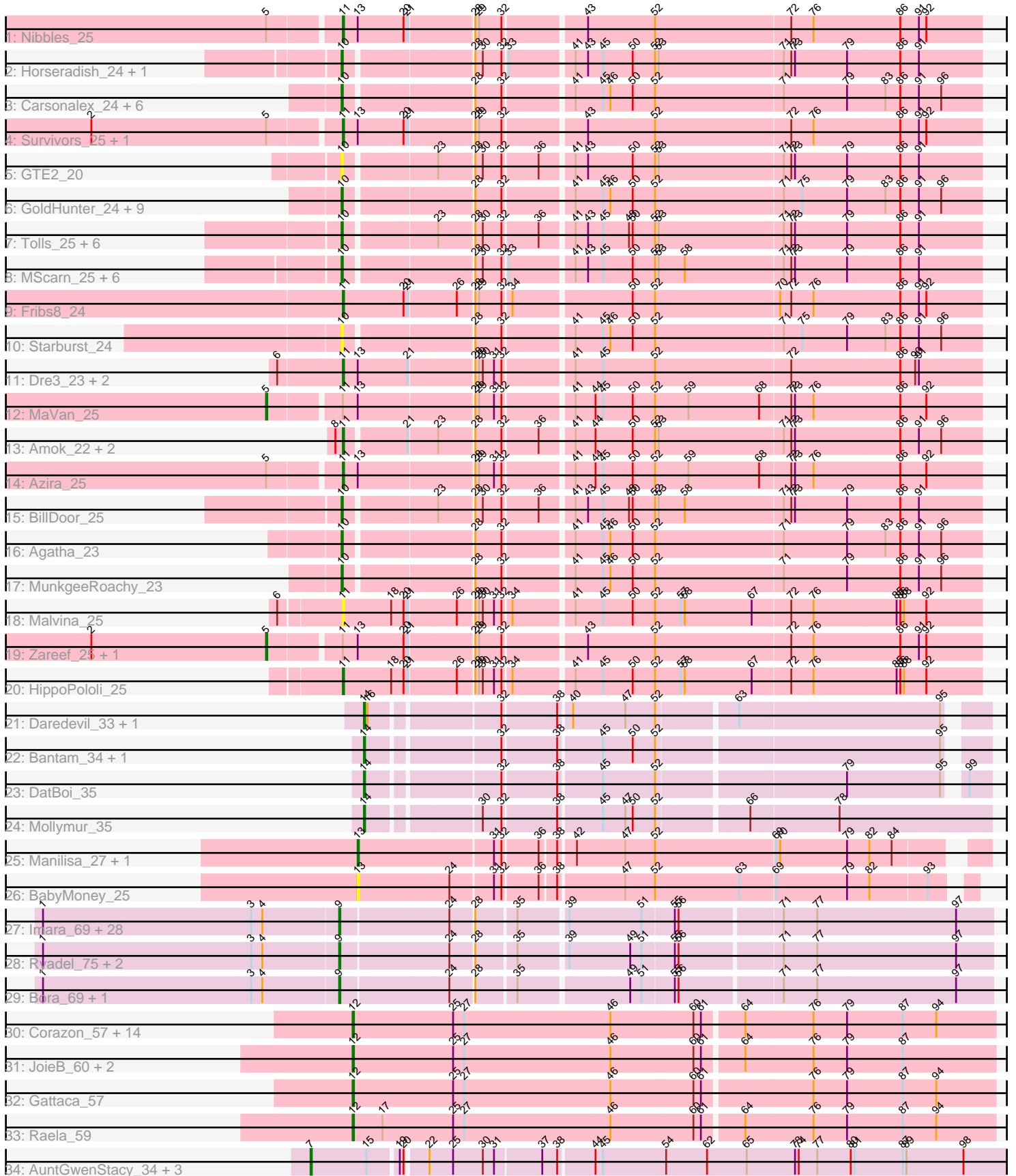


Pham 308284



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 308284 Report

This analysis was run 06/27/26 on database version 652.

Pham number 308284 has 121 members, 21 are drafts.

Phages represented in each track:

- Track 1 : Nibbles_25
- Track 2 : Horseradish_24, Yummy_24
- Track 3 : Carsonalex_24, RSchmailzl_24, Nina_24, Typhonmarchy_23, Burnsey_23, Cozz_23, Quasar_23
- Track 4 : Survivors_25, Wallaby_27
- Track 5 : GTE2_20
- Track 6 : GoldHunter_24, Axym_23, Sopespian_23, RADical_24, RedBaron_25, ChickenTender_25, Socotra_24, PsychoKiller_23, Bubble_23, Elliott_23
- Track 7 : Tolls_25, AndPeggy_22, Yarn_22, SteamedHams_25, CanesSauce_23, Caramellatte_23, ChocoMunchkin_23
- Track 8 : MScarn_25, Blondies_24, Biskit_24, Buttrmlkdreams_23, SketchMex_22, SweatNTears_25, Troje_23
- Track 9 : Fribs8_24
- Track 10 : Starburst_24
- Track 11 : Dre3_23, Gibbous_23, Cleo_23
- Track 12 : MaVan_25
- Track 13 : Amok_22, Emalyn_22, AikoCarson_22
- Track 14 : Azira_25
- Track 15 : BillDoor_25
- Track 16 : Agatha_23
- Track 17 : MunkgeeRoachy_23
- Track 18 : Malvina_25
- Track 19 : Zareef_25, Wolfwood_25
- Track 20 : HippoPololi_25
- Track 21 : Daredevil_33, Towmatter_32
- Track 22 : Bantam_34, SpeedDemon_360
- Track 23 : DatBoi_35
- Track 24 : Mollymur_35
- Track 25 : Manilisa_27, Phishy_26
- Track 26 : BabyMoney_25
- Track 27 : Imara_69, Wogge42_70, Smooch_74, Winget_72, Shida_71, SchoolBus_71, KingPhillip3_71, Catdawg_71, Schuy_72, Krili_70, TelAviv_68, YungJamal_76, Dylan_71, Ashwin_73, JangDynasty_71, Vagabond_71, YoyoKar_69, Corndog_74, Wildflower_71, Alkhayr_71, Vorrps_71, Mori_71, Firecracker_73, Familton_72, Zakhe101_70, FoulBall_71, NiebruSaylor_70, Idergollasper_71, Zebo_71
- Track 28 : Ryadel_75, Blessica_72, MadKillah_72

- Track 29 : Bora_69, Murai_72
- Track 30 : Corazon_57, MosMoris_56, Blackbeetle_59, GoongGoong_58, Marvin_55, Caprice_55, Tesla_56, Poise_59, LittleLaf_59, Lilbit_57, Clarkson_60, Beelzebub_63, Huphlepuuff_61, RedRaider77_58, FeliMaine_61
- Track 31 : JoieB_60, VasuNzinga_58, Pringar_58
- Track 32 : Gattaca_57
- Track 33 : Raela_59
- Track 34 : AuntGwenStacy_34, Typha_34, Faiyaz_34, Hilltopfarm_34

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

The start number called the most often in the published annotations is 9, it was called in 31 of the 100 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Alkhayr_71, Ashwin_73, Blessica_72, Bora_69, Catdawg_71, Corndog_74, Dylan_71, Familton_72, Firecracker_73, FoulBall_71, Idergollasper_71, Imara_69, JangDynasty_71, KingPhillip3_71, Krili_70, MadKillah_72, Mori_71, Murai_72, NiebruSaylor_70, Ryadel_75, SchoolBus_71, Schuy_72, Shida_71, Smooch_74, TelAviv_68, Vagabond_71, Vorrps_71, Wildflower_71, Winget_72, Wogge42_70, YoyoKar_69, YungJamal_76, Zakhe101_70, Zebo_71,

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

-

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

- Agatha_23, AikoCarson_22, Amok_22, AndPeggy_22, AuntGwenStacy_34, Axym_23, Azira_25, BabyMoney_25, Bantam_34, Beelzebub_63, BillDoor_25, Biskit_24, Blackbeetle_59, Blondies_24, Bubble_23, Burnsey_23, Buttrmilkdreams_23, CanesSauce_23, Caprice_55, CaramelLatte_23, Carsonalex_24, ChickenTender_25, ChocoMunchkin_23, Clarkson_60, Cleo_23, Corazon_57, Cozz_23, Daredevil_33, DatBoi_35, Dre3_23, Elliott_23, Emalyn_22, Faiyaz_34, FeliMaine_61, Fribs8_24, GTE2_20, Gattaca_57, Gibbous_23, GoldHunter_24, GoongGoong_58, Hilltopfarm_34, HippoPololi_25, Horseradish_24, Huphlepuuff_61, JoieB_60, Lilbit_57, LittleLaf_59, MScarn_25, MaVan_25, Malvina_25, Manilisa_27, Marvin_55, Mollymur_35, MosMoris_56, MunkgeeRoachy_23, Nibbles_25, Nina_24, Phishy_26, Poise_59, Pringar_58, PsychoKiller_23, Quasar_23, RADical_24, RSchmailzl_24, Raela_59, RedBaron_25, RedRaider77_58, SketchMex_22, Socotra_24, Sopespian_23, SpeedDemon_360, Starburst_24, SteamedHams_25, Survivors_25, SweatNTears_25, Tesla_56, Tolls_25, Towmatter_32, Troje_23, Typha_34, Typhonmarchy_23, VasuNzinga_58, Wallaby_27, Wolfwood_25, Yarn_22, Yummy_24, Zareef_25,

Summary by start number:

Start 5:

- Found in 7 of 121 (5.8%) of genes in pham
- Manual Annotations of this start: 3 of 100
- Called 42.9% of time when present

- Phage (with cluster) where this start called: MaVan_25 (CT), Wolfwood_25 (CT), Zareef_25 (CT),

Start 7:

- Found in 4 of 121 (3.3%) of genes in pham
- Manual Annotations of this start: 4 of 100
- Called 100.0% of time when present
- Phage (with cluster) where this start called: AuntGwenStacy_34 (Y), Faiyaz_34 (Y), Hilltopfarm_34 (Y), Typha_34 (Y),

Start 9:

- Found in 34 of 121 (28.1%) of genes in pham
- Manual Annotations of this start: 31 of 100
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Alkhayr_71 (O), Ashwin_73 (O), Blessica_72 (O), Bora_69 (O), Catdawg_71 (O), Corndog_74 (O), Dylan_71 (O), Familton_72 (O), Firecracker_73 (O), FoulBall_71 (O), Idergollasper_71 (O), Imara_69 (O), JangDynasty_71 (O), KingPhillip3_71 (O), Krili_70 (O), MadKillah_72 (O), Mori_71 (O), Murai_72 (O), NiebruSaylor_70 (O), Ryadel_75 (O), SchoolBus_71 (O), Schuy_72 (O), Shida_71 (O), Smooch_74 (O), TelAviv_68 (O), Vagabond_71 (O), Vorrrps_71 (O), Wildflower_71 (O), Winget_72 (O), Wogge42_70 (O), YoyoKar_69 (O), YungJamal_76 (O), Zakhe101_70 (O), Zebo_71 (O),

Start 10:

- Found in 38 of 121 (31.4%) of genes in pham
- Manual Annotations of this start: 25 of 100
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Agatha_23 (CT), AndPeggy_22 (CT), Axym_23 (CT), BillDoor_25 (CT), Biskit_24 (CT), Blondies_24 (CT), Bubble_23 (CT), Burnsey_23 (CT), Buttrmlkdreams_23 (CT), CanesSauce_23 (CT), CaramelLatte_23 (CT), Carsonalex_24 (CT), ChickenTender_25 (CT), ChocoMunchkin_23 (CT), Cozz_23 (CT), Elliott_23 (CT), GTE2_20 (CT), GoldHunter_24 (CT), Horseradish_24 (CT), MScarn_25 (CT), MunkgeeRoachy_23 (CT), Nina_24 (CT), PsychoKiller_23 (CT), Quasar_23 (CT), RADical_24 (CT), RSchmailzl_24 (CT), RedBaron_25 (CT), SketchMex_22 (CT), Socotra_24 (CT), Sopespian_23 (CT), Starburst_24 (CT), SteamedHams_25 (CT), SweatNTears_25 (CT), Tolls_25 (CT), Troje_23 (CT), Typhonomachy_23 (CT), Yarn_22 (CT), Yummy_24 (CT),

Start 11:

- Found in 16 of 121 (13.2%) of genes in pham
- Manual Annotations of this start: 11 of 100
- Called 81.2% of time when present
- Phage (with cluster) where this start called: AikoCarson_22 (CT), Amok_22 (CT), Azira_25 (CT), Cleo_23 (CT), Dre3_23 (CT), Emalyn_22 (CT), Fribs8_24 (CT), Gibbous_23 (CT), HippoPololi_25 (CT), Malvina_25 (CT), Nibbles_25 (CT), Survivors_25 (CT), Wallaby_27 (CT),

Start 12:

- Found in 20 of 121 (16.5%) of genes in pham
- Manual Annotations of this start: 19 of 100
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Beelzebub_63 (S), Blackbeetle_59 (S), Caprice_55 (S), Clarkson_60 (S), Corazon_57 (S), FeliMaine_61 (S), Gattaca_57 (S),

GoongGoong_58 (S), Huphlepuuff_61 (S), JoieB_60 (S), Lilbit_57 (S), LittleLaf_59 (S), Marvin_55 (S), MosMoris_56 (S), Poise_59 (S), Pringar_58 (S), Raela_59 (S), RedRaider77_58 (S), Tesla_56 (S), VasuNzinga_58 (S),

Start 13:

- Found in 13 of 121 (10.7%) of genes in pham
- Manual Annotations of this start: 1 of 100
- Called 23.1% of time when present
- Phage (with cluster) where this start called: BabyMoney_25 (DT), Manilisa_27 (DT), Phishy_26 (DT),

Start 14:

- Found in 6 of 121 (5.0%) of genes in pham
- Manual Annotations of this start: 6 of 100
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Bantam_34 (DL), Daredevil_33 (DL), DatBoi_35 (DL), Mollymur_35 (DL), SpeedDemon_360 (DL), Towmatter_32 (DL),

Summary by clusters:

There are 6 clusters represented in this pham: DL, O, S, Y, DT, CT,

Info for manual annotations of cluster CT:

- Start number 5 was manually annotated 3 times for cluster CT.
- Start number 10 was manually annotated 25 times for cluster CT.
- Start number 11 was manually annotated 11 times for cluster CT.

Info for manual annotations of cluster DL:

- Start number 14 was manually annotated 6 times for cluster DL.

Info for manual annotations of cluster DT:

- Start number 13 was manually annotated 1 time for cluster DT.

Info for manual annotations of cluster O:

- Start number 9 was manually annotated 31 times for cluster O.

Info for manual annotations of cluster S:

- Start number 12 was manually annotated 19 times for cluster S.

Info for manual annotations of cluster Y:

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

Gene Information:

Gene: Agatha_23 Start: 19719, Stop: 20207, Start Num: 10

Candidate Starts for Agatha_23:

(Start: 10 @19719 has 25 MA's), (28, 19812), (32, 19833), (41, 19884), (45, 19905), (46, 19911), (50, 19929), (52, 19947), (71, 20049), (79, 20100), (83, 20130), (86, 20142), (91, 20157), (96, 20175),

Gene: AikoCarson_22 Start: 18977, Stop: 19465, Start Num: 11

Candidate Starts for AikoCarson_22:

(8, 18971), (Start: 11 @18977 has 11 MA's), (21, 19022), (23, 19043), (28, 19070), (32, 19091), (36, 19118), (41, 19142), (44, 19157), (50, 19187), (52, 19205), (53, 19208), (71, 19307), (72, 19313), (73, 19316), (86, 19400), (91, 19415), (96, 19433),

Gene: Alkhayr_71 Start: 45256, Stop: 45753, Start Num: 9

Candidate Starts for Alkhayr_71:

(1, 45019), (3, 45187), (4, 45196), (Start: 9 @45256 has 31 MA's), (24, 45340), (28, 45358), (35, 45388), (39, 45424), (51, 45481), (55, 45505), (56, 45508), (71, 45586), (77, 45613), (97, 45724),

Gene: Amok_22 Start: 18974, Stop: 19462, Start Num: 11

Candidate Starts for Amok_22:

(8, 18968), (Start: 11 @18974 has 11 MA's), (21, 19019), (23, 19040), (28, 19067), (32, 19088), (36, 19115), (41, 19139), (44, 19154), (50, 19184), (52, 19202), (53, 19205), (71, 19304), (72, 19310), (73, 19313), (86, 19397), (91, 19412), (96, 19430),

Gene: AndPeggy_22 Start: 19379, Stop: 19867, Start Num: 10

Candidate Starts for AndPeggy_22:

(Start: 10 @19379 has 25 MA's), (23, 19445), (28, 19472), (30, 19478), (32, 19493), (36, 19520), (41, 19544), (43, 19553), (45, 19565), (48, 19586), (50, 19589), (52, 19607), (53, 19610), (71, 19709), (72, 19715), (73, 19718), (79, 19760), (86, 19802), (91, 19817),

Gene: Ashwin_73 Start: 46026, Stop: 46523, Start Num: 9

Candidate Starts for Ashwin_73:

(1, 45789), (3, 45957), (4, 45966), (Start: 9 @46026 has 31 MA's), (24, 46110), (28, 46128), (35, 46158), (39, 46194), (51, 46251), (55, 46275), (56, 46278), (71, 46356), (77, 46383), (97, 46494),

Gene: AuntGwenStacy_34 Start: 30688, Stop: 31254, Start Num: 7

Candidate Starts for AuntGwenStacy_34:

(Start: 7 @30688 has 4 MA's), (15, 30733), (19, 30754), (20, 30757), (22, 30772), (25, 30790), (30, 30814), (31, 30823), (37, 30859), (38, 30871), (44, 30898), (45, 30904), (54, 30955), (62, 30988), (65, 31018), (73, 31057), (74, 31060), (77, 31075), (80, 31102), (81, 31105), (87, 31144), (89, 31147), (98, 31192),

Gene: Axym_23 Start: 19719, Stop: 20207, Start Num: 10

Candidate Starts for Axym_23:

(Start: 10 @19719 has 25 MA's), (28, 19812), (32, 19833), (41, 19884), (45, 19905), (46, 19911), (50, 19929), (52, 19947), (71, 20049), (75, 20064), (79, 20100), (83, 20130), (86, 20142), (91, 20157), (96, 20175),

Gene: Azira_25 Start: 20672, Stop: 21166, Start Num: 11

Candidate Starts for Azira_25:

(Start: 5 @20618 has 3 MA's), (Start: 11 @20672 has 11 MA's), (Start: 13 @20684 has 1 MA's), (28, 20771), (29, 20774), (31, 20786), (32, 20792), (41, 20843), (44, 20858), (45, 20864), (50, 20888), (52, 20906), (59, 20933), (68, 20990), (72, 21014), (73, 21017), (76, 21032), (86, 21101), (92, 21122),

Gene: BabyMoney_25 Start: 21466, Stop: 21930, Start Num: 13

Candidate Starts for BabyMoney_25:

(Start: 13 @21466 has 1 MA's), (24, 21538), (31, 21571), (32, 21577), (36, 21604), (38, 21616), (47, 21667), (52, 21691), (63, 21757), (69, 21784), (79, 21841), (82, 21859), (93, 21904),

Gene: Bantam_34 Start: 30999, Stop: 31454, Start Num: 14

Candidate Starts for Bantam_34:

(Start: 14 @30999 has 6 MA's), (32, 31095), (38, 31137), (45, 31170), (50, 31194), (52, 31212), (95, 31428),

Gene: Beelzebub_63 Start: 34497, Stop: 35006, Start Num: 12

Candidate Starts for Beelzebub_63:

(Start: 12 @34497 has 19 MA's), (25, 34578), (27, 34587), (46, 34704), (60, 34770), (61, 34776), (64, 34806), (76, 34860), (79, 34887), (87, 34932), (94, 34959),

Gene: BillDoor_25 Start: 19347, Stop: 19835, Start Num: 10

Candidate Starts for BillDoor_25:

(Start: 10 @19347 has 25 MA's), (23, 19413), (28, 19440), (30, 19446), (32, 19461), (36, 19488), (41, 19512), (43, 19521), (45, 19533), (48, 19554), (50, 19557), (52, 19575), (53, 19578), (58, 19599), (71, 19677), (72, 19683), (73, 19686), (79, 19728), (86, 19770), (91, 19785),

Gene: Biskit_24 Start: 19367, Stop: 19855, Start Num: 10

Candidate Starts for Biskit_24:

(Start: 10 @19367 has 25 MA's), (28, 19460), (30, 19466), (32, 19481), (33, 19484), (41, 19532), (43, 19541), (45, 19553), (50, 19577), (52, 19595), (53, 19598), (58, 19619), (71, 19697), (72, 19703), (73, 19706), (79, 19748), (86, 19790), (91, 19805),

Gene: Blackbeetle_59 Start: 33542, Stop: 34051, Start Num: 12

Candidate Starts for Blackbeetle_59:

(Start: 12 @33542 has 19 MA's), (25, 33623), (27, 33632), (46, 33749), (60, 33815), (61, 33821), (64, 33851), (76, 33905), (79, 33932), (87, 33977), (94, 34004),

Gene: Blessica_72 Start: 45855, Stop: 46352, Start Num: 9

Candidate Starts for Blessica_72:

(1, 45618), (3, 45786), (4, 45795), (Start: 9 @45855 has 31 MA's), (24, 45939), (28, 45957), (35, 45987), (39, 46023), (49, 46071), (51, 46080), (55, 46104), (56, 46107), (71, 46185), (77, 46212), (97, 46323),

Gene: Blondies_24 Start: 19350, Stop: 19838, Start Num: 10

Candidate Starts for Blondies_24:

(Start: 10 @19350 has 25 MA's), (28, 19443), (30, 19449), (32, 19464), (33, 19467), (41, 19515), (43, 19524), (45, 19536), (50, 19560), (52, 19578), (53, 19581), (58, 19602), (71, 19680), (72, 19686), (73, 19689), (79, 19731), (86, 19773), (91, 19788),

Gene: Bora_69 Start: 45236, Stop: 45733, Start Num: 9

Candidate Starts for Bora_69:

(1, 44999), (3, 45167), (4, 45176), (Start: 9 @45236 has 31 MA's), (24, 45320), (28, 45338), (35, 45368), (49, 45452), (51, 45461), (55, 45485), (56, 45488), (71, 45566), (77, 45593), (97, 45704),

Gene: Bubble_23 Start: 19719, Stop: 20207, Start Num: 10

Candidate Starts for Bubble_23:

(Start: 10 @19719 has 25 MA's), (28, 19812), (32, 19833), (41, 19884), (45, 19905), (46, 19911), (50, 19929), (52, 19947), (71, 20049), (75, 20064), (79, 20100), (83, 20130), (86, 20142), (91, 20157), (96, 20175),

Gene: Burnsey_23 Start: 19720, Stop: 20208, Start Num: 10

Candidate Starts for Burnsey_23:

(Start: 10 @19720 has 25 MA's), (28, 19813), (32, 19834), (41, 19885), (45, 19906), (46, 19912), (50, 19930), (52, 19948), (71, 20050), (79, 20101), (83, 20131), (86, 20143), (91, 20158), (96, 20176),

Gene: Buttrmlkdreams_23 Start: 19349, Stop: 19837, Start Num: 10

Candidate Starts for Buttrmlkdreams_23:

(Start: 10 @19349 has 25 MA's), (28, 19442), (30, 19448), (32, 19463), (33, 19466), (41, 19514), (43, 19523), (45, 19535), (50, 19559), (52, 19577), (53, 19580), (58, 19601), (71, 19679), (72, 19685), (73, 19688), (79, 19730), (86, 19772), (91, 19787),

Gene: CanesSauce_23 Start: 19380, Stop: 19868, Start Num: 10

Candidate Starts for CanesSauce_23:

(Start: 10 @19380 has 25 MA's), (23, 19446), (28, 19473), (30, 19479), (32, 19494), (36, 19521), (41, 19545), (43, 19554), (45, 19566), (48, 19587), (50, 19590), (52, 19608), (53, 19611), (71, 19710), (72, 19716), (73, 19719), (79, 19761), (86, 19803), (91, 19818),

Gene: Caprice_55 Start: 33856, Stop: 34365, Start Num: 12

Candidate Starts for Caprice_55:

(Start: 12 @33856 has 19 MA's), (25, 33937), (27, 33946), (46, 34063), (60, 34129), (61, 34135), (64, 34165), (76, 34219), (79, 34246), (87, 34291), (94, 34318),

Gene: Caramellatte_23 Start: 19380, Stop: 19868, Start Num: 10

Candidate Starts for Caramellatte_23:

(Start: 10 @19380 has 25 MA's), (23, 19446), (28, 19473), (30, 19479), (32, 19494), (36, 19521), (41, 19545), (43, 19554), (45, 19566), (48, 19587), (50, 19590), (52, 19608), (53, 19611), (71, 19710), (72, 19716), (73, 19719), (79, 19761), (86, 19803), (91, 19818),

Gene: Carsonalex_24 Start: 19777, Stop: 20265, Start Num: 10

Candidate Starts for Carsonalex_24:

(Start: 10 @19777 has 25 MA's), (28, 19870), (32, 19891), (41, 19942), (45, 19963), (46, 19969), (50, 19987), (52, 20005), (71, 20107), (79, 20158), (83, 20188), (86, 20200), (91, 20215), (96, 20233),

Gene: Catdawg_71 Start: 45591, Stop: 46088, Start Num: 9

Candidate Starts for Catdawg_71:

(1, 45354), (3, 45522), (4, 45531), (Start: 9 @45591 has 31 MA's), (24, 45675), (28, 45693), (35, 45723), (39, 45759), (51, 45816), (55, 45840), (56, 45843), (71, 45921), (77, 45948), (97, 46059),

Gene: ChickenTender_25 Start: 19781, Stop: 20269, Start Num: 10

Candidate Starts for ChickenTender_25:

(Start: 10 @19781 has 25 MA's), (28, 19874), (32, 19895), (41, 19946), (45, 19967), (46, 19973), (50, 19991), (52, 20009), (71, 20111), (75, 20126), (79, 20162), (83, 20192), (86, 20204), (91, 20219), (96, 20237),

Gene: ChocoMunchkin_23 Start: 19380, Stop: 19868, Start Num: 10

Candidate Starts for ChocoMunchkin_23:

(Start: 10 @19380 has 25 MA's), (23, 19446), (28, 19473), (30, 19479), (32, 19494), (36, 19521), (41, 19545), (43, 19554), (45, 19566), (48, 19587), (50, 19590), (52, 19608), (53, 19611), (71, 19710), (72, 19716), (73, 19719), (79, 19761), (86, 19803), (91, 19818),

Gene: Clarkson_60 Start: 34225, Stop: 34734, Start Num: 12

Candidate Starts for Clarkson_60:

(Start: 12 @34225 has 19 MA's), (25, 34306), (27, 34315), (46, 34432), (60, 34498), (61, 34504), (64, 34534), (76, 34588), (79, 34615), (87, 34660), (94, 34687),

Gene: Cleo_23 Start: 20016, Stop: 20510, Start Num: 11

Candidate Starts for Cleo_23:

(6, 19965), (Start: 11 @20016 has 11 MA's), (Start: 13 @20028 has 1 MA's), (21, 20067), (28, 20115), (29, 20118), (30, 20121), (31, 20130), (32, 20136), (41, 20187), (45, 20208), (52, 20250), (72, 20358), (86, 20445), (90, 20457), (91, 20460),

Gene: Corazon_57 Start: 34419, Stop: 34928, Start Num: 12

Candidate Starts for Corazon_57:

(Start: 12 @34419 has 19 MA's), (25, 34500), (27, 34509), (46, 34626), (60, 34692), (61, 34698), (64, 34728), (76, 34782), (79, 34809), (87, 34854), (94, 34881),

Gene: Corndog_74 Start: 46585, Stop: 47082, Start Num: 9

Candidate Starts for Corndog_74:

(1, 46348), (3, 46516), (4, 46525), (Start: 9 @46585 has 31 MA's), (24, 46669), (28, 46687), (35, 46717), (39, 46753), (51, 46810), (55, 46834), (56, 46837), (71, 46915), (77, 46942), (97, 47053),

Gene: Cozz_23 Start: 19720, Stop: 20208, Start Num: 10

Candidate Starts for Cozz_23:

(Start: 10 @19720 has 25 MA's), (28, 19813), (32, 19834), (41, 19885), (45, 19906), (46, 19912), (50, 19930), (52, 19948), (71, 20050), (79, 20101), (83, 20131), (86, 20143), (91, 20158), (96, 20176),

Gene: Daredevil_33 Start: 29513, Stop: 29968, Start Num: 14

Candidate Starts for Daredevil_33:

(Start: 14 @29513 has 6 MA's), (16, 29516), (32, 29609), (38, 29651), (40, 29660), (47, 29702), (52, 29726), (63, 29783), (95, 29942),

Gene: DatBoi_35 Start: 31729, Stop: 32184, Start Num: 14

Candidate Starts for DatBoi_35:

(Start: 14 @31729 has 6 MA's), (32, 31825), (38, 31867), (45, 31900), (52, 31942), (79, 32083), (95, 32158), (99, 32167),

Gene: Dre3_23 Start: 19942, Stop: 20436, Start Num: 11

Candidate Starts for Dre3_23:

(6, 19891), (Start: 11 @19942 has 11 MA's), (Start: 13 @19954 has 1 MA's), (21, 19993), (28, 20041), (29, 20044), (30, 20047), (31, 20056), (32, 20062), (41, 20113), (45, 20134), (52, 20176), (72, 20284), (86, 20371), (90, 20383), (91, 20386),

Gene: Dylan_71 Start: 45638, Stop: 46135, Start Num: 9

Candidate Starts for Dylan_71:

(1, 45401), (3, 45569), (4, 45578), (Start: 9 @45638 has 31 MA's), (24, 45722), (28, 45740), (35, 45770), (39, 45806), (51, 45863), (55, 45887), (56, 45890), (71, 45968), (77, 45995), (97, 46106),

Gene: Elliott_23 Start: 19719, Stop: 20207, Start Num: 10

Candidate Starts for Elliott_23:

(Start: 10 @19719 has 25 MA's), (28, 19812), (32, 19833), (41, 19884), (45, 19905), (46, 19911), (50, 19929), (52, 19947), (71, 20049), (75, 20064), (79, 20100), (83, 20130), (86, 20142), (91, 20157), (96, 20175),

Gene: Emalyn_22 Start: 18976, Stop: 19464, Start Num: 11

Candidate Starts for Emalyn_22:

(8, 18970), (Start: 11 @18976 has 11 MA's), (21, 19021), (23, 19042), (28, 19069), (32, 19090), (36, 19117), (41, 19141), (44, 19156), (50, 19186), (52, 19204), (53, 19207), (71, 19306), (72, 19312), (73, 19315), (86, 19399), (91, 19414), (96, 19432),

Gene: Faiyaz_34 Start: 30688, Stop: 31254, Start Num: 7

Candidate Starts for Faiyaz_34:

(Start: 7 @30688 has 4 MA's), (15, 30733), (19, 30754), (20, 30757), (22, 30772), (25, 30790), (30, 30814), (31, 30823), (37, 30859), (38, 30871), (44, 30898), (45, 30904), (54, 30955), (62, 30988), (65, 31018), (73, 31057), (74, 31060), (77, 31075), (80, 31102), (81, 31105), (87, 31144), (89, 31147), (98, 31192),

Gene: Familton_72 Start: 45548, Stop: 46045, Start Num: 9

Candidate Starts for Familton_72:

(1, 45311), (3, 45479), (4, 45488), (Start: 9 @45548 has 31 MA's), (24, 45632), (28, 45650), (35, 45680), (39, 45716), (51, 45773), (55, 45797), (56, 45800), (71, 45878), (77, 45905), (97, 46016),

Gene: FeliMaine_61 Start: 34467, Stop: 34976, Start Num: 12

Candidate Starts for FeliMaine_61:

(Start: 12 @34467 has 19 MA's), (25, 34548), (27, 34557), (46, 34674), (60, 34740), (61, 34746), (64, 34776), (76, 34830), (79, 34857), (87, 34902), (94, 34929),

Gene: Firecracker_73 Start: 45938, Stop: 46435, Start Num: 9

Candidate Starts for Firecracker_73:

(1, 45701), (3, 45869), (4, 45878), (Start: 9 @45938 has 31 MA's), (24, 46022), (28, 46040), (35, 46070), (39, 46106), (51, 46163), (55, 46187), (56, 46190), (71, 46268), (77, 46295), (97, 46406),

Gene: FoulBall_71 Start: 45542, Stop: 46039, Start Num: 9

Candidate Starts for FoulBall_71:

(1, 45305), (3, 45473), (4, 45482), (Start: 9 @45542 has 31 MA's), (24, 45626), (28, 45644), (35, 45674), (39, 45710), (51, 45767), (55, 45791), (56, 45794), (71, 45872), (77, 45899), (97, 46010),

Gene: Fribs8_24 Start: 20525, Stop: 21019, Start Num: 11

Candidate Starts for Fribs8_24:

(Start: 11 @20525 has 11 MA's), (20, 20573), (21, 20576), (26, 20612), (28, 20624), (29, 20627), (32, 20645), (34, 20651), (50, 20741), (52, 20759), (70, 20858), (72, 20867), (76, 20885), (86, 20954), (91, 20969), (92, 20975),

Gene: GTE2_20 Start: 19052, Stop: 19540, Start Num: 10

Candidate Starts for GTE2_20:

(Start: 10 @19052 has 25 MA's), (23, 19118), (28, 19145), (30, 19151), (32, 19166), (36, 19193), (41, 19217), (43, 19226), (50, 19262), (52, 19280), (53, 19283), (71, 19382), (72, 19388), (73, 19391), (79, 19433), (86, 19475), (91, 19490),

Gene: Gattaca_57 Start: 33646, Stop: 34155, Start Num: 12

Candidate Starts for Gattaca_57:

(Start: 12 @33646 has 19 MA's), (25, 33727), (27, 33736), (46, 33853), (60, 33919), (61, 33925), (76, 34009), (79, 34036), (87, 34081), (94, 34108),

Gene: Gibbous_23 Start: 19942, Stop: 20436, Start Num: 11

Candidate Starts for Gibbous_23:

(6, 19891), (Start: 11 @19942 has 11 MA's), (Start: 13 @19954 has 1 MA's), (21, 19993), (28, 20041), (29, 20044), (30, 20047), (31, 20056), (32, 20062), (41, 20113), (45, 20134), (52, 20176), (72, 20284), (86, 20371), (90, 20383), (91, 20386),

Gene: GoldHunter_24 Start: 19720, Stop: 20208, Start Num: 10

Candidate Starts for GoldHunter_24:

(Start: 10 @19720 has 25 MA's), (28, 19813), (32, 19834), (41, 19885), (45, 19906), (46, 19912), (50, 19930), (52, 19948), (71, 20050), (75, 20065), (79, 20101), (83, 20131), (86, 20143), (91, 20158), (96,

20176),

Gene: GoongGoong_58 Start: 33445, Stop: 33954, Start Num: 12

Candidate Starts for GoongGoong_58:

(Start: 12 @33445 has 19 MA's), (25, 33526), (27, 33535), (46, 33652), (60, 33718), (61, 33724), (64, 33754), (76, 33808), (79, 33835), (87, 33880), (94, 33907),

Gene: Hilltopfarm_34 Start: 30718, Stop: 31284, Start Num: 7

Candidate Starts for Hilltopfarm_34:

(Start: 7 @30718 has 4 MA's), (15, 30763), (19, 30784), (20, 30787), (22, 30802), (25, 30820), (30, 30844), (31, 30853), (37, 30889), (38, 30901), (44, 30928), (45, 30934), (54, 30985), (62, 31018), (65, 31048), (73, 31087), (74, 31090), (77, 31105), (80, 31132), (81, 31135), (87, 31174), (89, 31177), (98, 31222),

Gene: HippoPololi_25 Start: 20591, Stop: 21085, Start Num: 11

Candidate Starts for HippoPololi_25:

(Start: 11 @20591 has 11 MA's), (18, 20630), (20, 20639), (21, 20642), (26, 20678), (28, 20690), (29, 20693), (30, 20696), (31, 20705), (32, 20711), (34, 20717), (41, 20762), (45, 20783), (50, 20807), (52, 20825), (57, 20846), (58, 20849), (67, 20903), (72, 20933), (76, 20951), (85, 21017), (86, 21020), (88, 21023), (92, 21041),

Gene: Horseradish_24 Start: 19263, Stop: 19751, Start Num: 10

Candidate Starts for Horseradish_24:

(Start: 10 @19263 has 25 MA's), (28, 19356), (30, 19362), (32, 19377), (33, 19380), (41, 19428), (43, 19437), (45, 19449), (50, 19473), (52, 19491), (53, 19494), (71, 19593), (72, 19599), (73, 19602), (79, 19644), (86, 19686), (91, 19701),

Gene: Huphlepuuff_61 Start: 34030, Stop: 34539, Start Num: 12

Candidate Starts for Huphlepuuff_61:

(Start: 12 @34030 has 19 MA's), (25, 34111), (27, 34120), (46, 34237), (60, 34303), (61, 34309), (64, 34339), (76, 34393), (79, 34420), (87, 34465), (94, 34492),

Gene: Idergollasper_71 Start: 45542, Stop: 46039, Start Num: 9

Candidate Starts for Idergollasper_71:

(1, 45305), (3, 45473), (4, 45482), (Start: 9 @45542 has 31 MA's), (24, 45626), (28, 45644), (35, 45674), (39, 45710), (51, 45767), (55, 45791), (56, 45794), (71, 45872), (77, 45899), (97, 46010),

Gene: Imara_69 Start: 45342, Stop: 45839, Start Num: 9

Candidate Starts for Imara_69:

(1, 45105), (3, 45273), (4, 45282), (Start: 9 @45342 has 31 MA's), (24, 45426), (28, 45444), (35, 45474), (39, 45510), (51, 45567), (55, 45591), (56, 45594), (71, 45672), (77, 45699), (97, 45810),

Gene: JangDynasty_71 Start: 45628, Stop: 46125, Start Num: 9

Candidate Starts for JangDynasty_71:

(1, 45391), (3, 45559), (4, 45568), (Start: 9 @45628 has 31 MA's), (24, 45712), (28, 45730), (35, 45760), (39, 45796), (51, 45853), (55, 45877), (56, 45880), (71, 45958), (77, 45985), (97, 46096),

Gene: JoieB_60 Start: 34463, Stop: 34972, Start Num: 12

Candidate Starts for JoieB_60:

(Start: 12 @34463 has 19 MA's), (25, 34544), (27, 34553), (46, 34670), (60, 34736), (61, 34742), (64, 34772), (76, 34826), (79, 34853), (87, 34898),

Gene: KingPhillip3_71 Start: 45557, Stop: 46054, Start Num: 9

Candidate Starts for KingPhillip3_71:

(1, 45320), (3, 45488), (4, 45497), (Start: 9 @45557 has 31 MA's), (24, 45641), (28, 45659), (35, 45689), (39, 45725), (51, 45782), (55, 45806), (56, 45809), (71, 45887), (77, 45914), (97, 46025),

Gene: Krili_70 Start: 45052, Stop: 45549, Start Num: 9

Candidate Starts for Krili_70:

(1, 44815), (3, 44983), (4, 44992), (Start: 9 @45052 has 31 MA's), (24, 45136), (28, 45154), (35, 45184), (39, 45220), (51, 45277), (55, 45301), (56, 45304), (71, 45382), (77, 45409), (97, 45520),

Gene: Lilbit_57 Start: 34226, Stop: 34735, Start Num: 12

Candidate Starts for Lilbit_57:

(Start: 12 @34226 has 19 MA's), (25, 34307), (27, 34316), (46, 34433), (60, 34499), (61, 34505), (64, 34535), (76, 34589), (79, 34616), (87, 34661), (94, 34688),

Gene: LittleLaf_59 Start: 33955, Stop: 34464, Start Num: 12

Candidate Starts for LittleLaf_59:

(Start: 12 @33955 has 19 MA's), (25, 34036), (27, 34045), (46, 34162), (60, 34228), (61, 34234), (64, 34264), (76, 34318), (79, 34345), (87, 34390), (94, 34417),

Gene: MScarn_25 Start: 19352, Stop: 19840, Start Num: 10

Candidate Starts for MScarn_25:

(Start: 10 @19352 has 25 MA's), (28, 19445), (30, 19451), (32, 19466), (33, 19469), (41, 19517), (43, 19526), (45, 19538), (50, 19562), (52, 19580), (53, 19583), (58, 19604), (71, 19682), (72, 19688), (73, 19691), (79, 19733), (86, 19775), (91, 19790),

Gene: MaVan_25 Start: 20618, Stop: 21166, Start Num: 5

Candidate Starts for MaVan_25:

(Start: 5 @20618 has 3 MA's), (Start: 11 @20672 has 11 MA's), (Start: 13 @20684 has 1 MA's), (28, 20771), (29, 20774), (31, 20786), (32, 20792), (41, 20843), (44, 20858), (45, 20864), (50, 20888), (52, 20906), (59, 20933), (68, 20990), (72, 21014), (73, 21017), (76, 21032), (86, 21101), (92, 21122),

Gene: MadKillah_72 Start: 45321, Stop: 45818, Start Num: 9

Candidate Starts for MadKillah_72:

(1, 45084), (3, 45252), (4, 45261), (Start: 9 @45321 has 31 MA's), (24, 45405), (28, 45423), (35, 45453), (39, 45489), (49, 45537), (51, 45546), (55, 45570), (56, 45573), (71, 45651), (77, 45678), (97, 45789),

Gene: Malvina_25 Start: 20594, Stop: 21088, Start Num: 11

Candidate Starts for Malvina_25:

(6, 20546), (Start: 11 @20594 has 11 MA's), (18, 20633), (20, 20642), (21, 20645), (26, 20681), (28, 20693), (29, 20696), (30, 20699), (31, 20708), (32, 20714), (34, 20720), (41, 20765), (45, 20786), (50, 20810), (52, 20828), (57, 20849), (58, 20852), (67, 20906), (72, 20936), (76, 20954), (85, 21020), (86, 21023), (88, 21026), (92, 21044),

Gene: Manilisa_27 Start: 22550, Stop: 23020, Start Num: 13

Candidate Starts for Manilisa_27:

(Start: 13 @22550 has 1 MA's), (31, 22655), (32, 22661), (36, 22688), (38, 22700), (42, 22712), (47, 22751), (52, 22775), (69, 22868), (70, 22871), (79, 22925), (82, 22943), (84, 22961),

Gene: Marvin_55 Start: 33713, Stop: 34222, Start Num: 12

Candidate Starts for Marvin_55:

(Start: 12 @33713 has 19 MA's), (25, 33794), (27, 33803), (46, 33920), (60, 33986), (61, 33992), (64, 34022), (76, 34076), (79, 34103), (87, 34148), (94, 34175),

Gene: Mollymur_35 Start: 32198, Stop: 32668, Start Num: 14

Candidate Starts for Mollymur_35:

(Start: 14 @32198 has 6 MA's), (30, 32279), (32, 32294), (38, 32336), (45, 32369), (47, 32387), (50, 32393), (52, 32411), (66, 32477), (78, 32546),

Gene: Mori_71 Start: 45583, Stop: 46080, Start Num: 9

Candidate Starts for Mori_71:

(1, 45346), (3, 45514), (4, 45523), (Start: 9 @45583 has 31 MA's), (24, 45667), (28, 45685), (35, 45715), (39, 45751), (51, 45808), (55, 45832), (56, 45835), (71, 45913), (77, 45940), (97, 46051),

Gene: MosMoris_56 Start: 33646, Stop: 34155, Start Num: 12

Candidate Starts for MosMoris_56:

(Start: 12 @33646 has 19 MA's), (25, 33727), (27, 33736), (46, 33853), (60, 33919), (61, 33925), (64, 33955), (76, 34009), (79, 34036), (87, 34081), (94, 34108),

Gene: MunkgeeRoachy_23 Start: 19767, Stop: 20255, Start Num: 10

Candidate Starts for MunkgeeRoachy_23:

(Start: 10 @19767 has 25 MA's), (28, 19860), (32, 19881), (41, 19932), (45, 19953), (46, 19959), (50, 19977), (52, 19995), (71, 20097), (79, 20148), (86, 20190), (91, 20205), (96, 20223),

Gene: Murai_72 Start: 45764, Stop: 46261, Start Num: 9

Candidate Starts for Murai_72:

(1, 45527), (3, 45695), (4, 45704), (Start: 9 @45764 has 31 MA's), (24, 45848), (28, 45866), (35, 45896), (49, 45980), (51, 45989), (55, 46013), (56, 46016), (71, 46094), (77, 46121), (97, 46232),

Gene: Nibbles_25 Start: 20672, Stop: 21166, Start Num: 11

Candidate Starts for Nibbles_25:

(Start: 5 @20618 has 3 MA's), (Start: 11 @20672 has 11 MA's), (Start: 13 @20684 has 1 MA's), (20, 20720), (21, 20723), (28, 20771), (29, 20774), (32, 20792), (43, 20852), (52, 20906), (72, 21014), (76, 21032), (86, 21101), (91, 21116), (92, 21122),

Gene: NiebruSaylor_70 Start: 44971, Stop: 45468, Start Num: 9

Candidate Starts for NiebruSaylor_70:

(1, 44734), (3, 44902), (4, 44911), (Start: 9 @44971 has 31 MA's), (24, 45055), (28, 45073), (35, 45103), (39, 45139), (51, 45196), (55, 45220), (56, 45223), (71, 45301), (77, 45328), (97, 45439),

Gene: Nina_24 Start: 20762, Stop: 21250, Start Num: 10

Candidate Starts for Nina_24:

(Start: 10 @20762 has 25 MA's), (28, 20855), (32, 20876), (41, 20927), (45, 20948), (46, 20954), (50, 20972), (52, 20990), (71, 21092), (79, 21143), (83, 21173), (86, 21185), (91, 21200), (96, 21218),

Gene: Phishy_26 Start: 22279, Stop: 22749, Start Num: 13

Candidate Starts for Phishy_26:

(Start: 13 @22279 has 1 MA's), (31, 22384), (32, 22390), (36, 22417), (38, 22429), (42, 22441), (47, 22480), (52, 22504), (69, 22597), (70, 22600), (79, 22654), (82, 22672), (84, 22690),

Gene: Poise_59 Start: 33542, Stop: 34051, Start Num: 12

Candidate Starts for Poise_59:

(Start: 12 @33542 has 19 MA's), (25, 33623), (27, 33632), (46, 33749), (60, 33815), (61, 33821), (64, 33851), (76, 33905), (79, 33932), (87, 33977), (94, 34004),

Gene: Pringar_58 Start: 33831, Stop: 34340, Start Num: 12

Candidate Starts for Pringar_58:

(Start: 12 @33831 has 19 MA's), (25, 33912), (27, 33921), (46, 34038), (60, 34104), (61, 34110), (64, 34140), (76, 34194), (79, 34221), (87, 34266),

Gene: PsychoKiller_23 Start: 19719, Stop: 20207, Start Num: 10

Candidate Starts for PsychoKiller_23:

(Start: 10 @19719 has 25 MA's), (28, 19812), (32, 19833), (41, 19884), (45, 19905), (46, 19911), (50, 19929), (52, 19947), (71, 20049), (75, 20064), (79, 20100), (83, 20130), (86, 20142), (91, 20157), (96, 20175),

Gene: Quasar_23 Start: 20328, Stop: 20816, Start Num: 10

Candidate Starts for Quasar_23:

(Start: 10 @20328 has 25 MA's), (28, 20421), (32, 20442), (41, 20493), (45, 20514), (46, 20520), (50, 20538), (52, 20556), (71, 20658), (79, 20709), (83, 20739), (86, 20751), (91, 20766), (96, 20784),

Gene: RADical_24 Start: 19720, Stop: 20208, Start Num: 10

Candidate Starts for RADical_24:

(Start: 10 @19720 has 25 MA's), (28, 19813), (32, 19834), (41, 19885), (45, 19906), (46, 19912), (50, 19930), (52, 19948), (71, 20050), (75, 20065), (79, 20101), (83, 20131), (86, 20143), (91, 20158), (96, 20176),

Gene: RSchmailzl_24 Start: 19863, Stop: 20351, Start Num: 10

Candidate Starts for RSchmailzl_24:

(Start: 10 @19863 has 25 MA's), (28, 19956), (32, 19977), (41, 20028), (45, 20049), (46, 20055), (50, 20073), (52, 20091), (71, 20193), (79, 20244), (83, 20274), (86, 20286), (91, 20301), (96, 20319),

Gene: Raela_59 Start: 34099, Stop: 34608, Start Num: 12

Candidate Starts for Raela_59:

(Start: 12 @34099 has 19 MA's), (17, 34123), (25, 34180), (27, 34189), (46, 34306), (60, 34372), (61, 34378), (64, 34408), (76, 34462), (79, 34489), (87, 34534), (94, 34561),

Gene: RedBaron_25 Start: 19763, Stop: 20251, Start Num: 10

Candidate Starts for RedBaron_25:

(Start: 10 @19763 has 25 MA's), (28, 19856), (32, 19877), (41, 19928), (45, 19949), (46, 19955), (50, 19973), (52, 19991), (71, 20093), (75, 20108), (79, 20144), (83, 20174), (86, 20186), (91, 20201), (96, 20219),

Gene: RedRaider77_58 Start: 33487, Stop: 33996, Start Num: 12

Candidate Starts for RedRaider77_58:

(Start: 12 @33487 has 19 MA's), (25, 33568), (27, 33577), (46, 33694), (60, 33760), (61, 33766), (64, 33796), (76, 33850), (79, 33877), (87, 33922), (94, 33949),

Gene: Ryadel_75 Start: 46376, Stop: 46873, Start Num: 9

Candidate Starts for Ryadel_75:

(1, 46139), (3, 46307), (4, 46316), (Start: 9 @46376 has 31 MA's), (24, 46460), (28, 46478), (35, 46508), (39, 46544), (49, 46592), (51, 46601), (55, 46625), (56, 46628), (71, 46706), (77, 46733), (97, 46844),

Gene: SchoolBus_71 Start: 45524, Stop: 46021, Start Num: 9

Candidate Starts for SchoolBus_71:

(1, 45287), (3, 45455), (4, 45464), (Start: 9 @45524 has 31 MA's), (24, 45608), (28, 45626), (35, 45656), (39, 45692), (51, 45749), (55, 45773), (56, 45776), (71, 45854), (77, 45881), (97, 45992),

Gene: Schuy_72 Start: 45327, Stop: 45824, Start Num: 9

Candidate Starts for Schuy_72:

(1, 45090), (3, 45258), (4, 45267), (Start: 9 @45327 has 31 MA's), (24, 45411), (28, 45429), (35, 45459), (39, 45495), (51, 45552), (55, 45576), (56, 45579), (71, 45657), (77, 45684), (97, 45795),

Gene: Shida_71 Start: 45234, Stop: 45731, Start Num: 9

Candidate Starts for Shida_71:

(1, 44997), (3, 45165), (4, 45174), (Start: 9 @45234 has 31 MA's), (24, 45318), (28, 45336), (35, 45366), (39, 45402), (51, 45459), (55, 45483), (56, 45486), (71, 45564), (77, 45591), (97, 45702),

Gene: SketchMex_22 Start: 19367, Stop: 19855, Start Num: 10

Candidate Starts for SketchMex_22:

(Start: 10 @19367 has 25 MA's), (28, 19460), (30, 19466), (32, 19481), (33, 19484), (41, 19532), (43, 19541), (45, 19553), (50, 19577), (52, 19595), (53, 19598), (58, 19619), (71, 19697), (72, 19703), (73, 19706), (79, 19748), (86, 19790), (91, 19805),

Gene: Smooch_74 Start: 47280, Stop: 47777, Start Num: 9

Candidate Starts for Smooch_74:

(1, 47043), (3, 47211), (4, 47220), (Start: 9 @47280 has 31 MA's), (24, 47364), (28, 47382), (35, 47412), (39, 47448), (51, 47505), (55, 47529), (56, 47532), (71, 47610), (77, 47637), (97, 47748),

Gene: Socotra_24 Start: 19719, Stop: 20207, Start Num: 10

Candidate Starts for Socotra_24:

(Start: 10 @19719 has 25 MA's), (28, 19812), (32, 19833), (41, 19884), (45, 19905), (46, 19911), (50, 19929), (52, 19947), (71, 20049), (75, 20064), (79, 20100), (83, 20130), (86, 20142), (91, 20157), (96, 20175),

Gene: Sopespian_23 Start: 19720, Stop: 20208, Start Num: 10

Candidate Starts for Sopespian_23:

(Start: 10 @19720 has 25 MA's), (28, 19813), (32, 19834), (41, 19885), (45, 19906), (46, 19912), (50, 19930), (52, 19948), (71, 20050), (75, 20065), (79, 20101), (83, 20131), (86, 20143), (91, 20158), (96, 20176),

Gene: SpeedDemon_360 Start: 32848, Stop: 33303, Start Num: 14

Candidate Starts for SpeedDemon_360:

(Start: 14 @32848 has 6 MA's), (32, 32944), (38, 32986), (45, 33019), (50, 33043), (52, 33061), (95, 33277),

Gene: Starburst_24 Start: 19720, Stop: 20208, Start Num: 10

Candidate Starts for Starburst_24:

(Start: 10 @19720 has 25 MA's), (28, 19813), (32, 19834), (41, 19885), (45, 19906), (46, 19912), (50, 19930), (52, 19948), (71, 20050), (75, 20065), (79, 20101), (83, 20131), (86, 20143), (91, 20158), (96, 20176),

Gene: SteamedHams_25 Start: 19380, Stop: 19868, Start Num: 10

Candidate Starts for SteamedHams_25:

(Start: 10 @19380 has 25 MA's), (23, 19446), (28, 19473), (30, 19479), (32, 19494), (36, 19521), (41, 19545), (43, 19554), (45, 19566), (48, 19587), (50, 19590), (52, 19608), (53, 19611), (71, 19710), (72, 19716), (73, 19719), (79, 19761), (86, 19803), (91, 19818),

Gene: Survivors_25 Start: 20521, Stop: 21015, Start Num: 11

Candidate Starts for Survivors_25:

(2, 20326), (Start: 5 @20467 has 3 MA's), (Start: 11 @20521 has 11 MA's), (Start: 13 @20533 has 1 MA's), (20, 20569), (21, 20572), (28, 20620), (29, 20623), (32, 20641), (43, 20701), (52, 20755), (72, 20863), (76, 20881), (86, 20950), (91, 20965), (92, 20971),

Gene: SweatNTears_25 Start: 19878, Stop: 20366, Start Num: 10

Candidate Starts for SweatNTears_25:

(Start: 10 @19878 has 25 MA's), (28, 19971), (30, 19977), (32, 19992), (33, 19995), (41, 20043), (43, 20052), (45, 20064), (50, 20088), (52, 20106), (53, 20109), (58, 20130), (71, 20208), (72, 20214), (73, 20217), (79, 20259), (86, 20301), (91, 20316),

Gene: TelAviv_68 Start: 45509, Stop: 46006, Start Num: 9

Candidate Starts for TelAviv_68:

(1, 45272), (3, 45440), (4, 45449), (Start: 9 @45509 has 31 MA's), (24, 45593), (28, 45611), (35, 45641), (39, 45677), (51, 45734), (55, 45758), (56, 45761), (71, 45839), (77, 45866), (97, 45977),

Gene: Tesla_56 Start: 33336, Stop: 33845, Start Num: 12

Candidate Starts for Tesla_56:

(Start: 12 @33336 has 19 MA's), (25, 33417), (27, 33426), (46, 33543), (60, 33609), (61, 33615), (64, 33645), (76, 33699), (79, 33726), (87, 33771), (94, 33798),

Gene: Tolls_25 Start: 19383, Stop: 19871, Start Num: 10

Candidate Starts for Tolls_25:

(Start: 10 @19383 has 25 MA's), (23, 19449), (28, 19476), (30, 19482), (32, 19497), (36, 19524), (41, 19548), (43, 19557), (45, 19569), (48, 19590), (50, 19593), (52, 19611), (53, 19614), (71, 19713), (72, 19719), (73, 19722), (79, 19764), (86, 19806), (91, 19821),

Gene: Towmatter_32 Start: 29350, Stop: 29805, Start Num: 14

Candidate Starts for Towmatter_32:

(Start: 14 @29350 has 6 MA's), (16, 29353), (32, 29446), (38, 29488), (40, 29497), (47, 29539), (52, 29563), (63, 29620), (95, 29779),

Gene: Troje_23 Start: 19349, Stop: 19837, Start Num: 10

Candidate Starts for Troje_23:

(Start: 10 @19349 has 25 MA's), (28, 19442), (30, 19448), (32, 19463), (33, 19466), (41, 19514), (43, 19523), (45, 19535), (50, 19559), (52, 19577), (53, 19580), (58, 19601), (71, 19679), (72, 19685), (73, 19688), (79, 19730), (86, 19772), (91, 19787),

Gene: Typha_34 Start: 30688, Stop: 31254, Start Num: 7

Candidate Starts for Typha_34:

(Start: 7 @30688 has 4 MA's), (15, 30733), (19, 30754), (20, 30757), (22, 30772), (25, 30790), (30, 30814), (31, 30823), (37, 30859), (38, 30871), (44, 30898), (45, 30904), (54, 30955), (62, 30988), (65, 31018), (73, 31057), (74, 31060), (77, 31075), (80, 31102), (81, 31105), (87, 31144), (89, 31147), (98, 31192),

Gene: Typhonomachy_23 Start: 19719, Stop: 20207, Start Num: 10

Candidate Starts for Typhonomachy_23:

(Start: 10 @19719 has 25 MA's), (28, 19812), (32, 19833), (41, 19884), (45, 19905), (46, 19911), (50, 19929), (52, 19947), (71, 20049), (79, 20100), (83, 20130), (86, 20142), (91, 20157), (96, 20175),

Gene: Vagabond_71 Start: 45372, Stop: 45869, Start Num: 9

Candidate Starts for Vagabond_71:

(1, 45135), (3, 45303), (4, 45312), (Start: 9 @45372 has 31 MA's), (24, 45456), (28, 45474), (35, 45504), (39, 45540), (51, 45597), (55, 45621), (56, 45624), (71, 45702), (77, 45729), (97, 45840),

Gene: VasuNzinga_58 Start: 33405, Stop: 33914, Start Num: 12

Candidate Starts for VasuNzinga_58:

(Start: 12 @33405 has 19 MA's), (25, 33486), (27, 33495), (46, 33612), (60, 33678), (61, 33684), (64, 33714), (76, 33768), (79, 33795), (87, 33840),

Gene: Vorrps_71 Start: 45584, Stop: 46081, Start Num: 9

Candidate Starts for Vorrps_71:

(1, 45347), (3, 45515), (4, 45524), (Start: 9 @45584 has 31 MA's), (24, 45668), (28, 45686), (35, 45716), (39, 45752), (51, 45809), (55, 45833), (56, 45836), (71, 45914), (77, 45941), (97, 46052),

Gene: Wallaby_27 Start: 20665, Stop: 21159, Start Num: 11

Candidate Starts for Wallaby_27:

(2, 20470), (Start: 5 @20611 has 3 MA's), (Start: 11 @20665 has 11 MA's), (Start: 13 @20677 has 1 MA's), (20, 20713), (21, 20716), (28, 20764), (29, 20767), (32, 20785), (43, 20845), (52, 20899), (72, 21007), (76, 21025), (86, 21094), (91, 21109), (92, 21115),

Gene: Wildflower_71 Start: 45096, Stop: 45593, Start Num: 9

Candidate Starts for Wildflower_71:

(1, 44859), (3, 45027), (4, 45036), (Start: 9 @45096 has 31 MA's), (24, 45180), (28, 45198), (35, 45228), (39, 45264), (51, 45321), (55, 45345), (56, 45348), (71, 45426), (77, 45453), (97, 45564),

Gene: Winget_72 Start: 45802, Stop: 46299, Start Num: 9

Candidate Starts for Winget_72:

(1, 45565), (3, 45733), (4, 45742), (Start: 9 @45802 has 31 MA's), (24, 45886), (28, 45904), (35, 45934), (39, 45970), (51, 46027), (55, 46051), (56, 46054), (71, 46132), (77, 46159), (97, 46270),

Gene: Wogge42_70 Start: 45243, Stop: 45740, Start Num: 9

Candidate Starts for Wogge42_70:

(1, 45006), (3, 45174), (4, 45183), (Start: 9 @45243 has 31 MA's), (24, 45327), (28, 45345), (35, 45375), (39, 45411), (51, 45468), (55, 45492), (56, 45495), (71, 45573), (77, 45600), (97, 45711),

Gene: Wolfwood_25 Start: 20611, Stop: 21159, Start Num: 5

Candidate Starts for Wolfwood_25:

(2, 20470), (Start: 5 @20611 has 3 MA's), (Start: 11 @20665 has 11 MA's), (Start: 13 @20677 has 1 MA's), (20, 20713), (21, 20716), (28, 20764), (29, 20767), (32, 20785), (43, 20845), (52, 20899), (72, 21007), (76, 21025), (86, 21094), (91, 21109), (92, 21115),

Gene: Yarn_22 Start: 19373, Stop: 19861, Start Num: 10

Candidate Starts for Yarn_22:

(Start: 10 @19373 has 25 MA's), (23, 19439), (28, 19466), (30, 19472), (32, 19487), (36, 19514), (41, 19538), (43, 19547), (45, 19559), (48, 19580), (50, 19583), (52, 19601), (53, 19604), (71, 19703), (72, 19709), (73, 19712), (79, 19754), (86, 19796), (91, 19811),

Gene: YoyoKar_69 Start: 45086, Stop: 45583, Start Num: 9

Candidate Starts for YoyoKar_69:

(1, 44849), (3, 45017), (4, 45026), (Start: 9 @45086 has 31 MA's), (24, 45170), (28, 45188), (35, 45218), (39, 45254), (51, 45311), (55, 45335), (56, 45338), (71, 45416), (77, 45443), (97, 45554),

Gene: Yummy_24 Start: 19263, Stop: 19751, Start Num: 10

Candidate Starts for Yummy_24:

(Start: 10 @19263 has 25 MA's), (28, 19356), (30, 19362), (32, 19377), (33, 19380), (41, 19428), (43, 19437), (45, 19449), (50, 19473), (52, 19491), (53, 19494), (71, 19593), (72, 19599), (73, 19602), (79,

19644), (86, 19686), (91, 19701),

Gene: YungJamal_76 Start: 46994, Stop: 47491, Start Num: 9

Candidate Starts for YungJamal_76:

(1, 46757), (3, 46925), (4, 46934), (Start: 9 @46994 has 31 MA's), (24, 47078), (28, 47096), (35, 47126), (39, 47162), (51, 47219), (55, 47243), (56, 47246), (71, 47324), (77, 47351), (97, 47462),

Gene: Zakhe101_70 Start: 45642, Stop: 46139, Start Num: 9

Candidate Starts for Zakhe101_70:

(1, 45405), (3, 45573), (4, 45582), (Start: 9 @45642 has 31 MA's), (24, 45726), (28, 45744), (35, 45774), (39, 45810), (51, 45867), (55, 45891), (56, 45894), (71, 45972), (77, 45999), (97, 46110),

Gene: Zareef_25 Start: 20619, Stop: 21167, Start Num: 5

Candidate Starts for Zareef_25:

(2, 20478), (Start: 5 @20619 has 3 MA's), (Start: 11 @20673 has 11 MA's), (Start: 13 @20685 has 1 MA's), (20, 20721), (21, 20724), (28, 20772), (29, 20775), (32, 20793), (43, 20853), (52, 20907), (72, 21015), (76, 21033), (86, 21102), (91, 21117), (92, 21123),

Gene: Zebo_71 Start: 45533, Stop: 46030, Start Num: 9

Candidate Starts for Zebo_71:

(1, 45296), (3, 45464), (4, 45473), (Start: 9 @45533 has 31 MA's), (24, 45617), (28, 45635), (35, 45665), (39, 45701), (51, 45758), (55, 45782), (56, 45785), (71, 45863), (77, 45890), (97, 46001),