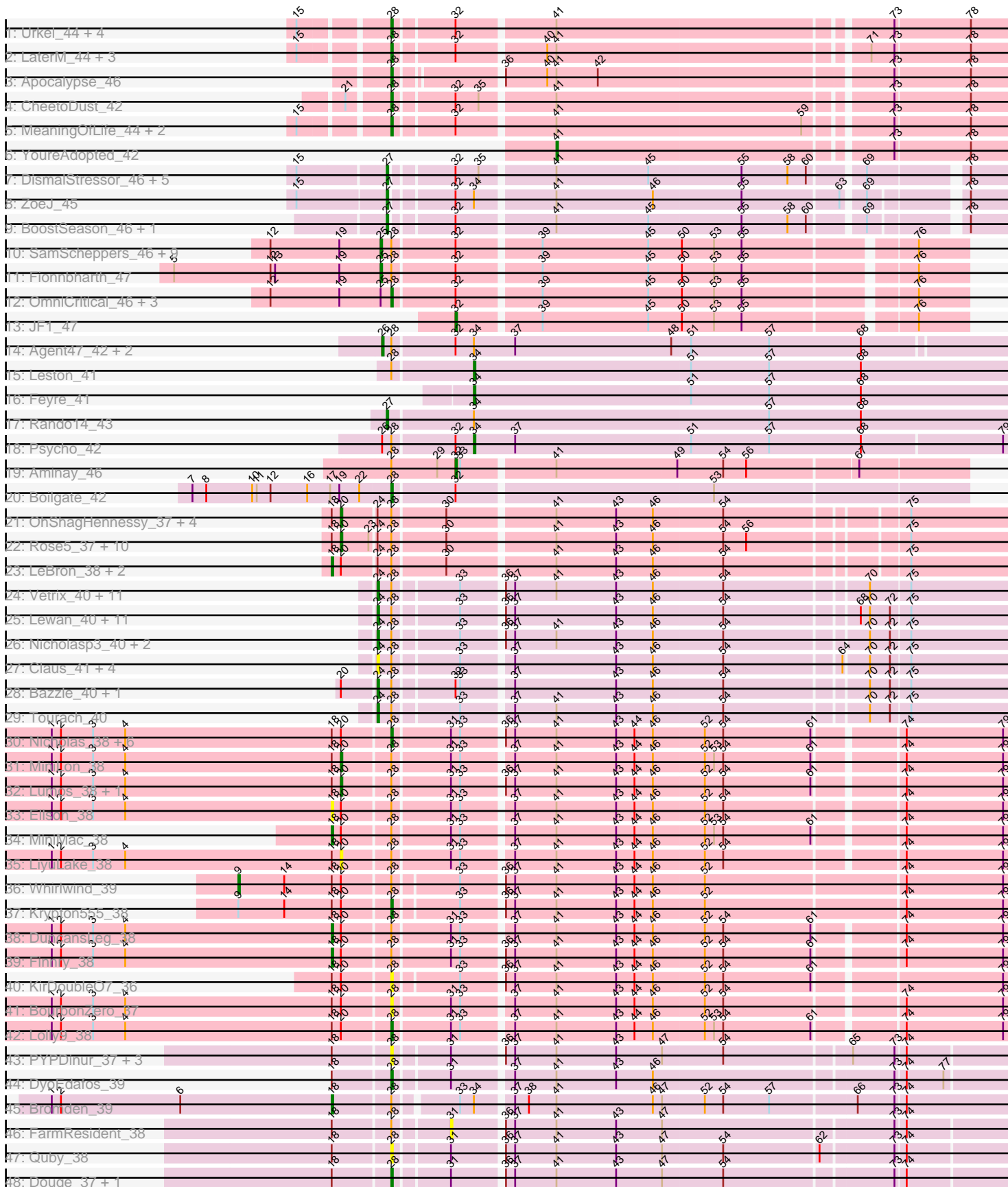


Pham 193819



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 193819 Report

This analysis was run 11/02/24 on database version 579.

Pham number 193819 has 133 members, 19 are drafts.

Phages represented in each track:

- Track 1 : Urkel_44, Bella96_44, SamuelLPlaqson_44, TiniBug_44, DrHayes_44
- Track 2 : LaterM_44, Ageofdapage_45, Stinson_44, Murucutumbu_44
- Track 3 : Apocalypse_46
- Track 4 : CheetoDust_42
- Track 5 : MeaningOfLife_44, Ganymede_44, QuincyRose_42
- Track 6 : YoureAdopted_42
- Track 7 : DismalStressor_46, Findley_46, Strobilo_46, Milly_46, Marcoliusprime_46, DismalFunk_46
- Track 8 : ZoeJ_45
- Track 9 : BoostSeason_46, Mufasa_46
- Track 10 : SamScheppers_46, Chancellor_47, Juliette_49, Eponine_49, Slarp_47, Wintermute_47, Cheetobro_47, Malthus_48, Mitti_47, Ruthiejr_48
- Track 11 : Fionnbharth_47
- Track 12 : OmniCritical_46, Taquito_47, Y10_46, Y2_46
- Track 13 : JF1_47
- Track 14 : Agent47_42, InvictusManeo_41, Collard_41
- Track 15 : Leston_41
- Track 16 : Feyre_41
- Track 17 : Rando14_43
- Track 18 : Psycho_42
- Track 19 : Aminay_46
- Track 20 : Boilgate_42
- Track 21 : OhShagHennessy_37, Wamburgrxpress_38, Enceladus_37, Appletree2_37, DirkDirk_37
- Track 22 : Rose5_37, Calm_38, Tyson_37, CicholasNage_38, Halena_37, Wyatt2_38, MAckerman_38, Zaria_38, Acquire49_38, AvadaKedavra_38, Silverleaf_37
- Track 23 : LeBron_38, UPIE_38, JoeDirt_37
- Track 24 : Vetrix_40, Winky_40, Breezona_40, Gabriela_40, Rumpelstiltskin_40, BobsGarage_40, Netyap_40, BigCheese_40, LilDestine_40, Faith1_40, Miley16_40, DrSeegs_40
- Track 25 : Lewan_40, GuuelaD_40, Sarshaun_40, Kahlid_40, Hafay_40, Crossroads_40, Soap141_40, Loadrie_40, Wilder_40, MkaliMitinis3_40, Wigglewiggles_40, Zakai_40
- Track 26 : Nicholasp3_40, Finemlucis_40, Gardann_40
- Track 27 : Claus_41, Baoshan_39, DHan_41, ZhongYanYuan_39, DanBing_40
- Track 28 : Bazzle_40, Archie_40

- Track 29 : Tourach_40
- Track 30 : Nicholas_38, Jubie_38, Snenia_38, Bellis_38, Moostard_38, Clautastrophe_38, MsGreen_38
- Track 31 : MiniLon_38
- Track 32 : Lumos_38, Kingsolomon_38
- Track 33 : Ellson_38
- Track 34 : MiniMac_38
- Track 35 : LiyuLake_38
- Track 36 : Whirlwind_39
- Track 37 : Krypton555_38
- Track 38 : DuncansLeg_38
- Track 39 : Finnry_38
- Track 40 : KirDoubleO7_36
- Track 41 : BourbonZero_37
- Track 42 : Lolly9_38
- Track 43 : PYPDinur_37, Douzhi_37, BrainDrainer_38, Sheng711_38
- Track 44 : DyoEdafos_39
- Track 45 : Bromden_39
- Track 46 : FarmResident_38
- Track 47 : Quby_38
- Track 48 : Douge_37, Chaser_37

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

The start number called the most often in the published annotations is 28, it was called in 30 of the 114 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Ageofdapage_45, Apocalypse_46, Bella96_44, Bellis_38, Boilgate_42, BourbonZero_37, BrainDrainer_38, Chaser_37, CheetoDust_42, Clautastrophe_38, Douge_37, Douzhi_37, DrHayes_44, DyoEdafos_39, Ganymede_44, Jubie_38, KirDoubleO7_36, Krypton555_38, LaterM_44, Lolly9_38, MeaningOfLife_44, Moostard_38, MsGreen_38, Murucutumbu_44, Nicholas_38, OmniCritical_46, PYPDinur_37, Quby_38, QuincyRose_42, SamuelLPlaqson_44, Sheng711_38, Snenia_38, Stinson_44, Taquito_47, TiniBug_44, Urkel_44, Y10_46, Y2_46,

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

- Acquire49_38, Agent47_42, Aminay_46, Appletree2_37, Archie_40, AvadaKedavra_38, Baoshan_39, Bazzle_40, BigCheese_40, BobsGarage_40, Breezona_40, Bromden_39, Calm_38, Chancellor_47, Cheetobro_47, CicholasNage_38, Claus_41, Collard_41, Crossroads_40, DHan_41, DanBing_40, DirkDirk_37, DrSeegs_40, DuncansLeg_38, Ellson_38, Enceladus_37, Eponine_49, Faith1_40, FarmResident_38, Finemlucis_40, Finnry_38, Fionnbharth_47, Gabriela_40, Gardann_40, GuuelaD_40, Hafay_40, Halena_37, InvictusManeo_41, JoeDirt_37, Juliette_49, Kahlid_40, Kingsolomon_38, LeBron_38, Leston_41, Lewan_40, LilDestine_40, LiyuLake_38, Loadrie_40, Lumos_38, MAckerman_38, Malthus_48, Miley16_40, MiniLon_38, MiniMac_38, Mitti_47, MkaliMitinis3_40, Netyap_40, Nicholasp3_40, OhShagHennessy_37, Psycho_42, Rose5_37, Rumpelstiltskin_40, Ruthiejr_48, SamScheppers_46, Sarshaun_40, Silverleaf_37, Slarp_47, Soap141_40, Tourach_40, Tyson_37, UPIE_38, Vetrix_40,

Wamburgexpress_38, Whirlwind_39, Wigglewiggle_40, Wilder_40, Winky_40, Wintermute_47, Wyatt2_38, Zakai_40, Zaria_38, ZhongYanYuan_39,

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

- BoostSeason_46, DismalFunk_46, DismalStressor_46, Feyre_41, Findley_46, JF1_47, Marcoliusprime_46, Milly_46, Mufasa_46, Rando14_43, Strobilo_46, YoureAdopted_42, ZoeJ_45,

Summary by start number:

Start 9:

- Found in 2 of 133 (1.5%) of genes in pham
- Manual Annotations of this start: 1 of 114
- Called 50.0% of time when present
- Phage (with cluster) where this start called: Whirlwind_39 (L3),

Start 18:

- Found in 49 of 133 (36.8%) of genes in pham
- Manual Annotations of this start: 7 of 114
- Called 16.3% of time when present
- Phage (with cluster) where this start called: Bromden_39 (L4), DuncansLeg_38 (L3), Ellson_38 (L3), Finnry_38 (L3), JoeDirt_37 (L1), LeBron_38 (L1), MiniMac_38 (L3), UPIE_38 (L1),

Start 20:

- Found in 41 of 133 (30.8%) of genes in pham
- Manual Annotations of this start: 19 of 114
- Called 48.8% of time when present
- Phage (with cluster) where this start called: Acquire49_38 (L1), Appletree2_37 (L1), AvadaKedavra_38 (L1), Calm_38 (L1), CicholasNage_38 (L1), DirkDirk_37 (L1), Enceladus_37 (L1), Halena_37 (L1), Kingsolomon_38 (L3), LiyuLake_38 (L3), Lumos_38 (L3), MAckerman_38 (L1), MiniLon_38 (L3), OhShagHennessy_37 (L1), Rose5_37 (L1), Silverleaf_37 (L1), Tyson_37 (L1), Wamburgexpress_38 (L1), Wyatt2_38 (L1), Zaria_38 (L1),

Start 24:

- Found in 54 of 133 (40.6%) of genes in pham
- Manual Annotations of this start: 27 of 114
- Called 64.8% of time when present
- Phage (with cluster) where this start called: Archie_40 (L2), Baoshan_39 (L2), Bazzle_40 (L2), BigCheese_40 (L2), BobsGarage_40 (L2), Breezona_40 (L2), Claus_41 (L2), Crossroads_40 (L2), DHan_41 (L2), DanBing_40 (L2), DrSeegs_40 (L2), Faith1_40 (L2), Finemlucis_40 (L2), Gabriela_40 (L2), Gardann_40 (L2), GuuelaD_40 (L2), Hafay_40 (L2), Kahlid_40 (L2), Lewan_40 (L2), LilDestine_40 (L2), Loadrie_40 (L2), Miley16_40 (L2), MkaliMitinis3_40 (L2), Netyap_40 (L2), Nicholasp3_40 (L2), Rumpelstiltskin_40 (L2), Sarshaun_40 (L2), Soap141_40 (L2), Tourach_40 (L2), Vetric_40 (L2), Wigglewiggle_40 (L2), Wilder_40 (L2), Winky_40 (L2), Zakai_40 (L2), ZhongYanYuan_39 (L2),

Start 25:

- Found in 15 of 133 (11.3%) of genes in pham
- Manual Annotations of this start: 11 of 114
- Called 73.3% of time when present

- Phage (with cluster) where this start called: Chancellor_47 (K4), Cheetobro_47 (K4), Eponine_49 (K4), Fionnbharth_47 (K4), Juliette_49 (K4), Malthus_48 (K4), Mitti_47 (K4), Ruthiejr_48 (K4), SamScheppers_46 (K4), Slarp_47 (K4), Wintermute_47 (K4),

Start 26:

- Found in 4 of 133 (3.0%) of genes in pham
- Manual Annotations of this start: 3 of 114
- Called 75.0% of time when present
- Phage (with cluster) where this start called: Agent47_42 (K5), Collard_41 (K5), InvictusManeo_41 (K5),

Start 27:

- Found in 10 of 133 (7.5%) of genes in pham
- Manual Annotations of this start: 10 of 114
- Called 100.0% of time when present
- Phage (with cluster) where this start called: BoostSeason_46 (K2), DismalFunk_46 (K2), DismalStressor_46 (K2), Findley_46 (K2), Marcoliusprime_46 (K2), Milly_46 (K2), Mufasa_46 (K2), Rando14_43 (K5), Strobilo_46 (K2), ZoeJ_45 (K2),

Start 28:

- Found in 120 of 133 (90.2%) of genes in pham
- Manual Annotations of this start: 30 of 114
- Called 31.7% of time when present
- Phage (with cluster) where this start called: Ageofdapage_45 (K1), Apocalypse_46 (K1), Bella96_44 (K1), Bellis_38 (L3), Boilgate_42 (K8), BourbonZero_37 (L3), BrainDrainer_38 (L4), Chaser_37 (L4), CheetoDust_42 (K1), Clautastrophe_38 (L3), Douge_37 (L4), Douzhi_37 (L4), DrHayes_44 (K1), DyoEdafos_39 (L4), Ganymede_44 (K1), Jubie_38 (L3), KirDoubleO7_36 (L3), Krypton555_38 (L3), LaterM_44 (K1), Lolly9_38 (L3), MeaningOfLife_44 (K1), Moostard_38 (L3), MsGreen_38 (L3), Murucutumbu_44 (K1), Nicholas_38 (L3), OmniCritical_46 (K4), PYPDinur_37 (L4), Quby_38 (L4), QuincyRose_42 (K1), SamuelLPlaqson_44 (K1), Sheng711_38 (L4), Snenia_38 (L3), Stinson_44 (K1), Taquito_47 (K4), TiniBug_44 (K1), Urkel_44 (K1), Y10_46 (K4), Y2_46 (K4),

Start 31:

- Found in 26 of 133 (19.5%) of genes in pham
- No Manual Annotations of this start.
- Called 3.8% of time when present
- Phage (with cluster) where this start called: FarmResident_38 (L4),

Start 32:

- Found in 46 of 133 (34.6%) of genes in pham
- Manual Annotations of this start: 2 of 114
- Called 4.3% of time when present
- Phage (with cluster) where this start called: Aminay_46 (K7), JF1_47 (K4),

Start 34:

- Found in 9 of 133 (6.8%) of genes in pham
- Manual Annotations of this start: 3 of 114
- Called 33.3% of time when present
- Phage (with cluster) where this start called: Feyre_41 (K5), Leston_41 (K5), Psycho_42 (K5),

Start 41:

- Found in 90 of 133 (67.7%) of genes in pham
- Manual Annotations of this start: 1 of 114
- Called 1.1% of time when present
- Phage (with cluster) where this start called: YoureAdopted_42 (K1),

Summary by clusters:

There are 10 clusters represented in this pham: L1, K1, K2, L4, L2, L3, K5, K4, K7, K8,

Info for manual annotations of cluster K1:

- Start number 28 was manually annotated 14 times for cluster K1.
- Start number 41 was manually annotated 1 time for cluster K1.

Info for manual annotations of cluster K2:

- Start number 27 was manually annotated 9 times for cluster K2.

Info for manual annotations of cluster K4:

- Start number 25 was manually annotated 11 times for cluster K4.
- Start number 28 was manually annotated 4 times for cluster K4.
- Start number 32 was manually annotated 1 time for cluster K4.

Info for manual annotations of cluster K5:

- Start number 26 was manually annotated 3 times for cluster K5.
- Start number 27 was manually annotated 1 time for cluster K5.
- Start number 34 was manually annotated 3 times for cluster K5.

Info for manual annotations of cluster K7:

- Start number 32 was manually annotated 1 time for cluster K7.

Info for manual annotations of cluster K8:

- Start number 28 was manually annotated 1 time for cluster K8.

Info for manual annotations of cluster L1:

- Start number 18 was manually annotated 3 times for cluster L1.
- Start number 20 was manually annotated 16 times for cluster L1.

Info for manual annotations of cluster L2:

- Start number 24 was manually annotated 27 times for cluster L2.

Info for manual annotations of cluster L3:

- Start number 9 was manually annotated 1 time for cluster L3.
- Start number 18 was manually annotated 3 times for cluster L3.
- Start number 20 was manually annotated 3 times for cluster L3.
- Start number 28 was manually annotated 8 times for cluster L3.

Info for manual annotations of cluster L4:

- Start number 18 was manually annotated 1 time for cluster L4.
- Start number 28 was manually annotated 3 times for cluster L4.

Gene Information:

Gene: Acquire49_38 Start: 32935, Stop: 32525, Start Num: 20

Candidate Starts for Acquire49_38:

(Start: 18 @32941 has 7 MA's), (Start: 20 @32935 has 19 MA's), (23, 32917), (Start: 24 @32914 has 27 MA's), (Start: 28 @32905 has 30 MA's), (30, 32872), (Start: 41 @32806 has 1 MA's), (43, 32767), (46, 32743), (54, 32698), (56, 32683), (75, 32590),

Gene: Agent47_42 Start: 34530, Stop: 34129, Start Num: 26

Candidate Starts for Agent47_42:

(Start: 26 @34530 has 3 MA's), (Start: 28 @34524 has 30 MA's), (Start: 32 @34485 has 2 MA's), (Start: 34 @34473 has 3 MA's), (37, 34446), (48, 34344), (51, 34332), (57, 34281), (68, 34221),

Gene: Ageofdapage_45 Start: 35950, Stop: 35573, Start Num: 28

Candidate Starts for Ageofdapage_45:

(15, 36001), (Start: 28 @35950 has 30 MA's), (Start: 32 @35914 has 2 MA's), (40, 35860), (Start: 41 @35854 has 1 MA's), (71, 35662), (73, 35647), (78, 35599),

Gene: Aminay_46 Start: 36466, Stop: 36146, Start Num: 32

Candidate Starts for Aminay_46:

(Start: 28 @36508 has 30 MA's), (29, 36478), (Start: 32 @36466 has 2 MA's), (33, 36463), (Start: 41 @36406 has 1 MA's), (49, 36328), (54, 36298), (56, 36283), (67, 36214),

Gene: Apocalypse_46 Start: 35992, Stop: 35615, Start Num: 28

Candidate Starts for Apocalypse_46:

(Start: 28 @35992 has 30 MA's), (36, 35932), (40, 35905), (Start: 41 @35899 has 1 MA's), (42, 35872), (73, 35689), (78, 35641),

Gene: Appletree2_37 Start: 32877, Stop: 32467, Start Num: 20

Candidate Starts for Appletree2_37:

(Start: 18 @32883 has 7 MA's), (Start: 20 @32877 has 19 MA's), (Start: 24 @32856 has 27 MA's), (Start: 28 @32847 has 30 MA's), (30, 32814), (Start: 41 @32748 has 1 MA's), (43, 32709), (46, 32685), (54, 32640), (75, 32532),

Gene: Archie_40 Start: 34485, Stop: 34096, Start Num: 24

Candidate Starts for Archie_40:

(Start: 20 @34506 has 19 MA's), (Start: 24 @34485 has 27 MA's), (Start: 28 @34476 has 30 MA's), (Start: 32 @34440 has 2 MA's), (33, 34437), (37, 34407), (43, 34341), (46, 34317), (54, 34272), (70, 34185), (72, 34173), (75, 34161),

Gene: AvadaKedavra_38 Start: 32944, Stop: 32534, Start Num: 20

Candidate Starts for AvadaKedavra_38:

(Start: 18 @32950 has 7 MA's), (Start: 20 @32944 has 19 MA's), (23, 32926), (Start: 24 @32923 has 27 MA's), (Start: 28 @32914 has 30 MA's), (30, 32881), (Start: 41 @32815 has 1 MA's), (43, 32776), (46, 32752), (54, 32707), (56, 32692), (75, 32599),

Gene: Baoshan_39 Start: 34142, Stop: 33753, Start Num: 24

Candidate Starts for Baoshan_39:

(Start: 24 @34142 has 27 MA's), (Start: 28 @34133 has 30 MA's), (33, 34094), (37, 34064), (43, 33998), (46, 33974), (54, 33929), (64, 33857), (70, 33842), (72, 33830), (75, 33818),

Gene: Bazzle_40 Start: 34517, Stop: 34128, Start Num: 24

Candidate Starts for Bazzle_40:

(Start: 20 @34538 has 19 MA's), (Start: 24 @34517 has 27 MA's), (Start: 28 @34508 has 30 MA's), (Start: 32 @34472 has 2 MA's), (33, 34469), (37, 34439), (43, 34373), (46, 34349), (54, 34304), (70, 34217), (72, 34205), (75, 34193),

Gene: Bella96_44 Start: 35832, Stop: 35455, Start Num: 28

Candidate Starts for Bella96_44:

(15, 35883), (Start: 28 @35832 has 30 MA's), (Start: 32 @35796 has 2 MA's), (Start: 41 @35736 has 1 MA's), (73, 35529), (78, 35481),

Gene: Bellis_38 Start: 34518, Stop: 34135, Start Num: 28

Candidate Starts for Bellis_38:

(1, 34737), (2, 34731), (3, 34710), (4, 34689), (Start: 18 @34554 has 7 MA's), (Start: 20 @34548 has 19 MA's), (Start: 28 @34518 has 30 MA's), (31, 34482), (33, 34476), (36, 34452), (37, 34446), (Start: 41 @34419 has 1 MA's), (43, 34380), (44, 34368), (46, 34356), (52, 34323), (54, 34311), (61, 34254), (74, 34203), (79, 34140),

Gene: BigCheese_40 Start: 34280, Stop: 33891, Start Num: 24

Candidate Starts for BigCheese_40:

(Start: 24 @34280 has 27 MA's), (Start: 28 @34271 has 30 MA's), (33, 34232), (36, 34208), (37, 34202), (Start: 41 @34175 has 1 MA's), (43, 34136), (46, 34112), (54, 34067), (70, 33980), (75, 33956),

Gene: BobsGarage_40 Start: 34280, Stop: 33891, Start Num: 24

Candidate Starts for BobsGarage_40:

(Start: 24 @34280 has 27 MA's), (Start: 28 @34271 has 30 MA's), (33, 34232), (36, 34208), (37, 34202), (Start: 41 @34175 has 1 MA's), (43, 34136), (46, 34112), (54, 34067), (70, 33980), (75, 33956),

Gene: Boilgate_42 Start: 36179, Stop: 35817, Start Num: 28

Candidate Starts for Boilgate_42:

(7, 36305), (8, 36296), (10, 36266), (11, 36263), (12, 36254), (16, 36230), (17, 36215), (19, 36209), (22, 36197), (Start: 28 @36179 has 30 MA's), (Start: 32 @36140 has 2 MA's), (53, 35978),

Gene: BoostSeason_46 Start: 36618, Stop: 36250, Start Num: 27

Candidate Starts for BoostSeason_46:

(Start: 27 @36618 has 10 MA's), (Start: 32 @36582 has 2 MA's), (Start: 41 @36522 has 1 MA's), (45, 36462), (55, 36402), (58, 36372), (60, 36360), (69, 36330), (78, 36276),

Gene: BourbonZero_37 Start: 34497, Stop: 34114, Start Num: 28

Candidate Starts for BourbonZero_37:

(1, 34716), (2, 34710), (3, 34689), (4, 34668), (Start: 18 @34533 has 7 MA's), (Start: 20 @34527 has 19 MA's), (Start: 28 @34497 has 30 MA's), (31, 34461), (33, 34455), (37, 34425), (Start: 41 @34398 has 1 MA's), (43, 34359), (44, 34347), (46, 34335), (52, 34302), (54, 34290), (74, 34182), (79, 34119),

Gene: BrainDrainer_38 Start: 33181, Stop: 32801, Start Num: 28

Candidate Starts for BrainDrainer_38:

(Start: 18 @33217 has 7 MA's), (Start: 28 @33181 has 30 MA's), (31, 33148), (36, 33118), (37, 33112), (Start: 41 @33085 has 1 MA's), (43, 33046), (47, 33016), (54, 32977), (65, 32899), (73, 32872), (74, 32866),

Gene: Breezona_40 Start: 34280, Stop: 33891, Start Num: 24

Candidate Starts for Breezona_40:

(Start: 24 @34280 has 27 MA's), (Start: 28 @34271 has 30 MA's), (33, 34232), (36, 34208), (37, 34202), (Start: 41 @34175 has 1 MA's), (43, 34136), (46, 34112), (54, 34067), (70, 33980), (75, 33956),

Gene: Bromden_39 Start: 33770, Stop: 33351, Start Num: 18

Candidate Starts for Bromden_39:

(1, 33953), (2, 33947), (6, 33869), (Start: 18 @33770 has 7 MA's), (Start: 28 @33734 has 30 MA's), (33, 33698), (Start: 34 @33689 has 3 MA's), (37, 33668), (38, 33659), (Start: 41 @33641 has 1 MA's), (46, 33578), (47, 33572), (52, 33545), (54, 33533), (57, 33503), (66, 33449), (73, 33425), (74, 33419),

Gene: Calm_38 Start: 32950, Stop: 32540, Start Num: 20

Candidate Starts for Calm_38:

(Start: 18 @32956 has 7 MA's), (Start: 20 @32950 has 19 MA's), (23, 32932), (Start: 24 @32929 has 27 MA's), (Start: 28 @32920 has 30 MA's), (30, 32887), (Start: 41 @32821 has 1 MA's), (43, 32782), (46, 32758), (54, 32713), (56, 32698), (75, 32605),

Gene: Chancellor_47 Start: 36038, Stop: 35679, Start Num: 25

Candidate Starts for Chancellor_47:

(12, 36107), (19, 36062), (Start: 25 @36038 has 11 MA's), (Start: 28 @36032 has 30 MA's), (Start: 32 @35993 has 2 MA's), (39, 35942), (45, 35873), (50, 35852), (53, 35831), (55, 35813), (76, 35711),

Gene: Chaser_37 Start: 32998, Stop: 32618, Start Num: 28

Candidate Starts for Chaser_37:

(Start: 18 @33034 has 7 MA's), (Start: 28 @32998 has 30 MA's), (31, 32965), (36, 32935), (37, 32929), (Start: 41 @32902 has 1 MA's), (43, 32863), (47, 32833), (54, 32794), (73, 32689), (74, 32683),

Gene: CheetoDust_42 Start: 34466, Stop: 34089, Start Num: 28

Candidate Starts for CheetoDust_42:

(21, 34490), (Start: 28 @34466 has 30 MA's), (Start: 32 @34430 has 2 MA's), (35, 34415), (Start: 41 @34370 has 1 MA's), (73, 34163), (78, 34115),

Gene: Cheetobro_47 Start: 36035, Stop: 35676, Start Num: 25

Candidate Starts for Cheetobro_47:

(12, 36104), (19, 36059), (Start: 25 @36035 has 11 MA's), (Start: 28 @36029 has 30 MA's), (Start: 32 @35990 has 2 MA's), (39, 35939), (45, 35870), (50, 35849), (53, 35828), (55, 35810), (76, 35708),

Gene: CicholasNage_38 Start: 32971, Stop: 32561, Start Num: 20

Candidate Starts for CicholasNage_38:

(Start: 18 @32977 has 7 MA's), (Start: 20 @32971 has 19 MA's), (23, 32953), (Start: 24 @32950 has 27 MA's), (Start: 28 @32941 has 30 MA's), (30, 32908), (Start: 41 @32842 has 1 MA's), (43, 32803), (46, 32779), (54, 32734), (56, 32719), (75, 32626),

Gene: Claus_41 Start: 34300, Stop: 33911, Start Num: 24

Candidate Starts for Claus_41:

(Start: 24 @34300 has 27 MA's), (Start: 28 @34291 has 30 MA's), (33, 34252), (37, 34222), (43, 34156), (46, 34132), (54, 34087), (64, 34015), (70, 34000), (72, 33988), (75, 33976),

Gene: Clautastrophe_38 Start: 34516, Stop: 34133, Start Num: 28

Candidate Starts for Clautastrophe_38:

(1, 34735), (2, 34729), (3, 34708), (4, 34687), (Start: 18 @34552 has 7 MA's), (Start: 20 @34546 has 19 MA's), (Start: 28 @34516 has 30 MA's), (31, 34480), (33, 34474), (36, 34450), (37, 34444), (Start: 41 @34417 has 1 MA's), (43, 34378), (44, 34366), (46, 34354), (52, 34321), (54, 34309), (61, 34252),

(74, 34201), (79, 34138),

Gene: Collard_41 Start: 34491, Stop: 34090, Start Num: 26

Candidate Starts for Collard_41:

(Start: 26 @34491 has 3 MA's), (Start: 28 @34485 has 30 MA's), (Start: 32 @34446 has 2 MA's),
(Start: 34 @34434 has 3 MA's), (37, 34407), (48, 34305), (51, 34293), (57, 34242), (68, 34182),

Gene: Crossroads_40 Start: 34282, Stop: 33893, Start Num: 24

Candidate Starts for Crossroads_40:

(Start: 24 @34282 has 27 MA's), (Start: 28 @34273 has 30 MA's), (33, 34234), (36, 34210), (37,
34204), (43, 34138), (46, 34114), (54, 34069), (68, 33988), (70, 33982), (72, 33970), (75, 33958),

Gene: DHan_41 Start: 34241, Stop: 33852, Start Num: 24

Candidate Starts for DHan_41:

(Start: 24 @34241 has 27 MA's), (Start: 28 @34232 has 30 MA's), (33, 34193), (37, 34163), (43,
34097), (46, 34073), (54, 34028), (64, 33956), (70, 33941), (72, 33929), (75, 33917),

Gene: DanBing_40 Start: 34133, Stop: 33744, Start Num: 24

Candidate Starts for DanBing_40:

(Start: 24 @34133 has 27 MA's), (Start: 28 @34124 has 30 MA's), (33, 34085), (37, 34055), (43,
33989), (46, 33965), (54, 33920), (64, 33848), (70, 33833), (72, 33821), (75, 33809),

Gene: DirkDirk_37 Start: 32937, Stop: 32527, Start Num: 20

Candidate Starts for DirkDirk_37:

(Start: 18 @32943 has 7 MA's), (Start: 20 @32937 has 19 MA's), (Start: 24 @32916 has 27 MA's),
(Start: 28 @32907 has 30 MA's), (30, 32874), (Start: 41 @32808 has 1 MA's), (43, 32769), (46,
32745), (54, 32700), (75, 32592),

Gene: DismalFunk_46 Start: 37051, Stop: 36680, Start Num: 27

Candidate Starts for DismalFunk_46:

(15, 37105), (Start: 27 @37051 has 10 MA's), (Start: 32 @37015 has 2 MA's), (35, 37000), (Start: 41
@36955 has 1 MA's), (45, 36895), (55, 36835), (58, 36805), (60, 36793), (69, 36763), (78, 36706),

Gene: DismalStressor_46 Start: 37051, Stop: 36680, Start Num: 27

Candidate Starts for DismalStressor_46:

(15, 37105), (Start: 27 @37051 has 10 MA's), (Start: 32 @37015 has 2 MA's), (35, 37000), (Start: 41
@36955 has 1 MA's), (45, 36895), (55, 36835), (58, 36805), (60, 36793), (69, 36763), (78, 36706),

Gene: Douge_37 Start: 32936, Stop: 32556, Start Num: 28

Candidate Starts for Douge_37:

(Start: 18 @32972 has 7 MA's), (Start: 28 @32936 has 30 MA's), (31, 32903), (36, 32873), (37,
32867), (Start: 41 @32840 has 1 MA's), (43, 32801), (47, 32771), (54, 32732), (73, 32627), (74,
32621),

Gene: Douzhi_37 Start: 33042, Stop: 32662, Start Num: 28

Candidate Starts for Douzhi_37:

(Start: 18 @33078 has 7 MA's), (Start: 28 @33042 has 30 MA's), (31, 33009), (36, 32979), (37,
32973), (Start: 41 @32946 has 1 MA's), (43, 32907), (47, 32877), (54, 32838), (65, 32760), (73,
32733), (74, 32727),

Gene: DrHayes_44 Start: 35877, Stop: 35500, Start Num: 28

Candidate Starts for DrHayes_44:

(15, 35928), (Start: 28 @35877 has 30 MA's), (Start: 32 @35841 has 2 MA's), (Start: 41 @35781 has 1 MA's), (73, 35574), (78, 35526),

Gene: DrSeegs_40 Start: 34280, Stop: 33891, Start Num: 24

Candidate Starts for DrSeegs_40:

(Start: 24 @34280 has 27 MA's), (Start: 28 @34271 has 30 MA's), (33, 34232), (36, 34208), (37, 34202), (Start: 41 @34175 has 1 MA's), (43, 34136), (46, 34112), (54, 34067), (70, 33980), (75, 33956),

Gene: DuncansLeg_38 Start: 34570, Stop: 34151, Start Num: 18

Candidate Starts for DuncansLeg_38:

(1, 34753), (2, 34747), (3, 34726), (4, 34705), (Start: 18 @34570 has 7 MA's), (Start: 20 @34564 has 19 MA's), (Start: 28 @34534 has 30 MA's), (31, 34498), (33, 34492), (37, 34462), (Start: 41 @34435 has 1 MA's), (43, 34396), (44, 34384), (46, 34372), (52, 34339), (54, 34327), (61, 34270), (74, 34219), (79, 34156),

Gene: DyoEdafos_39 Start: 33270, Stop: 32890, Start Num: 28

Candidate Starts for DyoEdafos_39:

(Start: 18 @33306 has 7 MA's), (Start: 28 @33270 has 30 MA's), (31, 33237), (37, 33201), (Start: 41 @33174 has 1 MA's), (43, 33135), (46, 33111), (73, 32961), (74, 32955), (77, 32931),

Gene: Ellson_38 Start: 34546, Stop: 34127, Start Num: 18

Candidate Starts for Ellson_38:

(1, 34729), (2, 34723), (3, 34702), (4, 34681), (Start: 18 @34546 has 7 MA's), (Start: 20 @34540 has 19 MA's), (Start: 28 @34510 has 30 MA's), (31, 34474), (33, 34468), (37, 34438), (Start: 41 @34411 has 1 MA's), (43, 34372), (44, 34360), (46, 34348), (52, 34315), (54, 34303), (74, 34195), (79, 34132),

Gene: Enceladus_37 Start: 32920, Stop: 32510, Start Num: 20

Candidate Starts for Enceladus_37:

(Start: 18 @32926 has 7 MA's), (Start: 20 @32920 has 19 MA's), (Start: 24 @32899 has 27 MA's), (Start: 28 @32890 has 30 MA's), (30, 32857), (Start: 41 @32791 has 1 MA's), (43, 32752), (46, 32728), (54, 32683), (75, 32575),

Gene: Eponine_49 Start: 36791, Stop: 36432, Start Num: 25

Candidate Starts for Eponine_49:

(12, 36860), (19, 36815), (Start: 25 @36791 has 11 MA's), (Start: 28 @36785 has 30 MA's), (Start: 32 @36746 has 2 MA's), (39, 36695), (45, 36626), (50, 36605), (53, 36584), (55, 36566), (76, 36464),

Gene: Faith1_40 Start: 34280, Stop: 33891, Start Num: 24

Candidate Starts for Faith1_40:

(Start: 24 @34280 has 27 MA's), (Start: 28 @34271 has 30 MA's), (33, 34232), (36, 34208), (37, 34202), (Start: 41 @34175 has 1 MA's), (43, 34136), (46, 34112), (54, 34067), (70, 33980), (75, 33956),

Gene: FarmResident_38 Start: 32947, Stop: 32600, Start Num: 31

Candidate Starts for FarmResident_38:

(Start: 18 @33016 has 7 MA's), (Start: 28 @32980 has 30 MA's), (31, 32947), (36, 32917), (37, 32911), (Start: 41 @32884 has 1 MA's), (43, 32845), (47, 32815), (73, 32671), (74, 32665),

Gene: Feyre_41 Start: 34186, Stop: 33836, Start Num: 34

Candidate Starts for Feyre_41:

(Start: 34 @34186 has 3 MA's), (51, 34045), (57, 33994), (68, 33934),

Gene: Findley_46 Start: 37044, Stop: 36673, Start Num: 27

Candidate Starts for Findley_46:

(15, 37098), (Start: 27 @37044 has 10 MA's), (Start: 32 @37008 has 2 MA's), (35, 36993), (Start: 41 @36948 has 1 MA's), (45, 36888), (55, 36828), (58, 36798), (60, 36786), (69, 36756), (78, 36699),

Gene: Finemlucis_40 Start: 34556, Stop: 34167, Start Num: 24

Candidate Starts for Finemlucis_40:

(Start: 24 @34556 has 27 MA's), (Start: 28 @34547 has 30 MA's), (33, 34508), (36, 34484), (37, 34478), (Start: 41 @34451 has 1 MA's), (43, 34412), (46, 34388), (54, 34343), (70, 34256), (72, 34244), (75, 34232),

Gene: Finnry_38 Start: 34555, Stop: 34136, Start Num: 18

Candidate Starts for Finnry_38:

(1, 34738), (2, 34732), (3, 34711), (4, 34690), (Start: 18 @34555 has 7 MA's), (Start: 20 @34549 has 19 MA's), (Start: 28 @34519 has 30 MA's), (31, 34483), (33, 34477), (36, 34453), (37, 34447), (Start: 41 @34420 has 1 MA's), (43, 34381), (44, 34369), (46, 34357), (52, 34324), (54, 34312), (61, 34255), (74, 34204), (79, 34141),

Gene: Fionnbharth_47 Start: 36189, Stop: 35830, Start Num: 25

Candidate Starts for Fionnbharth_47:

(5, 36321), (12, 36258), (13, 36255), (19, 36213), (Start: 25 @36189 has 11 MA's), (Start: 28 @36183 has 30 MA's), (Start: 32 @36144 has 2 MA's), (39, 36093), (45, 36024), (50, 36003), (53, 35982), (55, 35964), (76, 35862),

Gene: Gabriela_40 Start: 34542, Stop: 34153, Start Num: 24

Candidate Starts for Gabriela_40:

(Start: 24 @34542 has 27 MA's), (Start: 28 @34533 has 30 MA's), (33, 34494), (36, 34470), (37, 34464), (Start: 41 @34437 has 1 MA's), (43, 34398), (46, 34374), (54, 34329), (70, 34242), (75, 34218),

Gene: Ganymede_44 Start: 35413, Stop: 35036, Start Num: 28

Candidate Starts for Ganymede_44:

(15, 35464), (Start: 28 @35413 has 30 MA's), (Start: 32 @35377 has 2 MA's), (Start: 41 @35317 has 1 MA's), (59, 35158), (73, 35110), (78, 35062),

Gene: Gardann_40 Start: 34281, Stop: 33892, Start Num: 24

Candidate Starts for Gardann_40:

(Start: 24 @34281 has 27 MA's), (Start: 28 @34272 has 30 MA's), (33, 34233), (36, 34209), (37, 34203), (Start: 41 @34176 has 1 MA's), (43, 34137), (46, 34113), (54, 34068), (70, 33981), (72, 33969), (75, 33957),

Gene: GuuelaD_40 Start: 34319, Stop: 33930, Start Num: 24

Candidate Starts for GuuelaD_40:

(Start: 24 @34319 has 27 MA's), (Start: 28 @34310 has 30 MA's), (33, 34271), (36, 34247), (37, 34241), (43, 34175), (46, 34151), (54, 34106), (68, 34025), (70, 34019), (72, 34007), (75, 33995),

Gene: Hafay_40 Start: 34314, Stop: 33925, Start Num: 24

Candidate Starts for Hafay_40:

(Start: 24 @34314 has 27 MA's), (Start: 28 @34305 has 30 MA's), (33, 34266), (36, 34242), (37, 34236), (43, 34170), (46, 34146), (54, 34101), (68, 34020), (70, 34014), (72, 34002), (75, 33990),

Gene: Halena_37 Start: 32946, Stop: 32536, Start Num: 20

Candidate Starts for Halena_37:

(Start: 18 @32952 has 7 MA's), (Start: 20 @32946 has 19 MA's), (23, 32928), (Start: 24 @32925 has 27 MA's), (Start: 28 @32916 has 30 MA's), (30, 32883), (Start: 41 @32817 has 1 MA's), (43, 32778), (46, 32754), (54, 32709), (56, 32694), (75, 32601),

Gene: InvictusManeo_41 Start: 34534, Stop: 34133, Start Num: 26

Candidate Starts for InvictusManeo_41:

(Start: 26 @34534 has 3 MA's), (Start: 28 @34528 has 30 MA's), (Start: 32 @34489 has 2 MA's), (Start: 34 @34477 has 3 MA's), (37, 34450), (48, 34348), (51, 34336), (57, 34285), (68, 34225),

Gene: JF1_47 Start: 36061, Stop: 35747, Start Num: 32

Candidate Starts for JF1_47:

(Start: 32 @36061 has 2 MA's), (39, 36010), (45, 35941), (50, 35920), (53, 35899), (55, 35881), (76, 35779),

Gene: JoeDirt_37 Start: 32924, Stop: 32508, Start Num: 18

Candidate Starts for JoeDirt_37:

(Start: 18 @32924 has 7 MA's), (Start: 20 @32918 has 19 MA's), (Start: 24 @32897 has 27 MA's), (Start: 28 @32888 has 30 MA's), (30, 32855), (Start: 41 @32789 has 1 MA's), (43, 32750), (46, 32726), (54, 32681), (75, 32573),

Gene: Jubie_38 Start: 34517, Stop: 34134, Start Num: 28

Candidate Starts for Jubie_38:

(1, 34736), (2, 34730), (3, 34709), (4, 34688), (Start: 18 @34553 has 7 MA's), (Start: 20 @34547 has 19 MA's), (Start: 28 @34517 has 30 MA's), (31, 34481), (33, 34475), (36, 34451), (37, 34445), (Start: 41 @34418 has 1 MA's), (43, 34379), (44, 34367), (46, 34355), (52, 34322), (54, 34310), (61, 34253), (74, 34202), (79, 34139),

Gene: Juliette_49 Start: 36262, Stop: 35903, Start Num: 25

Candidate Starts for Juliette_49:

(12, 36331), (19, 36286), (Start: 25 @36262 has 11 MA's), (Start: 28 @36256 has 30 MA's), (Start: 32 @36217 has 2 MA's), (39, 36166), (45, 36097), (50, 36076), (53, 36055), (55, 36037), (76, 35935),

Gene: Kahlid_40 Start: 34286, Stop: 33897, Start Num: 24

Candidate Starts for Kahlid_40:

(Start: 24 @34286 has 27 MA's), (Start: 28 @34277 has 30 MA's), (33, 34238), (36, 34214), (37, 34208), (43, 34142), (46, 34118), (54, 34073), (68, 33992), (70, 33986), (72, 33974), (75, 33962),

Gene: Kingsolomon_38 Start: 34546, Stop: 34133, Start Num: 20

Candidate Starts for Kingsolomon_38:

(1, 34735), (2, 34729), (3, 34708), (4, 34687), (Start: 18 @34552 has 7 MA's), (Start: 20 @34546 has 19 MA's), (Start: 28 @34516 has 30 MA's), (31, 34480), (33, 34474), (36, 34450), (37, 34444), (Start: 41 @34417 has 1 MA's), (43, 34378), (44, 34366), (46, 34354), (52, 34321), (54, 34309), (61, 34252), (74, 34201), (79, 34138),

Gene: KirDoubleO7_36 Start: 34538, Stop: 34158, Start Num: 28

Candidate Starts for KirDoubleO7_36:

(Start: 18 @34574 has 7 MA's), (Start: 20 @34568 has 19 MA's), (Start: 28 @34538 has 30 MA's), (33, 34499), (36, 34475), (37, 34469), (Start: 41 @34442 has 1 MA's), (43, 34403), (44, 34391), (46, 34379), (52, 34346), (54, 34334), (61, 34277), (79, 34163),

Gene: Krypton555_38 Start: 34434, Stop: 34048, Start Num: 28

Candidate Starts for Krypton555_38:

(Start: 9 @34530 has 1 MA's), (14, 34500), (Start: 18 @34470 has 7 MA's), (Start: 20 @34464 has 19 MA's), (Start: 28 @34434 has 30 MA's), (33, 34395), (36, 34371), (37, 34365), (Start: 41 @34338 has 1 MA's), (43, 34299), (44, 34287), (46, 34275), (52, 34242), (74, 34116), (79, 34053),

Gene: LaterM_44 Start: 35874, Stop: 35497, Start Num: 28

Candidate Starts for LaterM_44:

(15, 35925), (Start: 28 @35874 has 30 MA's), (Start: 32 @35838 has 2 MA's), (40, 35784), (Start: 41 @35778 has 1 MA's), (71, 35586), (73, 35571), (78, 35523),

Gene: LeBron_38 Start: 32968, Stop: 32552, Start Num: 18

Candidate Starts for LeBron_38:

(Start: 18 @32968 has 7 MA's), (Start: 20 @32962 has 19 MA's), (Start: 24 @32941 has 27 MA's), (Start: 28 @32932 has 30 MA's), (30, 32899), (Start: 41 @32833 has 1 MA's), (43, 32794), (46, 32770), (54, 32725), (75, 32617),

Gene: Leston_41 Start: 34396, Stop: 34046, Start Num: 34

Candidate Starts for Leston_41:

(Start: 28 @34447 has 30 MA's), (Start: 34 @34396 has 3 MA's), (51, 34255), (57, 34204), (68, 34144),

Gene: Lewan_40 Start: 34274, Stop: 33885, Start Num: 24

Candidate Starts for Lewan_40:

(Start: 24 @34274 has 27 MA's), (Start: 28 @34265 has 30 MA's), (33, 34226), (36, 34202), (37, 34196), (43, 34130), (46, 34106), (54, 34061), (68, 33980), (70, 33974), (72, 33962), (75, 33950),

Gene: LilDestine_40 Start: 34278, Stop: 33889, Start Num: 24

Candidate Starts for LilDestine_40:

(Start: 24 @34278 has 27 MA's), (Start: 28 @34269 has 30 MA's), (33, 34230), (36, 34206), (37, 34200), (Start: 41 @34173 has 1 MA's), (43, 34134), (46, 34110), (54, 34065), (70, 33978), (75, 33954),

Gene: LiyuLake_38 Start: 34530, Stop: 34117, Start Num: 20

Candidate Starts for LiyuLake_38:

(1, 34719), (2, 34713), (3, 34692), (4, 34671), (Start: 18 @34536 has 7 MA's), (Start: 20 @34530 has 19 MA's), (Start: 28 @34500 has 30 MA's), (31, 34464), (33, 34458), (37, 34428), (Start: 41 @34401 has 1 MA's), (43, 34362), (44, 34350), (46, 34338), (52, 34305), (54, 34293), (74, 34185), (79, 34122),

Gene: Loadrie_40 Start: 34312, Stop: 33923, Start Num: 24

Candidate Starts for Loadrie_40:

(Start: 24 @34312 has 27 MA's), (Start: 28 @34303 has 30 MA's), (33, 34264), (36, 34240), (37, 34234), (43, 34168), (46, 34144), (54, 34099), (68, 34018), (70, 34012), (72, 34000), (75, 33988),

Gene: Lolly9_38 Start: 34324, Stop: 33941, Start Num: 28

Candidate Starts for Lolly9_38:

(1, 34543), (2, 34537), (3, 34516), (4, 34495), (Start: 18 @34360 has 7 MA's), (Start: 20 @34354 has 19 MA's), (Start: 28 @34324 has 30 MA's), (31, 34288), (33, 34282), (37, 34252), (Start: 41 @34225 has 1 MA's), (43, 34186), (44, 34174), (46, 34162), (52, 34129), (53, 34123), (54, 34117), (61, 34060), (74, 34009), (79, 33946),

Gene: Lumos_38 Start: 34543, Stop: 34130, Start Num: 20

Candidate Starts for Lumos_38:

(1, 34732), (2, 34726), (3, 34705), (4, 34684), (Start: 18 @34549 has 7 MA's), (Start: 20 @34543 has 19 MA's), (Start: 28 @34513 has 30 MA's), (31, 34477), (33, 34471), (36, 34447), (37, 34441), (Start:

41 @34414 has 1 MA's), (43, 34375), (44, 34363), (46, 34351), (52, 34318), (54, 34306), (61, 34249), (74, 34198), (79, 34135),

Gene: MAckerman_38 Start: 32940, Stop: 32530, Start Num: 20

Candidate Starts for MAckerman_38:

(Start: 18 @32946 has 7 MA's), (Start: 20 @32940 has 19 MA's), (23, 32922), (Start: 24 @32919 has 27 MA's), (Start: 28 @32910 has 30 MA's), (30, 32877), (Start: 41 @32811 has 1 MA's), (43, 32772), (46, 32748), (54, 32703), (56, 32688), (75, 32595),

Gene: Malthus_48 Start: 35950, Stop: 35591, Start Num: 25

Candidate Starts for Malthus_48:

(12, 36019), (19, 35974), (Start: 25 @35950 has 11 MA's), (Start: 28 @35944 has 30 MA's), (Start: 32 @35905 has 2 MA's), (39, 35854), (45, 35785), (50, 35764), (53, 35743), (55, 35725), (76, 35623),

Gene: Marcoliusprime_46 Start: 37051, Stop: 36680, Start Num: 27

Candidate Starts for Marcoliusprime_46:

(15, 37105), (Start: 27 @37051 has 10 MA's), (Start: 32 @37015 has 2 MA's), (35, 37000), (Start: 41 @36955 has 1 MA's), (45, 36895), (55, 36835), (58, 36805), (60, 36793), (69, 36763), (78, 36706),

Gene: MeaningOfLife_44 Start: 35907, Stop: 35530, Start Num: 28

Candidate Starts for MeaningOfLife_44:

(15, 35958), (Start: 28 @35907 has 30 MA's), (Start: 32 @35871 has 2 MA's), (Start: 41 @35811 has 1 MA's), (59, 35652), (73, 35604), (78, 35556),

Gene: Miley16_40 Start: 34280, Stop: 33891, Start Num: 24

Candidate Starts for Miley16_40:

(Start: 24 @34280 has 27 MA's), (Start: 28 @34271 has 30 MA's), (33, 34232), (36, 34208), (37, 34202), (Start: 41 @34175 has 1 MA's), (43, 34136), (46, 34112), (54, 34067), (70, 33980), (75, 33956),

Gene: Milly_46 Start: 37024, Stop: 36653, Start Num: 27

Candidate Starts for Milly_46:

(15, 37078), (Start: 27 @37024 has 10 MA's), (Start: 32 @36988 has 2 MA's), (35, 36973), (Start: 41 @36928 has 1 MA's), (45, 36868), (55, 36808), (58, 36778), (60, 36766), (69, 36736), (78, 36679),

Gene: MiniLon_38 Start: 34355, Stop: 33942, Start Num: 20

Candidate Starts for MiniLon_38:

(1, 34544), (2, 34538), (3, 34517), (4, 34496), (Start: 18 @34361 has 7 MA's), (Start: 20 @34355 has 19 MA's), (Start: 28 @34325 has 30 MA's), (31, 34289), (33, 34283), (37, 34253), (Start: 41 @34226 has 1 MA's), (43, 34187), (44, 34175), (46, 34163), (52, 34130), (53, 34124), (54, 34118), (61, 34061), (74, 34010), (79, 33947),

Gene: MiniMac_38 Start: 34358, Stop: 33939, Start Num: 18

Candidate Starts for MiniMac_38:

(Start: 18 @34358 has 7 MA's), (Start: 20 @34352 has 19 MA's), (Start: 28 @34322 has 30 MA's), (31, 34286), (33, 34280), (37, 34250), (Start: 41 @34223 has 1 MA's), (43, 34184), (44, 34172), (46, 34160), (52, 34127), (53, 34121), (54, 34115), (61, 34058), (74, 34007), (79, 33944),

Gene: Mitti_47 Start: 36126, Stop: 35767, Start Num: 25

Candidate Starts for Mitti_47:

(12, 36195), (19, 36150), (Start: 25 @36126 has 11 MA's), (Start: 28 @36120 has 30 MA's), (Start: 32 @36081 has 2 MA's), (39, 36030), (45, 35961), (50, 35940), (53, 35919), (55, 35901), (76, 35799),

Gene: MkaliMitinis3_40 Start: 34282, Stop: 33893, Start Num: 24

Candidate Starts for MkaliMitinis3_40:

(Start: 24 @34282 has 27 MA's), (Start: 28 @34273 has 30 MA's), (33, 34234), (36, 34210), (37, 34204), (43, 34138), (46, 34114), (54, 34069), (68, 33988), (70, 33982), (72, 33970), (75, 33958),

Gene: Moostard_38 Start: 34518, Stop: 34135, Start Num: 28

Candidate Starts for Moostard_38:

(1, 34737), (2, 34731), (3, 34710), (4, 34689), (Start: 18 @34554 has 7 MA's), (Start: 20 @34548 has 19 MA's), (Start: 28 @34518 has 30 MA's), (31, 34482), (33, 34476), (36, 34452), (37, 34446), (Start: 41 @34419 has 1 MA's), (43, 34380), (44, 34368), (46, 34356), (52, 34323), (54, 34311), (61, 34254), (74, 34203), (79, 34140),

Gene: MsGreen_38 Start: 34516, Stop: 34133, Start Num: 28

Candidate Starts for MsGreen_38:

(1, 34735), (2, 34729), (3, 34708), (4, 34687), (Start: 18 @34552 has 7 MA's), (Start: 20 @34546 has 19 MA's), (Start: 28 @34516 has 30 MA's), (31, 34480), (33, 34474), (36, 34450), (37, 34444), (Start: 41 @34417 has 1 MA's), (43, 34378), (44, 34366), (46, 34354), (52, 34321), (54, 34309), (61, 34252), (74, 34201), (79, 34138),

Gene: Mufasa_46 Start: 36609, Stop: 36241, Start Num: 27

Candidate Starts for Mufasa_46:

(Start: 27 @36609 has 10 MA's), (Start: 32 @36573 has 2 MA's), (Start: 41 @36513 has 1 MA's), (45, 36453), (55, 36393), (58, 36363), (60, 36351), (69, 36321), (78, 36267),

Gene: Murucutumbu_44 Start: 35967, Stop: 35590, Start Num: 28

Candidate Starts for Murucutumbu_44:

(15, 36018), (Start: 28 @35967 has 30 MA's), (Start: 32 @35931 has 2 MA's), (40, 35877), (Start: 41 @35871 has 1 MA's), (71, 35679), (73, 35664), (78, 35616),

Gene: Netyap_40 Start: 34280, Stop: 33891, Start Num: 24

Candidate Starts for Netyap_40:

(Start: 24 @34280 has 27 MA's), (Start: 28 @34271 has 30 MA's), (33, 34232), (36, 34208), (37, 34202), (Start: 41 @34175 has 1 MA's), (43, 34136), (46, 34112), (54, 34067), (70, 33980), (75, 33956),

Gene: Nicholas_38 Start: 34516, Stop: 34133, Start Num: 28

Candidate Starts for Nicholas_38:

(1, 34735), (2, 34729), (3, 34708), (4, 34687), (Start: 18 @34552 has 7 MA's), (Start: 20 @34546 has 19 MA's), (Start: 28 @34516 has 30 MA's), (31, 34480), (33, 34474), (36, 34450), (37, 34444), (Start: 41 @34417 has 1 MA's), (43, 34378), (44, 34366), (46, 34354), (52, 34321), (54, 34309), (61, 34252), (74, 34201), (79, 34138),

Gene: Nicholasp3_40 Start: 34281, Stop: 33892, Start Num: 24

Candidate Starts for Nicholasp3_40:

(Start: 24 @34281 has 27 MA's), (Start: 28 @34272 has 30 MA's), (33, 34233), (36, 34209), (37, 34203), (Start: 41 @34176 has 1 MA's), (43, 34137), (46, 34113), (54, 34068), (70, 33981), (72, 33969), (75, 33957),

Gene: OhShagHennessy_37 Start: 32908, Stop: 32498, Start Num: 20

Candidate Starts for OhShagHennessy_37:

(Start: 18 @32914 has 7 MA's), (Start: 20 @32908 has 19 MA's), (Start: 24 @32887 has 27 MA's), (Start: 28 @32878 has 30 MA's), (30, 32845), (Start: 41 @32779 has 1 MA's), (43, 32740), (46, 32716), (54, 32671), (75, 32563),

Gene: OmniCritical_46 Start: 35929, Stop: 35576, Start Num: 28

Candidate Starts for OmniCritical_46:

(12, 36004), (19, 35959), (Start: 25 @35935 has 11 MA's), (Start: 28 @35929 has 30 MA's), (Start: 32 @35890 has 2 MA's), (39, 35839), (45, 35770), (50, 35749), (53, 35728), (55, 35710), (76, 35608),

Gene: PYPDinur_37 Start: 33042, Stop: 32662, Start Num: 28

Candidate Starts for PYPDinur_37:

(Start: 18 @33078 has 7 MA's), (Start: 28 @33042 has 30 MA's), (31, 33009), (36, 32979), (37, 32973), (Start: 41 @32946 has 1 MA's), (43, 32907), (47, 32877), (54, 32838), (65, 32760), (73, 32733), (74, 32727),

Gene: Psycho_42 Start: 34326, Stop: 33979, Start Num: 34

Candidate Starts for Psycho_42:

(Start: 26 @34383 has 3 MA's), (Start: 28 @34377 has 30 MA's), (Start: 32 @34338 has 2 MA's), (Start: 34 @34326 has 3 MA's), (37, 34299), (51, 34185), (57, 34134), (68, 34074), (79, 33984),

Gene: Quby_38 Start: 32936, Stop: 32556, Start Num: 28

Candidate Starts for Quby_38:

(Start: 18 @32972 has 7 MA's), (Start: 28 @32936 has 30 MA's), (31, 32903), (36, 32873), (37, 32867), (Start: 41 @32840 has 1 MA's), (43, 32801), (47, 32771), (54, 32732), (62, 32672), (73, 32627), (74, 32621),

Gene: QuincyRose_42 Start: 35413, Stop: 35036, Start Num: 28

Candidate Starts for QuincyRose_42:

(15, 35464), (Start: 28 @35413 has 30 MA's), (Start: 32 @35377 has 2 MA's), (Start: 41 @35317 has 1 MA's), (59, 35158), (73, 35110), (78, 35062),

Gene: Rando14_43 Start: 33501, Stop: 33097, Start Num: 27

Candidate Starts for Rando14_43:

(Start: 27 @33501 has 10 MA's), (Start: 34 @33447 has 3 MA's), (57, 33255), (68, 33195),

Gene: Rose5_37 Start: 32935, Stop: 32525, Start Num: 20

Candidate Starts for Rose5_37:

(Start: 18 @32941 has 7 MA's), (Start: 20 @32935 has 19 MA's), (23, 32917), (Start: 24 @32914 has 27 MA's), (Start: 28 @32905 has 30 MA's), (30, 32872), (Start: 41 @32806 has 1 MA's), (43, 32767), (46, 32743), (54, 32698), (56, 32683), (75, 32590),

Gene: Rumpelstiltskin_40 Start: 34547, Stop: 34158, Start Num: 24

Candidate Starts for Rumpelstiltskin_40:

(Start: 24 @34547 has 27 MA's), (Start: 28 @34538 has 30 MA's), (33, 34499), (36, 34475), (37, 34469), (Start: 41 @34442 has 1 MA's), (43, 34403), (46, 34379), (54, 34334), (70, 34247), (75, 34223),

Gene: Ruthiejr_48 Start: 36000, Stop: 35641, Start Num: 25

Candidate Starts for Ruthiejr_48:

(12, 36069), (19, 36024), (Start: 25 @36000 has 11 MA's), (Start: 28 @35994 has 30 MA's), (Start: 32 @35955 has 2 MA's), (39, 35904), (45, 35835), (50, 35814), (53, 35793), (55, 35775), (76, 35673),

Gene: SamScheppers_46 Start: 36429, Stop: 36070, Start Num: 25

Candidate Starts for SamScheppers_46:

(12, 36498), (19, 36453), (Start: 25 @36429 has 11 MA's), (Start: 28 @36423 has 30 MA's), (Start: 32 @36384 has 2 MA's), (39, 36333), (45, 36264), (50, 36243), (53, 36222), (55, 36204), (76, 36102),

Gene: SamuelLPlaqsom_44 Start: 35877, Stop: 35500, Start Num: 28

Candidate Starts for SamuelLPlaqsom_44:

(15, 35928), (Start: 28 @35877 has 30 MA's), (Start: 32 @35841 has 2 MA's), (Start: 41 @35781 has 1 MA's), (73, 35574), (78, 35526),

Gene: Sarshaun_40 Start: 34314, Stop: 33925, Start Num: 24

Candidate Starts for Sarshaun_40:

(Start: 24 @34314 has 27 MA's), (Start: 28 @34305 has 30 MA's), (33, 34266), (36, 34242), (37, 34236), (43, 34170), (46, 34146), (54, 34101), (68, 34020), (70, 34014), (72, 34002), (75, 33990),

Gene: Sheng711_38 Start: 33042, Stop: 32662, Start Num: 28

Candidate Starts for Sheng711_38:

(Start: 18 @33078 has 7 MA's), (Start: 28 @33042 has 30 MA's), (31, 33009), (36, 32979), (37, 32973), (Start: 41 @32946 has 1 MA's), (43, 32907), (47, 32877), (54, 32838), (65, 32760), (73, 32733), (74, 32727),

Gene: Silverleaf_37 Start: 32935, Stop: 32525, Start Num: 20

Candidate Starts for Silverleaf_37:

(Start: 18 @32941 has 7 MA's), (Start: 20 @32935 has 19 MA's), (23, 32917), (Start: 24 @32914 has 27 MA's), (Start: 28 @32905 has 30 MA's), (30, 32872), (Start: 41 @32806 has 1 MA's), (43, 32767), (46, 32743), (54, 32698), (56, 32683), (75, 32590),

Gene: Slarp_47 Start: 36038, Stop: 35679, Start Num: 25

Candidate Starts for Slarp_47:

(12, 36107), (19, 36062), (Start: 25 @36038 has 11 MA's), (Start: 28 @36032 has 30 MA's), (Start: 32 @35993 has 2 MA's), (39, 35942), (45, 35873), (50, 35852), (53, 35831), (55, 35813), (76, 35711),

Gene: Snenia_38 Start: 34517, Stop: 34134, Start Num: 28

Candidate Starts for Snenia_38:

(1, 34736), (2, 34730), (3, 34709), (4, 34688), (Start: 18 @34553 has 7 MA's), (Start: 20 @34547 has 19 MA's), (Start: 28 @34517 has 30 MA's), (31, 34481), (33, 34475), (36, 34451), (37, 34445), (Start: 41 @34418 has 1 MA's), (43, 34379), (44, 34367), (46, 34355), (52, 34322), (54, 34310), (61, 34253), (74, 34202), (79, 34139),

Gene: Soap141_40 Start: 34314, Stop: 33925, Start Num: 24

Candidate Starts for Soap141_40:

(Start: 24 @34314 has 27 MA's), (Start: 28 @34305 has 30 MA's), (33, 34266), (36, 34242), (37, 34236), (43, 34170), (46, 34146), (54, 34101), (68, 34020), (70, 34014), (72, 34002), (75, 33990),

Gene: Stinson_44 Start: 35487, Stop: 35110, Start Num: 28

Candidate Starts for Stinson_44:

(15, 35538), (Start: 28 @35487 has 30 MA's), (Start: 32 @35451 has 2 MA's), (40, 35397), (Start: 41 @35391 has 1 MA's), (71, 35199), (73, 35184), (78, 35136),

Gene: Strobilo_46 Start: 37026, Stop: 36655, Start Num: 27

Candidate Starts for Strobilo_46:

(15, 37080), (Start: 27 @37026 has 10 MA's), (Start: 32 @36990 has 2 MA's), (35, 36975), (Start: 41 @36930 has 1 MA's), (45, 36870), (55, 36810), (58, 36780), (60, 36768), (69, 36738), (78, 36681),

Gene: Taquito_47 Start: 36279, Stop: 35926, Start Num: 28

Candidate Starts for Taquito_47:

(12, 36354), (19, 36309), (Start: 25 @36285 has 11 MA's), (Start: 28 @36279 has 30 MA's), (Start: 32 @36240 has 2 MA's), (39, 36189), (45, 36120), (50, 36099), (53, 36078), (55, 36060), (76, 35958),

Gene: TiniBug_44 Start: 35873, Stop: 35496, Start Num: 28

Candidate Starts for TiniBug_44:

(15, 35924), (Start: 28 @35873 has 30 MA's), (Start: 32 @35837 has 2 MA's), (Start: 41 @35777 has 1 MA's), (73, 35570), (78, 35522),

Gene: Tourach_40 Start: 34296, Stop: 33907, Start Num: 24

Candidate Starts for Tourach_40:

(Start: 24 @34296 has 27 MA's), (Start: 28 @34287 has 30 MA's), (33, 34248), (37, 34218), (Start: 41 @34191 has 1 MA's), (43, 34152), (46, 34128), (54, 34083), (70, 33996), (72, 33984), (75, 33972),

Gene: Tyson_37 Start: 32936, Stop: 32526, Start Num: 20

Candidate Starts for Tyson_37:

(Start: 18 @32942 has 7 MA's), (Start: 20 @32936 has 19 MA's), (23, 32918), (Start: 24 @32915 has 27 MA's), (Start: 28 @32906 has 30 MA's), (30, 32873), (Start: 41 @32807 has 1 MA's), (43, 32768), (46, 32744), (54, 32699), (56, 32684), (75, 32591),

Gene: UPIE_38 Start: 32940, Stop: 32524, Start Num: 18

Candidate Starts for UPIE_38:

(Start: 18 @32940 has 7 MA's), (Start: 20 @32934 has 19 MA's), (Start: 24 @32913 has 27 MA's), (Start: 28 @32904 has 30 MA's), (30, 32871), (Start: 41 @32805 has 1 MA's), (43, 32766), (46, 32742), (54, 32697), (75, 32589),

Gene: Urkel_44 Start: 35877, Stop: 35500, Start Num: 28

Candidate Starts for Urkel_44:

(15, 35928), (Start: 28 @35877 has 30 MA's), (Start: 32 @35841 has 2 MA's), (Start: 41 @35781 has 1 MA's), (73, 35574), (78, 35526),

Gene: Vetrrix_40 Start: 34287, Stop: 33898, Start Num: 24

Candidate Starts for Vetrrix_40:

(Start: 24 @34287 has 27 MA's), (Start: 28 @34278 has 30 MA's), (33, 34239), (36, 34215), (37, 34209), (Start: 41 @34182 has 1 MA's), (43, 34143), (46, 34119), (54, 34074), (70, 33987), (75, 33963),

Gene: Wamburgexpress_38 Start: 32949, Stop: 32539, Start Num: 20

Candidate Starts for Wamburgexpress_38:

(Start: 18 @32955 has 7 MA's), (Start: 20 @32949 has 19 MA's), (Start: 24 @32928 has 27 MA's), (Start: 28 @32919 has 30 MA's), (30, 32886), (Start: 41 @32820 has 1 MA's), (43, 32781), (46, 32757), (54, 32712), (75, 32604),

Gene: Whirlwind_39 Start: 34372, Stop: 33890, Start Num: 9

Candidate Starts for Whirlwind_39:

(Start: 9 @34372 has 1 MA's), (14, 34342), (Start: 18 @34312 has 7 MA's), (Start: 20 @34306 has 19 MA's), (Start: 28 @34276 has 30 MA's), (33, 34237), (36, 34213), (37, 34207), (Start: 41 @34180 has 1 MA's), (43, 34141), (44, 34129), (46, 34117), (52, 34084), (74, 33958), (79, 33895),

Gene: Wigglewigggle_40 Start: 34313, Stop: 33924, Start Num: 24

Candidate Starts for Wigglewigggle_40:

(Start: 24 @34313 has 27 MA's), (Start: 28 @34304 has 30 MA's), (33, 34265), (36, 34241), (37, 34235), (43, 34169), (46, 34145), (54, 34100), (68, 34019), (70, 34013), (72, 34001), (75, 33989),

Gene: Wilder_40 Start: 34286, Stop: 33897, Start Num: 24

Candidate Starts for Wilder_40:

(Start: 24 @34286 has 27 MA's), (Start: 28 @34277 has 30 MA's), (33, 34238), (36, 34214), (37, 34208), (43, 34142), (46, 34118), (54, 34073), (68, 33992), (70, 33986), (72, 33974), (75, 33962),

Gene: Winky_40 Start: 34280, Stop: 33891, Start Num: 24

Candidate Starts for Winky_40:

(Start: 24 @34280 has 27 MA's), (Start: 28 @34271 has 30 MA's), (33, 34232), (36, 34208), (37, 34202), (Start: 41 @34175 has 1 MA's), (43, 34136), (46, 34112), (54, 34067), (70, 33980), (75, 33956),

Gene: Wintermute_47 Start: 36187, Stop: 35828, Start Num: 25

Candidate Starts for Wintermute_47:

(12, 36256), (19, 36211), (Start: 25 @36187 has 11 MA's), (Start: 28 @36181 has 30 MA's), (Start: 32 @36142 has 2 MA's), (39, 36091), (45, 36022), (50, 36001), (53, 35980), (55, 35962), (76, 35860),

Gene: Wyatt2_38 Start: 32935, Stop: 32525, Start Num: 20

Candidate Starts for Wyatt2_38:

(Start: 18 @32941 has 7 MA's), (Start: 20 @32935 has 19 MA's), (23, 32917), (Start: 24 @32914 has 27 MA's), (Start: 28 @32905 has 30 MA's), (30, 32872), (Start: 41 @32806 has 1 MA's), (43, 32767), (46, 32743), (54, 32698), (56, 32683), (75, 32590),

Gene: Y10_46 Start: 36100, Stop: 35747, Start Num: 28

Candidate Starts for Y10_46:

(12, 36175), (19, 36130), (Start: 25 @36106 has 11 MA's), (Start: 28 @36100 has 30 MA's), (Start: 32 @36061 has 2 MA's), (39, 36010), (45, 35941), (50, 35920), (53, 35899), (55, 35881), (76, 35779),

Gene: Y2_46 Start: 36100, Stop: 35747, Start Num: 28

Candidate Starts for Y2_46:

(12, 36175), (19, 36130), (Start: 25 @36106 has 11 MA's), (Start: 28 @36100 has 30 MA's), (Start: 32 @36061 has 2 MA's), (39, 36010), (45, 35941), (50, 35920), (53, 35899), (55, 35881), (76, 35779),

Gene: YoureAdopted_42 Start: 35085, Stop: 34804, Start Num: 41

Candidate Starts for YoureAdopted_42:

(Start: 41 @35085 has 1 MA's), (73, 34878), (78, 34830),

Gene: Zakai_40 Start: 34538, Stop: 34149, Start Num: 24

Candidate Starts for Zakai_40:

(Start: 24 @34538 has 27 MA's), (Start: 28 @34529 has 30 MA's), (33, 34490), (36, 34466), (37, 34460), (43, 34394), (46, 34370), (54, 34325), (68, 34244), (70, 34238), (72, 34226), (75, 34214),

Gene: Zaria_38 Start: 32950, Stop: 32540, Start Num: 20

Candidate Starts for Zaria_38:

(Start: 18 @32956 has 7 MA's), (Start: 20 @32950 has 19 MA's), (23, 32932), (Start: 24 @32929 has 27 MA's), (Start: 28 @32920 has 30 MA's), (30, 32887), (Start: 41 @32821 has 1 MA's), (43, 32782), (46, 32758), (54, 32713), (56, 32698), (75, 32605),

Gene: ZhongYanYuan_39 Start: 34142, Stop: 33753, Start Num: 24

Candidate Starts for ZhongYanYuan_39:

(Start: 24 @34142 has 27 MA's), (Start: 28 @34133 has 30 MA's), (33, 34094), (37, 34064), (43, 33998), (46, 33974), (54, 33929), (64, 33857), (70, 33842), (72, 33830), (75, 33818),

Gene: ZoeJ_45 Start: 36489, Stop: 36121, Start Num: 27

Candidate Starts for ZoeJ_45:

(15, 36546), (Start: 27 @36489 has 10 MA's), (Start: 32 @36453 has 2 MA's), (Start: 34 @36441 has 3 MA's), (Start: 41 @36393 has 1 MA's), (46, 36330), (55, 36273), (63, 36213), (69, 36201), (78, 36147),