

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 290954 Report

This analysis was run 03/28/26 on database version 641.

Pham number 290954 has 132 members, 11 are drafts.

Phages represented in each track:

- Track 1 : Dori_13, Mask_13, Sejanus_13, Mao1_12
- Track 2 : Marley1013_17, OrangeOswald_17, Gervas_17, Philly_16, Ben11_16, Jackstina_16, Neos5_17, Phlyer_17, Yinz_17, Tydolla_17, SynergyX_17, LestyG_17, Corofin_17, Briakila_17, TinyTerror_17, Compostia_18, Heathcliff_17, Rita1961_17, GlenHope_18, Chandler_17, RagingRooster_17, Baloo_17, Chalmers_17, Abinghost_17, Gadjet_18, Morty007_17, Chentzyk_16, Glubnar_17, Deenasa_17, Audrey_17, Kronus_16, Devonte_17, Mortcellus_16, Halfpint_16, Obutu_17, Phayeta_17, Daisy_17, Athena_18, Casbah_16, RomaT_17, Kamiyu_17, Nozo_17, MmasiCarm_17, ChaChing_17
- Track 3 : Akoma_17, Bernardo_17, Yahalom_17
- Track 4 : Pipefish_17
- Track 5 : Reynauld_35
- Track 6 : Srilaccoli3_32
- Track 7 : LonelyBoi_23
- Track 8 : Polly_21
- Track 9 : BatStarr_22, Bialota_22, Nymphadora_22, Madavieve_22, TimTam_22, Zirinka_22, Bosnia_22, Herod_22, Hugley_22, Ohgeesy_22, Eviarto_22
- Track 10 : ThankyouJordi_21, WelcomeAyanna_21
- Track 11 : Madeline_22
- Track 12 : Sidious_22
- Track 13 : Kiko_24
- Track 14 : Yvonnetastic_49, JonJames_51
- Track 15 : Cardigan_51
- Track 16 : Malisha_25
- Track 17 : Birdsong_23, BearBQ_23, MortyNRick_23
- Track 18 : BotCity_24
- Track 19 : Phistory_25
- Track 20 : Periwinkle_26, ShawBrad_24
- Track 21 : Kamaru_24, Whitney_25
- Track 22 : Horus_24, Crater_22, Apricot_23, Leroy_24
- Track 23 : Phabuloso_23
- Track 24 : Getalong_25
- Track 25 : Lutum_24, Kenna_23
- Track 26 : CheeseTouch_24
- Track 27 : Frickyeah_23
- Track 28 : Holliday_24, Budski_24
- Track 29 : BENtherdunthat_24, Kuwabara_23

- Track 30 : LitninMcQueen_23
- Track 31 : Asapag_24
- Track 32 : Squiddly_26, Spooky_24
- Track 33 : Ligma_14, Axumite_14, Shatter_14, Fresco_14
- Track 34 : Evaa_15
- Track 35 : Wooper_16, MakoManhole_16, FelixTres_16, Blackpen_16
- Track 36 : Mariokart_14
- Track 37 : NHagos_14
- Track 38 : BobRoss2024_13
- Track 39 : AksarBAT_14
- Track 40 : LittleMunchkin_15
- Track 41 : Sour_17
- Track 42 : CloverMinnie_16
- Track 43 : MossRose_16
- Track 44 : CharlottesWeb_14
- Track 45 : Coldpizza_16
- Track 46 : Malibo_24
- Track 47 : Lederberg_22
- Track 48 : Bran_22
- Track 49 : SamW_22, Troy_22
- Track 50 : StAB_22
- Track 51 : Stiles_22
- Track 52 : Dina_22
- Track 53 : Adelaide_22
- Track 54 : Juicebox_24

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

The start number called the most often in the published annotations is 38, it was called in 52 of the 121 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Abinghost_17, Akoma_17, Athena_18, Audrey_17, Baloo_17, Ben11_16, Bernardo_17, Briakila_17, Casbah_16, ChaChing_17, Chalmers_17, Chandler_17, Chentzyk_16, Compostia_18, Corofin_17, Daisy_17, Deenasa_17, Devonte_17, Dori_13, Gadget_18, Gervas_17, GlenHope_18, Glubnar_17, Halfpint_16, Heathcliff_17, Jackstina_16, Kamiyu_17, Kronus_16, LestyG_17, Mao1_12, Marley1013_17, Mask_13, MmasiCarm_17, Mortcellus_16, Morty007_17, Neos5_17, Nozo_17, Obutu_17, OrangeOswald_17, Phayeta_17, Philly_16, Phlyer_17, Pipefish_17, RagingRooster_17, Rita1961_17, RomaT_17, Sejanus_13, SynergyX_17, TinyTerror_17, Tydolla_17, Yahalom_17, Yinz_17,

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:

- Adelaide_22, AksarBAT_14, Apricot_23, Asapag_24, Axumite_14, BENtherdunthat_24, BatStarr_22, BearBQ_23, Bialota_22, Birdsong_23, Blackpen_16, BobRoss2024_13, Bosnia_22, BotCity_24, Bran_22, Budski_24, Cardigan_51, CharlottesWeb_14, CheeseTouch_24, CloverMinnie_16, Coldpizza_16,

Crater_22, Dina_22, Evaa_15, Eviarto_22, FelixTres_16, Fresco_14, Frickyeah_23, Getalong_25, Herod_22, Holliday_24, Horus_24, Hugley_22, JonJames_51, Juicebox_24, Kamaru_24, Kenna_23, Kiko_24, Kuwabara_23, Lederberg_22, Leroy_24, Ligma_14, LitninMcQueen_23, LittleMunchkin_15, LonelyBoi_23, Lutum_24, Madavieve_22, Madeline_22, MakoManhole_16, Malibo_24, Malisha_25, Mariokart_14, MortyNRick_23, MossRose_16, NHagos_14, Nymphadora_22, Ohgeesy_22, Periwinkle_26, Phabuloso_23, Phistory_25, Polly_21, Reynauld_35, SamW_22, Shatter_14, ShawBrad_24, Sidious_22, Sour_17, Spooky_24, Squiddly_26, Srilaccoli3_32, StAB_22, Stiles_22, ThankyouJordi_21, TimTam_22, Troy_22, WelcomeAyanna_21, Whitney_25, Wooper_16, Yvonnestic_49, Zirinka_22,

Summary by start number:

Start 37:

- Found in 3 of 132 (2.3%) of genes in pham
- Manual Annotations of this start: 2 of 121
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Cardigan_51 (DD), JonJames_51 (DD), Yvonnestic_49 (DD),

Start 38:

- Found in 52 of 132 (39.4%) of genes in pham
- Manual Annotations of this start: 52 of 121
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Abinghost_17 (B3), Akoma_17 (B3), Athena_18 (B3), Audrey_17 (B3), Baloo_17 (B3), Ben11_16 (B3), Bernardo_17 (B3), Briakila_17 (B3), Casbah_16 (B3), ChaChing_17 (B3), Chalmers_17 (B3), Chandler_17 (B3), Chentzyk_16 (B3), Compostia_18 (B3), Corofin_17 (B3), Daisy_17 (B3), Deenasa_17 (B3), Devonte_17 (B3), Dori_13 (AD), Gadget_18 (B3), Gervas_17 (B3), GlenHope_18 (B3), Glubnar_17 (B3), Halfpint_16 (B3), Heathcliff_17 (B3), Jackstina_16 (B3), Kamiyu_17 (B3), Kronus_16 (B3), LestyG_17 (B3), Mao1_12 (AD), Marley1013_17 (B3), Mask_13 (AD), MmasiCarm_17 (B3), Mortcellus_16 (B3), Morty007_17 (B3), Neos5_17 (B3), Nozo_17 (B3), Obutu_17 (B3), OrangeOswald_17 (B3), Phayeta_17 (B3), Philly_16 (B3), Phlyer_17 (B3), Pipefish_17 (B3), RagingRooster_17 (B3), Rita1961_17 (B3), RomaT_17 (B3), Sejanus_13 (AD), SynergyX_17 (B3), TinyTerror_17 (B3), Tydolla_17 (B3), Yahalom_17 (B3), Yinz_17 (B3),

Start 39:

- Found in 6 of 132 (4.5%) of genes in pham
- Manual Annotations of this start: 4 of 121
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Blackpen_16 (DR), CloverMinnie_16 (DR), FelixTres_16 (DR), MakoManhole_16 (DR), MossRose_16 (DR), Wooper_16 (DR),

Start 40:

- Found in 2 of 132 (1.5%) of genes in pham
- Manual Annotations of this start: 1 of 121
- Called 100.0% of time when present
- Phage (with cluster) where this start called: AksarBAT_14 (DR), NHagos_14 (DR),

Start 42:

- Found in 4 of 132 (3.0%) of genes in pham
- Manual Annotations of this start: 3 of 121
- Called 75.0% of time when present
- Phage (with cluster) where this start called: Coldpizza_16 (DR), Evaa_15 (DR), Sour_17 (DR),

Start 43:

- Found in 5 of 132 (3.8%) of genes in pham
- Manual Annotations of this start: 2 of 121
- Called 80.0% of time when present
- Phage (with cluster) where this start called: BobRoss2024_13 (DR), CharlottesWeb_14 (DR), LittleMunchkin_15 (DR), Mariokart_14 (DR),

Start 46:

- Found in 1 of 132 (0.8%) of genes in pham
- Manual Annotations of this start: 1 of 121
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Kiko_24 (DB),

Start 47:

- Found in 8 of 132 (6.1%) of genes in pham
- Manual Annotations of this start: 5 of 121
- Called 62.5% of time when present
- Phage (with cluster) where this start called: Axumite_14 (DR), Fresco_14 (DR), Ligma_14 (DR), Reynauld_35 (CH), Shatter_14 (DR),

Start 48:

- Found in 29 of 132 (22.0%) of genes in pham
- Manual Annotations of this start: 17 of 121
- Called 58.6% of time when present
- Phage (with cluster) where this start called: Apricot_23 (DN3), BearBQ_23 (DN), Birdsong_23 (DN), BotCity_24 (DN), Budski_24 (DN), CheeseTouch_24 (DN1), Crater_22 (DN3), Holliday_24 (DN1), Horus_24 (DN1), Kenna_23 (DN1), Leroy_24 (DN1), LitninMcQueen_23 (DN1), LonelyBoi_23 (CY7), Lutum_24 (DN1), Malisha_25 (DN), MortyNRick_23 (DN), Phabuloso_23 (DN1),

Start 49:

- Found in 11 of 132 (8.3%) of genes in pham
- Manual Annotations of this start: 9 of 121
- Called 90.9% of time when present
- Phage (with cluster) where this start called: Adelaide_22 (EP), Bran_22 (EP), Dina_22 (EP), Juicebox_24 (singleton), Lederberg_22 (EP), SamW_22 (EP), Srilaccoli3_32 (CH), StAB_22 (EP), Stiles_22 (EP), Troy_22 (EP),

Start 51:

- Found in 47 of 132 (35.6%) of genes in pham
- Manual Annotations of this start: 25 of 121
- Called 61.7% of time when present
- Phage (with cluster) where this start called: Asapag_24 (DN1), BENtherdunthat_24 (DN1), BatStarr_22 (CZ1), Bialota_22 (CZ1), Bosnia_22 (CZ1), Eviarto_22 (CZ1), Frickyeah_23 (DN1), Getalong_25 (DN1), Herod_22 (CZ1), Hugley_22 (CZ1), Kamaru_24 (DN1), Kuwabara_23 (DN4), Madavieve_22 (CZ1), Madeline_22 (CZ1),

Malibo_24 (DW), Nymphadora_22 (CZ1), Ohgeesy_22 (CZ), Periwinkle_26 (DN1), Phistory_25 (DN1), Polly_21 (CZ1), ShawBrad_24 (DN1), Sidious_22 (CZ7), Spooky_24 (DN2), Squiddly_26 (DN2), ThankyouJordi_21 (CZ1), TimTam_22 (CZ1), WelcomeAyanna_21 (CZ1), Whitney_25 (DN1), Zirinka_22 (CZ1),

Summary by clusters:

There are 18 clusters represented in this pham: DN, singleton, CH, CY7, AD, DN2, DD, CZ1, DB, CZ7, CZ, DN1, DN3, B3, DW, DN4, DR, EP,

Info for manual annotations of cluster AD:

- Start number 38 was manually annotated 4 times for cluster AD.

Info for manual annotations of cluster B3:

- Start number 38 was manually annotated 48 times for cluster B3.

Info for manual annotations of cluster CH:

- Start number 47 was manually annotated 1 time for cluster CH.

Info for manual annotations of cluster CY7:

- Start number 48 was manually annotated 1 time for cluster CY7.

Info for manual annotations of cluster CZ:

- Start number 51 was manually annotated 1 time for cluster CZ.

Info for manual annotations of cluster CZ1:

- Start number 51 was manually annotated 12 times for cluster CZ1.

Info for manual annotations of cluster CZ7:

- Start number 51 was manually annotated 1 time for cluster CZ7.

Info for manual annotations of cluster DB:

- Start number 46 was manually annotated 1 time for cluster DB.

Info for manual annotations of cluster DD:

- Start number 37 was manually annotated 2 times for cluster DD.

Info for manual annotations of cluster DN:

- Start number 48 was manually annotated 6 times for cluster DN.

Info for manual annotations of cluster DN1:

- Start number 48 was manually annotated 8 times for cluster DN1.
- Start number 51 was manually annotated 7 times for cluster DN1.

Info for manual annotations of cluster DN2:

- Start number 51 was manually annotated 2 times for cluster DN2.

Info for manual annotations of cluster DN3:

- Start number 48 was manually annotated 2 times for cluster DN3.

Info for manual annotations of cluster DN4:

- Start number 51 was manually annotated 1 time for cluster DN4.

Info for manual annotations of cluster DR:

- Start number 39 was manually annotated 4 times for cluster DR.
- Start number 40 was manually annotated 1 time for cluster DR.
- Start number 42 was manually annotated 3 times for cluster DR.
- Start number 43 was manually annotated 2 times for cluster DR.
- Start number 47 was manually annotated 4 times for cluster DR.

Info for manual annotations of cluster DW:

- Start number 51 was manually annotated 1 time for cluster DW.

Info for manual annotations of cluster EP:

- Start number 49 was manually annotated 8 times for cluster EP.

Gene Information:

Gene: Abinghost_17 Start: 14566, Stop: 15000, Start Num: 38

Candidate Starts for Abinghost_17:

(22, 14461), (Start: 38 @14566 has 52 MA's), (50, 14620), (56, 14686), (94, 14887), (95, 14890),

Gene: Adelaide_22 Start: 21613, Stop: 21981, Start Num: 49

Candidate Starts for Adelaide_22:

(19, 21418), (21, 21445), (44, 21595), (Start: 49 @21613 has 9 MA's), (57, 21685), (60, 21697), (66, 21736), (67, 21739),

Gene: Akoma_17 Start: 14566, Stop: 15000, Start Num: 38

Candidate Starts for Akoma_17:

(22, 14461), (Start: 38 @14566 has 52 MA's), (50, 14620), (56, 14686), (94, 14887), (95, 14890),

Gene: AksarBAT_14 Start: 12848, Stop: 13225, Start Num: 40

Candidate Starts for AksarBAT_14:

(Start: 40 @12848 has 1 MA's), (52, 12893), (54, 12929), (56, 12938), (70, 13007), (72, 13016), (74, 13025), (88, 13097), (90, 13103), (99, 13154), (101, 13172),

Gene: Apricot_23 Start: 19749, Stop: 20129, Start Num: 48

Candidate Starts for Apricot_23:

(Start: 48 @19749 has 17 MA's), (Start: 51 @19755 has 25 MA's), (53, 19812), (54, 19815), (71, 19899), (76, 19920), (82, 19962), (83, 19965), (102, 20064),

Gene: Asapag_24 Start: 20197, Stop: 20571, Start Num: 51

Candidate Starts for Asapag_24:

(Start: 48 @20191 has 17 MA's), (Start: 51 @20197 has 25 MA's), (53, 20254), (54, 20257), (56, 20266), (64, 20314), (76, 20362), (82, 20404), (83, 20407), (102, 20506),

Gene: Athena_18 Start: 15329, Stop: 15763, Start Num: 38

Candidate Starts for Athena_18:

(22, 15224), (Start: 38 @15329 has 52 MA's), (50, 15383), (56, 15449), (94, 15650), (95, 15653),

Gene: Audrey_17 Start: 14566, Stop: 15000, Start Num: 38

Candidate Starts for Audrey_17:

(22, 14461), (Start: 38 @14566 has 52 MA's), (50, 14620), (56, 14686), (94, 14887), (95, 14890),

Gene: Axumite_14 Start: 12949, Stop: 13329, Start Num: 47

Candidate Starts for Axumite_14:

(Start: 47 @12949 has 5 MA's), (56, 13024), (62, 13051), (76, 13120), (90, 13189), (92, 13204), (103, 13267), (105, 13282),

Gene: BENtherdunthat_24 Start: 20197, Stop: 20568, Start Num: 51

Candidate Starts for BENtherdunthat_24:

(Start: 48 @20191 has 17 MA's), (Start: 51 @20197 has 25 MA's), (53, 20254), (54, 20257), (71, 20341), (76, 20362), (82, 20404), (83, 20407), (86, 20416), (97, 20476), (98, 20479),

Gene: Baloo_17 Start: 14566, Stop: 14997, Start Num: 38

Candidate Starts for Baloo_17:

(22, 14461), (Start: 38 @14566 has 52 MA's), (50, 14620), (56, 14686), (94, 14887), (95, 14890),

Gene: BatStarr_22 Start: 21074, Stop: 21430, Start Num: 51

Candidate Starts for BatStarr_22:

(Start: 51 @21074 has 25 MA's), (54, 21134), (56, 21143), (71, 21218), (82, 21281), (86, 21293), (97, 21353),

Gene: BearBQ_23 Start: 21031, Stop: 21408, Start Num: 48

Candidate Starts for BearBQ_23:

(Start: 48 @21031 has 17 MA's), (Start: 51 @21037 has 25 MA's), (53, 21094), (54, 21097), (71, 21181), (76, 21202), (82, 21244), (83, 21247), (86, 21256), (97, 21316), (98, 21319),

Gene: Ben11_16 Start: 14390, Stop: 14824, Start Num: 38

Candidate Starts for Ben11_16:

(22, 14285), (Start: 38 @14390 has 52 MA's), (50, 14444), (56, 14510), (94, 14711), (95, 14714),

Gene: Bernardo_17 Start: 14565, Stop: 14999, Start Num: 38

Candidate Starts for Bernardo_17:

(22, 14460), (Start: 38 @14565 has 52 MA's), (50, 14619), (56, 14685), (94, 14886), (95, 14889),

Gene: Bialota_22 Start: 21086, Stop: 21442, Start Num: 51

Candidate Starts for Bialota_22:

(Start: 51 @21086 has 25 MA's), (54, 21146), (56, 21155), (71, 21230), (82, 21293), (86, 21305), (97, 21365),

Gene: Birdsong_23 Start: 19924, Stop: 20301, Start Num: 48

Candidate Starts for Birdsong_23:

(Start: 48 @19924 has 17 MA's), (Start: 51 @19930 has 25 MA's), (53, 19987), (54, 19990), (71, 20074), (76, 20095), (82, 20137), (83, 20140), (86, 20149), (97, 20209), (98, 20212),

Gene: Blackpen_16 Start: 13795, Stop: 14196, Start Num: 39

Candidate Starts for Blackpen_16:

(Start: 39 @13795 has 4 MA's), (41, 13816), (50, 13843), (59, 13921), (79, 14032), (86, 14059), (88, 14068), (90, 14074), (99, 14125), (101, 14143), (105, 14167), (111, 14185), (112, 14188),

Gene: BobRoss2024_13 Start: 12784, Stop: 13155, Start Num: 43

Candidate Starts for BobRoss2024_13:

(Start: 42 @12781 has 3 MA's), (Start: 43 @12784 has 2 MA's), (71, 12943), (88, 13027), (90, 13033), (92, 13048), (93, 13057), (99, 13084), (105, 13126),

Gene: Bosnia_22 Start: 21074, Stop: 21430, Start Num: 51

Candidate Starts for Bosnia_22:

(Start: 51 @21074 has 25 MA's), (54, 21134), (56, 21143), (71, 21218), (82, 21281), (86, 21293), (97, 21353),

Gene: BotCity_24 Start: 20189, Stop: 20569, Start Num: 48

Candidate Starts for BotCity_24:

(Start: 48 @20189 has 17 MA's), (Start: 51 @20195 has 25 MA's), (53, 20252), (54, 20255), (56, 20264), (64, 20312), (76, 20360), (82, 20402), (83, 20405), (102, 20504),

Gene: Bran_22 Start: 21277, Stop: 21648, Start Num: 49

Candidate Starts for Bran_22:

(44, 21259), (Start: 49 @21277 has 9 MA's), (72, 21424), (83, 21487), (89, 21508), (93, 21535), (113, 21637),

Gene: Briakila_17 Start: 15331, Stop: 15765, Start Num: 38

Candidate Starts for Briakila_17:

(22, 15226), (Start: 38 @15331 has 52 MA's), (50, 15385), (56, 15451), (94, 15652), (95, 15655),

Gene: Budski_24 Start: 20296, Stop: 20676, Start Num: 48

Candidate Starts for Budski_24:

(3, 19807), (10, 19918), (11, 19936), (Start: 48 @20296 has 17 MA's), (Start: 51 @20302 has 25 MA's), (53, 20359), (54, 20362), (56, 20371), (71, 20446), (82, 20509), (83, 20512), (86, 20521), (97, 20581), (98, 20584),

Gene: Cardigan_51 Start: 36197, Stop: 36607, Start Num: 37

Candidate Starts for Cardigan_51:

(4, 35792), (5, 35795), (7, 35819), (9, 35843), (16, 36044), (20, 36080), (24, 36098), (26, 36110), (28, 36116), (29, 36119), (Start: 37 @36197 has 2 MA's), (55, 36308), (62, 36341), (65, 36365), (99, 36530),

Gene: Casbah_16 Start: 14418, Stop: 14852, Start Num: 38

Candidate Starts for Casbah_16:

(22, 14313), (Start: 38 @14418 has 52 MA's), (50, 14472), (56, 14538), (94, 14739), (95, 14742),

Gene: ChaChing_17 Start: 14581, Stop: 14964, Start Num: 38

Candidate Starts for ChaChing_17:

(22, 14476), (Start: 38 @14581 has 52 MA's), (50, 14635), (56, 14701), (94, 14902), (95, 14905),

Gene: Chalmers_17 Start: 15374, Stop: 15808, Start Num: 38

Candidate Starts for Chalmers_17:

(22, 15269), (Start: 38 @15374 has 52 MA's), (50, 15428), (56, 15494), (94, 15695), (95, 15698),

Gene: Chandler_17 Start: 15340, Stop: 15774, Start Num: 38

Candidate Starts for Chandler_17:

(22, 15235), (Start: 38 @15340 has 52 MA's), (50, 15394), (56, 15460), (94, 15661), (95, 15664),

Gene: CharlottesWeb_14 Start: 12853, Stop: 13239, Start Num: 43

Candidate Starts for CharlottesWeb_14:

(Start: 43 @12853 has 2 MA's), (Start: 47 @12865 has 5 MA's), (54, 12931), (62, 12967), (76, 13036), (90, 13105), (92, 13120), (107, 13210),

Gene: CheeseTouch_24 Start: 20185, Stop: 20562, Start Num: 48

Candidate Starts for CheeseTouch_24:

(Start: 48 @20185 has 17 MA's), (Start: 51 @20191 has 25 MA's), (53, 20248), (54, 20251), (56, 20260), (64, 20308), (71, 20335), (82, 20398), (83, 20401), (90, 20425), (97, 20470), (98, 20473),

Gene: Chentzyk_16 Start: 14436, Stop: 14870, Start Num: 38

Candidate Starts for Chentzyk_16:

(22, 14331), (Start: 38 @14436 has 52 MA's), (50, 14490), (56, 14556), (94, 14757), (95, 14760),

Gene: CloverMinnie_16 Start: 14303, Stop: 14704, Start Num: 39

Candidate Starts for CloverMinnie_16:

(23, 14198), (Start: 39 @14303 has 4 MA's), (41, 14324), (50, 14351), (59, 14429), (79, 14540), (86, 14567), (88, 14576), (90, 14582), (99, 14633), (101, 14651), (105, 14675), (111, 14693), (112, 14696),

Gene: Coldpizza_16 Start: 14928, Stop: 15302, Start Num: 42

Candidate Starts for Coldpizza_16:

(30, 14823), (Start: 42 @14928 has 3 MA's), (59, 15027), (60, 15030), (79, 15138), (83, 15156), (86, 15165), (88, 15174), (90, 15180), (94, 15216), (99, 15231), (104, 15270),

Gene: Compostia_18 Start: 14999, Stop: 15433, Start Num: 38

Candidate Starts for Compostia_18:

(22, 14894), (Start: 38 @14999 has 52 MA's), (50, 15053), (56, 15119), (94, 15320), (95, 15323),

Gene: Corofin_17 Start: 14591, Stop: 15025, Start Num: 38

Candidate Starts for Corofin_17:

(22, 14486), (Start: 38 @14591 has 52 MA's), (50, 14645), (56, 14711), (94, 14912), (95, 14915),

Gene: Crater_22 Start: 19749, Stop: 20129, Start Num: 48

Candidate Starts for Crater_22:

(Start: 48 @19749 has 17 MA's), (Start: 51 @19755 has 25 MA's), (53, 19812), (54, 19815), (71, 19899), (76, 19920), (82, 19962), (83, 19965), (102, 20064),

Gene: Daisy_17 Start: 14587, Stop: 15021, Start Num: 38

Candidate Starts for Daisy_17:

(22, 14482), (Start: 38 @14587 has 52 MA's), (50, 14641), (56, 14707), (94, 14908), (95, 14911),

Gene: Deenasa_17 Start: 15329, Stop: 15763, Start Num: 38

Candidate Starts for Deenasa_17:

(22, 15224), (Start: 38 @15329 has 52 MA's), (50, 15383), (56, 15449), (94, 15650), (95, 15653),

Gene: Devonte_17 Start: 14566, Stop: 15000, Start Num: 38

Candidate Starts for Devonte_17:

(22, 14461), (Start: 38 @14566 has 52 MA's), (50, 14620), (56, 14686), (94, 14887), (95, 14890),

Gene: Dina_22 Start: 21114, Stop: 21479, Start Num: 49

Candidate Starts for Dina_22:

(32, 21018), (34, 21021), (44, 21096), (Start: 49 @21114 has 9 MA's), (60, 21198), (66, 21237), (67, 21240), (79, 21306), (113, 21468),

Gene: Dori_13 Start: 11588, Stop: 11983, Start Num: 38

Candidate Starts for Dori_13:

(Start: 38 @11588 has 52 MA's), (45, 11621), (54, 11699), (74, 11795), (82, 11846), (84, 11852), (86, 11858), (88, 11867), (94, 11909),

Gene: Evaa_15 Start: 14245, Stop: 14619, Start Num: 42

Candidate Starts for Evaa_15:

(Start: 42 @14245 has 3 MA's), (53, 14320), (56, 14332), (62, 14359), (77, 14431), (88, 14491), (90, 14497), (96, 14539), (99, 14548), (104, 14587),

Gene: Eviarto_22 Start: 21074, Stop: 21430, Start Num: 51

Candidate Starts for Eviarto_22:

(Start: 51 @21074 has 25 MA's), (54, 21134), (56, 21143), (71, 21218), (82, 21281), (86, 21293), (97, 21353),

Gene: FelixTres_16 Start: 14366, Stop: 14767, Start Num: 39

Candidate Starts for FelixTres_16:

(Start: 39 @14366 has 4 MA's), (41, 14387), (50, 14414), (59, 14492), (79, 14603), (86, 14630), (88, 14639), (90, 14645), (99, 14696), (101, 14714), (105, 14738), (111, 14756), (112, 14759),

Gene: Fresco_14 Start: 12949, Stop: 13329, Start Num: 47

Candidate Starts for Fresco_14:

(Start: 47 @12949 has 5 MA's), (56, 13024), (62, 13051), (76, 13120), (90, 13189), (92, 13204), (103, 13267), (105, 13282),

Gene: Frickyeah_23 Start: 19960, Stop: 20334, Start Num: 51

Candidate Starts for Frickyeah_23:

(Start: 48 @19954 has 17 MA's), (Start: 51 @19960 has 25 MA's), (53, 20017), (54, 20020), (56, 20029), (71, 20104), (76, 20125), (82, 20167), (83, 20170), (102, 20269),

Gene: Gadget_18 Start: 14570, Stop: 15004, Start Num: 38

Candidate Starts for Gadget_18:

(22, 14465), (Start: 38 @14570 has 52 MA's), (50, 14624), (56, 14690), (94, 14891), (95, 14894),

Gene: Gervas_17 Start: 14549, Stop: 14983, Start Num: 38

Candidate Starts for Gervas_17:

(22, 14444), (Start: 38 @14549 has 52 MA's), (50, 14603), (56, 14669), (94, 14870), (95, 14873),

Gene: Getalong_25 Start: 20997, Stop: 21371, Start Num: 51

Candidate Starts for Getalong_25:

(Start: 48 @20991 has 17 MA's), (Start: 51 @20997 has 25 MA's), (53, 21054), (54, 21057), (64, 21114), (76, 21162), (82, 21204), (83, 21207), (102, 21306),

Gene: GlenHope_18 Start: 14556, Stop: 14990, Start Num: 38

Candidate Starts for GlenHope_18:

(22, 14451), (Start: 38 @14556 has 52 MA's), (50, 14610), (56, 14676), (94, 14877), (95, 14880),

Gene: Glubnar_17 Start: 14570, Stop: 15004, Start Num: 38

Candidate Starts for Glubnar_17:

(22, 14465), (Start: 38 @14570 has 52 MA's), (50, 14624), (56, 14690), (94, 14891), (95, 14894),

Gene: Halfpint_16 Start: 14391, Stop: 14825, Start Num: 38

Candidate Starts for Halfpint_16:

(22, 14286), (Start: 38 @14391 has 52 MA's), (50, 14445), (56, 14511), (94, 14712), (95, 14715),

Gene: Heathcliff_17 Start: 14528, Stop: 14962, Start Num: 38

Candidate Starts for Heathcliff_17:

(22, 14423), (Start: 38 @14528 has 52 MA's), (50, 14582), (56, 14648), (94, 14849), (95, 14852),

Gene: Herod_22 Start: 21074, Stop: 21430, Start Num: 51

Candidate Starts for Herod_22:

(Start: 51 @21074 has 25 MA's), (54, 21134), (56, 21143), (71, 21218), (82, 21281), (86, 21293), (97, 21353),

Gene: Holliday_24 Start: 20296, Stop: 20676, Start Num: 48

Candidate Starts for Holliday_24:

(3, 19807), (10, 19918), (11, 19936), (Start: 48 @20296 has 17 MA's), (Start: 51 @20302 has 25 MA's), (53, 20359), (54, 20362), (56, 20371), (71, 20446), (82, 20509), (83, 20512), (86, 20521), (97, 20581), (98, 20584),

Gene: Horus_24 Start: 20213, Stop: 20593, Start Num: 48

Candidate Starts for Horus_24:

(Start: 48 @20213 has 17 MA's), (Start: 51 @20219 has 25 MA's), (53, 20276), (54, 20279), (71, 20363), (76, 20384), (82, 20426), (83, 20429), (102, 20528),

Gene: Hugley_22 Start: 21074, Stop: 21430, Start Num: 51

Candidate Starts for Hugley_22:

(Start: 51 @21074 has 25 MA's), (54, 21134), (56, 21143), (71, 21218), (82, 21281), (86, 21293), (97, 21353),

Gene: Jackstina_16 Start: 14492, Stop: 14926, Start Num: 38

Candidate Starts for Jackstina_16:

(22, 14387), (Start: 38 @14492 has 52 MA's), (50, 14546), (56, 14612), (94, 14813), (95, 14816),

Gene: JonJames_51 Start: 37099, Stop: 37509, Start Num: 37

Candidate Starts for JonJames_51:

(Start: 37 @37099 has 2 MA's), (55, 37210), (62, 37243), (65, 37267), (99, 37432),

Gene: Juicebox_24 Start: 22590, Stop: 22964, Start Num: 49

Candidate Starts for Juicebox_24:

(Start: 49 @22590 has 9 MA's), (59, 22671), (60, 22674), (68, 22722), (73, 22743), (78, 22776), (90, 22824), (109, 22938),

Gene: Kamaru_24 Start: 20302, Stop: 20676, Start Num: 51

Candidate Starts for Kamaru_24:

(3, 19807), (10, 19918), (11, 19936), (Start: 48 @20296 has 17 MA's), (Start: 51 @20302 has 25 MA's), (53, 20359), (54, 20362), (56, 20371), (71, 20446), (82, 20509), (83, 20512), (86, 20521), (97, 20581), (98, 20584),

Gene: Kamiyu_17 Start: 14537, Stop: 14971, Start Num: 38

Candidate Starts for Kamiyu_17:

(22, 14432), (Start: 38 @14537 has 52 MA's), (50, 14591), (56, 14657), (94, 14858), (95, 14861),

Gene: Kenna_23 Start: 20192, Stop: 20569, Start Num: 48

Candidate Starts for Kenna_23:

(Start: 48 @20192 has 17 MA's), (Start: 51 @20198 has 25 MA's), (53, 20255), (54, 20258), (56, 20267), (71, 20342), (76, 20363), (82, 20405), (83, 20408), (86, 20417), (97, 20477), (98, 20480),

Gene: Kiko_24 Start: 20229, Stop: 20624, Start Num: 46

Candidate Starts for Kiko_24:

(1, 19326), (2, 19548), (6, 19797), (8, 19827), (30, 20112), (Start: 46 @20229 has 1 MA's), (Start: 51 @20247 has 25 MA's), (56, 20316), (61, 20334), (63, 20346), (64, 20364), (71, 20391), (82, 20454),

(83, 20457), (97, 20526),

Gene: Kronus_16 Start: 15149, Stop: 15583, Start Num: 38

Candidate Starts for Kronus_16:

(22, 15044), (Start: 38 @15149 has 52 MA's), (50, 15203), (56, 15269), (94, 15470), (95, 15473),

Gene: Kuwabara_23 Start: 19624, Stop: 19995, Start Num: 51

Candidate Starts for Kuwabara_23:

(Start: 48 @19618 has 17 MA's), (Start: 51 @19624 has 25 MA's), (53, 19681), (54, 19684), (71, 19768), (76, 19789), (82, 19831), (83, 19834), (86, 19843), (97, 19903), (98, 19906),

Gene: Lederberg_22 Start: 21495, Stop: 21860, Start Num: 49

Candidate Starts for Lederberg_22:

(13, 21255), (22, 21339), (35, 21426), (Start: 49 @21495 has 9 MA's), (60, 21579), (66, 21618), (67, 21621), (79, 21687),

Gene: Leroy_24 Start: 20214, Stop: 20594, Start Num: 48

Candidate Starts for Leroy_24:

(Start: 48 @20214 has 17 MA's), (Start: 51 @20220 has 25 MA's), (53, 20277), (54, 20280), (71, 20364), (76, 20385), (82, 20427), (83, 20430), (102, 20529),

Gene: LestyG_17 Start: 14570, Stop: 15004, Start Num: 38

Candidate Starts for LestyG_17:

(22, 14465), (Start: 38 @14570 has 52 MA's), (50, 14624), (56, 14690), (94, 14891), (95, 14894),

Gene: Ligma_14 Start: 12949, Stop: 13329, Start Num: 47

Candidate Starts for Ligma_14:

(Start: 47 @12949 has 5 MA's), (56, 13024), (62, 13051), (76, 13120), (90, 13189), (92, 13204), (103, 13267), (105, 13282),

Gene: LitninMcQueen_23 Start: 19948, Stop: 20325, Start Num: 48

Candidate Starts for LitninMcQueen_23:

(Start: 48 @19948 has 17 MA's), (Start: 51 @19954 has 25 MA's), (53, 20011), (54, 20014), (71, 20098), (76, 20119), (82, 20161), (83, 20164), (102, 20263),

Gene: LittleMunchkin_15 Start: 14381, Stop: 14770, Start Num: 43

Candidate Starts for LittleMunchkin_15:

(Start: 43 @14381 has 2 MA's), (Start: 47 @14393 has 5 MA's), (52, 14423), (62, 14495), (76, 14564), (88, 14627), (90, 14633), (103, 14711), (105, 14726),

Gene: LonelyBoi_23 Start: 20872, Stop: 21258, Start Num: 48

Candidate Starts for LonelyBoi_23:

(Start: 48 @20872 has 17 MA's), (Start: 51 @20878 has 25 MA's), (54, 20938), (71, 21022), (91, 21118), (97, 21157), (110, 21232),

Gene: Lutum_24 Start: 20192, Stop: 20569, Start Num: 48

Candidate Starts for Lutum_24:

(Start: 48 @20192 has 17 MA's), (Start: 51 @20198 has 25 MA's), (53, 20255), (54, 20258), (56, 20267), (71, 20342), (76, 20363), (82, 20405), (83, 20408), (86, 20417), (97, 20477), (98, 20480),

Gene: Madavieve_22 Start: 21354, Stop: 21710, Start Num: 51

Candidate Starts for Madavieve_22:

(Start: 51 @21354 has 25 MA's), (54, 21414), (56, 21423), (71, 21498), (82, 21561), (86, 21573), (97, 21633),

Gene: Madeline_22 Start: 21372, Stop: 21728, Start Num: 51

Candidate Starts for Madeline_22:

(12, 21066), (14, 21159), (17, 21174), (31, 21270), (Start: 51 @21372 has 25 MA's), (54, 21432), (56, 21441), (71, 21516), (82, 21579), (86, 21591), (97, 21651),

Gene: MakoManhole_16 Start: 14381, Stop: 14782, Start Num: 39

Candidate Starts for MakoManhole_16:

(Start: 39 @14381 has 4 MA's), (41, 14402), (50, 14429), (59, 14507), (79, 14618), (86, 14645), (88, 14654), (90, 14660), (99, 14711), (101, 14729), (105, 14753), (111, 14771), (112, 14774),

Gene: Malibo_24 Start: 20256, Stop: 20633, Start Num: 51

Candidate Starts for Malibo_24:

(Start: 51 @20256 has 25 MA's), (54, 20316), (56, 20325), (71, 20400), (86, 20475), (97, 20535),

Gene: Malisha_25 Start: 22077, Stop: 22454, Start Num: 48

Candidate Starts for Malisha_25:

(3, 21588), (10, 21699), (11, 21717), (Start: 48 @22077 has 17 MA's), (Start: 51 @22083 has 25 MA's), (53, 22140), (56, 22152), (71, 22227), (82, 22290), (83, 22293), (90, 22317), (97, 22362), (98, 22365),

Gene: Mao1_12 Start: 11984, Stop: 12379, Start Num: 38

Candidate Starts for Mao1_12:

(Start: 38 @11984 has 52 MA's), (45, 12017), (54, 12095), (74, 12191), (82, 12242), (84, 12248), (86, 12254), (88, 12263), (94, 12305),

Gene: Mariokart_14 Start: 12852, Stop: 13238, Start Num: 43

Candidate Starts for Mariokart_14:

(Start: 43 @12852 has 2 MA's), (Start: 47 @12864 has 5 MA's), (54, 12930), (62, 12966), (74, 13026), (76, 13035), (90, 13104), (92, 13119), (107, 13209),

Gene: Marley1013_17 Start: 15350, Stop: 15784, Start Num: 38

Candidate Starts for Marley1013_17:

(22, 15245), (Start: 38 @15350 has 52 MA's), (50, 15404), (56, 15470), (94, 15671), (95, 15674),

Gene: Mask_13 Start: 11985, Stop: 12380, Start Num: 38

Candidate Starts for Mask_13:

(Start: 38 @11985 has 52 MA's), (45, 12018), (54, 12096), (74, 12192), (82, 12243), (84, 12249), (86, 12255), (88, 12264), (94, 12306),

Gene: MmasiCarm_17 Start: 14563, Stop: 14997, Start Num: 38

Candidate Starts for MmasiCarm_17:

(22, 14458), (Start: 38 @14563 has 52 MA's), (50, 14617), (56, 14683), (94, 14884), (95, 14887),

Gene: Mortcellus_16 Start: 15204, Stop: 15638, Start Num: 38

Candidate Starts for Mortcellus_16:

(22, 15099), (Start: 38 @15204 has 52 MA's), (50, 15258), (56, 15324), (94, 15525), (95, 15528),

Gene: Morty007_17 Start: 15350, Stop: 15784, Start Num: 38

Candidate Starts for Morty007_17:

(22, 15245), (Start: 38 @15350 has 52 MA's), (50, 15404), (56, 15470), (94, 15671), (95, 15674),

Gene: MortyNRick_23 Start: 19924, Stop: 20301, Start Num: 48

Candidate Starts for MortyNRick_23:

(Start: 48 @19924 has 17 MA's), (Start: 51 @19930 has 25 MA's), (53, 19987), (54, 19990), (71, 20074), (76, 20095), (82, 20137), (83, 20140), (86, 20149), (97, 20209), (98, 20212),

Gene: MossRose_16 Start: 14360, Stop: 14761, Start Num: 39

Candidate Starts for MossRose_16:

(Start: 39 @14360 has 4 MA's), (41, 14381), (50, 14408), (59, 14486), (79, 14597), (86, 14624), (88, 14633), (90, 14639), (101, 14708), (105, 14732), (111, 14750), (112, 14753),

Gene: NHagos_14 Start: 12851, Stop: 13228, Start Num: 40

Candidate Starts for NHagos_14:

(Start: 40 @12851 has 1 MA's), (52, 12896), (54, 12932), (56, 12941), (70, 13010), (72, 13019), (88, 13100), (90, 13106), (99, 13157), (101, 13175),

Gene: Neos5_17 Start: 15356, Stop: 15790, Start Num: 38

Candidate Starts for Neos5_17:

(22, 15251), (Start: 38 @15356 has 52 MA's), (50, 15410), (56, 15476), (94, 15677), (95, 15680),

Gene: Nozo_17 Start: 15331, Stop: 15762, Start Num: 38

Candidate Starts for Nozo_17:

(22, 15226), (Start: 38 @15331 has 52 MA's), (50, 15385), (56, 15451), (94, 15652), (95, 15655),

Gene: Nymphadora_22 Start: 21074, Stop: 21430, Start Num: 51

Candidate Starts for Nymphadora_22:

(Start: 51 @21074 has 25 MA's), (54, 21134), (56, 21143), (71, 21218), (82, 21281), (86, 21293), (97, 21353),

Gene: Obutu_17 Start: 14561, Stop: 14995, Start Num: 38

Candidate Starts for Obutu_17:

(22, 14456), (Start: 38 @14561 has 52 MA's), (50, 14615), (56, 14681), (94, 14882), (95, 14885),

Gene: Ohgeesy_22 Start: 20697, Stop: 21053, Start Num: 51

Candidate Starts for Ohgeesy_22:

(Start: 51 @20697 has 25 MA's), (54, 20757), (56, 20766), (71, 20841), (82, 20904), (86, 20916), (97, 20976),

Gene: OrangeOswald_17 Start: 14566, Stop: 15000, Start Num: 38

Candidate Starts for OrangeOswald_17:

(22, 14461), (Start: 38 @14566 has 52 MA's), (50, 14620), (56, 14686), (94, 14887), (95, 14890),

Gene: Periwinkle_26 Start: 20664, Stop: 21038, Start Num: 51

Candidate Starts for Periwinkle_26:

(Start: 48 @20658 has 17 MA's), (Start: 51 @20664 has 25 MA's), (53, 20721), (54, 20724), (56, 20733), (71, 20808), (76, 20829), (82, 20871), (83, 20874), (102, 20973),

Gene: Phabuloso_23 Start: 19948, Stop: 20325, Start Num: 48

Candidate Starts for Phabuloso_23:

(Start: 48 @19948 has 17 MA's), (Start: 51 @19954 has 25 MA's), (53, 20011), (54, 20014), (71, 20098), (76, 20119), (82, 20161), (83, 20164), (86, 20173), (97, 20233), (98, 20236),

Gene: Phayeta_17 Start: 14442, Stop: 14876, Start Num: 38

Candidate Starts for Phayeta_17:

(22, 14337), (Start: 38 @14442 has 52 MA's), (50, 14496), (56, 14562), (94, 14763), (95, 14766),

Gene: Philly_16 Start: 14432, Stop: 14866, Start Num: 38

Candidate Starts for Philly_16:

(22, 14327), (Start: 38 @14432 has 52 MA's), (50, 14486), (56, 14552), (94, 14753), (95, 14756),

Gene: Phistory_25 Start: 20985, Stop: 21359, Start Num: 51

Candidate Starts for Phistory_25:

(Start: 48 @20979 has 17 MA's), (Start: 51 @20985 has 25 MA's), (53, 21042), (54, 21045), (71, 21129), (76, 21150), (82, 21192), (83, 21195), (102, 21294),

Gene: Phlyer_17 Start: 15300, Stop: 15734, Start Num: 38

Candidate Starts for Phlyer_17:

(22, 15195), (Start: 38 @15300 has 52 MA's), (50, 15354), (56, 15420), (94, 15621), (95, 15624),

Gene: Pipefish_17 Start: 15450, Stop: 15884, Start Num: 38

Candidate Starts for Pipefish_17:

(Start: 38 @15450 has 52 MA's), (50, 15504), (56, 15570), (94, 15771), (95, 15774),

Gene: Polly_21 Start: 20514, Stop: 20870, Start Num: 51

Candidate Starts for Polly_21:

(25, 20373), (27, 20379), (36, 20448), (Start: 51 @20514 has 25 MA's), (54, 20574), (56, 20583), (75, 20673), (82, 20721), (83, 20724), (86, 20733), (97, 20793),

Gene: RagingRooster_17 Start: 14567, Stop: 15001, Start Num: 38

Candidate Starts for RagingRooster_17:

(22, 14462), (Start: 38 @14567 has 52 MA's), (50, 14621), (56, 14687), (94, 14888), (95, 14891),

Gene: Reynauld_35 Start: 36999, Stop: 37397, Start Num: 47

Candidate Starts for Reynauld_35:

(Start: 47 @36999 has 5 MA's), (Start: 49 @37005 has 9 MA's), (58, 37083), (69, 37140), (80, 37203), (85, 37221), (100, 37299), (101, 37308), (114, 37389),

Gene: Rita1961_17 Start: 14562, Stop: 14996, Start Num: 38

Candidate Starts for Rita1961_17:

(22, 14457), (Start: 38 @14562 has 52 MA's), (50, 14616), (56, 14682), (94, 14883), (95, 14886),

Gene: RomaT_17 Start: 15347, Stop: 15781, Start Num: 38

Candidate Starts for RomaT_17:

(22, 15242), (Start: 38 @15347 has 52 MA's), (50, 15401), (56, 15467), (94, 15668), (95, 15671),

Gene: SamW_22 Start: 21107, Stop: 21475, Start Num: 49

Candidate Starts for SamW_22:

(15, 20891), (Start: 49 @21107 has 9 MA's), (60, 21191), (66, 21230), (72, 21254), (77, 21275), (87, 21332),

Gene: Sejanus_13 Start: 12918, Stop: 13313, Start Num: 38

Candidate Starts for Sejanus_13:

(Start: 38 @12918 has 52 MA's), (45, 12951), (54, 13029), (74, 13125), (82, 13176), (84, 13182), (86, 13188), (88, 13197), (94, 13239),

Gene: Shatter_14 Start: 12949, Stop: 13329, Start Num: 47

Candidate Starts for Shatter_14:

(Start: 47 @12949 has 5 MA's), (56, 13024), (62, 13051), (76, 13120), (90, 13189), (92, 13204), (103, 13267), (105, 13282),

Gene: ShawBrad_24 Start: 20207, Stop: 20581, Start Num: 51

Candidate Starts for ShawBrad_24:

(Start: 48 @20201 has 17 MA's), (Start: 51 @20207 has 25 MA's), (53, 20264), (54, 20267), (56, 20276), (71, 20351), (76, 20372), (82, 20414), (83, 20417), (102, 20516),

Gene: Sidious_22 Start: 20529, Stop: 20909, Start Num: 51

Candidate Starts for Sidious_22:

(Start: 51 @20529 has 25 MA's), (56, 20598), (71, 20673), (97, 20808), (99, 20814), (110, 20883),

Gene: Sour_17 Start: 14711, Stop: 15097, Start Num: 42

Candidate Starts for Sour_17:

(Start: 42 @14711 has 3 MA's), (Start: 43 @14714 has 2 MA's), (54, 14792), (62, 14828), (81, 14936), (88, 14960), (90, 14966), (93, 14990), (99, 15017), (105, 15059), (108, 15080),

Gene: Spooky_24 Start: 20292, Stop: 20663, Start Num: 51

Candidate Starts for Spooky_24:

(3, 19797), (10, 19908), (11, 19926), (Start: 48 @20286 has 17 MA's), (Start: 51 @20292 has 25 MA's), (53, 20349), (56, 20361), (71, 20436), (82, 20499), (83, 20502), (90, 20526), (97, 20571), (98, 20574),

Gene: Squiddly_26 Start: 21704, Stop: 22075, Start Num: 51

Candidate Starts for Squiddly_26:

(3, 21209), (10, 21320), (11, 21338), (Start: 48 @21698 has 17 MA's), (Start: 51 @21704 has 25 MA's), (53, 21761), (56, 21773), (71, 21848), (82, 21911), (83, 21914), (90, 21938), (97, 21983), (98, 21986),

Gene: Srilaccoli3_32 Start: 35928, Stop: 36317, Start Num: 49

Candidate Starts for Srilaccoli3_32:

(18, 35727), (33, 35835), (Start: 49 @35928 has 9 MA's), (58, 36006), (78, 36114), (85, 36144), (101, 36231), (106, 36261),

Gene: StAB_22 Start: 21542, Stop: 21910, Start Num: 49

Candidate Starts for StAB_22:

(44, 21524), (Start: 49 @21542 has 9 MA's), (60, 21626), (72, 21689), (87, 21767),

Gene: Stiles_22 Start: 21096, Stop: 21464, Start Num: 49

Candidate Starts for Stiles_22:

(44, 21078), (Start: 49 @21096 has 9 MA's), (66, 21219), (67, 21222),

Gene: SynergyX_17 Start: 14567, Stop: 15001, Start Num: 38

Candidate Starts for SynergyX_17:

(22, 14462), (Start: 38 @14567 has 52 MA's), (50, 14621), (56, 14687), (94, 14888), (95, 14891),

Gene: ThankyouJordi_21 Start: 21049, Stop: 21405, Start Num: 51

Candidate Starts for ThankyouJordi_21:

(Start: 51 @21049 has 25 MA's), (54, 21109), (97, 21328),

Gene: TimTam_22 Start: 21074, Stop: 21430, Start Num: 51

Candidate Starts for TimTam_22:

(Start: 51 @21074 has 25 MA's), (54, 21134), (56, 21143), (71, 21218), (82, 21281), (86, 21293), (97, 21353),

Gene: TinyTerror_17 Start: 14566, Stop: 15000, Start Num: 38

Candidate Starts for TinyTerror_17:

(22, 14461), (Start: 38 @14566 has 52 MA's), (50, 14620), (56, 14686), (94, 14887), (95, 14890),

Gene: Troy_22 Start: 21107, Stop: 21475, Start Num: 49

Candidate Starts for Troy_22:

(15, 20891), (Start: 49 @21107 has 9 MA's), (60, 21191), (66, 21230), (72, 21254), (77, 21275), (87, 21332),

Gene: Tydolla_17 Start: 15304, Stop: 15738, Start Num: 38

Candidate Starts for Tydolla_17:

(22, 15199), (Start: 38 @15304 has 52 MA's), (50, 15358), (56, 15424), (94, 15625), (95, 15628),

Gene: WelcomeAyanna_21 Start: 21049, Stop: 21405, Start Num: 51

Candidate Starts for WelcomeAyanna_21:

(Start: 51 @21049 has 25 MA's), (54, 21109), (97, 21328),

Gene: Whitney_25 Start: 21106, Stop: 21480, Start Num: 51

Candidate Starts for Whitney_25:

(3, 20611), (10, 20722), (11, 20740), (Start: 48 @21100 has 17 MA's), (Start: 51 @21106 has 25 MA's), (53, 21163), (54, 21166), (56, 21175), (71, 21250), (82, 21313), (83, 21316), (86, 21325), (97, 21385), (98, 21388),

Gene: Wooper_16 Start: 14369, Stop: 14770, Start Num: 39

Candidate Starts for Wooper_16:

(Start: 39 @14369 has 4 MA's), (41, 14390), (50, 14417), (59, 14495), (79, 14606), (86, 14633), (88, 14642), (90, 14648), (99, 14699), (101, 14717), (105, 14741), (111, 14759), (112, 14762),

Gene: Yahalom_17 Start: 14578, Stop: 15012, Start Num: 38

Candidate Starts for Yahalom_17:

(22, 14473), (Start: 38 @14578 has 52 MA's), (50, 14632), (56, 14698), (94, 14899), (95, 14902),

Gene: Yinz_17 Start: 14605, Stop: 15039, Start Num: 38

Candidate Starts for Yinz_17:

(22, 14500), (Start: 38 @14605 has 52 MA's), (50, 14659), (56, 14725), (94, 14926), (95, 14929),

Gene: Yvonnetastic_49 Start: 34634, Stop: 35044, Start Num: 37

Candidate Starts for Yvonnetastic_49:

(Start: 37 @34634 has 2 MA's), (55, 34745), (62, 34778), (65, 34802), (99, 34967),

Gene: Zirinka_22 Start: 21086, Stop: 21442, Start Num: 51

Candidate Starts for Zirinka_22:

(Start: 51 @21086 has 25 MA's), (54, 21146), (56, 21155), (71, 21230), (82, 21293), (86, 21305), (97, 21365),