track:

- Track 1 : Dynamite_24, Mooshroom_24, Bowling_25, NapoleonB_24, JEGGS_24, Heisenberger_24
- Track 2 : Elsa_25, Stardom_23, Arcadia_25, Nason_25
- Track 3 : Xenomorph_23
- Track 4 : Benllo_23
- Track 5 : BenitoAntonio_25
- Track 6 : Circum_25
- Track 7 : Cheesy_25, Tribby_25
- Track 8 : KeaneyLin_23, GoCrazy_23
- Track 9 : Kardesai_23
- Track 10 : Hankly_23
- Track 11 : YoshiYama_24
- Track 12 : Correa_24
- Track 13 : Mudcat_24
- Track 14 : Darby_31, Synopsis_30
- Track 15 : Dinallo_32, MiniBagel_31, CapnMurica_31, Tenno_32
- Track 16 : Nivinsha_31, ScienceWizSam_33, Breylor17_32
- Track 17 : ElephantMan_31, Niktson_31
- Track 18 : Hemma_28
- Track 19 : AreFloNak_31
- Track 20 : Brunswick_31
- Track 21 : CastorTray_33, Issa_31, Trustiboi_32, DevitoJr_31
- Track 22 : Westerlin_32, LucySwiss_31
- Track 23 : Teacup_31
- Track 24 : Gordon_31
- Track 25 : Acai_31
- Track 26 : Nightmare_32
- Track 27 : Tatanka_31
- Track 28 : Chlochlo_32, Tipton_32
- Track 29 : Phaby_32
- Track 30 : Giantsbane_32
- Track 31 : Shepard_32, LilHuddy_32
- Track 32 : Tokki_32
- Track 33 : Bouchard_32
- Track 34 : Ingrid_31, Loretta_31
- Track 35 : Caterpillar_29, MediumFry_29
- Track 36 : Anandi_32

- Track 37 : Makai_31, Truckee_30
- Track 38 : Lewando_34
- Track 39 : Altjira_30, Zeina_31
- Track 40 : Stardrop_31, KevinMinion_31, Mardi_32, Tenney120_31
- Track 41 : Argan_30, PoeMe_32, GantcherGoblin_30, Uzumaki_31
- Track 42 : Navi1117_31
- Track 43 : Phaila_30
- Track 44 : Kinny_33, Renaldo_36
- Track 45 : BarbieDoll_34
- Track 46 : Muglass_33
- Track 47 : Leathea_31
- Track 48 : TrixiePhattel_31
- Track 49 : Biscute_32
- Track 50 : Zippen_31, Inked_33
- Track 51 : Natasha_28
- Track 52 : Egad_28, ProfFrink_28, StarLord_28, Spain_27, Salk_28, Raunak_28, BronxBay_28, Shiba_28, MrAaronian_28, DoctorPepper_28, Stayer_28, Jeremy4pt0_28, Linda_28, Michelle_28, Sloopyjoe_28, Djungelskog_28
- Track 53 : Sprinkle_28
- Track 54 : Sporto_29
- Track 55 : RustyBoy_28
- Track 56 : Boog_28, HerbBucket_27
- Track 57 : Onestar_28
- Track 58 : Powelldog_29
- Track 59 : Arzan_27
- Track 60 : Jazzy4900_29, Sunny4976_28
- Track 61 : GermyBearimy_30
- Track 62 : Kureo_46, Marianna39_46, JeNeSaisPas_44
- Track 63 : Paella_45, Qui_45
- Track 64 : Elver_45
- Track 65 : Gandionco_46

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

The start number called the most often in the published annotations is 19, it was called in 43 of the 93 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Acai_31, Anandi_32, Argan_30, Bouchard_32, Breylor17_32, Brunswick_31, CapnMurica_31, CastorTray_33, Caterpillar_29, Chlochlo_32, Darby_31, DevitoJr_31, Dinallo_32, ElephantMan_31, GantcherGoblin_30, Giantsbane_32, Gordon_31, Hemma_28, Ingrid_31, Inked_33, Issa_31, Kinny_33, Leathea_31, LilHuddy_32, Loretta_31, LucySwiss_31, Makai_31, MediumFry_29, MiniBagel_31, Muglass_33, Navi1117_31, Nightmare_32, Niktson_31, Nivinsha_31, Phaby_32, Phaila_30, PoeMe_32, Renaldo_36, ScienceWizSam_33, Shepard_32, Synepsis_30, Tatanka_31, Teacup_31, Tenno_32, Tipton_32, Tokki_32, Truckee_30, Trustiboi_32, Uzumaki_31, Westerlin_32, Zippen_31,

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

• Altjira_30, AreFloNak_31, BarbieDoll_34, Biscute_32, KevinMinion_31, Lewando_34, Mardi_32, Stardrop_31, Tenney120_31, TrixiePhattel_31, Zeina_31,

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

• Arcadia_25, Arzan_27, BenitoAntonio_25, Benllo_23, Boog_28, Bowling_25, BronxBay_28, Cheesy_25, Circum_25, Correa_24, Djungelskog_28, DoctorPepper_28, Dynamite_24, Egad_28, Elsa_25, Elver_45, Gandionco_46, GermyBearimy_30, GoCrazy_23, Hankly_23, Heisenberger_24, HerbBucket_27, JEGGS_24, Jazzy4900_29, JeNeSaisPas_44, Jeremy4pt0_28, Kardesai_23, KeaneyLin_23, Kureo_46, Linda_28, Marianna39_46, Michelle_28, Mooshroom_24, MrAaronian_28, Mudcat_24, NapoleonB_24, Nason_25, Natasha_28, Onestar_28, Paella_45, Powelldog_29, ProfFrink_28, Qui_45, Raunak_28, RustyBoy_28, Salk_28, Shiba_28, Sloopyjoe_28, Spain_27, Sporto_29, Sprinkle_28, StarLord_28, Stardom_23, Stayer_28, Sunny4976_28, Tribby_25, Xenomorph_23, YoshiYama_24,

Summary by start number:

Start 5:

- Found in 13 of 120 (10.8%) of genes in pham
- Manual Annotations of this start: 2 of 93
- Called 23.1% of time when present
- Phage (with cluster) where this start called: Altjira_30 (AU6), TrixiePhattel_31 (AU6), Zeina_31 (AU6),

Start 7:

- Found in 6 of 120 (5.0%) of genes in pham
- No Manual Annotations of this start.
- Called 16.7% of time when present
- Phage (with cluster) where this start called: BarbieDoll_34 (AU6),

Start 10:

- Found in 13 of 120 (10.8%) of genes in pham
- Manual Annotations of this start: 3 of 93
- Called 30.8% of time when present
- Phage (with cluster) where this start called: KevinMinion_31 (AU6), Mardi_32 (AU6), Stardrop_31 (AU6), Tenney120_31 (AU6),

Start 13:

- Found in 23 of 120 (19.2%) of genes in pham
- Manual Annotations of this start: 12 of 93
- Called 52.2% of time when present
- Phage (with cluster) where this start called: Bowling_25 (AM), Cheesy_25 (AM), Circum_25 (AM), Dynamite_24 (AM), Hankly_23 (AM), Heisenberger_24 (AM), JEGGS_24 (AM), Mooshroom_24 (AM), Mudcat_24 (AM), NapoleonB_24 (AM), Tribby_25 (AM), Xenomorph_23 (AM),

Start 14:

- Found in 19 of 120 (15.8%) of genes in pham
- No Manual Annotations of this start.
- Called 5.3% of time when present
- Phage (with cluster) where this start called: Onestar_28 (AW),

Start 15:

- Found in 23 of 120 (19.2%) of genes in pham
- Manual Annotations of this start: 2 of 93
- Called 8.7% of time when present
- Phage (with cluster) where this start called: BenitoAntonio_25 (AM), Kardesai_23 (AM),

Start 16:

- Found in 53 of 120 (44.2%) of genes in pham
- No Manual Annotations of this start.
- Called 3.8% of time when present
- Phage (with cluster) where this start called: AreFloNak_31 (AU1), GermyBearimy_30 (FI),

Start 17:

- Found in 6 of 120 (5.0%) of genes in pham
- Manual Annotations of this start: 2 of 93
- Called 33.3% of time when present
- Phage (with cluster) where this start called: Biscute_32 (AU6), Lewando_34 (AU6),

Start 18:

- Found in 23 of 120 (19.2%) of genes in pham
- Manual Annotations of this start: 4 of 93
- Called 26.1% of time when present
- Phage (with cluster) where this start called: Arcadia_25 (AM), Correa_24 (AM), Elsa_25 (AM), Nason_25 (AM), Stardom_23 (AM), YoshiYama_24 (AM),

Start 19:

- Found in 62 of 120 (51.7%) of genes in pham
- Manual Annotations of this start: 43 of 93
- Called 82.3% of time when present
- Phage (with cluster) where this start called: Acai_31 (AU1), Anandi_32 (AU4), Argan_30 (AU6), Bouchard_32 (AU2), Breylor17_32 (AU1), Brunswick_31 (AU1), CapnMurica_31 (AU1), CastorTray_33 (AU1), Caterpillar_29 (AU4), Chlochlo_32 (AU2), Darby_31 (AU1), DevitoJr_31 (AU1), Dinallo_32 (AU1), ElephantMan_31 (AU1), GantcherGoblin_30 (AU6), Giantsbane_32 (AU2), Gordon_31 (AU1), Hemma_28 (AU1), Ingrid_31 (AU3), Inked_33 (AU7), Issa_31 (AU1), Kinny_33 (AU6), Leathea_31 (AU6), LilHuddy_32 (AU2), Loretta_31 (AU3), LucySwiss_31 (AU1), Makai_31 (AU5), MediumFry_29 (AU4), MiniBagel_31 (AU1), Muglass_33 (AU6), Navi1117_31 (AU6), Nightmare_32 (AU1), Niktson_31 (AU1), Nivinsha_31 (AU1), Phaby_32 (AU2), Phaila_30 (AU6), PoeMe_32 (AU6), Renaldo_36 (AU6), ScienceWizSam_33 (AU1), Shepard_32 (AU2), Synopsis_30 (AU1), Tatanka_31 (AU1), Teacup_31 (AU1), Tenno_32 (AU1), Tipton_32 (AU2), Tokki_32 (AU2), Truckee_30 (AU5), Trustiboi_32 (AU1), Uzumaki_31 (AU6), Westerlin_32 (AU1), Zippen_31 (AU7),

Start 20:

- Found in 8 of 120 (6.7%) of genes in pham
- Manual Annotations of this start: 2 of 93
- Called 62.5% of time when present
- Phage (with cluster) where this start called: Jazzy4900_29 (FI), Natasha_28 (AW), RustyBoy_28 (AW), Sprinkle_28 (AW), Sunny4976_28 (FI),

Start 21:

- Found in 8 of 120 (6.7%) of genes in pham
- Manual Annotations of this start: 3 of 93
- Called 37.5% of time when present
- Phage (with cluster) where this start called: Elver_45 (FK), Paella_45 (FK), Qui_45 (FK),

Start 23:

- Found in 43 of 120 (35.8%) of genes in pham
- Manual Annotations of this start: 3 of 93
- Called 7.0% of time when present
- Phage (with cluster) where this start called: Benllo_23 (AM), GoCrazy_23 (AM), KeaneyLin_23 (AM),

Start 25:

- Found in 21 of 120 (17.5%) of genes in pham
- Manual Annotations of this start: 17 of 93
- Called 95.2% of time when present
- Phage (with cluster) where this start called: Boog_28 (AW), BronxBay_28 (AW), Djungelskog_28 (AW), DoctorPepper_28 (AW), Egad_28 (AW), HerbBucket_27 (AW), Jeremy4pt0_28 (AW), Linda_28 (AW), Michelle_28 (AW), MrAaronian_28 (AW), PowellDog_29 (AW), ProfFrink_28 (AW), Raunak_28 (AW), Salk_28 (AW), Shiba_28 (AW), Sloopyjoe_28 (AW), Spain_27 (AW), Sporto_29 (AW), StarLord_28 (AW), Stayer_28 (AW),

Start 33:

- Found in 77 of 120 (64.2%) of genes in pham
- No Manual Annotations of this start.
- Called 1.3% of time when present
- Phage (with cluster) where this start called: Arzan_27 (FI),

Start 34:

- Found in 31 of 120 (25.8%) of genes in pham
- No Manual Annotations of this start.
- Called 12.9% of time when present
- Phage (with cluster) where this start called: Gandionco_46 (FK), JeNeSaisPas_44 (FK), Kureo_46 (FK), Marianna39_46 (FK),

Summary by clusters:

There are 11 clusters represented in this pham: AU7, AM, AU1, AU3, AU2, AU5, AU4, AW, AU6, FI, FK,

Info for manual annotations of cluster AM:

- Start number 13 was manually annotated 12 times for cluster AM.
- Start number 15 was manually annotated 2 times for cluster AM.
- Start number 18 was manually annotated 4 times for cluster AM.
- Start number 23 was manually annotated 3 times for cluster AM.

Info for manual annotations of cluster AU1:

- Start number 19 was manually annotated 19 times for cluster AU1.

Info for manual annotations of cluster AU2:

- Start number 19 was manually annotated 8 times for cluster AU2.

Info for manual annotations of cluster AU3:

- Start number 19 was manually annotated 2 times for cluster AU3.

Info for manual annotations of cluster AU4:

- Start number 19 was manually annotated 3 times for cluster AU4.

Info for manual annotations of cluster AU5:

- Start number 19 was manually annotated 2 times for cluster AU5.

Info for manual annotations of cluster AU6:

- Start number 5 was manually annotated 2 times for cluster AU6.
- Start number 10 was manually annotated 3 times for cluster AU6.
- Start number 17 was manually annotated 2 times for cluster AU6.
- Start number 19 was manually annotated 7 times for cluster AU6.

Info for manual annotations of cluster AU7:

- Start number 19 was manually annotated 2 times for cluster AU7.

Info for manual annotations of cluster AW:

- Start number 20 was manually annotated 2 times for cluster AW.
- Start number 25 was manually annotated 17 times for cluster AW.

Info for manual annotations of cluster FK:

- Start number 21 was manually annotated 3 times for cluster FK.

Gene Information:

Gene: Acai_31 Start: 27716, Stop: 28159, Start Num: 19

Candidate Starts for Acai_31:

(16, 27701), (Start: 19 @27716 has 43 MA's), (22, 27728), (33, 27779), (37, 27809), (39, 27821), (41, 27833), (53, 27908), (58, 27929), (64, 27965), (69, 28001), (75, 28028), (84, 28070),

Gene: Altjira_30 Start: 26927, Stop: 27430, Start Num: 5

Candidate Starts for Altjira_30:

(Start: 5 @26927 has 2 MA's), (Start: 10 @26951 has 3 MA's), (Start: 19 @26984 has 43 MA's), (Start: 23 @26999 has 3 MA's), (42, 27104), (52, 27173), (53, 27179), (72, 27281), (73, 27293),

Gene: Anandi_32 Start: 28281, Stop: 28712, Start Num: 19

Candidate Starts for Anandi_32:

(1, 28119), (2, 28128), (3, 28188), (6, 28227), (16, 28266), (Start: 19 @28281 has 43 MA's), (33, 28320), (46, 28395), (49, 28410), (55, 28455), (58, 28470), (68, 28527), (76, 28575), (77, 28578), (82, 28593), (93, 28659), (96, 28692),

Gene: Arcadia_25 Start: 24095, Stop: 24541, Start Num: 18

Candidate Starts for Arcadia_25:

(Start: 13 @24074 has 12 MA's), (Start: 15 @24080 has 2 MA's), (Start: 18 @24095 has 4 MA's), (Start: 23 @24113 has 3 MA's), (40, 24212), (48, 24242), (51, 24275), (52, 24284), (57, 24302), (70, 24386), (72, 24392), (74, 24407), (76, 24416), (79, 24425), (85, 24455), (90, 24482),

Gene: AreFloNak_31 Start: 27662, Stop: 28120, Start Num: 16

Candidate Starts for AreFloNak_31:

(16, 27662), (Start: 19 @27677 has 43 MA's), (22, 27689), (33, 27740), (41, 27794), (53, 27869), (58, 27890), (69, 27962), (75, 27989), (84, 28031), (86, 28037),

Gene: Argan_30 Start: 26251, Stop: 26697, Start Num: 19

Candidate Starts for Argan_30:

(Start: 5 @26194 has 2 MA's), (Start: 10 @26218 has 3 MA's), (Start: 19 @26251 has 43 MA's), (Start: 23 @26266 has 3 MA's), (42, 26371), (52, 26440), (53, 26446), (72, 26548), (73, 26560),

Gene: Arzan_27 Start: 25038, Stop: 25418, Start Num: 33

Candidate Starts for Arzan_27:

(16, 24963), (Start: 20 @24984 has 2 MA's), (33, 25038), (39, 25080), (49, 25128), (51, 25152), (52, 25161), (60, 25197), (67, 25242), (69, 25260), (71, 25266), (75, 25287), (80, 25305), (86, 25335),

Gene: BarbieDoll_34 Start: 28185, Stop: 28676, Start Num: 7

Candidate Starts for BarbieDoll_34:

(7, 28185), (11, 28206), (Start: 17 @28221 has 2 MA's), (Start: 19 @28230 has 43 MA's), (Start: 23 @28245 has 3 MA's), (26, 28257), (42, 28350), (52, 28419), (53, 28425), (55, 28431), (60, 28455), (72, 28527), (73, 28539), (89, 28605),

Gene: BenitoAntonio_25 Start: 23696, Stop: 24157, Start Num: 15

Candidate Starts for BenitoAntonio_25:

(Start: 13 @23690 has 12 MA's), (Start: 15 @23696 has 2 MA's), (Start: 18 @23711 has 4 MA's), (Start: 23 @23729 has 3 MA's), (27, 23753), (38, 23810), (40, 23828), (44, 23840), (52, 23900), (57, 23918), (62, 23948), (64, 23963), (70, 24002), (72, 24008), (76, 24032), (85, 24071), (90, 24098),

Gene: Benllo_23 Start: 24013, Stop: 24441, Start Num: 23

Candidate Starts for Benllo_23:

(Start: 13 @23974 has 12 MA's), (Start: 15 @23980 has 2 MA's), (Start: 18 @23995 has 4 MA's), (Start: 23 @24013 has 3 MA's), (40, 24112), (48, 24142), (51, 24175), (52, 24184), (57, 24202), (70, 24286), (72, 24292), (74, 24307), (76, 24316), (79, 24325), (85, 24355), (90, 24382),

Gene: Biscute_32 Start: 27867, Stop: 28322, Start Num: 17

Candidate Starts for Biscute_32:

(7, 27831), (11, 27852), (Start: 17 @27867 has 2 MA's), (Start: 19 @27876 has 43 MA's), (Start: 23 @27891 has 3 MA's), (26, 27903), (36, 27963), (39, 27981), (42, 27996), (52, 28065), (53, 28071), (60, 28101), (72, 28173), (73, 28185),

Gene: Boog_28 Start: 24847, Stop: 25275, Start Num: 25

Candidate Starts for Boog_28:

(14, 24805), (Start: 25 @24847 has 17 MA's), (32, 24889), (33, 24895), (34, 24898), (38, 24928), (40, 24946), (43, 24955), (51, 25009), (62, 25066), (79, 25159), (83, 25183), (85, 25189),

Gene: Bouchard_32 Start: 27859, Stop: 28302, Start Num: 19

Candidate Starts for Bouchard_32:

(3, 27766), (6, 27805), (16, 27844), (Start: 19 @27859 has 43 MA's), (33, 27922), (37, 27952), (39, 27964), (50, 28024), (53, 28051), (58, 28072), (61, 28090), (70, 28147), (79, 28186), (90, 28243), (94, 28279),

Gene: Bowling_25 Start: 23788, Stop: 24255, Start Num: 13

Candidate Starts for Bowling_25:

(Start: 13 @23788 has 12 MA's), (Start: 15 @23794 has 2 MA's), (Start: 18 @23809 has 4 MA's),
(Start: 23 @23827 has 3 MA's), (40, 23926), (48, 23956), (51, 23989), (52, 23998), (57, 24016), (70,
24100), (72, 24106), (74, 24121), (76, 24130), (79, 24139), (85, 24169), (90, 24196),

Gene: Breylor17_32 Start: 28283, Stop: 28726, Start Num: 19

Candidate Starts for Breylor17_32:

(16, 28268), (Start: 19 @28283 has 43 MA's), (22, 28295), (33, 28346), (41, 28400), (53, 28475), (58,
28496), (69, 28568), (75, 28595), (84, 28637), (86, 28643),

Gene: BronxBay_28 Start: 24846, Stop: 25274, Start Num: 25

Candidate Starts for BronxBay_28:

(14, 24804), (Start: 25 @24846 has 17 MA's), (32, 24888), (33, 24894), (34, 24897), (38, 24927), (39,
24936), (43, 24954), (51, 25008), (62, 25065), (79, 25158), (83, 25182), (86, 25191),

Gene: Brunswick_31 Start: 27749, Stop: 28192, Start Num: 19

Candidate Starts for Brunswick_31:

(16, 27734), (Start: 19 @27749 has 43 MA's), (22, 27761), (33, 27812), (39, 27854), (58, 27962), (64,
27998), (65, 28001), (69, 28034), (75, 28061), (84, 28103), (91, 28142),

Gene: CapnMurica_31 Start: 28835, Stop: 29278, Start Num: 19

Candidate Starts for CapnMurica_31:

(16, 28820), (Start: 19 @28835 has 43 MA's), (22, 28847), (33, 28898), (39, 28940), (41, 28952), (53,
29027), (65, 29087), (69, 29120), (75, 29147), (91, 29228),

Gene: CastorTray_33 Start: 28141, Stop: 28584, Start Num: 19

Candidate Starts for CastorTray_33:

(16, 28126), (Start: 19 @28141 has 43 MA's), (22, 28153), (32, 28198), (33, 28204), (39, 28246), (41,
28258), (53, 28333), (58, 28354), (69, 28426), (75, 28453), (84, 28495), (86, 28501),

Gene: Caterpillar_29 Start: 26915, Stop: 27358, Start Num: 19

Candidate Starts for Caterpillar_29:

(6, 26861), (16, 26900), (Start: 19 @26915 has 43 MA's), (32, 26972), (33, 26978), (37, 27008), (41,
27032), (53, 27107), (58, 27128), (61, 27146), (65, 27167), (67, 27182), (75, 27227), (90, 27299),

Gene: Cheesy_25 Start: 23789, Stop: 24256, Start Num: 13

Candidate Starts for Cheesy_25:

(Start: 13 @23789 has 12 MA's), (Start: 15 @23795 has 2 MA's), (Start: 18 @23810 has 4 MA's),
(Start: 23 @23828 has 3 MA's), (27, 23852), (38, 23909), (40, 23927), (44, 23939), (52, 23999), (57,
24017), (62, 24047), (64, 24062), (70, 24101), (72, 24107), (76, 24131), (85, 24170), (90, 24197),

Gene: Chlochlo_32 Start: 27895, Stop: 28338, Start Num: 19

Candidate Starts for Chlochlo_32:

(16, 27880), (Start: 19 @27895 has 43 MA's), (32, 27952), (33, 27958), (39, 28000), (50, 28060), (58,
28108), (90, 28279), (94, 28315),

Gene: Circum_25 Start: 23796, Stop: 24263, Start Num: 13

Candidate Starts for Circum_25:

(Start: 13 @23796 has 12 MA's), (Start: 15 @23802 has 2 MA's), (Start: 18 @23817 has 4 MA's),
(Start: 23 @23835 has 3 MA's), (40, 23934), (48, 23964), (52, 24006), (57, 24024), (70, 24108), (72,
24114), (74, 24129), (76, 24138), (79, 24147), (85, 24177), (90, 24204),

Gene: Correa_24 Start: 23325, Stop: 23771, Start Num: 18

Candidate Starts for Correa_24:

(Start: 13 @23304 has 12 MA's), (Start: 15 @23310 has 2 MA's), (Start: 18 @23325 has 4 MA's), (Start: 23 @23343 has 3 MA's), (38, 23424), (40, 23442), (51, 23505), (57, 23532), (72, 23622), (76, 23646), (79, 23655), (85, 23685),

Gene: Darby_31 Start: 27587, Stop: 28030, Start Num: 19

Candidate Starts for Darby_31:

(16, 27572), (Start: 19 @27587 has 43 MA's), (22, 27599), (32, 27644), (33, 27650), (41, 27704), (53, 27779), (58, 27800), (64, 27836), (65, 27839), (69, 27872), (75, 27899), (84, 27941), (86, 27947),

Gene: DevitoJr_31 Start: 27758, Stop: 28201, Start Num: 19

Candidate Starts for DevitoJr_31:

(16, 27743), (Start: 19 @27758 has 43 MA's), (22, 27770), (32, 27815), (33, 27821), (39, 27863), (41, 27875), (53, 27950), (58, 27971), (69, 28043), (75, 28070), (84, 28112), (86, 28118),

Gene: Dinallo_32 Start: 28823, Stop: 29266, Start Num: 19

Candidate Starts for Dinallo_32:

(16, 28808), (Start: 19 @28823 has 43 MA's), (22, 28835), (33, 28886), (39, 28928), (41, 28940), (53, 29015), (65, 29075), (69, 29108), (75, 29135), (91, 29216),

Gene: Djungelskog_28 Start: 24846, Stop: 25274, Start Num: 25

Candidate Starts for Djungelskog_28:

(14, 24804), (Start: 25 @24846 has 17 MA's), (32, 24888), (33, 24894), (34, 24897), (38, 24927), (39, 24936), (43, 24954), (51, 25008), (62, 25065), (79, 25158), (83, 25182), (86, 25191),

Gene: DoctorPepper_28 Start: 24846, Stop: 25274, Start Num: 25

Candidate Starts for DoctorPepper_28:

(14, 24804), (Start: 25 @24846 has 17 MA's), (32, 24888), (33, 24894), (34, 24897), (38, 24927), (39, 24936), (43, 24954), (51, 25008), (62, 25065), (79, 25158), (83, 25182), (86, 25191),

Gene: Dynamite_24 Start: 23597, Stop: 24064, Start Num: 13

Candidate Starts for Dynamite_24:

(Start: 13 @23597 has 12 MA's), (Start: 15 @23603 has 2 MA's), (Start: 18 @23618 has 4 MA's), (Start: 23 @23636 has 3 MA's), (40, 23735), (48, 23765), (51, 23798), (52, 23807), (57, 23825), (70, 23909), (72, 23915), (74, 23930), (76, 23939), (79, 23948), (85, 23978), (90, 24005),

Gene: Egad_28 Start: 24847, Stop: 25275, Start Num: 25

Candidate Starts for Egad_28:

(14, 24805), (Start: 25 @24847 has 17 MA's), (32, 24889), (33, 24895), (34, 24898), (38, 24928), (39, 24937), (43, 24955), (51, 25009), (62, 25066), (79, 25159), (83, 25183), (86, 25192),

Gene: ElephantMan_31 Start: 28289, Stop: 28732, Start Num: 19

Candidate Starts for ElephantMan_31:

(16, 28274), (Start: 19 @28289 has 43 MA's), (22, 28301), (32, 28346), (33, 28352), (37, 28382), (39, 28394), (41, 28406), (58, 28502), (65, 28541), (69, 28574), (75, 28601), (84, 28643), (91, 28682),

Gene: Elsa_25 Start: 24095, Stop: 24541, Start Num: 18

Candidate Starts for Elsa_25:

(Start: 13 @24074 has 12 MA's), (Start: 15 @24080 has 2 MA's), (Start: 18 @24095 has 4 MA's), (Start: 23 @24113 has 3 MA's), (40, 24212), (48, 24242), (51, 24275), (52, 24284), (57, 24302), (70, 24386), (72, 24392), (74, 24407), (76, 24416), (79, 24425), (85, 24455), (90, 24482),

Gene: Elver_45 Start: 36454, Stop: 36888, Start Num: 21

Candidate Starts for Elver_45:

(6, 36391), (9, 36409), (16, 36430), (Start: 21 @36454 has 3 MA's), (32, 36502), (33, 36508), (34, 36511), (38, 36541), (51, 36622), (53, 36637), (64, 36694), (69, 36730), (75, 36757), (82, 36781), (84, 36799), (86, 36805),

Gene: Gandionco_46 Start: 37033, Stop: 37410, Start Num: 34

Candidate Starts for Gandionco_46:

(6, 36913), (9, 36931), (16, 36952), (Start: 21 @36976 has 3 MA's), (32, 37024), (33, 37030), (34, 37033), (38, 37063), (51, 37144), (53, 37159), (64, 37216), (69, 37252), (75, 37279), (82, 37303), (84, 37321), (86, 37327), (87, 37330),

Gene: GantcherGoblin_30 Start: 26290, Stop: 26736, Start Num: 19

Candidate Starts for GantcherGoblin_30:

(Start: 5 @26233 has 2 MA's), (Start: 10 @26257 has 3 MA's), (Start: 19 @26290 has 43 MA's), (Start: 23 @26305 has 3 MA's), (42, 26410), (52, 26479), (53, 26485), (72, 26587), (73, 26599),

Gene: GermyBearimy_30 Start: 25394, Stop: 25849, Start Num: 16

Candidate Starts for GermyBearimy_30:

(16, 25394), (Start: 20 @25415 has 2 MA's), (33, 25469), (39, 25511), (49, 25559), (51, 25583), (52, 25592), (60, 25628), (67, 25673), (69, 25691), (71, 25697), (75, 25718), (80, 25736), (86, 25766),

Gene: Giantsbane_32 Start: 26755, Stop: 27198, Start Num: 19

Candidate Starts for Giantsbane_32:

(3, 26662), (6, 26701), (16, 26740), (Start: 19 @26755 has 43 MA's), (24, 26773), (33, 26818), (37, 26848), (39, 26860), (50, 26920), (58, 26968), (61, 26986), (70, 27043), (79, 27082), (90, 27139), (94, 27175),

Gene: GoCrazy_23 Start: 23636, Stop: 24064, Start Num: 23

Candidate Starts for GoCrazy_23:

(Start: 13 @23597 has 12 MA's), (Start: 15 @23603 has 2 MA's), (Start: 18 @23618 has 4 MA's), (Start: 23 @23636 has 3 MA's), (27, 23660), (38, 23717), (40, 23735), (44, 23747), (52, 23807), (57, 23825), (62, 23855), (64, 23870), (70, 23909), (72, 23915), (76, 23939), (85, 23978), (90, 24005),

Gene: Gordon_31 Start: 28863, Stop: 29306, Start Num: 19

Candidate Starts for Gordon_31:

(16, 28848), (Start: 19 @28863 has 43 MA's), (22, 28875), (32, 28920), (33, 28926), (39, 28968), (41, 28980), (53, 29055), (69, 29148), (75, 29175), (84, 29217), (86, 29223),

Gene: Hankly_23 Start: 22819, Stop: 23286, Start Num: 13

Candidate Starts for Hankly_23:

(Start: 13 @22819 has 12 MA's), (Start: 15 @22825 has 2 MA's), (Start: 18 @22840 has 4 MA's), (Start: 23 @22858 has 3 MA's), (27, 22882), (38, 22939), (40, 22957), (44, 22969), (48, 22987), (51, 23020), (52, 23029), (57, 23047), (70, 23131), (72, 23137), (74, 23152), (76, 23161), (79, 23170), (85, 23200), (90, 23227),

Gene: Heisenberger_24 Start: 23467, Stop: 23934, Start Num: 13

Candidate Starts for Heisenberger_24:

(Start: 13 @23467 has 12 MA's), (Start: 15 @23473 has 2 MA's), (Start: 18 @23488 has 4 MA's), (Start: 23 @23506 has 3 MA's), (40, 23605), (48, 23635), (51, 23668), (52, 23677), (57, 23695), (70, 23779), (72, 23785), (74, 23800), (76, 23809), (79, 23818), (85, 23848), (90, 23875),

Gene: Hemma_28 Start: 24206, Stop: 24637, Start Num: 19

Candidate Starts for Hemma_28:

(6, 24152), (16, 24191), (Start: 19 @24206 has 43 MA's), (33, 24245), (38, 24278), (44, 24308), (45, 24317), (54, 24377), (57, 24386), (58, 24395), (59, 24398), (65, 24434), (68, 24452), (70, 24470), (72, 24476), (74, 24491), (78, 24506), (83, 24533), (93, 24584), (96, 24617),

Gene: HerbBucket_27 Start: 24847, Stop: 25275, Start Num: 25

Candidate Starts for HerbBucket_27:

(14, 24805), (Start: 25 @24847 has 17 MA's), (32, 24889), (33, 24895), (34, 24898), (38, 24928), (40, 24946), (43, 24955), (51, 25009), (62, 25066), (79, 25159), (83, 25183), (85, 25189),

Gene: Ingrid_31 Start: 27486, Stop: 27917, Start Num: 19

Candidate Starts for Ingrid_31:

(1, 27324), (2, 27333), (6, 27432), (16, 27471), (Start: 19 @27486 has 43 MA's), (28, 27519), (33, 27525), (40, 27576), (41, 27579), (43, 27585), (47, 27603), (54, 27657), (57, 27666), (58, 27675), (68, 27732), (74, 27771), (78, 27786), (83, 27813), (88, 27831), (93, 27864), (96, 27897),

Gene: Inked_33 Start: 28494, Stop: 28937, Start Num: 19

Candidate Starts for Inked_33:

(3, 28401), (6, 28440), (16, 28479), (Start: 19 @28494 has 43 MA's), (26, 28521), (31, 28545), (32, 28551), (33, 28557), (37, 28587), (50, 28659), (58, 28707), (61, 28725), (66, 28755), (68, 28764), (76, 28812), (81, 28827), (84, 28848), (90, 28878), (94, 28914),

Gene: Issa_31 Start: 27567, Stop: 28010, Start Num: 19

Candidate Starts for Issa_31:

(16, 27552), (Start: 19 @27567 has 43 MA's), (22, 27579), (32, 27624), (33, 27630), (39, 27672), (41, 27684), (53, 27759), (58, 27780), (69, 27852), (75, 27879), (84, 27921), (86, 27927),

Gene: JEGGS_24 Start: 23521, Stop: 23988, Start Num: 13

Candidate Starts for JEGGS_24:

(Start: 13 @23521 has 12 MA's), (Start: 15 @23527 has 2 MA's), (Start: 18 @23542 has 4 MA's), (Start: 23 @23560 has 3 MA's), (40, 23659), (48, 23689), (51, 23722), (52, 23731), (57, 23749), (70, 23833), (72, 23839), (74, 23854), (76, 23863), (79, 23872), (85, 23902), (90, 23929),

Gene: Jazzy4900_29 Start: 26238, Stop: 26672, Start Num: 20

Candidate Starts for Jazzy4900_29:

(Start: 20 @26238 has 2 MA's), (33, 26292), (52, 26415), (67, 26496), (69, 26514), (71, 26520), (75, 26541),

Gene: JeNeSaisPas_44 Start: 37046, Stop: 37423, Start Num: 34

Candidate Starts for JeNeSaisPas_44:

(6, 36926), (9, 36944), (16, 36965), (Start: 21 @36989 has 3 MA's), (32, 37037), (33, 37043), (34, 37046), (38, 37076), (51, 37157), (53, 37172), (64, 37229), (69, 37265), (75, 37292), (82, 37316), (84, 37334), (86, 37340),

Gene: Jeremy4pt0_28 Start: 24846, Stop: 25274, Start Num: 25

Candidate Starts for Jeremy4pt0_28:

(14, 24804), (Start: 25 @24846 has 17 MA's), (32, 24888), (33, 24894), (34, 24897), (38, 24927), (39, 24936), (43, 24954), (51, 25008), (62, 25065), (79, 25158), (83, 25182), (86, 25191),

Gene: Kardesai_23 Start: 23206, Stop: 23667, Start Num: 15

Candidate Starts for Kardesai_23:

(Start: 13 @23200 has 12 MA's), (Start: 15 @23206 has 2 MA's), (Start: 18 @23221 has 4 MA's), (Start: 23 @23239 has 3 MA's), (40, 23338), (48, 23368), (51, 23401), (52, 23410), (57, 23428), (70, 23512), (72, 23518), (74, 23533), (76, 23542), (79, 23551), (85, 23581), (90, 23608),

Gene: KeaneyLin_23 Start: 23636, Stop: 24064, Start Num: 23

Candidate Starts for KeaneyLin_23:

(Start: 13 @23597 has 12 MA's), (Start: 15 @23603 has 2 MA's), (Start: 18 @23618 has 4 MA's), (Start: 23 @23636 has 3 MA's), (27, 23660), (38, 23717), (40, 23735), (44, 23747), (52, 23807), (57, 23825), (62, 23855), (64, 23870), (70, 23909), (72, 23915), (76, 23939), (85, 23978), (90, 24005),

Gene: KevinMinion_31 Start: 27351, Stop: 27830, Start Num: 10

Candidate Starts for KevinMinion_31:

(Start: 5 @27327 has 2 MA's), (Start: 10 @27351 has 3 MA's), (Start: 19 @27384 has 43 MA's), (Start: 23 @27399 has 3 MA's), (42, 27504), (52, 27573), (53, 27579), (72, 27681), (73, 27693),

Gene: Kinny_33 Start: 28143, Stop: 28589, Start Num: 19

Candidate Starts for Kinny_33:

(7, 28098), (11, 28119), (Start: 17 @28134 has 2 MA's), (Start: 19 @28143 has 43 MA's), (Start: 23 @28158 has 3 MA's), (26, 28170), (42, 28263), (52, 28332), (53, 28338), (55, 28344), (60, 28368), (72, 28440), (73, 28452), (89, 28518),

Gene: Kureo_46 Start: 35856, Stop: 36233, Start Num: 34

Candidate Starts for Kureo_46:

(6, 35736), (9, 35754), (16, 35775), (Start: 21 @35799 has 3 MA's), (32, 35847), (33, 35853), (34, 35856), (38, 35886), (51, 35967), (53, 35982), (64, 36039), (69, 36075), (75, 36102), (82, 36126), (84, 36144), (86, 36150),

Gene: Leathea_31 Start: 26183, Stop: 26632, Start Num: 19

Candidate Starts for Leathea_31:

(Start: 19 @26183 has 43 MA's), (Start: 23 @26198 has 3 MA's), (29, 26228), (42, 26303), (52, 26372), (53, 26378), (72, 26480), (73, 26492), (89, 26558),

Gene: Lewando_34 Start: 28203, Stop: 28658, Start Num: 17

Candidate Starts for Lewando_34:

(7, 28167), (11, 28188), (Start: 17 @28203 has 2 MA's), (Start: 19 @28212 has 43 MA's), (Start: 23 @28227 has 3 MA's), (26, 28239), (42, 28332), (52, 28401), (53, 28407), (55, 28413), (60, 28437), (72, 28509), (73, 28521), (89, 28587),

Gene: LilHuddy_32 Start: 27938, Stop: 28381, Start Num: 19

Candidate Starts for LilHuddy_32:

(16, 27923), (Start: 19 @27938 has 43 MA's), (33, 28001), (37, 28031), (39, 28043), (50, 28103), (53, 28130), (61, 28169), (70, 28226), (90, 28322),

Gene: Linda_28 Start: 24846, Stop: 25274, Start Num: 25

Candidate Starts for Linda_28:

(14, 24804), (Start: 25 @24846 has 17 MA's), (32, 24888), (33, 24894), (34, 24897), (38, 24927), (39, 24936), (43, 24954), (51, 25008), (62, 25065), (79, 25158), (83, 25182), (86, 25191),

Gene: Loretta_31 Start: 27486, Stop: 27917, Start Num: 19

Candidate Starts for Loretta_31:

(1, 27324), (2, 27333), (6, 27432), (16, 27471), (Start: 19 @27486 has 43 MA's), (28, 27519), (33, 27525), (40, 27576), (41, 27579), (43, 27585), (47, 27603), (54, 27657), (57, 27666), (58, 27675), (68, 27732), (74, 27771), (78, 27786), (83, 27813), (88, 27831), (93, 27864), (96, 27897),

Gene: LucySwiss_31 Start: 27592, Stop: 28035, Start Num: 19

Candidate Starts for LucySwiss_31:

(16, 27577), (Start: 19 @27592 has 43 MA's), (22, 27604), (32, 27649), (33, 27655), (39, 27697), (53, 27784), (58, 27805), (64, 27841), (65, 27844), (69, 27877), (75, 27904), (84, 27946), (91, 27985),

Gene: Makai_31 Start: 27724, Stop: 28155, Start Num: 19

Candidate Starts for Makai_31:

(3, 27631), (6, 27670), (16, 27709), (Start: 19 @27724 has 43 MA's), (33, 27763), (35, 27784), (42, 27820), (45, 27835), (46, 27838), (58, 27913), (68, 27970), (77, 28021), (78, 28024), (93, 28102), (96, 28135),

Gene: Mardi_32 Start: 26785, Stop: 27264, Start Num: 10

Candidate Starts for Mardi_32:

(Start: 5 @26761 has 2 MA's), (Start: 10 @26785 has 3 MA's), (Start: 19 @26818 has 43 MA's), (Start: 23 @26833 has 3 MA's), (42, 26938), (52, 27007), (53, 27013), (72, 27115), (73, 27127),

Gene: Marianna39_46 Start: 37033, Stop: 37410, Start Num: 34

Candidate Starts for Marianna39_46:

(6, 36913), (9, 36931), (16, 36952), (Start: 21 @36976 has 3 MA's), (32, 37024), (33, 37030), (34, 37033), (38, 37063), (51, 37144), (53, 37159), (64, 37216), (69, 37252), (75, 37279), (82, 37303), (84, 37321), (86, 37327),

Gene: MediumFry_29 Start: 26917, Stop: 27360, Start Num: 19

Candidate Starts for MediumFry_29:

(6, 26863), (16, 26902), (Start: 19 @26917 has 43 MA's), (32, 26974), (33, 26980), (37, 27010), (41, 27034), (53, 27109), (58, 27130), (61, 27148), (65, 27169), (67, 27184), (75, 27229), (90, 27301),

Gene: Michelle_28 Start: 24846, Stop: 25274, Start Num: 25

Candidate Starts for Michelle_28:

(14, 24804), (Start: 25 @24846 has 17 MA's), (32, 24888), (33, 24894), (34, 24897), (38, 24927), (39, 24936), (43, 24954), (51, 25008), (62, 25065), (79, 25158), (83, 25182), (86, 25191),

Gene: MiniBagel_31 Start: 28814, Stop: 29257, Start Num: 19

Candidate Starts for MiniBagel_31:

(16, 28799), (Start: 19 @28814 has 43 MA's), (22, 28826), (33, 28877), (39, 28919), (41, 28931), (53, 29006), (65, 29066), (69, 29099), (75, 29126), (91, 29207),

Gene: Mooshroom_24 Start: 23200, Stop: 23667, Start Num: 13

Candidate Starts for Mooshroom_24:

(Start: 13 @23200 has 12 MA's), (Start: 15 @23206 has 2 MA's), (Start: 18 @23221 has 4 MA's), (Start: 23 @23239 has 3 MA's), (40, 23338), (48, 23368), (51, 23401), (52, 23410), (57, 23428), (70, 23512), (72, 23518), (74, 23533), (76, 23542), (79, 23551), (85, 23581), (90, 23608),

Gene: MrAaronian_28 Start: 24846, Stop: 25274, Start Num: 25

Candidate Starts for MrAaronian_28:

(14, 24804), (Start: 25 @24846 has 17 MA's), (32, 24888), (33, 24894), (34, 24897), (38, 24927), (39, 24936), (43, 24954), (51, 25008), (62, 25065), (79, 25158), (83, 25182), (86, 25191),

Gene: Mudcat_24 Start: 25498, Stop: 25965, Start Num: 13

Candidate Starts for Mudcat_24:

(Start: 13 @25498 has 12 MA's), (Start: 15 @25504 has 2 MA's), (Start: 18 @25519 has 4 MA's), (Start: 23 @25537 has 3 MA's), (38, 25618), (40, 25636), (51, 25699), (57, 25726), (70, 25810), (72, 25816), (76, 25840), (79, 25849), (85, 25879), (90, 25906),

Gene: Muglass_33 Start: 27780, Stop: 28226, Start Num: 19

Candidate Starts for Muglass_33:

(7, 27735), (11, 27756), (Start: 17 @27771 has 2 MA's), (Start: 19 @27780 has 43 MA's), (Start: 23 @27795 has 3 MA's), (26, 27807), (36, 27867), (39, 27885), (42, 27900), (52, 27969), (53, 27975), (60, 28005), (72, 28077), (73, 28089),

Gene: NapoleonB_24 Start: 23597, Stop: 24064, Start Num: 13

Candidate Starts for NapoleonB_24:

(Start: 13 @23597 has 12 MA's), (Start: 15 @23603 has 2 MA's), (Start: 18 @23618 has 4 MA's), (Start: 23 @23636 has 3 MA's), (40, 23735), (48, 23765), (51, 23798), (52, 23807), (57, 23825), (70, 23909), (72, 23915), (74, 23930), (76, 23939), (79, 23948), (85, 23978), (90, 24005),

Gene: Nason_25 Start: 24095, Stop: 24541, Start Num: 18

Candidate Starts for Nason_25:

(Start: 13 @24074 has 12 MA's), (Start: 15 @24080 has 2 MA's), (Start: 18 @24095 has 4 MA's), (Start: 23 @24113 has 3 MA's), (40, 24212), (48, 24242), (51, 24275), (52, 24284), (57, 24302), (70, 24386), (72, 24392), (74, 24407), (76, 24416), (79, 24425), (85, 24455), (90, 24482),

Gene: Natasha_28 Start: 24254, Stop: 24679, Start Num: 20

Candidate Starts for Natasha_28:

(4, 24188), (8, 24203), (12, 24224), (Start: 20 @24254 has 2 MA's), (32, 24293), (33, 24299), (34, 24302), (38, 24332), (47, 24377), (62, 24470), (77, 24557), (84, 24590), (87, 24599), (92, 24635),

Gene: Navi1117_31 Start: 26457, Stop: 26903, Start Num: 19

Candidate Starts for Navi1117_31:

(Start: 5 @26400 has 2 MA's), (Start: 10 @26424 has 3 MA's), (Start: 19 @26457 has 43 MA's), (Start: 23 @26472 has 3 MA's), (33, 26520), (36, 26544), (55, 26658), (60, 26682), (72, 26754), (73, 26766), (77, 26781), (95, 26883),

Gene: Nightmare_32 Start: 28127, Stop: 28570, Start Num: 19

Candidate Starts for Nightmare_32:

(16, 28112), (Start: 19 @28127 has 43 MA's), (22, 28139), (33, 28190), (39, 28232), (58, 28340), (65, 28379), (69, 28412), (75, 28439), (91, 28520),

Gene: Niktson_31 Start: 28289, Stop: 28732, Start Num: 19

Candidate Starts for Niktson_31:

(16, 28274), (Start: 19 @28289 has 43 MA's), (22, 28301), (32, 28346), (33, 28352), (37, 28382), (39, 28394), (41, 28406), (58, 28502), (65, 28541), (69, 28574), (75, 28601), (84, 28643), (91, 28682),

Gene: Nivinsha_31 Start: 27677, Stop: 28120, Start Num: 19

Candidate Starts for Nivinsha_31:

(16, 27662), (Start: 19 @27677 has 43 MA's), (22, 27689), (33, 27740), (41, 27794), (53, 27869), (58, 27890), (69, 27962), (75, 27989), (84, 28031), (86, 28037),

Gene: Onestar_28 Start: 24587, Stop: 25054, Start Num: 14

Candidate Starts for Onestar_28:

(14, 24587), (Start: 25 @24629 has 17 MA's), (30, 24659), (32, 24668), (33, 24674), (34, 24677), (51, 24788), (63, 24851), (66, 24872), (73, 24917), (80, 24941), (84, 24965),

Gene: Paella_45 Start: 36456, Stop: 36890, Start Num: 21

Candidate Starts for Paella_45:

(6, 36393), (9, 36411), (16, 36432), (Start: 21 @36456 has 3 MA's), (33, 36510), (34, 36513), (38, 36543), (51, 36624), (53, 36639), (64, 36696), (69, 36732), (75, 36759), (82, 36783), (84, 36801), (86, 36807), (87, 36810),

Gene: Phaby_32 Start: 27870, Stop: 28313, Start Num: 19

Candidate Starts for Phaby_32:

(3, 27777), (6, 27816), (16, 27855), (Start: 19 @27870 has 43 MA's), (33, 27933), (37, 27963), (39, 27975), (42, 27990), (50, 28035), (53, 28062), (58, 28083), (61, 28101), (70, 28158), (79, 28197), (90, 28254), (94, 28290),

Gene: Phaila_30 Start: 25868, Stop: 26314, Start Num: 19

Candidate Starts for Phaila_30:

(Start: 5 @25811 has 2 MA's), (Start: 10 @25835 has 3 MA's), (Start: 19 @25868 has 43 MA's), (Start: 23 @25883 has 3 MA's), (42, 25988), (52, 26057), (53, 26063), (60, 26093), (72, 26165), (73, 26177),

Gene: PoeMe_32 Start: 27146, Stop: 27592, Start Num: 19

Candidate Starts for PoeMe_32:

(Start: 5 @27089 has 2 MA's), (Start: 10 @27113 has 3 MA's), (Start: 19 @27146 has 43 MA's), (Start: 23 @27161 has 3 MA's), (42, 27266), (52, 27335), (53, 27341), (72, 27443), (73, 27455),

Gene: Powelldog_29 Start: 24544, Stop: 24969, Start Num: 25

Candidate Starts for Powelldog_29:

(3, 24430), (6, 24469), (16, 24508), (Start: 21 @24532 has 3 MA's), (Start: 25 @24544 has 17 MA's), (34, 24592), (38, 24622), (39, 24631), (43, 24649), (62, 24760), (69, 24811), (80, 24856),

Gene: ProfFrink_28 Start: 24846, Stop: 25274, Start Num: 25

Candidate Starts for ProfFrink_28:

(14, 24804), (Start: 25 @24846 has 17 MA's), (32, 24888), (33, 24894), (34, 24897), (38, 24927), (39, 24936), (43, 24954), (51, 25008), (62, 25065), (79, 25158), (83, 25182), (86, 25191),

Gene: Qui_45 Start: 36456, Stop: 36890, Start Num: 21

Candidate Starts for Qui_45:

(6, 36393), (9, 36411), (16, 36432), (Start: 21 @36456 has 3 MA's), (33, 36510), (34, 36513), (38, 36543), (51, 36624), (53, 36639), (64, 36696), (69, 36732), (75, 36759), (82, 36783), (84, 36801), (86, 36807), (87, 36810),

Gene: Raunak_28 Start: 24846, Stop: 25274, Start Num: 25

Candidate Starts for Raunak_28:

(14, 24804), (Start: 25 @24846 has 17 MA's), (32, 24888), (33, 24894), (34, 24897), (38, 24927), (39, 24936), (43, 24954), (51, 25008), (62, 25065), (79, 25158), (83, 25182), (86, 25191),

Gene: Renaldo_36 Start: 28221, Stop: 28667, Start Num: 19

Candidate Starts for Renaldo_36:

(7, 28176), (11, 28197), (Start: 17 @28212 has 2 MA's), (Start: 19 @28221 has 43 MA's), (Start: 23 @28236 has 3 MA's), (26, 28248), (42, 28341), (52, 28410), (53, 28416), (55, 28422), (60, 28446), (72, 28518), (73, 28530), (89, 28596),

Gene: RustyBoy_28 Start: 24236, Stop: 24661, Start Num: 20

Candidate Starts for RustyBoy_28:

(4, 24170), (8, 24185), (12, 24206), (Start: 20 @24236 has 2 MA's), (32, 24275), (33, 24281), (34, 24284), (38, 24314), (47, 24359), (62, 24452), (84, 24572), (87, 24581), (92, 24617),

Gene: Salk_28 Start: 24846, Stop: 25274, Start Num: 25

Candidate Starts for Salk_28:

(14, 24804), (Start: 25 @24846 has 17 MA's), (32, 24888), (33, 24894), (34, 24897), (38, 24927), (39, 24936), (43, 24954), (51, 25008), (62, 25065), (79, 25158), (83, 25182), (86, 25191),

Gene: ScienceWizSam_33 Start: 28078, Stop: 28521, Start Num: 19

Candidate Starts for ScienceWizSam_33:

(16, 28063), (Start: 19 @28078 has 43 MA's), (22, 28090), (33, 28141), (41, 28195), (53, 28270), (58, 28291), (69, 28363), (75, 28390), (84, 28432), (86, 28438),

Gene: Shepard_32 Start: 27935, Stop: 28378, Start Num: 19

Candidate Starts for Shepard_32:

(16, 27920), (Start: 19 @27935 has 43 MA's), (33, 27998), (37, 28028), (39, 28040), (50, 28100), (53, 28127), (61, 28166), (70, 28223), (90, 28319),

Gene: Shiba_28 Start: 24846, Stop: 25274, Start Num: 25

Candidate Starts for Shiba_28:

(14, 24804), (Start: 25 @24846 has 17 MA's), (32, 24888), (33, 24894), (34, 24897), (38, 24927), (39, 24936), (43, 24954), (51, 25008), (62, 25065), (79, 25158), (83, 25182), (86, 25191),

Gene: Sloopyjoe_28 Start: 24847, Stop: 25275, Start Num: 25

Candidate Starts for Sloopyjoe_28:

(14, 24805), (Start: 25 @24847 has 17 MA's), (32, 24889), (33, 24895), (34, 24898), (38, 24928), (39, 24937), (43, 24955), (51, 25009), (62, 25066), (79, 25159), (83, 25183), (86, 25192),

Gene: Spain_27 Start: 24846, Stop: 25274, Start Num: 25

Candidate Starts for Spain_27:

(14, 24804), (Start: 25 @24846 has 17 MA's), (32, 24888), (33, 24894), (34, 24897), (38, 24927), (39, 24936), (43, 24954), (51, 25008), (62, 25065), (79, 25158), (83, 25182), (86, 25191),

Gene: Sporto_29 Start: 26058, Stop: 26486, Start Num: 25

Candidate Starts for Sporto_29:

(3, 25944), (6, 25983), (16, 26022), (Start: 20 @26043 has 2 MA's), (Start: 25 @26058 has 17 MA's), (30, 26091), (32, 26100), (33, 26106), (34, 26109), (38, 26139), (39, 26148), (43, 26166), (51, 26220), (62, 26277), (79, 26370), (83, 26394), (86, 26403),

Gene: Sprinkle_28 Start: 24960, Stop: 25385, Start Num: 20

Candidate Starts for Sprinkle_28:

(Start: 20 @24960 has 2 MA's), (30, 24990), (33, 25005), (34, 25008), (38, 25038), (51, 25119), (53, 25134), (54, 25137), (56, 25143), (64, 25191), (68, 25212), (69, 25227), (75, 25254), (79, 25269), (82, 25278), (85, 25299),

Gene: StarLord_28 Start: 24847, Stop: 25275, Start Num: 25

Candidate Starts for StarLord_28:

(14, 24805), (Start: 25 @24847 has 17 MA's), (32, 24889), (33, 24895), (34, 24898), (38, 24928), (39, 24937), (43, 24955), (51, 25009), (62, 25066), (79, 25159), (83, 25183), (86, 25192),

Gene: Stardom_23 Start: 23077, Stop: 23523, Start Num: 18

Candidate Starts for Stardom_23:

(Start: 13 @23056 has 12 MA's), (Start: 15 @23062 has 2 MA's), (Start: 18 @23077 has 4 MA's), (Start: 23 @23095 has 3 MA's), (40, 23194), (48, 23224), (51, 23257), (52, 23266), (57, 23284), (70, 23368), (72, 23374), (74, 23389), (76, 23398), (79, 23407), (85, 23437), (90, 23464),

Gene: Stardrop_31 Start: 26809, Stop: 27288, Start Num: 10

Candidate Starts for Stardrop_31:

(Start: 5 @26785 has 2 MA's), (Start: 10 @26809 has 3 MA's), (Start: 19 @26842 has 43 MA's), (Start: 23 @26857 has 3 MA's), (42, 26962), (52, 27031), (53, 27037), (72, 27139), (73, 27151),

Gene: Stayer_28 Start: 24846, Stop: 25274, Start Num: 25

Candidate Starts for Stayer_28:

(14, 24804), (Start: 25 @24846 has 17 MA's), (32, 24888), (33, 24894), (34, 24897), (38, 24927), (39, 24936), (43, 24954), (51, 25008), (62, 25065), (79, 25158), (83, 25182), (86, 25191),

Gene: Sunny4976_28 Start: 26238, Stop: 26672, Start Num: 20

Candidate Starts for Sunny4976_28:

(Start: 20 @26238 has 2 MA's), (33, 26292), (52, 26415), (67, 26496), (69, 26514), (71, 26520), (75, 26541),

Gene: Synopsis_30 Start: 27741, Stop: 28184, Start Num: 19

Candidate Starts for Synopsis_30:

(16, 27726), (Start: 19 @27741 has 43 MA's), (22, 27753), (32, 27798), (33, 27804), (41, 27858), (53, 27933), (58, 27954), (64, 27990), (65, 27993), (69, 28026), (75, 28053), (84, 28095), (86, 28101),

Gene: Tatanka_31 Start: 28225, Stop: 28668, Start Num: 19

Candidate Starts for Tatanka_31:

(16, 28210), (Start: 19 @28225 has 43 MA's), (22, 28237), (32, 28282), (33, 28288), (41, 28342), (53, 28417), (58, 28438), (69, 28510), (75, 28537), (84, 28579), (86, 28585),

Gene: Teacup_31 Start: 27597, Stop: 28040, Start Num: 19

Candidate Starts for Teacup_31:

(16, 27582), (Start: 19 @27597 has 43 MA's), (22, 27609), (32, 27654), (33, 27660), (37, 27690), (39, 27702), (41, 27714), (58, 27810), (64, 27846), (65, 27849), (69, 27882), (75, 27909), (84, 27951), (91, 27990),

Gene: Tenney120_31 Start: 26546, Stop: 27025, Start Num: 10

Candidate Starts for Tenney120_31:

(Start: 5 @26522 has 2 MA's), (Start: 10 @26546 has 3 MA's), (Start: 19 @26579 has 43 MA's), (Start: 23 @26594 has 3 MA's), (42, 26699), (52, 26768), (53, 26774), (72, 26876), (73, 26888),

Gene: Tenno_32 Start: 28823, Stop: 29266, Start Num: 19

Candidate Starts for Tenno_32:

(16, 28808), (Start: 19 @28823 has 43 MA's), (22, 28835), (33, 28886), (39, 28928), (41, 28940), (53, 29015), (65, 29075), (69, 29108), (75, 29135), (91, 29216),

Gene: Tipton_32 Start: 27931, Stop: 28374, Start Num: 19

Candidate Starts for Tipton_32:

(16, 27916), (Start: 19 @27931 has 43 MA's), (32, 27988), (33, 27994), (39, 28036), (50, 28096), (58, 28144), (90, 28315), (94, 28351),

Gene: Tokki_32 Start: 27886, Stop: 28329, Start Num: 19

Candidate Starts for Tokki_32:

(3, 27793), (6, 27832), (16, 27871), (Start: 19 @27886 has 43 MA's), (33, 27949), (37, 27979), (39, 27991), (42, 28006), (50, 28051), (58, 28099), (61, 28117), (70, 28174), (79, 28213), (90, 28270), (94, 28306),

Gene: Tribby_25 Start: 23789, Stop: 24256, Start Num: 13

Candidate Starts for Tribby_25:

(Start: 13 @23789 has 12 MA's), (Start: 15 @23795 has 2 MA's), (Start: 18 @23810 has 4 MA's), (Start: 23 @23828 has 3 MA's), (27, 23852), (38, 23909), (40, 23927), (44, 23939), (52, 23999), (57, 24017), (62, 24047), (64, 24062), (70, 24101), (72, 24107), (76, 24131), (85, 24170), (90, 24197),

Gene: TrixiePhattel_31 Start: 26358, Stop: 26861, Start Num: 5

Candidate Starts for TrixiePhattel_31:

(Start: 5 @26358 has 2 MA's), (Start: 10 @26382 has 3 MA's), (Start: 19 @26415 has 43 MA's), (Start: 23 @26430 has 3 MA's), (42, 26535), (52, 26604), (53, 26610), (60, 26640), (72, 26712), (73, 26724),

Gene: Truckee_30 Start: 27769, Stop: 28200, Start Num: 19

Candidate Starts for Truckee_30:

(3, 27676), (6, 27715), (16, 27754), (Start: 19 @27769 has 43 MA's), (33, 27808), (35, 27829), (42, 27865), (45, 27880), (46, 27883), (58, 27958), (68, 28015), (77, 28066), (78, 28069), (93, 28147), (96, 28180),

Gene: Trustiboi_32 Start: 28294, Stop: 28737, Start Num: 19

Candidate Starts for Trustiboi_32:

(16, 28279), (Start: 19 @28294 has 43 MA's), (22, 28306), (32, 28351), (33, 28357), (39, 28399), (41, 28411), (53, 28486), (58, 28507), (69, 28579), (75, 28606), (84, 28648), (86, 28654),

Gene: Uzumaki_31 Start: 27109, Stop: 27555, Start Num: 19

Candidate Starts for Uzumaki_31:

(Start: 5 @27052 has 2 MA's), (Start: 10 @27076 has 3 MA's), (Start: 19 @27109 has 43 MA's), (Start: 23 @27124 has 3 MA's), (42, 27229), (52, 27298), (53, 27304), (72, 27406), (73, 27418),

Gene: Westerlin_32 Start: 29406, Stop: 29849, Start Num: 19

Candidate Starts for Westerlin_32:

(16, 29391), (Start: 19 @29406 has 43 MA's), (22, 29418), (32, 29463), (33, 29469), (39, 29511), (53, 29598), (58, 29619), (64, 29655), (65, 29658), (69, 29691), (75, 29718), (84, 29760), (91, 29799),

Gene: Xenomorph_23 Start: 23807, Stop: 24274, Start Num: 13

Candidate Starts for Xenomorph_23:

(Start: 13 @23807 has 12 MA's), (Start: 15 @23813 has 2 MA's), (Start: 18 @23828 has 4 MA's), (Start: 23 @23846 has 3 MA's), (38, 23927), (40, 23945), (51, 24008), (57, 24035), (70, 24119), (72, 24125), (76, 24149), (79, 24158), (85, 24188),

Gene: YoshiYama_24 Start: 23859, Stop: 24305, Start Num: 18

Candidate Starts for YoshiYama_24:

(Start: 13 @23838 has 12 MA's), (Start: 15 @23844 has 2 MA's), (Start: 18 @23859 has 4 MA's), (Start: 23 @23877 has 3 MA's), (38, 23958), (40, 23976), (51, 24039), (57, 24066), (70, 24150), (72, 24156), (76, 24180), (79, 24189), (85, 24219), (90, 24246),

Gene: Zeina_31 Start: 26433, Stop: 26936, Start Num: 5

Candidate Starts for Zeina_31:

(Start: 5 @26433 has 2 MA's), (Start: 10 @26457 has 3 MA's), (Start: 19 @26490 has 43 MA's), (Start: 23 @26505 has 3 MA's), (42, 26610), (52, 26679), (53, 26685), (72, 26787), (73, 26799),

Gene: Zippen_31 Start: 28073, Stop: 28516, Start Num: 19

Candidate Starts for Zippen_31:

(3, 27980), (6, 28019), (16, 28058), (Start: 19 @28073 has 43 MA's), (26, 28100), (31, 28124), (32, 28130), (33, 28136), (37, 28166), (50, 28238), (58, 28286), (61, 28304), (66, 28334), (68, 28343), (76, 28391), (81, 28406), (84, 28427), (90, 28457), (94, 28493),