

Pham 330595



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 330595 Report

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

Pham number 330595 has 135 members, 8 are drafts.

Phages represented in each track:

- Track 1 : Boohoo_48, ShayRa_49, Anaysia_48, LastResort_47, Soups_48, Nebulosus_47, KatherineG_49, Looper_48, ReMo_47
- Track 2 : DekHockey33_48
- Track 3 : Battleship_49
- Track 4 : KatherineG_75
- Track 5 : DekHockey33_76, Rosalind_73, ShayRa_75, Switzerland_74, Soups_75
- Track 6 : Switzerland_48, Oofda_48, Epsocamisio_47, Waits_48, JSwag_47, Rosalind_47
- Track 7 : Epsocamisio_71, JSwag_74, Nebulosus_72, MinecraftSteve_75
- Track 8 : Battleship_77
- Track 9 : Warrior24_49
- Track 10 : Elle_44
- Track 11 : Remus_48, Strosahl_48
- Track 12 : Anon_43
- Track 13 : MinecraftSteve_49
- Track 14 : LogiBear_67
- Track 15 : Ravana_49
- Track 16 : EagleEye_71, Lucyedi_70, PainterBoy_69
- Track 17 : Conspiracy_39, Jovo_39, Milcery_40, SydNat_41, Discoknowium_38, Midas2_39, Lev2_39, Twigg_40, AgentM_38, Aragog_38, Dublin_38, Zolita_40, Coog_39, Tiger_38, Ghoulboy_41, Phlorence_38, PickleBack_39, Theia_37, ForGetIt_39, Archetta_39
- Track 18 : Cuco_39
- Track 19 : HuhtaEnerson15_40, Florence4_39, LittleCherry_40, Florence1_38, Bonamassa_40, Swirley_42, Micasa_41
- Track 20 : Bluefalcon_38, MarysWell_38
- Track 21 : PetterN_43, Chadwick_43
- Track 22 : George_39, Prinashe11_40
- Track 23 : Tarynearal_38
- Track 24 : Jabiru_40, Airmid_40
- Track 25 : Scorpia_43
- Track 26 : Naca_41
- Track 27 : Benedict_42
- Track 28 : UnionJack_40
- Track 29 : ElTiger69_41
- Track 30 : Blue7_70, Rifter_69, Gladiator_66, Tucker_69, Hexamo_69, Jeffabunny_69, Hammer_69, Lilbunny_68, ToneTone_66, BennyP_69, Zaka_69,

Artemis2UCLA_69, Koko_71, Yokurt_68, WunderPhul_69, BlessJoy_69, Zulu_70, Temprado_70, Wiks_68, Indra_72, Roksolana_70, Helmet_71, Garak_70, CloudWang3_70

- Track 31 : SuperAwesome_68, Chartreuse_67, Imbriano_65, Cookiedough_68, Polyphemos_70, DelvinSonDorr_65, McFly_68, Isiphiwo_66, Neeharika16_67, GreedyLawyer_65, SuperCallie99_65, Newrala_68, Dorothea_68, Pmask_67, DaVinci_66
- Track 32 : Jordennis_67
- Track 33 : VohminGhazi_68, Kazan_69, SmellyB_68, Hoot_63, Candra_66, EricB_67, Kipper29_68
- Track 34 : Blinn1_72
- Track 35 : Priamo_70
- Track 36 : Gruunaga_69
- Track 37 : JewelBug_68
- Track 38 : BABullseye_61
- Track 39 : RegnumDei_61
- Track 40 : Shagrat_64

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

The start number called the most often in the published annotations is 23, it was called in 49 of the 127 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Artemis2UCLA_69, BABullseye_61, BennyP_69, BlessJoy_69, Blue7_70, Candra_66, Chartreuse_67, CloudWang3_70, Cookiedough_68, DaVinci_66, DelvinSonDorr_65, Dorothea_68, EagleEye_71, EricB_67, Garak_70, Gladiator_66, GreedyLawyer_65, Hammer_69, Helmet_71, Hexamo_69, Hoot_63, Imbriano_65, Indra_72, Isiphiwo_66, Jeffabunny_69, JewelBug_68, Jordennis_67, Kazan_69, Kipper29_68, Koko_71, Lilbunny_68, Lucyedi_70, McFly_68, Neeharika16_67, Newrala_68, PainterBoy_69, Pmask_67, Polyphemos_70, Priamo_70, Rifter_69, Roksolana_70, SmellyB_68, SuperAwesome_68, SuperCallie99_65, Temprado_70, ToneTone_66, Tucker_69, VohminGhazi_68, Wiks_68, WunderPhul_69, Yokurt_68, Zaka_69, Zulu_70,

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

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

- AgentM_38, Airmid_40, Anaysia_48, Anon_43, Aragog_38, Archetta_39, Battleship_49, Battleship_77, Benedict_42, Blinn1_72, Bluefalcon_38, Bonamassa_40, Boohoo_48, Chadwick_43, Conspiracy_39, Coog_39, Cuco_39, DekHockey33_48, DekHockey33_76, Discoknowium_38, Dublin_38, ElTiger69_41, Elle_44, Epsocamisio_47, Epsocamisio_71, Florence1_38, Florence4_39, ForGetIt_39, George_39, Ghouboy_41, Gruunaga_69, HuhtaEnerson15_40, JSwag_47, JSwag_74, Jabiru_40, Jovo_39, KatherineG_49, KatherineG_75, LastResort_47, Lev2_39, LittleCherry_40, LogiBear_67, Looper_48, MarysWell_38, Micasa_41, Midas2_39, Milcery_40, MinecraftSteve_49, MinecraftSteve_75, Naca_41, Nebulosus_47, Nebulosus_72, Oofda_48, PetterN_43, Phlorence_38, PickleBack_39, Prinashe11_40, Ravana_49, ReMo_47, RegnumDei_61, Remus_48,

Rosalind_47, Rosalind_73, Scorpia_43, Shagrat_64, ShayRa_49, ShayRa_75, Soups_48, Soups_75, Strosahl_48, Swirley_42, Switzerland_48, Switzerland_74, SydNat_41, Tarynearal_38, Theia_37, Tiger_38, Twigg_40, UnionJack_40, Waits_48, Warrior24_49, Zolita_40,

Summary by start number:

Start 13:

- Found in 12 of 135 (8.9%) of genes in pham
- Manual Annotations of this start: 1 of 127
- Called 8.3% of time when present
- Phage (with cluster) where this start called: Battleship_77 (A15),

Start 16:

- Found in 11 of 135 (8.1%) of genes in pham
- Manual Annotations of this start: 10 of 127
- Called 90.9% of time when present
- Phage (with cluster) where this start called: DekHockey33_76 (A15), Epsocamisio_71 (A15), JSwag_74 (A15), KatherineG_75 (A15), MinecraftSteve_75 (A15), Nebulosus_72 (A15), Rosalind_73 (A15), ShayRa_75 (A15), Soups_75 (A15), Switzerland_74 (A15),

Start 18:

- Found in 1 of 135 (0.7%) of genes in pham
- Manual Annotations of this start: 1 of 127
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Blinn1_72 (A6),

Start 20:

- Found in 42 of 135 (31.1%) of genes in pham
- Manual Annotations of this start: 39 of 127
- Called 100.0% of time when present
- Phage (with cluster) where this start called: AgentM_38 (A5), Airmid_40 (A5), Aragog_38 (A5), Archetta_39 (A5), Benedict_42 (A5), Bluefalcon_38 (A5), Bonamassa_40 (A5), Chadwick_43 (A5), Conspiracy_39 (A5), Coog_39 (A5), Cuco_39 (A5), Discoknowium_38 (A5), Dublin_38 (A5), ElTiger69_41 (A5), Florence1_38 (A5), Florence4_39 (A5), ForGetIt_39 (A5), George_39 (A5), Ghouboy_41 (A5), HuhtaEnerson15_40 (A5), Jabiru_40 (A5), Jovo_39 (A5), Lev2_39 (A5), LittleCherry_40 (A5), MarysWell_38 (A5), Micasa_41 (A5), Midas2_39 (A5), Milcery_40 (A5), Naca_41 (A5), PetterN_43 (A5), Phlorence_38 (A5), PickleBack_39 (A5), Prinashel1_40 (A5), Scorpia_43 (A5), Swirley_42 (A5), SydNat_41 (A5), Tarynearal_38 (A5), Theia_37 (A5), Tiger_38 (A5), Twigg_40 (A5), UnionJack_40 (A5), Zolita_40 (A5),

Start 21:

- Found in 1 of 135 (0.7%) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: LogiBear_67 (A15),

Start 22:

- Found in 10 of 135 (7.4%) of genes in pham
- Manual Annotations of this start: 1 of 127

- Called 10.0% of time when present
- Phage (with cluster) where this start called: DekHockey33_48 (A15),

Start 23:

- Found in 53 of 135 (39.3%) of genes in pham
- Manual Annotations of this start: 49 of 127
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Artemis2UCLA_69 (A6), BABullseye_61 (A6), BennyP_69 (A6), BlessJoy_69 (A6), Blue7_70 (A6), Candra_66 (A6), Chartreuse_67 (A6), CloudWang3_70 (A6), Cookiedough_68 (A6), DaVinci_66 (A6), DelvinSonDorr_65 (A6), Dorothea_68 (A6), EagleEye_71 (A16), EricB_67 (A6), Garak_70 (A6), Gladiator_66 (A6), GreedyLawyer_65 (A6), Hammer_69 (A6), Helmet_71 (A6), Hexamo_69 (A6), Hoot_63 (A6), Imbriano_65 (A6), Indra_72 (A6), Isiphiwo_66 (A6), Jeffabunny_69 (A6), JewelBug_68 (A6), Jordennis_67 (A6), Kazan_69 (A6), Kipper29_68 (A6), Koko_71 (A6), Lilbunny_68 (A6), Lucyedi_70 (A16), McFly_68 (A6), Neeharika16_67 (A6), Newrala_68 (A6), PainterBoy_69 (A16), Pmask_67 (A6), Polyphemus_70 (A6), Priamo_70 (A6), Rifter_69 (A6), Roksolana_70 (A6), SmellyB_68 (A6), SuperAwesome_68 (A6), SuperCallie99_65 (A6), Temprado_70 (A6), ToneTone_66 (A6), Tucker_69 (A6), VohminGhazi_68 (A6), Wiks_68 (A6), WunderPhul_69 (A6), Yokurt_68 (A6), Zaka_69 (A6), Zulu_70 (A6),

Start 24:

- Found in 24 of 135 (17.8%) of genes in pham
- Manual Annotations of this start: 23 of 127
- Called 95.8% of time when present
- Phage (with cluster) where this start called: Anaysia_48 (A15), Anon_43 (A15), Battleship_49 (A15), Boohoo_48 (A15), Elle_44 (A15), Epsocamisio_47 (A15), JSwag_47 (A15), KatherineG_49 (A15), LastResort_47 (A15), Looper_48 (A15), MinecraftSteve_49 (A15), Nebulosus_47 (A15), Oofda_48 (A15), Ravana_49 (A15), ReMo_47 (A15), Remus_48 (A15), Rosalind_47 (A15), ShayRa_49 (A15), Soups_48 (A15), Strosahl_48 (A15), Switzerland_48 (A15), Waits_48 (A15), Warrior24_49 (A15),

Start 25:

- Found in 2 of 135 (1.5%) of genes in pham
- Manual Annotations of this start: 2 of 127
- Called 100.0% of time when present
- Phage (with cluster) where this start called: RegnumDei_61 (CF), Shagrat_64 (CF),

Start 32:

- Found in 25 of 135 (18.5%) of genes in pham
- Manual Annotations of this start: 1 of 127
- Called 4.0% of time when present
- Phage (with cluster) where this start called: Gruunaga_69 (A6),

Summary by clusters:

There are 5 clusters represented in this pham: A15, A16, A5, CF, A6,

Info for manual annotations of cluster A15:

- Start number 13 was manually annotated 1 time for cluster A15.
- Start number 16 was manually annotated 10 times for cluster A15.
- Start number 22 was manually annotated 1 time for cluster A15.

- Start number 24 was manually annotated 23 times for cluster A15.

Info for manual annotations of cluster A16:

- Start number 23 was manually annotated 3 times for cluster A16.

Info for manual annotations of cluster A5:

- Start number 20 was manually annotated 39 times for cluster A5.

Info for manual annotations of cluster A6:

- Start number 18 was manually annotated 1 time for cluster A6.
- Start number 23 was manually annotated 46 times for cluster A6.
- Start number 32 was manually annotated 1 time for cluster A6.

Info for manual annotations of cluster CF:

- Start number 25 was manually annotated 2 times for cluster CF.

Gene Information:

Gene: AgentM_38 Start: 30504, Stop: 30118, Start Num: 20

Candidate Starts for AgentM_38:

(Start: 20 @30504 has 39 MA's), (26, 30456), (27, 30453), (35, 30378), (42, 30312), (43, 30303), (54, 30255), (65, 30207), (68, 30168),

Gene: Airmid_40 Start: 30562, Stop: 30173, Start Num: 20

Candidate Starts for Airmid_40:

(Start: 20 @30562 has 39 MA's), (26, 30514), (27, 30511), (35, 30436), (43, 30361), (44, 30358), (54, 30313), (56, 30304), (68, 30223),

Gene: Anaysia_48 Start: 30327, Stop: 29968, Start Num: 24

Candidate Starts for Anaysia_48:

(Start: 22 @30330 has 1 MA's), (Start: 24 @30327 has 23 MA's), (34, 30219), (69, 30003),

Gene: Anon_43 Start: 29368, Stop: 29009, Start Num: 24

Candidate Starts for Anon_43:

(Start: 24 @29368 has 23 MA's), (39, 29230),

Gene: Aragog_38 Start: 30534, Stop: 30148, Start Num: 20

Candidate Starts for Aragog_38:

(Start: 20 @30534 has 39 MA's), (26, 30486), (27, 30483), (35, 30408), (42, 30342), (43, 30333), (54, 30285), (65, 30237), (68, 30198),

Gene: Archetta_39 Start: 31064, Stop: 30678, Start Num: 20

Candidate Starts for Archetta_39:

(Start: 20 @31064 has 39 MA's), (26, 31016), (27, 31013), (35, 30938), (42, 30872), (43, 30863), (54, 30815), (65, 30767), (68, 30728),

Gene: Artemis2UCLA_69 Start: 40044, Stop: 39688, Start Num: 23

Candidate Starts for Artemis2UCLA_69:

(9, 40161), (10, 40158), (11, 40140), (Start: 23 @40044 has 49 MA's), (Start: 32 @39942 has 1 MA's), (41, 39897), (62, 39774), (67, 39747), (69, 39720), (71, 39699),

Gene: BABullseye_61 Start: 37712, Stop: 37356, Start Num: 23

Candidate Starts for BABullseye_61:

(Start: 23 @37712 has 49 MA's), (28, 37646), (40, 37568), (46, 37511), (62, 37442), (63, 37436), (67, 37415), (71, 37367),

Gene: Battleship_49 Start: 30296, Stop: 29937, Start Num: 24

Candidate Starts for Battleship_49:

(2, 30701), (4, 30617), (5, 30614), (Start: 24 @30296 has 23 MA's), (34, 30188), (69, 29972),

Gene: Battleship_77 Start: 41490, Stop: 41044, Start Num: 13

Candidate Starts for Battleship_77:

(Start: 13 @41490 has 1 MA's), (Start: 16 @41460 has 10 MA's), (17, 41448), (29, 41358), (31, 41331), (57, 41175), (68, 41094),

Gene: Benedict_42 Start: 30735, Stop: 30355, Start Num: 20

Candidate Starts for Benedict_42:

(Start: 20 @30735 has 39 MA's), (26, 30687), (27, 30684), (30, 30657), (35, 30609), (42, 30543), (43, 30534), (52, 30495), (54, 30486), (55, 30480), (60, 30459), (68, 30405), (72, 30372),

Gene: BennyP_69 Start: 40114, Stop: 39758, Start Num: 23

Candidate Starts for BennyP_69:

(9, 40231), (10, 40228), (11, 40210), (Start: 23 @40114 has 49 MA's), (Start: 32 @40012 has 1 MA's), (41, 39967), (62, 39844), (67, 39817), (69, 39790), (71, 39769),

Gene: BlessJoy_69 Start: 40470, Stop: 40114, Start Num: 23

Candidate Starts for BlessJoy_69:

(9, 40587), (10, 40584), (11, 40566), (Start: 23 @40470 has 49 MA's), (Start: 32 @40368 has 1 MA's), (41, 40323), (62, 40200), (67, 40173), (69, 40146), (71, 40125),

Gene: Blinn1_72 Start: 40389, Stop: 39991, Start Num: 18

Candidate Starts for Blinn1_72:

(7, 40491), (Start: 13 @40434 has 1 MA's), (14, 40428), (15, 40416), (Start: 18 @40389 has 1 MA's), (36, 40251), (50, 40137), (59, 40095),

Gene: Blue7_70 Start: 40172, Stop: 39816, Start Num: 23

Candidate Starts for Blue7_70:

(9, 40289), (10, 40286), (11, 40268), (Start: 23 @40172 has 49 MA's), (Start: 32 @40070 has 1 MA's), (41, 40025), (62, 39902), (67, 39875), (69, 39848), (71, 39827),

Gene: Bluefalcon_38 Start: 31022, Stop: 30636, Start Num: 20

Candidate Starts for Bluefalcon_38:

(Start: 20 @31022 has 39 MA's), (26, 30974), (30, 30944), (36, 30893), (42, 30821), (43, 30812), (46, 30800), (68, 30686),

Gene: Bonamassa_40 Start: 31053, Stop: 30667, Start Num: 20

Candidate Starts for Bonamassa_40:

(Start: 20 @31053 has 39 MA's), (26, 31005), (35, 30927), (42, 30861), (43, 30852), (54, 30804), (65, 30756), (68, 30717),

Gene: Boohoo_48 Start: 30327, Stop: 29968, Start Num: 24

Candidate Starts for Boohoo_48:

(Start: 22 @30330 has 1 MA's), (Start: 24 @30327 has 23 MA's), (34, 30219), (69, 30003),

Gene: Candra_66 Start: 40076, Stop: 39720, Start Num: 23

Candidate Starts for Candra_66:

(12, 40154), (Start: 23 @40076 has 49 MA's), (28, 40010), (40, 39932), (46, 39875), (62, 39806), (63, 39800), (67, 39779), (69, 39752), (71, 39731),

Gene: Chadwick_43 Start: 30715, Stop: 30335, Start Num: 20

Candidate Starts for Chadwick_43:

(Start: 20 @30715 has 39 MA's), (26, 30667), (27, 30664), (30, 30637), (35, 30589), (42, 30523), (52, 30475), (54, 30466), (55, 30460), (60, 30439), (68, 30385), (72, 30352),

Gene: Chartreuse_67 Start: 39392, Stop: 39036, Start Num: 23

Candidate Starts for Chartreuse_67:

(12, 39470), (Start: 23 @39392 has 49 MA's), (40, 39248), (46, 39191), (62, 39122), (67, 39095), (69, 39068), (71, 39047),

Gene: CloudWang3_70 Start: 40556, Stop: 40200, Start Num: 23

Candidate Starts for CloudWang3_70:

(9, 40673), (10, 40670), (11, 40652), (Start: 23 @40556 has 49 MA's), (Start: 32 @40454 has 1 MA's), (41, 40409), (62, 40286), (67, 40259), (69, 40232), (71, 40211),

Gene: Conspiracy_39 Start: 30746, Stop: 30360, Start Num: 20

Candidate Starts for Conspiracy_39:

(Start: 20 @30746 has 39 MA's), (26, 30698), (27, 30695), (35, 30620), (42, 30554), (43, 30545), (54, 30497), (65, 30449), (68, 30410),

Gene: Coog_39 Start: 30844, Stop: 30458, Start Num: 20

Candidate Starts for Coog_39:

(Start: 20 @30844 has 39 MA's), (26, 30796), (27, 30793), (35, 30718), (42, 30652), (43, 30643), (54, 30595), (65, 30547), (68, 30508),

Gene: Cookiedough_68 Start: 40020, Stop: 39664, Start Num: 23

Candidate Starts for Cookiedough_68:

(12, 40098), (Start: 23 @40020 has 49 MA's), (40, 39876), (46, 39819), (62, 39750), (67, 39723), (69, 39696), (71, 39675),

Gene: Cuco_39 Start: 30800, Stop: 30411, Start Num: 20

Candidate Starts for Cuco_39:

(Start: 20 @30800 has 39 MA's), (26, 30752), (27, 30749), (35, 30674), (42, 30608), (43, 30599), (44, 30596), (54, 30551), (56, 30542), (68, 30461),

Gene: DaVinci_66 Start: 39446, Stop: 39090, Start Num: 23

Candidate Starts for DaVinci_66:

(12, 39524), (Start: 23 @39446 has 49 MA's), (40, 39302), (46, 39245), (62, 39176), (67, 39149), (69, 39122), (71, 39101),

Gene: DekHockey33_48 Start: 30545, Stop: 30183, Start Num: 22

Candidate Starts for DekHockey33_48:

(Start: 22 @30545 has 1 MA's), (Start: 24 @30542 has 23 MA's), (34, 30434), (69, 30218),

Gene: DekHockey33_76 Start: 41545, Stop: 41129, Start Num: 16

Candidate Starts for DekHockey33_76:

(Start: 13 @41575 has 1 MA's), (Start: 16 @41545 has 10 MA's), (17, 41533), (29, 41443), (31, 41416), (57, 41260), (68, 41179),

Gene: DelvinSonDorr_65 Start: 40251, Stop: 39895, Start Num: 23

Candidate Starts for DelvinSonDorr_65:

(12, 40329), (Start: 23 @40251 has 49 MA's), (40, 40107), (46, 40050), (62, 39981), (67, 39954), (69, 39927), (71, 39906),

Gene: Discoknowium_38 Start: 30543, Stop: 30157, Start Num: 20

Candidate Starts for Discoknowium_38:

(Start: 20 @30543 has 39 MA's), (26, 30495), (27, 30492), (35, 30417), (42, 30351), (43, 30342), (54, 30294), (65, 30246), (68, 30207),

Gene: Dorothea_68 Start: 40018, Stop: 39662, Start Num: 23

Candidate Starts for Dorothea_68:

(12, 40096), (Start: 23 @40018 has 49 MA's), (40, 39874), (46, 39817), (62, 39748), (67, 39721), (69, 39694), (71, 39673),

Gene: Dublin_38 Start: 30565, Stop: 30179, Start Num: 20

Candidate Starts for Dublin_38:

(Start: 20 @30565 has 39 MA's), (26, 30517), (27, 30514), (35, 30439), (42, 30373), (43, 30364), (54, 30316), (65, 30268), (68, 30229),

Gene: EagleEye_71 Start: 41731, Stop: 41372, Start Num: 23

Candidate Starts for EagleEye_71:

(8, 41836), (9, 41833), (10, 41830), (Start: 23 @41731 has 49 MA's), (26, 41689), (30, 41656), (51, 41506), (61, 41461), (62, 41458), (71, 41383),

Gene: ElTiger69_41 Start: 30732, Stop: 30352, Start Num: 20

Candidate Starts for ElTiger69_41:

(Start: 20 @30732 has 39 MA's), (26, 30684), (27, 30681), (35, 30606), (42, 30540), (52, 30492), (54, 30483), (55, 30477), (60, 30456), (68, 30402), (72, 30369),

Gene: Elle_44 Start: 28787, Stop: 28425, Start Num: 24

Candidate Starts for Elle_44:

(3, 29156), (Start: 24 @28787 has 23 MA's), (31, 28697), (35, 28673), (39, 28649), (40, 28646), (42, 28607), (69, 28460),

Gene: Epsocamisio_71 Start: 40692, Stop: 40276, Start Num: 16

Candidate Starts for Epsocamisio_71:

(Start: 13 @40722 has 1 MA's), (Start: 16 @40692 has 10 MA's), (17, 40680), (29, 40590), (31, 40563), (57, 40407), (68, 40326),

Gene: Epsocamisio_47 Start: 30101, Stop: 29742, Start Num: 24

Candidate Starts for Epsocamisio_47:

(2, 30503), (4, 30419), (Start: 24 @30101 has 23 MA's), (34, 29993), (69, 29777),

Gene: EricB_67 Start: 40033, Stop: 39677, Start Num: 23

Candidate Starts for EricB_67:

(12, 40111), (Start: 23 @40033 has 49 MA's), (28, 39967), (40, 39889), (46, 39832), (62, 39763), (63, 39757), (67, 39736), (69, 39709), (71, 39688),

Gene: Florence1_38 Start: 30418, Stop: 30032, Start Num: 20

Candidate Starts for Florence1_38:

(Start: 20 @30418 has 39 MA's), (26, 30370), (35, 30292), (42, 30226), (43, 30217), (54, 30169), (65, 30121), (68, 30082),

Gene: Florence4_39 Start: 30418, Stop: 30032, Start Num: 20

Candidate Starts for Florence4_39:

(Start: 20 @30418 has 39 MA's), (26, 30370), (35, 30292), (42, 30226), (43, 30217), (54, 30169), (65, 30121), (68, 30082),

Gene: ForGetIt_39 Start: 30771, Stop: 30385, Start Num: 20

Candidate Starts for ForGetIt_39:

(Start: 20 @30771 has 39 MA's), (26, 30723), (27, 30720), (35, 30645), (42, 30579), (43, 30570), (54, 30522), (65, 30474), (68, 30435),

Gene: Garak_70 Start: 40411, Stop: 40055, Start Num: 23

Candidate Starts for Garak_70:

(9, 40528), (10, 40525), (11, 40507), (Start: 23 @40411 has 49 MA's), (Start: 32 @40309 has 1 MA's), (41, 40264), (62, 40141), (67, 40114), (69, 40087), (71, 40066),

Gene: George_39 Start: 30995, Stop: 30609, Start Num: 20

Candidate Starts for George_39:

(Start: 20 @30995 has 39 MA's), (26, 30947), (27, 30944), (35, 30869), (42, 30803), (43, 30794), (53, 30749), (54, 30746), (65, 30698), (68, 30659),

Gene: Ghoulboy_41 Start: 31508, Stop: 31122, Start Num: 20

Candidate Starts for Ghoulboy_41:

(Start: 20 @31508 has 39 MA's), (26, 31460), (27, 31457), (35, 31382), (42, 31316), (43, 31307), (54, 31259), (65, 31211), (68, 31172),

Gene: Gladiator_66 Start: 39636, Stop: 39280, Start Num: 23

Candidate Starts for Gladiator_66:

(9, 39753), (10, 39750), (11, 39732), (Start: 23 @39636 has 49 MA's), (Start: 32 @39534 has 1 MA's), (41, 39489), (62, 39366), (67, 39339), (69, 39312), (71, 39291),

Gene: GreedyLawyer_65 Start: 40006, Stop: 39650, Start Num: 23

Candidate Starts for GreedyLawyer_65:

(12, 40084), (Start: 23 @40006 has 49 MA's), (40, 39862), (46, 39805), (62, 39736), (67, 39709), (69, 39682), (71, 39661),

Gene: Gruunaga_69 Start: 40267, Stop: 40013, Start Num: 32

Candidate Starts for Gruunaga_69:

(9, 40486), (10, 40483), (11, 40465), (Start: 32 @40267 has 1 MA's), (41, 40222), (62, 40099), (67, 40072), (69, 40045), (71, 40024),

Gene: Hammer_69 Start: 39976, Stop: 39620, Start Num: 23

Candidate Starts for Hammer_69:

(9, 40093), (10, 40090), (11, 40072), (Start: 23 @39976 has 49 MA's), (Start: 32 @39874 has 1 MA's), (41, 39829), (62, 39706), (67, 39679), (69, 39652), (71, 39631),

Gene: Helmet_71 Start: 40411, Stop: 40055, Start Num: 23

Candidate Starts for Helmet_71:

(9, 40528), (10, 40525), (11, 40507), (Start: 23 @40411 has 49 MA's), (Start: 32 @40309 has 1 MA's), (41, 40264), (62, 40141), (67, 40114), (69, 40087), (71, 40066),

Gene: Hexamo_69 Start: 40041, Stop: 39685, Start Num: 23

Candidate Starts for Hexamo_69:

(9, 40158), (10, 40155), (11, 40137), (Start: 23 @40041 has 49 MA's), (Start: 32 @39939 has 1 MA's), (41, 39894), (62, 39771), (67, 39744), (69, 39717), (71, 39696),

Gene: Hoot_63 Start: 37891, Stop: 37535, Start Num: 23

Candidate Starts for Hoot_63:

(12, 37969), (Start: 23 @37891 has 49 MA's), (28, 37825), (40, 37747), (46, 37690), (62, 37621), (63, 37615), (67, 37594), (69, 37567), (71, 37546),

Gene: HuhtaEnerson15_40 Start: 30986, Stop: 30600, Start Num: 20

Candidate Starts for HuhtaEnerson15_40:

(Start: 20 @30986 has 39 MA's), (26, 30938), (35, 30860), (42, 30794), (43, 30785), (54, 30737), (65, 30689), (68, 30650),

Gene: Imbriano_65 Start: 40405, Stop: 40049, Start Num: 23

Candidate Starts for Imbriano_65:

(12, 40483), (Start: 23 @40405 has 49 MA's), (40, 40261), (46, 40204), (62, 40135), (67, 40108), (69, 40081), (71, 40060),

Gene: Indra_72 Start: 40412, Stop: 40056, Start Num: 23

Candidate Starts for Indra_72:

(9, 40529), (10, 40526), (11, 40508), (Start: 23 @40412 has 49 MA's), (Start: 32 @40310 has 1 MA's), (41, 40265), (62, 40142), (67, 40115), (69, 40088), (71, 40067),

Gene: Isiphiwo_66 Start: 39572, Stop: 39216, Start Num: 23

Candidate Starts for Isiphiwo_66:

(12, 39650), (Start: 23 @39572 has 49 MA's), (40, 39428), (46, 39371), (62, 39302), (67, 39275), (69, 39248), (71, 39227),

Gene: JSwag_74 Start: 40977, Stop: 40561, Start Num: 16

Candidate Starts for JSwag_74:

(Start: 13 @41007 has 1 MA's), (Start: 16 @40977 has 10 MA's), (17, 40965), (29, 40875), (31, 40848), (57, 40692), (68, 40611),

Gene: JSwag_47 Start: 30039, Stop: 29680, Start Num: 24

Candidate Starts for JSwag_47:

(2, 30441), (4, 30357), (Start: 24 @30039 has 23 MA's), (34, 29931), (69, 29715),

Gene: Jabiru_40 Start: 30604, Stop: 30215, Start Num: 20

Candidate Starts for Jabiru_40:

(Start: 20 @30604 has 39 MA's), (26, 30556), (27, 30553), (35, 30478), (43, 30403), (44, 30400), (54, 30355), (56, 30346), (68, 30265),

Gene: Jeffabunny_69 Start: 40038, Stop: 39682, Start Num: 23

Candidate Starts for Jeffabunny_69:

(9, 40155), (10, 40152), (11, 40134), (Start: 23 @40038 has 49 MA's), (Start: 32 @39936 has 1 MA's), (41, 39891), (62, 39768), (67, 39741), (69, 39714), (71, 39693),

Gene: JewelBug_68 Start: 40312, Stop: 39956, Start Num: 23

Candidate Starts for JewelBug_68:

(12, 40390), (Start: 23 @40312 has 49 MA's), (40, 40168), (46, 40111), (62, 40042), (63, 40036), (67, 40015), (69, 39988), (71, 39967),

Gene: Jordennis_67 Start: 39793, Stop: 39437, Start Num: 23

Candidate Starts for Jordennis_67:

(Start: 23 @39793 has 49 MA's), (28, 39727), (40, 39649), (46, 39592), (62, 39523), (67, 39496), (71, 39448),

Gene: Jovo_39 Start: 31027, Stop: 30641, Start Num: 20

Candidate Starts for Jovo_39:

(Start: 20 @31027 has 39 MA's), (26, 30979), (27, 30976), (35, 30901), (42, 30835), (43, 30826), (54, 30778), (65, 30730), (68, 30691),

Gene: KatherineG_75 Start: 41450, Stop: 41034, Start Num: 16

Candidate Starts for KatherineG_75:

(6, 41561), (Start: 13 @41480 has 1 MA's), (Start: 16 @41450 has 10 MA's), (17, 41438), (29, 41348), (31, 41321), (57, 41165), (68, 41084),

Gene: KatherineG_49 Start: 30542, Stop: 30183, Start Num: 24

Candidate Starts for KatherineG_49:

(Start: 22 @30545 has 1 MA's), (Start: 24 @30542 has 23 MA's), (34, 30434), (69, 30218),

Gene: Kazan_69 Start: 40046, Stop: 39690, Start Num: 23

Candidate Starts for Kazan_69:

(12, 40124), (Start: 23 @40046 has 49 MA's), (28, 39980), (40, 39902), (46, 39845), (62, 39776), (63, 39770), (67, 39749), (69, 39722), (71, 39701),

Gene: Kipper29_68 Start: 40059, Stop: 39703, Start Num: 23

Candidate Starts for Kipper29_68:

(12, 40137), (Start: 23 @40059 has 49 MA's), (28, 39993), (40, 39915), (46, 39858), (62, 39789), (63, 39783), (67, 39762), (69, 39735), (71, 39714),

Gene: Koko_71 Start: 40896, Stop: 40540, Start Num: 23

Candidate Starts for Koko_71:

(9, 41013), (10, 41010), (11, 40992), (Start: 23 @40896 has 49 MA's), (Start: 32 @40794 has 1 MA's), (41, 40749), (62, 40626), (67, 40599), (69, 40572), (71, 40551),

Gene: LastResort_47 Start: 30103, Stop: 29744, Start Num: 24

Candidate Starts for LastResort_47:

(Start: 22 @30106 has 1 MA's), (Start: 24 @30103 has 23 MA's), (34, 29995), (69, 29779),

Gene: Lev2_39 Start: 30659, Stop: 30273, Start Num: 20

Candidate Starts for Lev2_39:

(Start: 20 @30659 has 39 MA's), (26, 30611), (27, 30608), (35, 30533), (42, 30467), (43, 30458), (54, 30410), (65, 30362), (68, 30323),

Gene: Lilbunny_68 Start: 40042, Stop: 39686, Start Num: 23

Candidate Starts for Lilbunny_68:

(9, 40159), (10, 40156), (11, 40138), (Start: 23 @40042 has 49 MA's), (Start: 32 @39940 has 1 MA's), (41, 39895), (62, 39772), (67, 39745), (69, 39718), (71, 39697),

Gene: LittleCherry_40 Start: 30996, Stop: 30610, Start Num: 20

Candidate Starts for LittleCherry_40:

(Start: 20 @30996 has 39 MA's), (26, 30948), (35, 30870), (42, 30804), (43, 30795), (54, 30747), (65, 30699), (68, 30660),

Gene: LogiBear_67 Start: 40220, Stop: 39849, Start Num: 21

Candidate Starts for LogiBear_67:

(19, 40226), (21, 40220), (31, 40124), (38, 40085), (40, 40073), (47, 40004), (49, 39998), (64, 39929), (70, 39866),

Gene: Looper_48 Start: 30080, Stop: 29721, Start Num: 24

Candidate Starts for Looper_48:

(Start: 22 @30083 has 1 MA's), (Start: 24 @30080 has 23 MA's), (34, 29972), (69, 29756),

Gene: Lucyedi_70 Start: 41927, Stop: 41568, Start Num: 23

Candidate Starts for Lucyedi_70:

(8, 42032), (9, 42029), (10, 42026), (Start: 23 @41927 has 49 MA's), (26, 41885), (30, 41852), (51, 41702), (61, 41657), (62, 41654), (71, 41579),

Gene: MarysWell_38 Start: 30859, Stop: 30467, Start Num: 20

Candidate Starts for MarysWell_38:

(Start: 20 @30859 has 39 MA's), (26, 30811), (30, 30781), (36, 30730), (42, 30658), (43, 30649), (46, 30637), (68, 30517),

Gene: McFly_68 Start: 40005, Stop: 39649, Start Num: 23

Candidate Starts for McFly_68:

(12, 40083), (Start: 23 @40005 has 49 MA's), (40, 39861), (46, 39804), (62, 39735), (67, 39708), (69, 39681), (71, 39660),

Gene: Micasa_41 Start: 31126, Stop: 30740, Start Num: 20

Candidate Starts for Micasa_41:

(Start: 20 @31126 has 39 MA's), (26, 31078), (35, 31000), (42, 30934), (43, 30925), (54, 30877), (65, 30829), (68, 30790),

Gene: Midas2_39 Start: 30844, Stop: 30458, Start Num: 20

Candidate Starts for Midas2_39:

(Start: 20 @30844 has 39 MA's), (26, 30796), (27, 30793), (35, 30718), (42, 30652), (43, 30643), (54, 30595), (65, 30547), (68, 30508),

Gene: Milcery_40 Start: 30963, Stop: 30577, Start Num: 20

Candidate Starts for Milcery_40:

(Start: 20 @30963 has 39 MA's), (26, 30915), (27, 30912), (35, 30837), (42, 30771), (43, 30762), (54, 30714), (65, 30666), (68, 30627),

Gene: MinecraftSteve_75 Start: 41265, Stop: 40849, Start Num: 16

Candidate Starts for MinecraftSteve_75:

(Start: 13 @41295 has 1 MA's), (Start: 16 @41265 has 10 MA's), (17, 41253), (29, 41163), (31, 41136), (57, 40980), (68, 40899),

Gene: MinecraftSteve_49 Start: 30303, Stop: 29944, Start Num: 24

Candidate Starts for MinecraftSteve_49:

(2, 30705), (4, 30621), (Start: 24 @30303 has 23 MA's), (34, 30195), (51, 30078), (69, 29979),

Gene: Naca_41 Start: 31274, Stop: 30894, Start Num: 20

Candidate Starts for Naca_41:

(Start: 20 @31274 has 39 MA's), (26, 31226), (27, 31223), (35, 31148), (42, 31082), (43, 31073), (52, 31034), (54, 31025), (60, 30998), (68, 30944), (72, 30911),

Gene: Nebulosus_72 Start: 40929, Stop: 40513, Start Num: 16

Candidate Starts for Nebulosus_72:

(Start: 13 @40959 has 1 MA's), (Start: 16 @40929 has 10 MA's), (17, 40917), (29, 40827), (31, 40800), (57, 40644), (68, 40563),

Gene: Nebulosus_47 Start: 30099, Stop: 29740, Start Num: 24

Candidate Starts for Nebulosus_47:

(Start: 22 @30102 has 1 MA's), (Start: 24 @30099 has 23 MA's), (34, 29991), (69, 29775),

Gene: Neeharika16_67 Start: 39472, Stop: 39116, Start Num: 23

Candidate Starts for Neeharika16_67:

(12, 39550), (Start: 23 @39472 has 49 MA's), (40, 39328), (46, 39271), (62, 39202), (67, 39175), (69, 39148), (71, 39127),

Gene: Newrala_68 Start: 40007, Stop: 39651, Start Num: 23

Candidate Starts for Newrala_68:

(12, 40085), (Start: 23 @40007 has 49 MA's), (40, 39863), (46, 39806), (62, 39737), (67, 39710), (69, 39683), (71, 39662),

Gene: Oofda_48 Start: 30194, Stop: 29835, Start Num: 24

Candidate Starts for Oofda_48:

(2, 30596), (4, 30512), (Start: 24 @30194 has 23 MA's), (34, 30086), (69, 29870),

Gene: PainterBoy_69 Start: 41636, Stop: 41277, Start Num: 23

Candidate Starts for PainterBoy_69:

(8, 41741), (9, 41738), (10, 41735), (Start: 23 @41636 has 49 MA's), (26, 41594), (30, 41561), (51, 41411), (61, 41366), (62, 41363), (71, 41288),

Gene: PetterN_43 Start: 30715, Stop: 30335, Start Num: 20

Candidate Starts for PetterN_43:

(Start: 20 @30715 has 39 MA's), (26, 30667), (27, 30664), (30, 30637), (35, 30589), (42, 30523), (52, 30475), (54, 30466), (55, 30460), (60, 30439), (68, 30385), (72, 30352),

Gene: Phlorence_38 Start: 30534, Stop: 30148, Start Num: 20

Candidate Starts for Phlorence_38:

(Start: 20 @30534 has 39 MA's), (26, 30486), (27, 30483), (35, 30408), (42, 30342), (43, 30333), (54, 30285), (65, 30237), (68, 30198),

Gene: PickleBack_39 Start: 30660, Stop: 30274, Start Num: 20

Candidate Starts for PickleBack_39:

(Start: 20 @30660 has 39 MA's), (26, 30612), (27, 30609), (35, 30534), (42, 30468), (43, 30459), (54, 30411), (65, 30363), (68, 30324),

Gene: Pmask_67 Start: 40008, Stop: 39652, Start Num: 23

Candidate Starts for Pmask_67:

(12, 40086), (Start: 23 @40008 has 49 MA's), (40, 39864), (46, 39807), (62, 39738), (67, 39711), (69, 39684), (71, 39663),

Gene: Polyphemus_70 Start: 40393, Stop: 40037, Start Num: 23

Candidate Starts for Polyphemus_70:

(12, 40471), (Start: 23 @40393 has 49 MA's), (40, 40249), (46, 40192), (62, 40123), (67, 40096), (69, 40069), (71, 40048),

Gene: Priamo_70 Start: 39859, Stop: 39503, Start Num: 23

Candidate Starts for Priamo_70:

(12, 39937), (Start: 23 @39859 has 49 MA's), (40, 39715), (46, 39658), (62, 39589), (67, 39562), (71, 39514),

Gene: Prinash11_40 Start: 30826, Stop: 30440, Start Num: 20

Candidate Starts for Prinash11_40:

(Start: 20 @30826 has 39 MA's), (26, 30778), (27, 30775), (35, 30700), (42, 30634), (43, 30625), (53, 30580), (54, 30577), (65, 30529), (68, 30490),

Gene: Ravana_49 Start: 30731, Stop: 30372, Start Num: 24

Candidate Starts for Ravana_49:

(Start: 24 @30731 has 23 MA's), (69, 30407),

Gene: ReMo_47 Start: 30100, Stop: 29741, Start Num: 24

Candidate Starts for ReMo_47:

(Start: 22 @30103 has 1 MA's), (Start: 24 @30100 has 23 MA's), (34, 29992), (69, 29776),

Gene: RegnumDei_61 Start: 39892, Stop: 40269, Start Num: 25

Candidate Starts for RegnumDei_61:

(Start: 25 @39892 has 2 MA's), (27, 39934), (45, 40078), (48, 40093), (65, 40168), (68, 40210),

Gene: Remus_48 Start: 30019, Stop: 29660, Start Num: 24

Candidate Starts for Remus_48:

(1, 30424), (2, 30421), (4, 30337), (Start: 24 @30019 has 23 MA's), (34, 29911), (69, 29695),

Gene: Rifter_69 Start: 39572, Stop: 39216, Start Num: 23

Candidate Starts for Rifter_69:

(9, 39689), (10, 39686), (11, 39668), (Start: 23 @39572 has 49 MA's), (Start: 32 @39470 has 1 MA's), (41, 39425), (62, 39302), (67, 39275), (69, 39248), (71, 39227),

Gene: Roksolana_70 Start: 40406, Stop: 40050, Start Num: 23

Candidate Starts for Roksolana_70:

(9, 40523), (10, 40520), (11, 40502), (Start: 23 @40406 has 49 MA's), (Start: 32 @40304 has 1 MA's), (41, 40259), (62, 40136), (67, 40109), (69, 40082), (71, 40061),

Gene: Rosalind_73 Start: 41184, Stop: 40768, Start Num: 16

Candidate Starts for Rosalind_73:

(Start: 13 @41214 has 1 MA's), (Start: 16 @41184 has 10 MA's), (17, 41172), (29, 41082), (31, 41055), (57, 40899), (68, 40818),

Gene: Rosalind_47 Start: 30222, Stop: 29863, Start Num: 24

Candidate Starts for Rosalind_47:

(2, 30624), (4, 30540), (Start: 24 @30222 has 23 MA's), (34, 30114), (69, 29898),

Gene: Scorpia_43 Start: 30792, Stop: 30412, Start Num: 20

Candidate Starts for Scorpia_43:

(Start: 20 @30792 has 39 MA's), (26, 30744), (27, 30741), (35, 30666), (42, 30600), (52, 30552), (54, 30543), (60, 30516), (68, 30462), (72, 30429),

Gene: Shagrat_64 Start: 40165, Stop: 40536, Start Num: 25

Candidate Starts for Shagrat_64:

(Start: 25 @40165 has 2 MA's), (27, 40207), (37, 40276), (45, 40351), (58, 40414), (65, 40441), (66, 40462), (68, 40483), (69, 40492),

Gene: ShayRa_49 Start: 30304, Stop: 29945, Start Num: 24

Candidate Starts for ShayRa_49:

(Start: 22 @30307 has 1 MA's), (Start: 24 @30304 has 23 MA's), (34, 30196), (69, 29980),

Gene: ShayRa_75 Start: 41213, Stop: 40797, Start Num: 16

Candidate Starts for ShayRa_75:

(Start: 13 @41243 has 1 MA's), (Start: 16 @41213 has 10 MA's), (17, 41201), (29, 41111), (31, 41084), (57, 40928), (68, 40847),

Gene: SmellyB_68 Start: 40040, Stop: 39684, Start Num: 23

Candidate Starts for SmellyB_68:

(12, 40118), (Start: 23 @40040 has 49 MA's), (28, 39974), (40, 39896), (46, 39839), (62, 39770), (63, 39764), (67, 39743), (69, 39716), (71, 39695),

Gene: Soups_48 Start: 30303, Stop: 29944, Start Num: 24

Candidate Starts for Soups_48:

(Start: 22 @30306 has 1 MA's), (Start: 24 @30303 has 23 MA's), (34, 30195), (69, 29979),

Gene: Soups_75 Start: 41477, Stop: 41061, Start Num: 16

Candidate Starts for Soups_75:

(Start: 13 @41507 has 1 MA's), (Start: 16 @41477 has 10 MA's), (17, 41465), (29, 41375), (31, 41348), (57, 41192), (68, 41111),

Gene: Strosahl_48 Start: 30019, Stop: 29660, Start Num: 24

Candidate Starts for Strosahl_48:

(1, 30424), (2, 30421), (4, 30337), (Start: 24 @30019 has 23 MA's), (34, 29911), (69, 29695),

Gene: SuperAwesome_68 Start: 40045, Stop: 39689, Start Num: 23

Candidate Starts for SuperAwesome_68:

(12, 40123), (Start: 23 @40045 has 49 MA's), (40, 39901), (46, 39844), (62, 39775), (67, 39748), (69, 39721), (71, 39700),

Gene: SuperCallie99_65 Start: 39892, Stop: 39536, Start Num: 23

Candidate Starts for SuperCallie99_65:

(12, 39970), (Start: 23 @39892 has 49 MA's), (40, 39748), (46, 39691), (62, 39622), (67, 39595), (69, 39568), (71, 39547),

Gene: Swirley_42 Start: 31327, Stop: 30941, Start Num: 20

Candidate Starts for Swirley_42:

(Start: 20 @31327 has 39 MA's), (26, 31279), (35, 31201), (42, 31135), (43, 31126), (54, 31078), (65, 31030), (68, 30991),

Gene: Switzerland_48 Start: 30402, Stop: 30043, Start Num: 24

Candidate Starts for Switzerland_48:

(2, 30804), (4, 30720), (Start: 24 @30402 has 23 MA's), (34, 30294), (69, 30078),

Gene: Switzerland_74 Start: 41352, Stop: 40936, Start Num: 16

Candidate Starts for Switzerland_74:

(Start: 13 @41382 has 1 MA's), (Start: 16 @41352 has 10 MA's), (17, 41340), (29, 41250), (31, 41223), (57, 41067), (68, 40986),

Gene: SydNat_41 Start: 31517, Stop: 31131, Start Num: 20

Candidate Starts for SydNat_41:

(Start: 20 @31517 has 39 MA's), (26, 31469), (27, 31466), (35, 31391), (42, 31325), (43, 31316), (54, 31268), (65, 31220), (68, 31181),

Gene: Tarynearal_38 Start: 30769, Stop: 30383, Start Num: 20

Candidate Starts for Tarynearal_38:

(Start: 20 @30769 has 39 MA's), (26, 30721), (35, 30643), (42, 30577), (43, 30568), (53, 30523), (54, 30520), (65, 30472), (68, 30433),

Gene: Temprado_70 Start: 40411, Stop: 40055, Start Num: 23

Candidate Starts for Temprado_70:

(9, 40528), (10, 40525), (11, 40507), (Start: 23 @40411 has 49 MA's), (Start: 32 @40309 has 1 MA's), (41, 40264), (62, 40141), (67, 40114), (69, 40087), (71, 40066),

Gene: Theia_37 Start: 30792, Stop: 30406, Start Num: 20

Candidate Starts for Theia_37:

(Start: 20 @30792 has 39 MA's), (26, 30744), (27, 30741), (35, 30666), (42, 30600), (43, 30591), (54, 30543), (65, 30495), (68, 30456),

Gene: Tiger_38 Start: 30325, Stop: 29939, Start Num: 20

Candidate Starts for Tiger_38:

(Start: 20 @30325 has 39 MA's), (26, 30277), (27, 30274), (35, 30199), (42, 30133), (43, 30124), (54, 30076), (65, 30028), (68, 29989),

Gene: ToneTone_66 Start: 39971, Stop: 39615, Start Num: 23

Candidate Starts for ToneTone_66:

(9, 40088), (10, 40085), (11, 40067), (Start: 23 @39971 has 49 MA's), (Start: 32 @39869 has 1 MA's), (41, 39824), (62, 39701), (67, 39674), (69, 39647), (71, 39626),

Gene: Tucker_69 Start: 40174, Stop: 39818, Start Num: 23

Candidate Starts for Tucker_69:

(9, 40291), (10, 40288), (11, 40270), (Start: 23 @40174 has 49 MA's), (Start: 32 @40072 has 1 MA's), (41, 40027), (62, 39904), (67, 39877), (69, 39850), (71, 39829),

Gene: Twigg_40 Start: 30966, Stop: 30580, Start Num: 20

Candidate Starts for Twigg_40:

(Start: 20 @30966 has 39 MA's), (26, 30918), (27, 30915), (35, 30840), (42, 30774), (43, 30765), (54, 30717), (65, 30669), (68, 30630),

Gene: UnionJack_40 Start: 30292, Stop: 29903, Start Num: 20

Candidate Starts for UnionJack_40:

(Start: 20 @30292 has 39 MA's), (26, 30244), (27, 30241), (35, 30166), (43, 30091), (54, 30043), (56, 30034), (68, 29953),

Gene: VohminGhazi_68 Start: 40041, Stop: 39685, Start Num: 23

Candidate Starts for VohminGhazi_68:

(12, 40119), (Start: 23 @40041 has 49 MA's), (28, 39975), (40, 39897), (46, 39840), (62, 39771), (63, 39765), (67, 39744), (69, 39717), (71, 39696),

Gene: Waits_48 Start: 30191, Stop: 29832, Start Num: 24

Candidate Starts for Waits_48:

(2, 30593), (4, 30509), (Start: 24 @30191 has 23 MA's), (34, 30083), (69, 29867),

Gene: Warrior24_49 Start: 30398, Stop: 30039, Start Num: 24

Candidate Starts for Warrior24_49:

(2, 30803), (4, 30719), (5, 30716), (Start: 24 @30398 has 23 MA's), (31, 30308), (33, 30299), (39, 30260), (69, 30074),

Gene: Wiks_68 Start: 40042, Stop: 39686, Start Num: 23

Candidate Starts for Wiks_68:

(9, 40159), (10, 40156), (11, 40138), (Start: 23 @40042 has 49 MA's), (Start: 32 @39940 has 1 MA's), (41, 39895), (62, 39772), (67, 39745), (69, 39718), (71, 39697),

Gene: WunderPhul_69 Start: 40040, Stop: 39684, Start Num: 23

Candidate Starts for WunderPhul_69:

(9, 40157), (10, 40154), (11, 40136), (Start: 23 @40040 has 49 MA's), (Start: 32 @39938 has 1 MA's), (41, 39893), (62, 39770), (67, 39743), (69, 39716), (71, 39695),

Gene: Yokurt_68 Start: 40042, Stop: 39686, Start Num: 23

Candidate Starts for Yokurt_68:

(9, 40159), (10, 40156), (11, 40138), (Start: 23 @40042 has 49 MA's), (Start: 32 @39940 has 1 MA's), (41, 39895), (62, 39772), (67, 39745), (69, 39718), (71, 39697),

Gene: Zaka_69 Start: 40042, Stop: 39686, Start Num: 23

Candidate Starts for Zaka_69:

(9, 40159), (10, 40156), (11, 40138), (Start: 23 @40042 has 49 MA's), (Start: 32 @39940 has 1 MA's), (41, 39895), (62, 39772), (67, 39745), (69, 39718), (71, 39697),

Gene: Zolita_40 Start: 31521, Stop: 31135, Start Num: 20

Candidate Starts for Zolita_40:

(Start: 20 @31521 has 39 MA's), (26, 31473), (27, 31470), (35, 31395), (42, 31329), (43, 31320), (54, 31272), (65, 31224), (68, 31185),

Gene: Zulu_70 Start: 40420, Stop: 40064, Start Num: 23

Candidate Starts for Zulu_70:

(9, 40537), (10, 40534), (11, 40516), (Start: 23 @40420 has 49 MA's), (Start: 32 @40318 has 1 MA's), (41, 40273), (62, 40150), (67, 40123), (69, 40096), (71, 40075),