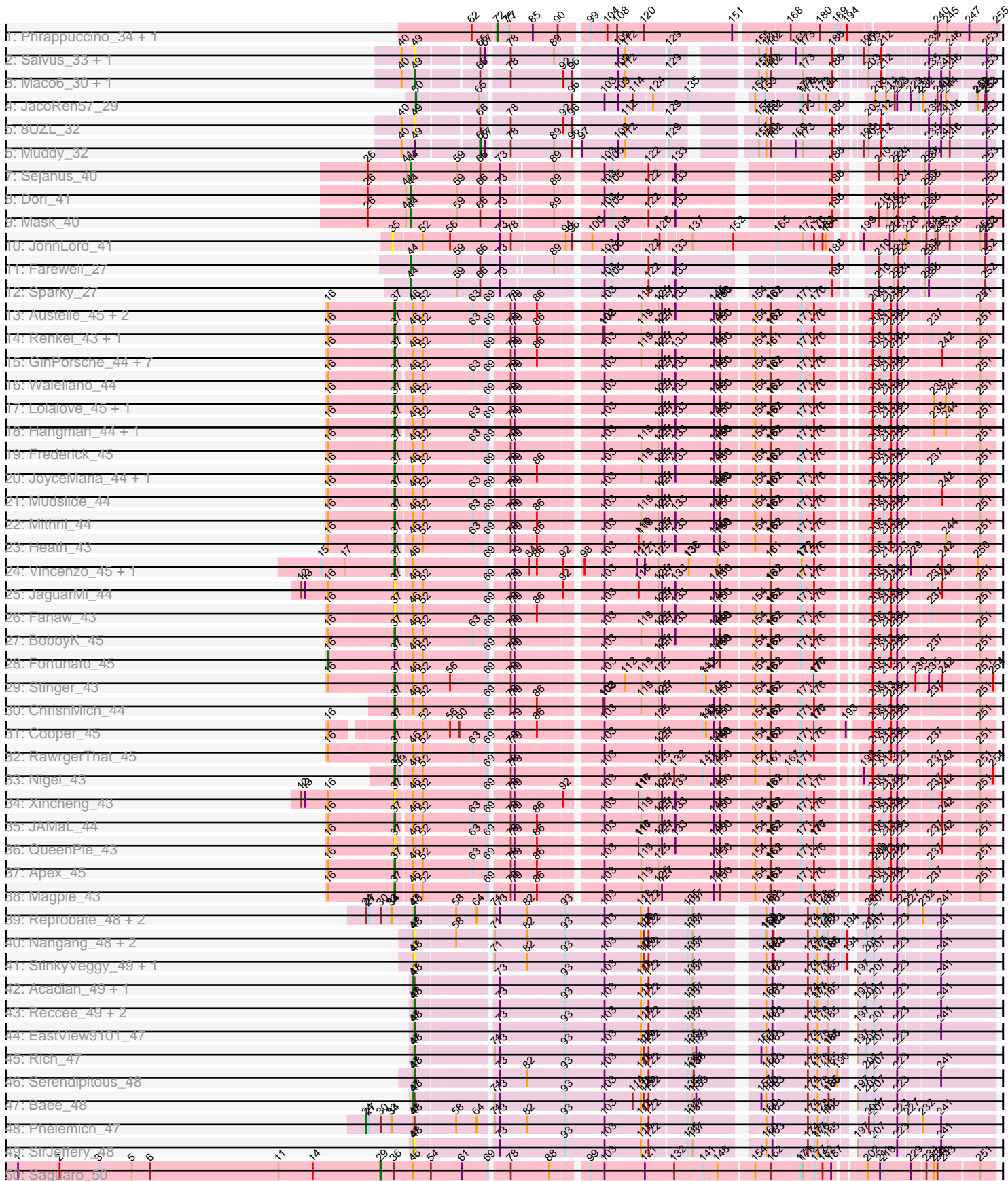


Pham 311360



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 311360 Report

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

Pham number 311360 has 129 members, 30 are drafts.

Phages represented in each track:

- Track 1 : Phrappuccino_34, Settecandela_34
- Track 2 : Salvus_33, LongHai_33
- Track 3 : Maco6_30, FF47_32
- Track 4 : JacoRen57_29
- Track 5 : 8UZL_32
- Track 6 : Muddy_32
- Track 7 : Sejanus_40
- Track 8 : Dori_41
- Track 9 : Mask_40
- Track 10 : JohnLord_41
- Track 11 : Farewell_27
- Track 12 : Sparky_27
- Track 13 : Austelle_45, Prince_44, VioletZ_46
- Track 14 : Renkei_43, LittleDigger_43
- Track 15 : GinPorsche_44, Ahwei_43, Hally898_43, Antihero_43, Nanao_43, Poster_43, Lambano_43, Epah_43
- Track 16 : Waleliano_44
- Track 17 : Lolalove_45, Hydro_44
- Track 18 : Hangman_44, BrownCNA_46
- Track 19 : Frederick_45
- Track 20 : JoyceMaria_44, Zemanar_45
- Track 21 : Mudslide_44
- Track 22 : Mithril_44
- Track 23 : Heath_43
- Track 24 : Vincenzo_45, AlanGrant_46
- Track 25 : JaguarMi_44
- Track 26 : Fanaw_43
- Track 27 : BobbyK_45
- Track 28 : Fortunato_45
- Track 29 : Stinger_43
- Track 30 : ChrisnMich_44
- Track 31 : Cooper_45
- Track 32 : RawrgerThat_45
- Track 33 : Nigel_43
- Track 34 : Xincheng_43
- Track 35 : JAMaL_44
- Track 36 : QueenPie_43

- Track 37 : Apex_45
- Track 38 : Magpie_43
- Track 39 : Reprobate_48, Mysterious_47, Nehemiah_48
- Track 40 : Nangang_48, Shenyu_48, DigitDog_48
- Track 41 : StinkyVeggy_49, KarasumaRum_49
- Track 42 : Acadian_49, Donny_49
- Track 43 : Reccee_49, Suigeneris_49, Rita130_48
- Track 44 : EastView9101_47
- Track 45 : Rich_47
- Track 46 : Serendipitous_48
- Track 47 : Bae_48
- Track 48 : Phelemich_47
- Track 49 : SirJeffery_48
- Track 50 : Saguaro_50
- Track 51 : CRB2_50
- Track 52 : Quesadilla_50
- Track 53 : PenguinLover67_50
- Track 54 : SuperheroCarly_40, SirHarley_39, Mopey_40, Nova_39, Penelope2018_40, BigMama_38, Troll4_40, KandZ_40, Visconti_40, Delton_40, Gumball_38
- Track 55 : Chill_41, PBI1_39, Adjutor_40, Butterscotch_39, Erk16_39, Prager_40, Helpful_41, WaldoWhy_41, PLOT_40, Thoth_40
- Track 56 : Giuseppe_40
- Track 57 : Phalaborwa_40
- Track 58 : Hawkeye_43
- Track 59 : FlagStaff_27
- Track 60 : Pace1224_27
- Track 61 : Cambiare_28
- Track 62 : Avocado_27
- Track 63 : GodSpeed_28
- Track 64 : Cloudyecho_28
- Track 65 : MOOREtheMARYer_29
- Track 66 : Pinnie_29
- Track 67 : Megatron06_40, Cborch11_39, Beckerton_38, Konstantine_43, Oaker_38, Nish23_39, Phreeze_38, Thumb_38
- Track 68 : BobtimousPrime_40
- Track 69 : Predator_40
- Track 70 : Damien_38
- Track 71 : Puissant_39
- Track 72 : Che9c_26
- Track 73 : Nazo_27, BigNuz_27
- Track 74 : Phayonce_27
- Track 75 : ThulaThula_27
- Track 76 : Bipper_35
- Track 77 : Cracklewink_35

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

The start number called the most often in the published annotations is 37, it was called in 28 of the 99 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Ahwei_43, AlanGrant_46, Antihero_43, Apex_45, Austelle_45, BobbyK_45, BrownCNA_46, ChrisnMich_44, Cooper_45, Epah_43, Fanaw_43, Frederick_45, GinPorsche_44, Hally898_43, Hangman_44, Heath_43, Hydro_44, JAMaL_44, JaguarMi_44, JoyceMaria_44, Lambano_43, LittleDigger_43, Lolalove_45, Magpie_43, Mithril_44, Mudslide_44, Nanao_43, Nigel_43, Poster_43, Prince_44, QueenPie_43, Quesadilla_50, RawrgerThat_45, Renkei_43, Stinger_43, Vincenzo_45, VioletZ_46, Waleliano_44, Xincheng_43, Zemanar_45,

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

- Fortunato_45,

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

- 8UZL_32, Acadian_49, Adjutor_40, Avocado_27, Bae_48, Beckerton_38, BigMama_38, BigNuz_27, Bipper_35, BobtimousPrime_40, Butterscotch_39, CRB2_50, Cambiare_28, Cborch11_39, Che9c_26, Chill_41, Cloudyecho_28, Cracklewink_35, Damien_38, Delton_40, DigitDog_48, Donny_49, Dori_41, EastView9101_47, Erk16_39, FF47_32, Farewell_27, FlagStaff_27, Giuseppe_40, GodSpeed_28, Gumball_38, Hawkeye_43, Helpful_41, JacoRen57_29, JohnLord_41, KandZ_40, KarasumaRum_49, Konstantine_43, LongHai_33, MOOREtheMARYer_29, Maco6_30, Mask_40, Megatron06_40, Mopey_40, Muddy_32, Mysterious_47, Nangang_48, Nazo_27, Nehemiah_48, Nish23_39, Nova_39, Oaker_38, PBI1_39, PLOT_40, Pace1224_27, Penelope2018_40, PenguinLover67_50, Phalaborwa_40, Phayonce_27, Phelemich_47, Phrappuccino_34, Phreeze_38, Pinnie_29, Prager_40, Predator_40, Puissant_39, Reccee_49, Reprobate_48, Rich_47, Rita130_48, Saguaro_50, Salvus_33, Sejanus_40, Serendipitous_48, Settecandela_34, Shenyu_48, SirHarley_39, SirJeffery_48, Sparky_27, StinkyVeggy_49, Suigeneris_49, SuperheroCarly_40, Thoth_40, ThulaThula_27, Thumb_38, Troll4_40, Visconti_40, WaldoWhy_41,

Summary by start number:

Start 16:

- Found in 36 of 129 (27.9%) of genes in pham
- Manual Annotations of this start: 1 of 99
- Called 2.8% of time when present
- Phage (with cluster) where this start called: Fortunato_45 (B4),

Start 24:

- Found in 4 of 129 (3.1%) of genes in pham
- Manual Annotations of this start: 1 of 99
- Called 25.0% of time when present
- Phage (with cluster) where this start called: Phelemich_47 (B5),

Start 29:

- Found in 1 of 129 (0.8%) of genes in pham
- Manual Annotations of this start: 1 of 99
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Saguaro_50 (B7),

Start 31:

- Found in 1 of 129 (0.8%) of genes in pham

- Manual Annotations of this start: 1 of 99
- Called 100.0% of time when present
- Phage (with cluster) where this start called: CRB2_50 (B9),

Start 32:

- Found in 1 of 129 (0.8%) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Cloudyecho_28 (G3),

Start 35:

- Found in 1 of 129 (0.8%) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: JohnLord_41 (AD),

Start 37:

- Found in 41 of 129 (31.8%) of genes in pham
- Manual Annotations of this start: 28 of 99
- Called 97.6% of time when present
- Phage (with cluster) where this start called: Ahwei_43 (B4), AlanGrant_46 (B4), Antihero_43 (B4), Apex_45 (B4), Austelle_45 (B4), BobbyK_45 (B4), BrownCNA_46 (B4), ChrisnMich_44 (B4), Cooper_45 (B4), Epah_43 (B4), Fanaw_43 (B4), Frederick_45 (B4), GinPorsche_44 (B4), Hally898_43 (B4), Hangman_44 (B4), Heath_43 (B4), Hydro_44 (B4), JAMaL_44 (B4), JaguarMi_44 (B4), JoyceMaria_44 (B4), Lambano_43 (B4), LittleDigger_43 (B4), Lolalove_45 (B4), Magpie_43 (B4), Mithril_44 (B4), Mudslide_44 (B4), Nanao_43 (B4), Nigel_43 (B4), Poster_43 (B4), Prince_44 (B4), QueenPie_43 (B4), Quesadilla_50 (B9), RawrgerThat_45 (B4), Renkei_43 (B4), Stinger_43 (B4), Vincenzo_45 (B4), VioletZ_46 (B4), Waleliano_44 (B4), Xincheng_43 (B4), Zemanar_45 (B4),

Start 40:

- Found in 7 of 129 (5.4%) of genes in pham
- Manual Annotations of this start: 1 of 99
- Called 14.3% of time when present
- Phage (with cluster) where this start called: PenguinLover67_50 (B9),

Start 42:

- Found in 23 of 129 (17.8%) of genes in pham
- Manual Annotations of this start: 22 of 99
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Adjutor_40 (D1), BigMama_38 (D1), Butterscotch_39 (D1), Chill_41 (D1), Delton_40 (D1), Erk16_39 (D1), Giuseppe_40 (D1), Gumball_38 (D1), Helpful_41 (D1), KandZ_40 (D1), Mopey_40 (D1), Nova_39 (D1), PB11_39 (D1), PLOT_40 (D1), Penelope2018_40 (D1), Phalaborwa_40 (D1), Prager_40 (D1), SirHarley_39 (D1), SuperheroCarly_40 (D1), Thoth_40 (D1), Troll4_40 (D1), Visconti_40 (D1), WaldoWhy_41 (D1),

Start 43:

- Found in 1 of 129 (0.8%) of genes in pham
- Manual Annotations of this start: 1 of 99
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Hawkeye_43 (D2),

Start 44:

- Found in 10 of 129 (7.8%) of genes in pham
- Manual Annotations of this start: 10 of 99
- Called 100.0% of time when present
- Phage (with cluster) where this start called: BigNuz_27 (P4), Che9c_26 (I2), Dori_41 (AD), Farewell_27 (AF), Mask_40 (AD), Nazo_27 (P4), Phayonce_27 (P5), Sejanus_40 (AD), Sparky_27 (AF), ThulaThula_27 (P5),

Start 45:

- Found in 13 of 129 (10.1%) of genes in pham
- Manual Annotations of this start: 11 of 99
- Called 92.3% of time when present
- Phage (with cluster) where this start called: Beckerton_38 (H1), BobtimousPrime_40 (H1), Cborch11_39 (H1), Damien_38 (H1), Konstantine_43 (H1), Megatron06_40 (H1), Nish23_39 (H1), Oaker_38 (H1), Phreeze_38 (H1), Predator_40 (H1), Puissant_39 (H1), Thumb_38 (H1),

Start 47:

- Found in 19 of 129 (14.7%) of genes in pham
- Manual Annotations of this start: 3 of 99
- Called 15.8% of time when present
- Phage (with cluster) where this start called: Acadian_49 (B5), Bae_48 (B5), Donny_49 (B5),

Start 48:

- Found in 25 of 129 (19.4%) of genes in pham
- Manual Annotations of this start: 10 of 99
- Called 80.0% of time when present
- Phage (with cluster) where this start called: DigitDog_48 (B5), EastView9101_47 (B5), FlagStaff_27 (G2), GodSpeed_28 (G2), KarasumaRum_49 (B5), MOOREtheMARYer_29 (G3), Mysterious_47 (B5), Nangang_48 (B5), Nehemiah_48 (B5), Pace1224_27 (G2), Pinnie_29 (G3), Reccee_49 (B5), Reprobate_48 (B5), Rich_47 (B5), Rita130_48 (B5), Serendipitous_48 (B5), Shenyu_48 (B5), SirJeffery_48 (B5), StinkyVeggy_49 (B5), Suigeneris_49 (B5),

Start 49:

- Found in 6 of 129 (4.7%) of genes in pham
- Manual Annotations of this start: 1 of 99
- Called 83.3% of time when present
- Phage (with cluster) where this start called: 8UZL_32 (AB), FF47_32 (AB), LongHai_33 (AB), Maco6_30 (AB), Salvus_33 (AB),

Start 50:

- Found in 3 of 129 (2.3%) of genes in pham
- Manual Annotations of this start: 3 of 99
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Avocado_27 (G2), Cambiare_28 (G2), JacoRen57_29 (AB),

Start 66:

- Found in 31 of 129 (24.0%) of genes in pham
- Manual Annotations of this start: 1 of 99

- Called 3.2% of time when present
- Phage (with cluster) where this start called: Muddy_32 (AB),

Start 72:

- Found in 2 of 129 (1.6%) of genes in pham
- Manual Annotations of this start: 2 of 99
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Phrappuccino_34 (AA), Settecandela_34 (AA),

Start 75:

- Found in 4 of 129 (3.1%) of genes in pham
- Manual Annotations of this start: 2 of 99
- Called 50.0% of time when present
- Phage (with cluster) where this start called: Bipper_35 (Y), Cracklewink_35 (Y),

Summary by clusters:

There are 17 clusters represented in this pham: AA, AB, G3, G2, P4, AF, H1, I2, B4, B5, B7, Y, AD, D2, B9, P5, D1,

Info for manual annotations of cluster AA:

- Start number 72 was manually annotated 2 times for cluster AA.

Info for manual annotations of cluster AB:

- Start number 49 was manually annotated 1 time for cluster AB.
- Start number 50 was manually annotated 1 time for cluster AB.
- Start number 66 was manually annotated 1 time for cluster AB.

Info for manual annotations of cluster AD:

- Start number 44 was manually annotated 3 times for cluster AD.

Info for manual annotations of cluster AF:

- Start number 44 was manually annotated 2 times for cluster AF.

Info for manual annotations of cluster B4:

- Start number 16 was manually annotated 1 time for cluster B4.
- Start number 37 was manually annotated 27 times for cluster B4.

Info for manual annotations of cluster B5:

- Start number 24 was manually annotated 1 time for cluster B5.
- Start number 47 was manually annotated 3 times for cluster B5.
- Start number 48 was manually annotated 7 times for cluster B5.

Info for manual annotations of cluster B7:

- Start number 29 was manually annotated 1 time for cluster B7.

Info for manual annotations of cluster B9:

- Start number 31 was manually annotated 1 time for cluster B9.
- Start number 37 was manually annotated 1 time for cluster B9.
- Start number 40 was manually annotated 1 time for cluster B9.

Info for manual annotations of cluster D1:

- Start number 42 was manually annotated 22 times for cluster D1.

Info for manual annotations of cluster D2:

- Start number 43 was manually annotated 1 time for cluster D2.

Info for manual annotations of cluster G2:

- Start number 48 was manually annotated 1 time for cluster G2.
- Start number 50 was manually annotated 2 times for cluster G2.

Info for manual annotations of cluster G3:

- Start number 48 was manually annotated 2 times for cluster G3.

Info for manual annotations of cluster H1:

- Start number 45 was manually annotated 11 times for cluster H1.

Info for manual annotations of cluster I2:

- Start number 44 was manually annotated 1 time for cluster I2.

Info for manual annotations of cluster P4:

- Start number 44 was manually annotated 2 times for cluster P4.

Info for manual annotations of cluster P5:

- Start number 44 was manually annotated 2 times for cluster P5.

Info for manual annotations of cluster Y:

- Start number 75 was manually annotated 2 times for cluster Y.

Gene Information:

Gene: 8UZL_32 Start: 25153, Stop: 26340, Start Num: 49

Candidate Starts for 8UZL_32:

(Start: 40 @25120 has 1 MA's), (Start: 49 @25153 has 1 MA's), (Start: 66 @25288 has 1 MA's), (78, 25348), (92, 25462), (96, 25483), (112, 25591), (129, 25684), (155, 25840), (160, 25858), (162, 25870), (173, 25948), (188, 26020), (203, 26074), (212, 26101), (235, 26191), (241, 26221), (246, 26242), (253, 26320),

Gene: Acadian_49 Start: 42726, Stop: 43988, Start Num: 47

Candidate Starts for Acadian_49:

(Start: 47 @42726 has 3 MA's), (Start: 48 @42729 has 10 MA's), (73, 42906), (93, 43059), (103, 43155), (118, 43242), (122, 43254), (135, 43335), (137, 43347), (160, 43485), (163, 43500), (174, 43575), (178, 43599), (185, 43623), (197, 43668), (207, 43707), (223, 43764), (241, 43860),

Gene: Adjutor_40 Start: 32695, Stop: 33954, Start Num: 42

Candidate Starts for Adjutor_40:

(18, 32545), (19, 32554), (20, 32569), (21, 32572), (25, 32590), (Start: 42 @32695 has 22 MA's), (59, 32794), (73, 32881), (74, 32893), (99, 33073), (103, 33106), (113, 33172), (134, 33271), (140, 33316), (158, 33466), (159, 33469), (169, 33544), (176, 33589), (177, 33592), (192, 33646), (196, 33664), (210, 33709), (212, 33715), (223, 33745), (233, 33796),

Gene: Ahwei_43 Start: 41256, Stop: 42590, Start Num: 37

Candidate Starts for Ahwei_43:

(Start: 16 @41106 has 1 MA's), (Start: 37 @41256 has 28 MA's), (46, 41295), (52, 41319), (69, 41472), (78, 41514), (79, 41523), (86, 41577), (103, 41715), (119, 41805), (125, 41844), (127, 41853), (133, 41886), (145, 41979), (150, 41994), (154, 42072), (161, 42108), (171, 42183), (176, 42216), (206, 42321), (213, 42348), (218, 42366), (223, 42381), (242, 42477), (251, 42558),

Gene: AlanGrant_46 Start: 42868, Stop: 44193, Start Num: 37

Candidate Starts for AlanGrant_46:

(15, 42697), (17, 42754), (Start: 37 @42868 has 28 MA's), (46, 42898), (69, 43075), (79, 43126), (84, 43162), (86, 43180), (92, 43240), (98, 43270), (103, 43318), (115, 43399), (121, 43417), (125, 43447), (135, 43519), (136, 43522), (148, 43591), (161, 43711), (171, 43786), (172, 43789), (176, 43819), (206, 43924), (213, 43951), (223, 43984), (229, 44008), (242, 44080), (250, 44155),

Gene: Antihero_43 Start: 41256, Stop: 42590, Start Num: 37

Candidate Starts for Antihero_43:

(Start: 16 @41106 has 1 MA's), (Start: 37 @41256 has 28 MA's), (46, 41295), (52, 41319), (69, 41472), (78, 41514), (79, 41523), (86, 41577), (103, 41715), (119, 41805), (125, 41844), (127, 41853), (133, 41886), (145, 41979), (150, 41994), (154, 42072), (161, 42108), (171, 42183), (176, 42216), (206, 42321), (213, 42348), (218, 42366), (223, 42381), (242, 42477), (251, 42558),

Gene: Apex_45 Start: 42498, Stop: 43832, Start Num: 37

Candidate Starts for Apex_45:

(Start: 16 @42348 has 1 MA's), (Start: 37 @42498 has 28 MA's), (46, 42537), (52, 42561), (63, 42678), (69, 42714), (78, 42756), (79, 42765), (86, 42819), (103, 42957), (119, 43047), (125, 43086), (145, 43221), (150, 43236), (154, 43314), (161, 43350), (162, 43353), (171, 43425), (176, 43458), (206, 43563), (209, 43572), (213, 43590), (218, 43608), (223, 43623), (237, 43692), (251, 43800),

Gene: Austelle_45 Start: 42948, Stop: 44282, Start Num: 37

Candidate Starts for Austelle_45:

(Start: 16 @42798 has 1 MA's), (Start: 37 @42948 has 28 MA's), (46, 42987), (52, 43011), (63, 43128), (69, 43164), (78, 43206), (79, 43215), (86, 43269), (103, 43407), (119, 43497), (125, 43536), (127, 43545), (133, 43578), (145, 43671), (149, 43683), (150, 43686), (154, 43764), (161, 43800), (162, 43803), (171, 43875), (176, 43908), (206, 44013), (213, 44040), (218, 44058), (223, 44073), (251, 44250),

Gene: Avocado_27 Start: 26851, Stop: 28068, Start Num: 50

Candidate Starts for Avocado_27:

(4, 26158), (8, 26326), (10, 26398), (Start: 50 @26851 has 3 MA's), (91, 27166), (101, 27226), (103, 27247), (109, 27280), (122, 27346), (130, 27385), (137, 27439), (143, 27475), (160, 27577), (170, 27640), (173, 27655), (174, 27667), (191, 27751), (210, 27826), (222, 27865), (223, 27871), (241, 27967), (248, 28021), (249, 28024), (250, 28027), (252, 28045),

Gene: Bae_48 Start: 42610, Stop: 43872, Start Num: 47

Candidate Starts for Bae_48:

(Start: 47 @42610 has 3 MA's), (Start: 48 @42613 has 10 MA's), (71, 42778), (73, 42790), (93, 42943), (103, 43039), (114, 43108), (118, 43126), (120, 43132), (122, 43138), (135, 43219), (137, 43231), (139, 43240), (157, 43357), (160, 43369), (163, 43384), (174, 43459), (178, 43483), (185, 43507), (186, 43510), (197, 43552), (201, 43573), (207, 43591), (223, 43648),

Gene: Beckerton_38 Start: 34372, Stop: 35613, Start Num: 45

Candidate Starts for Beckerton_38:

(Start: 45 @34372 has 11 MA's), (Start: 66 @34519 has 1 MA's), (78, 34579), (99, 34735), (103, 34768), (109, 34801), (128, 34900), (130, 34906), (159, 35128), (160, 35131), (176, 35248), (203, 35347), (210, 35368), (219, 35392), (223, 35404), (233, 35455), (236, 35467), (241, 35494), (246,

35515), (251, 35578), (253, 35593),

Gene: BigMama_38 Start: 32771, Stop: 34030, Start Num: 42

Candidate Starts for BigMama_38:

(18, 32621), (19, 32630), (20, 32645), (21, 32648), (25, 32666), (Start: 42 @32771 has 22 MA's), (59, 32870), (73, 32957), (74, 32969), (99, 33149), (103, 33182), (113, 33248), (134, 33347), (140, 33392), (158, 33542), (169, 33620), (176, 33665), (177, 33668), (192, 33722), (196, 33740), (210, 33785), (212, 33791), (223, 33821), (233, 33872),

Gene: BigNuz_27 Start: 24699, Stop: 25913, Start Num: 44

Candidate Starts for BigNuz_27:

(Start: 44 @24699 has 10 MA's), (57, 24801), (59, 24807), (Start: 66 @24861 has 1 MA's), (68, 24876), (73, 24909), (103, 25119), (109, 25152), (118, 25206), (122, 25218), (148, 25371), (160, 25449), (210, 25659), (221, 25692), (224, 25704), (235, 25764), (244, 25806), (252, 25890),

Gene: Bipper_35 Start: 30012, Stop: 31109, Start Num: 75

Candidate Starts for Bipper_35:

(28, 29703), (53, 29835), (Start: 75 @30012 has 2 MA's), (83, 30063), (104, 30231), (106, 30243), (108, 30255), (113, 30288), (120, 30318), (121, 30321), (122, 30330), (131, 30387), (146, 30489), (151, 30528), (156, 30579), (168, 30624), (188, 30726), (195, 30774), (197, 30789), (216, 30864), (224, 30888), (225, 30903), (238, 30966),

Gene: BobbyK_45 Start: 42293, Stop: 43627, Start Num: 37

Candidate Starts for BobbyK_45:

(Start: 16 @42143 has 1 MA's), (Start: 37 @42293 has 28 MA's), (46, 42332), (52, 42356), (63, 42473), (69, 42509), (78, 42551), (79, 42560), (103, 42752), (119, 42842), (125, 42881), (127, 42890), (133, 42923), (145, 43016), (149, 43028), (150, 43031), (154, 43109), (161, 43145), (162, 43148), (171, 43220), (176, 43253), (206, 43358), (213, 43385), (218, 43403), (223, 43418), (251, 43595),

Gene: BobtimousPrime_40 Start: 34292, Stop: 35533, Start Num: 45

Candidate Starts for BobtimousPrime_40:

(Start: 45 @34292 has 11 MA's), (Start: 66 @34439 has 1 MA's), (78, 34499), (99, 34655), (103, 34688), (109, 34721), (128, 34820), (130, 34826), (159, 35048), (160, 35051), (176, 35168), (196, 35243), (203, 35267), (210, 35288), (219, 35312), (223, 35324), (233, 35375), (236, 35387), (241, 35414), (246, 35435), (251, 35498), (253, 35513),

Gene: BrownCNA_46 Start: 42578, Stop: 43906, Start Num: 37

Candidate Starts for BrownCNA_46:

(Start: 16 @42428 has 1 MA's), (Start: 37 @42578 has 28 MA's), (46, 42611), (52, 42635), (63, 42752), (69, 42788), (78, 42830), (79, 42839), (103, 43031), (125, 43160), (127, 43169), (133, 43202), (145, 43295), (150, 43310), (154, 43388), (161, 43424), (162, 43427), (171, 43499), (176, 43532), (206, 43637), (213, 43664), (218, 43682), (223, 43697), (238, 43772), (244, 43802), (251, 43874),

Gene: Butterscotch_39 Start: 32755, Stop: 34014, Start Num: 42

Candidate Starts for Butterscotch_39:

(18, 32605), (19, 32614), (20, 32629), (21, 32632), (25, 32650), (Start: 42 @32755 has 22 MA's), (59, 32854), (73, 32941), (74, 32953), (99, 33133), (103, 33166), (113, 33232), (134, 33331), (140, 33376), (158, 33526), (159, 33529), (169, 33604), (176, 33649), (177, 33652), (192, 33706), (196, 33724), (210, 33769), (212, 33775), (223, 33805), (233, 33856),

Gene: CRB2_50 Start: 44577, Stop: 45980, Start Num: 31

Candidate Starts for CRB2_50:

(Start: 31 @44577 has 1 MA's), (38, 44619), (46, 44652), (87, 44949), (88, 44970), (103, 45078), (107, 45105), (112, 45129), (132, 45246), (143, 45327), (154, 45435), (162, 45474), (171, 45546), (172, 45549), (191, 45636), (213, 45729), (222, 45756), (229, 45795), (234, 45828), (243, 45870), (251, 45948),

Gene: Cambiare_28 Start: 27316, Stop: 28533, Start Num: 50

Candidate Starts for Cambiare_28:

(4, 26623), (7, 26743), (8, 26791), (10, 26863), (Start: 50 @27316 has 3 MA's), (91, 27631), (101, 27691), (103, 27712), (109, 27745), (122, 27811), (130, 27850), (137, 27904), (143, 27940), (160, 28042), (170, 28105), (173, 28120), (174, 28132), (191, 28216), (210, 28291), (222, 28330), (223, 28336), (241, 28432), (249, 28489), (250, 28492), (252, 28510),

Gene: Cborch11_39 Start: 33837, Stop: 35078, Start Num: 45

Candidate Starts for Cborch11_39:

(Start: 45 @33837 has 11 MA's), (Start: 66 @33984 has 1 MA's), (78, 34044), (99, 34200), (103, 34233), (109, 34266), (128, 34365), (130, 34371), (159, 34593), (160, 34596), (176, 34713), (203, 34812), (210, 34833), (219, 34857), (223, 34869), (233, 34920), (236, 34932), (241, 34959), (246, 34980), (251, 35043), (253, 35058),

Gene: Che9c_26 Start: 24207, Stop: 25421, Start Num: 44

Candidate Starts for Che9c_26:

(9, 23685), (Start: 44 @24207 has 10 MA's), (59, 24315), (Start: 66 @24369 has 1 MA's), (103, 24627), (122, 24726), (133, 24777), (161, 24966), (183, 25086), (188, 25107), (205, 25149), (224, 25212), (233, 25263), (235, 25272),

Gene: Chill_41 Start: 32761, Stop: 34020, Start Num: 42

Candidate Starts for Chill_41:

(18, 32611), (19, 32620), (20, 32635), (21, 32638), (25, 32656), (Start: 42 @32761 has 22 MA's), (59, 32860), (73, 32947), (74, 32959), (99, 33139), (103, 33172), (113, 33238), (134, 33337), (140, 33382), (158, 33532), (159, 33535), (169, 33610), (176, 33655), (177, 33658), (192, 33712), (196, 33730), (210, 33775), (212, 33781), (223, 33811), (233, 33862),

Gene: ChrisnMich_44 Start: 41258, Stop: 42592, Start Num: 37

Candidate Starts for ChrisnMich_44:

(Start: 37 @41258 has 28 MA's), (46, 41297), (52, 41321), (69, 41474), (78, 41516), (79, 41525), (86, 41579), (102, 41714), (103, 41717), (119, 41807), (125, 41846), (127, 41855), (145, 41981), (150, 41996), (154, 42074), (161, 42110), (162, 42113), (171, 42185), (176, 42218), (206, 42323), (213, 42350), (218, 42368), (223, 42383), (237, 42452), (251, 42560),

Gene: Cloudyecho_28 Start: 27016, Stop: 28293, Start Num: 32

Candidate Starts for Cloudyecho_28:

(32, 27016), (Start: 48 @27079 has 10 MA's), (51, 27088), (Start: 66 @27223 has 1 MA's), (103, 27478), (109, 27511), (111, 27520), (122, 27577), (128, 27610), (130, 27616), (166, 27844), (170, 27871), (174, 27898), (191, 27982), (199, 28015), (206, 28036), (210, 28051), (222, 28090), (223, 28096), (231, 28144), (235, 28162), (240, 28183), (244, 28204), (246, 28213), (250, 28252),

Gene: Cooper_45 Start: 41453, Stop: 42799, Start Num: 37

Candidate Starts for Cooper_45:

(Start: 16 @41327 has 1 MA's), (Start: 37 @41453 has 28 MA's), (52, 41516), (56, 41579), (60, 41600), (69, 41669), (79, 41720), (86, 41774), (103, 41912), (125, 42041), (141, 42152), (142, 42158), (145, 42176), (150, 42191), (154, 42269), (161, 42305), (162, 42308), (171, 42380), (176, 42413), (177, 42416), (193, 42479), (206, 42530), (213, 42557), (218, 42575), (223, 42590), (251, 42767),

Gene: Cracklewink_35 Start: 30012, Stop: 31109, Start Num: 75

Candidate Starts for Cracklewink_35:

(28, 29703), (53, 29835), (Start: 75 @30012 has 2 MA's), (83, 30063), (89, 30123), (104, 30231), (106, 30243), (108, 30255), (113, 30288), (120, 30318), (121, 30321), (122, 30330), (146, 30489), (151, 30528), (156, 30579), (168, 30624), (188, 30726), (195, 30774), (197, 30789), (211, 30843), (216, 30864), (224, 30888), (225, 30903), (238, 30966),

Gene: Damien_38 Start: 33838, Stop: 35079, Start Num: 45

Candidate Starts for Damien_38:

(Start: 45 @33838 has 11 MA's), (Start: 66 @33985 has 1 MA's), (78, 34045), (99, 34201), (103, 34234), (109, 34267), (128, 34366), (130, 34372), (159, 34594), (160, 34597), (176, 34714), (203, 34813), (210, 34834), (219, 34858), (223, 34870), (224, 34873), (233, 34921), (236, 34933), (241, 34960), (246, 34981), (251, 35044), (253, 35059),

Gene: Delton_40 Start: 32767, Stop: 34026, Start Num: 42

Candidate Starts for Delton_40:

(18, 32617), (19, 32626), (20, 32641), (21, 32644), (25, 32662), (Start: 42 @32767 has 22 MA's), (59, 32866), (73, 32953), (74, 32965), (99, 33145), (103, 33178), (113, 33244), (134, 33343), (140, 33388), (158, 33538), (169, 33616), (176, 33661), (177, 33664), (192, 33718), (196, 33736), (210, 33781), (212, 33787), (223, 33817), (233, 33868),

Gene: DigitDog_48 Start: 42432, Stop: 43691, Start Num: 48

Candidate Starts for DigitDog_48:

(Start: 47 @42429 has 3 MA's), (Start: 48 @42432 has 10 MA's), (58, 42519), (71, 42597), (82, 42675), (93, 42762), (103, 42858), (118, 42945), (120, 42951), (122, 42957), (135, 43038), (137, 43050), (159, 43185), (160, 43188), (163, 43203), (164, 43206), (174, 43278), (178, 43302), (183, 43317), (185, 43326), (194, 43368), (201, 43392), (207, 43410), (223, 43467), (241, 43563),

Gene: Donny_49 Start: 42731, Stop: 43993, Start Num: 47

Candidate Starts for Donny_49:

(Start: 47 @42731 has 3 MA's), (Start: 48 @42734 has 10 MA's), (73, 42911), (93, 43064), (103, 43160), (118, 43247), (122, 43259), (135, 43340), (137, 43352), (160, 43490), (163, 43505), (174, 43580), (178, 43604), (185, 43628), (197, 43673), (207, 43712), (223, 43769), (241, 43865),

Gene: Dori_41 Start: 36640, Stop: 37869, Start Num: 44

Candidate Starts for Dori_41:

(26, 36535), (41, 36628), (Start: 44 @36640 has 10 MA's), (59, 36748), (Start: 66 @36802 has 1 MA's), (73, 36850), (89, 36961), (103, 37057), (105, 37075), (122, 37156), (133, 37207), (188, 37537), (224, 37642), (233, 37693), (235, 37702), (253, 37831),

Gene: EastView9101_47 Start: 42384, Stop: 43643, Start Num: 48

Candidate Starts for EastView9101_47:

(Start: 47 @42381 has 3 MA's), (Start: 48 @42384 has 10 MA's), (73, 42561), (93, 42714), (103, 42810), (118, 42897), (122, 42909), (135, 42990), (137, 43002), (160, 43140), (163, 43155), (174, 43230), (178, 43254), (185, 43278), (197, 43323), (207, 43362), (223, 43419), (241, 43515),

Gene: Epah_43 Start: 41256, Stop: 42590, Start Num: 37

Candidate Starts for Epah_43:

(Start: 16 @41106 has 1 MA's), (Start: 37 @41256 has 28 MA's), (46, 41295), (52, 41319), (69, 41472), (78, 41514), (79, 41523), (86, 41577), (103, 41715), (119, 41805), (125, 41844), (127, 41853), (133, 41886), (145, 41979), (150, 41994), (154, 42072), (161, 42108), (171, 42183), (176, 42216), (206, 42321), (213, 42348), (218, 42366), (223, 42381), (242, 42477), (251, 42558),

Gene: Erk16_39 Start: 32764, Stop: 34023, Start Num: 42

Candidate Starts for Erk16_39:

(18, 32614), (19, 32623), (20, 32638), (21, 32641), (25, 32659), (Start: 42 @32764 has 22 MA's), (59, 32863), (73, 32950), (74, 32962), (99, 33142), (103, 33175), (113, 33241), (134, 33340), (140, 33385), (158, 33535), (159, 33538), (169, 33613), (176, 33658), (177, 33661), (192, 33715), (196, 33733), (210, 33778), (212, 33784), (223, 33814), (233, 33865),

Gene: FF47_32 Start: 25080, Stop: 26267, Start Num: 49

Candidate Starts for FF47_32:

(Start: 40 @25047 has 1 MA's), (Start: 49 @25080 has 1 MA's), (Start: 66 @25215 has 1 MA's), (78, 25275), (92, 25389), (96, 25410), (109, 25500), (112, 25518), (129, 25611), (155, 25767), (160, 25785), (162, 25797), (173, 25875), (188, 25947), (203, 26001), (212, 26028), (235, 26118), (241, 26148), (246, 26169), (253, 26247),

Gene: Fanaw_43 Start: 41953, Stop: 43287, Start Num: 37

Candidate Starts for Fanaw_43:

(Start: 16 @41803 has 1 MA's), (Start: 37 @41953 has 28 MA's), (46, 41992), (52, 42016), (69, 42169), (78, 42211), (79, 42220), (86, 42274), (103, 42412), (125, 42541), (127, 42550), (133, 42583), (145, 42676), (150, 42691), (154, 42769), (161, 42805), (162, 42808), (171, 42880), (176, 42913), (206, 43018), (213, 43045), (218, 43063), (223, 43078), (237, 43147), (251, 43255),

Gene: Farewell_27 Start: 25250, Stop: 26461, Start Num: 44

Candidate Starts for Farewell_27:

(Start: 44 @25250 has 10 MA's), (59, 25358), (Start: 66 @25412 has 1 MA's), (73, 25460), (89, 25571), (103, 25667), (105, 25685), (122, 25766), (133, 25817), (188, 26147), (210, 26207), (221, 26240), (224, 26252), (233, 26303), (235, 26312), (252, 26438),

Gene: FlagStaff_27 Start: 26635, Stop: 27852, Start Num: 48

Candidate Starts for FlagStaff_27:

(Start: 48 @26635 has 10 MA's), (101, 27010), (103, 27031), (109, 27064), (122, 27130), (130, 27169), (137, 27223), (143, 27259), (160, 27361), (170, 27424), (174, 27451), (191, 27535), (197, 27559), (210, 27610), (222, 27649), (223, 27655), (241, 27751), (250, 27811),

Gene: Fortunato_45 Start: 42161, Stop: 43645, Start Num: 16

Candidate Starts for Fortunato_45:

(Start: 16 @42161 has 1 MA's), (Start: 37 @42311 has 28 MA's), (46, 42350), (52, 42374), (69, 42527), (78, 42569), (79, 42578), (103, 42770), (125, 42899), (127, 42908), (145, 43034), (149, 43046), (150, 43049), (154, 43127), (161, 43163), (162, 43166), (171, 43238), (176, 43271), (206, 43376), (213, 43403), (218, 43421), (223, 43436), (237, 43505), (251, 43613),

Gene: Frederick_45 Start: 42287, Stop: 43621, Start Num: 37

Candidate Starts for Frederick_45:

(Start: 16 @42131 has 1 MA's), (Start: 37 @42287 has 28 MA's), (46, 42326), (52, 42350), (63, 42467), (69, 42503), (78, 42545), (79, 42554), (103, 42746), (119, 42836), (125, 42875), (127, 42884), (133, 42917), (145, 43010), (149, 43022), (150, 43025), (154, 43103), (161, 43139), (162, 43142), (171, 43214), (176, 43247), (206, 43352), (213, 43379), (218, 43397), (223, 43412), (251, 43589),

Gene: GinPorsche_44 Start: 41256, Stop: 42590, Start Num: 37

Candidate Starts for GinPorsche_44:

(Start: 16 @41106 has 1 MA's), (Start: 37 @41256 has 28 MA's), (46, 41295), (52, 41319), (69, 41472), (78, 41514), (79, 41523), (86, 41577), (103, 41715), (119, 41805), (125, 41844), (127, 41853), (133, 41886), (145, 41979), (150, 41994), (154, 42072), (161, 42108), (171, 42183), (176, 42216), (206, 42321), (213, 42348), (218, 42366), (223, 42381), (242, 42477), (251, 42558),

Gene: Giuseppe_40 Start: 32756, Stop: 34015, Start Num: 42

Candidate Starts for Giuseppe_40:

(18, 32606), (19, 32615), (20, 32630), (21, 32633), (25, 32651), (Start: 42 @32756 has 22 MA's), (59, 32855), (73, 32942), (74, 32954), (99, 33134), (103, 33167), (113, 33233), (134, 33332), (140, 33377), (158, 33527), (159, 33530), (162, 33545), (169, 33605), (176, 33650), (177, 33653), (192, 33707), (196, 33725), (210, 33770), (212, 33776), (223, 33806), (233, 33857),

Gene: GodSpeed_28 Start: 26663, Stop: 27877, Start Num: 48

Candidate Starts for GodSpeed_28:

(Start: 48 @26663 has 10 MA's), (70, 26822), (101, 27038), (103, 27059), (109, 27092), (122, 27158), (130, 27197), (135, 27239), (143, 27287), (149, 27314), (150, 27317), (160, 27389), (170, 27452), (174, 27479), (179, 27506), (191, 27563), (194, 27575), (208, 27626), (210, 27635), (221, 27671), (222, 27674), (223, 27680), (234, 27740), (235, 27746), (240, 27767), (244, 27788), (250, 27836),

Gene: Gumball_38 Start: 32705, Stop: 33964, Start Num: 42

Candidate Starts for Gumball_38:

(18, 32555), (19, 32564), (20, 32579), (21, 32582), (25, 32600), (Start: 42 @32705 has 22 MA's), (59, 32804), (73, 32891), (74, 32903), (99, 33083), (103, 33116), (113, 33182), (134, 33281), (140, 33326), (158, 33476), (169, 33554), (176, 33599), (177, 33602), (192, 33656), (196, 33674), (210, 33719), (212, 33725), (223, 33755), (233, 33806),

Gene: Hally898_43 Start: 41268, Stop: 42602, Start Num: 37

Candidate Starts for Hally898_43:

(Start: 16 @41118 has 1 MA's), (Start: 37 @41268 has 28 MA's), (46, 41307), (52, 41331), (69, 41484), (78, 41526), (79, 41535), (86, 41589), (103, 41727), (119, 41817), (125, 41856), (127, 41865), (133, 41898), (145, 41991), (150, 42006), (154, 42084), (161, 42120), (171, 42195), (176, 42228), (206, 42333), (213, 42360), (218, 42378), (223, 42393), (242, 42489), (251, 42570),

Gene: Hangman_44 Start: 42309, Stop: 43637, Start Num: 37

Candidate Starts for Hangman_44:

(Start: 16 @42159 has 1 MA's), (Start: 37 @42309 has 28 MA's), (46, 42342), (52, 42366), (63, 42483), (69, 42519), (78, 42561), (79, 42570), (103, 42762), (125, 42891), (127, 42900), (133, 42933), (145, 43026), (150, 43041), (154, 43119), (161, 43155), (162, 43158), (171, 43230), (176, 43263), (206, 43368), (213, 43395), (218, 43413), (223, 43428), (238, 43503), (244, 43533), (251, 43605),

Gene: Hawkeye_43 Start: 32936, Stop: 34195, Start Num: 43

Candidate Starts for Hawkeye_43:

(23, 32822), (Start: 43 @32936 has 1 MA's), (Start: 45 @32942 has 11 MA's), (58, 33032), (Start: 66 @33089 has 1 MA's), (74, 33134), (77, 33146), (80, 33173), (81, 33176), (102, 33344), (110, 33383), (153, 33647), (159, 33710), (177, 33833), (210, 33950), (212, 33956), (220, 33974), (223, 33986), (244, 34088), (246, 34097), (253, 34175),

Gene: Heath_43 Start: 41904, Stop: 43232, Start Num: 37

Candidate Starts for Heath_43:

(Start: 16 @41754 has 1 MA's), (Start: 37 @41904 has 28 MA's), (46, 41937), (52, 41961), (63, 42078), (69, 42114), (78, 42156), (79, 42165), (86, 42219), (103, 42357), (116, 42441), (119, 42447), (125, 42486), (127, 42495), (133, 42528), (145, 42621), (149, 42633), (150, 42636), (154, 42714), (161, 42750), (162, 42753), (171, 42825), (176, 42858), (206, 42963), (213, 42990), (218, 43008), (223, 43023), (244, 43128), (251, 43200),

Gene: Helpful_41 Start: 32755, Stop: 34014, Start Num: 42

Candidate Starts for Helpful_41:

(18, 32605), (19, 32614), (20, 32629), (21, 32632), (25, 32650), (Start: 42 @32755 has 22 MA's), (59, 32854), (73, 32941), (74, 32953), (99, 33133), (103, 33166), (113, 33232), (134, 33331), (140, 33376), (158, 33526), (159, 33529), (169, 33604), (176, 33649), (177, 33652), (192, 33706), (196, 33724), (210, 33769), (212, 33775), (223, 33805), (233, 33856),

Gene: Hydro_44 Start: 42326, Stop: 43660, Start Num: 37

Candidate Starts for Hydro_44:

(Start: 16 @42176 has 1 MA's), (Start: 37 @42326 has 28 MA's), (46, 42365), (52, 42389), (69, 42542), (78, 42584), (79, 42593), (103, 42785), (125, 42914), (127, 42923), (133, 42956), (145, 43049), (150, 43064), (154, 43142), (161, 43178), (162, 43181), (171, 43253), (176, 43286), (206, 43391), (213, 43418), (218, 43436), (223, 43451), (238, 43526), (244, 43556), (251, 43628),

Gene: JAMaL_44 Start: 42468, Stop: 43796, Start Num: 37

Candidate Starts for JAMaL_44:

(Start: 16 @42318 has 1 MA's), (Start: 37 @42468 has 28 MA's), (46, 42501), (52, 42525), (63, 42642), (69, 42678), (78, 42720), (79, 42729), (86, 42783), (103, 42921), (119, 43011), (125, 43050), (127, 43059), (133, 43092), (145, 43185), (150, 43200), (154, 43278), (161, 43314), (162, 43317), (171, 43389), (176, 43422), (206, 43527), (213, 43554), (218, 43572), (223, 43587), (242, 43683), (251, 43764),

Gene: JacoRen57_29 Start: 26319, Stop: 27491, Start Num: 50

Candidate Starts for JacoRen57_29:

(Start: 50 @26319 has 3 MA's), (65, 26460), (96, 26658), (103, 26715), (109, 26748), (114, 26784), (124, 26820), (135, 26895), (154, 27018), (159, 27042), (171, 27117), (173, 27123), (174, 27135), (179, 27162), (184, 27180), (208, 27240), (214, 27267), (222, 27288), (223, 27294), (229, 27321), (231, 27342), (232, 27345), (240, 27381), (241, 27390), (244, 27402), (249, 27447), (250, 27450), (252, 27468), (253, 27471),

Gene: JaguarMi_44 Start: 41769, Stop: 43103, Start Num: 37

Candidate Starts for JaguarMi_44:

(12, 41553), (13, 41562), (Start: 16 @41619 has 1 MA's), (Start: 37 @41769 has 28 MA's), (46, 41808), (52, 41832), (69, 41985), (78, 42027), (79, 42036), (92, 42150), (103, 42228), (116, 42312), (125, 42357), (127, 42366), (133, 42399), (145, 42492), (150, 42507), (161, 42621), (162, 42624), (171, 42696), (176, 42729), (206, 42834), (213, 42861), (218, 42879), (223, 42894), (237, 42963), (242, 42990), (251, 43071),

Gene: JohnLord_41 Start: 36957, Stop: 38261, Start Num: 35

Candidate Starts for JohnLord_41:

(35, 36957), (52, 37023), (56, 37086), (73, 37200), (78, 37227), (94, 37344), (96, 37359), (100, 37386), (109, 37449), (126, 37539), (137, 37605), (152, 37704), (165, 37812), (173, 37866), (176, 37893), (182, 37914), (184, 37923), (199, 37968), (217, 38028), (221, 38037), (226, 38070), (234, 38109), (239, 38127), (240, 38133), (246, 38163), (251, 38226), (252, 38238), (253, 38241),

Gene: JoyceMaria_44 Start: 42282, Stop: 43616, Start Num: 37

Candidate Starts for JoyceMaria_44:

(Start: 16 @42132 has 1 MA's), (Start: 37 @42282 has 28 MA's), (46, 42321), (52, 42345), (69, 42498), (78, 42540), (79, 42549), (86, 42603), (103, 42741), (119, 42831), (125, 42870), (127, 42879), (133, 42912), (145, 43005), (150, 43020), (154, 43098), (161, 43134), (162, 43137), (171, 43209), (176, 43242), (206, 43347), (213, 43374), (218, 43392), (223, 43407), (237, 43476), (251, 43584),

Gene: KandZ_40 Start: 32855, Stop: 34114, Start Num: 42

Candidate Starts for KandZ_40:

(18, 32705), (19, 32714), (20, 32729), (21, 32732), (25, 32750), (Start: 42 @32855 has 22 MA's), (59, 32954), (73, 33041), (74, 33053), (99, 33233), (103, 33266), (113, 33332), (134, 33431), (140, 33476), (158, 33626), (169, 33704), (176, 33749), (177, 33752), (192, 33806), (196, 33824), (210, 33869), (212, 33875), (223, 33905), (233, 33956),

Gene: KarasumaRum_49 Start: 42869, Stop: 44128, Start Num: 48

Candidate Starts for KarasumaRum_49:

(Start: 47 @42866 has 3 MA's), (Start: 48 @42869 has 10 MA's), (71, 43034), (82, 43112), (93, 43199), (103, 43295), (118, 43382), (120, 43388), (122, 43394), (135, 43475), (137, 43487), (160, 43625), (163, 43640), (164, 43643), (174, 43715), (177, 43733), (178, 43739), (185, 43763), (186, 43766), (194, 43805), (201, 43829), (207, 43847), (223, 43904), (241, 44000),

Gene: Konstantine_43 Start: 35039, Stop: 36280, Start Num: 45

Candidate Starts for Konstantine_43:

(Start: 45 @35039 has 11 MA's), (Start: 66 @35186 has 1 MA's), (78, 35246), (99, 35402), (103, 35435), (109, 35468), (128, 35567), (130, 35573), (159, 35795), (160, 35798), (176, 35915), (203, 36014), (210, 36035), (219, 36059), (223, 36071), (233, 36122), (236, 36134), (241, 36161), (246, 36182), (251, 36245), (253, 36260),

Gene: Lambano_43 Start: 41268, Stop: 42602, Start Num: 37

Candidate Starts for Lambano_43:

(Start: 16 @41118 has 1 MA's), (Start: 37 @41268 has 28 MA's), (46, 41307), (52, 41331), (69, 41484), (78, 41526), (79, 41535), (86, 41589), (103, 41727), (119, 41817), (125, 41856), (127, 41865), (133, 41898), (145, 41991), (150, 42006), (154, 42084), (161, 42120), (171, 42195), (176, 42228), (206, 42333), (213, 42360), (218, 42378), (223, 42393), (242, 42489), (251, 42570),

Gene: LittleDigger_43 Start: 41290, Stop: 42618, Start Num: 37

Candidate Starts for LittleDigger_43:

(Start: 16 @41140 has 1 MA's), (Start: 37 @41290 has 28 MA's), (46, 41323), (52, 41347), (63, 41464), (69, 41500), (78, 41542), (79, 41551), (86, 41605), (102, 41740), (103, 41743), (119, 41833), (125, 41872), (127, 41881), (145, 42007), (150, 42022), (154, 42100), (161, 42136), (162, 42139), (171, 42211), (176, 42244), (206, 42349), (213, 42376), (218, 42394), (223, 42409), (237, 42478), (251, 42586),

Gene: Lolalove_45 Start: 42293, Stop: 43627, Start Num: 37

Candidate Starts for Lolalove_45:

(Start: 16 @42143 has 1 MA's), (Start: 37 @42293 has 28 MA's), (46, 42332), (52, 42356), (69, 42509), (78, 42551), (79, 42560), (103, 42752), (125, 42881), (127, 42890), (133, 42923), (145, 43016), (150, 43031), (154, 43109), (161, 43145), (162, 43148), (171, 43220), (176, 43253), (206, 43358), (213, 43385), (218, 43403), (223, 43418), (238, 43493), (244, 43523), (251, 43595),

Gene: LongHai_33 Start: 25455, Stop: 26642, Start Num: 49

Candidate Starts for LongHai_33:

(Start: 40 @25422 has 1 MA's), (Start: 49 @25455 has 1 MA's), (Start: 66 @25590 has 1 MA's), (67, 25602), (78, 25650), (89, 25746), (109, 25875), (112, 25893), (129, 25986), (155, 26142), (160, 26160), (162, 26172), (169, 26232), (173, 26250), (188, 26322), (198, 26364), (203, 26376), (212, 26403), (235, 26493), (246, 26544), (253, 26622),

Gene: MOOREtheMARYer_29 Start: 27161, Stop: 28375, Start Num: 48

Candidate Starts for MOOREtheMARYer_29:

(Start: 48 @27161 has 10 MA's), (51, 27170), (Start: 66 @27305 has 1 MA's), (103, 27560), (109, 27593), (111, 27602), (122, 27659), (128, 27692), (130, 27698), (166, 27926), (170, 27953), (174, 27980), (191, 28064), (199, 28097), (206, 28118), (210, 28133), (222, 28172), (223, 28178), (235,

28244), (240, 28265), (244, 28286), (246, 28295), (250, 28334),

Gene: Maco6_30 Start: 24420, Stop: 25607, Start Num: 49

Candidate Starts for Maco6_30:

(Start: 40 @24387 has 1 MA's), (Start: 49 @24420 has 1 MA's), (Start: 66 @24555 has 1 MA's), (78, 24615), (92, 24729), (96, 24750), (109, 24840), (112, 24858), (129, 24951), (155, 25107), (160, 25125), (162, 25137), (173, 25215), (188, 25287), (203, 25341), (212, 25368), (235, 25458), (241, 25488), (246, 25509), (253, 25587),

Gene: Magpie_43 Start: 42135, Stop: 43469, Start Num: 37

Candidate Starts for Magpie_43:

(Start: 16 @41985 has 1 MA's), (Start: 37 @42135 has 28 MA's), (46, 42174), (52, 42198), (69, 42351), (78, 42393), (79, 42402), (86, 42456), (103, 42594), (119, 42684), (125, 42723), (127, 42732), (145, 42858), (150, 42873), (154, 42951), (161, 42987), (162, 42990), (171, 43062), (176, 43095), (206, 43200), (213, 43227), (218, 43245), (223, 43260), (237, 43329), (251, 43437),

Gene: Mask_40 Start: 36549, Stop: 37778, Start Num: 44

Candidate Starts for Mask_40:

(26, 36444), (41, 36537), (Start: 44 @36549 has 10 MA's), (59, 36657), (Start: 66 @36711 has 1 MA's), (73, 36759), (89, 36870), (103, 36966), (105, 36984), (122, 37065), (133, 37116), (188, 37446), (210, 37506), (215, 37527), (221, 37539), (224, 37551), (233, 37602), (235, 37611), (253, 37740),

Gene: Megatron06_40 Start: 34371, Stop: 35612, Start Num: 45

Candidate Starts for Megatron06_40:

(Start: 45 @34371 has 11 MA's), (Start: 66 @34518 has 1 MA's), (78, 34578), (99, 34734), (103, 34767), (109, 34800), (128, 34899), (130, 34905), (159, 35127), (160, 35130), (176, 35247), (203, 35346), (210, 35367), (219, 35391), (223, 35403), (233, 35454), (236, 35466), (241, 35493), (246, 35514), (251, 35577), (253, 35592),

Gene: Mithril_44 Start: 42303, Stop: 43637, Start Num: 37

Candidate Starts for Mithril_44:

(Start: 16 @42153 has 1 MA's), (Start: 37 @42303 has 28 MA's), (46, 42342), (52, 42366), (63, 42483), (69, 42519), (78, 42561), (79, 42570), (86, 42624), (103, 42762), (119, 42852), (125, 42891), (127, 42900), (133, 42933), (145, 43026), (150, 43041), (154, 43119), (161, 43155), (162, 43158), (171, 43230), (176, 43263), (206, 43368), (213, 43395), (218, 43413), (223, 43428), (251, 43605),

Gene: Mopey_40 Start: 32755, Stop: 34014, Start Num: 42

Candidate Starts for Mopey_40:

(18, 32605), (19, 32614), (20, 32629), (21, 32632), (25, 32650), (Start: 42 @32755 has 22 MA's), (59, 32854), (73, 32941), (74, 32953), (99, 33133), (103, 33166), (113, 33232), (134, 33331), (140, 33376), (158, 33526), (169, 33604), (176, 33649), (177, 33652), (192, 33706), (196, 33724), (210, 33769), (212, 33775), (223, 33805), (233, 33856),

Gene: Muddy_32 Start: 25496, Stop: 26548, Start Num: 66

Candidate Starts for Muddy_32:

(Start: 40 @25328 has 1 MA's), (Start: 49 @25361 has 1 MA's), (Start: 66 @25496 has 1 MA's), (67, 25508), (78, 25556), (89, 25652), (96, 25691), (97, 25694), (109, 25781), (112, 25799), (129, 25892), (155, 26048), (160, 26066), (162, 26078), (169, 26138), (173, 26156), (188, 26228), (198, 26270), (203, 26282), (212, 26309), (235, 26399), (241, 26429), (246, 26450), (253, 26528),

Gene: Mudslide_44 Start: 42559, Stop: 43893, Start Num: 37

Candidate Starts for Mudslide_44:

(Start: 16 @42409 has 1 MA's), (Start: 37 @42559 has 28 MA's), (46, 42598), (52, 42622), (63, 42739), (69, 42775), (78, 42817), (79, 42826), (103, 43018), (125, 43147), (127, 43156), (145, 43282), (149, 43294), (150, 43297), (154, 43375), (161, 43411), (162, 43414), (171, 43486), (176, 43519), (206, 43624), (213, 43651), (218, 43669), (223, 43684), (242, 43780), (251, 43861),

Gene: Mysterious_47 Start: 42837, Stop: 44096, Start Num: 48

Candidate Starts for Mysterious_47:

(Start: 24 @42726 has 1 MA's), (27, 42732), (30, 42762), (33, 42786), (34, 42789), (Start: 47 @42834 has 3 MA's), (Start: 48 @42837 has 10 MA's), (58, 42924), (64, 42972), (71, 43002), (73, 43014), (82, 43080), (93, 43167), (103, 43263), (118, 43350), (122, 43362), (135, 43443), (137, 43455), (160, 43593), (163, 43608), (174, 43683), (178, 43707), (183, 43722), (185, 43731), (204, 43803), (207, 43815), (223, 43872), (227, 43893), (232, 43923), (241, 43968),

Gene: Nanao_43 Start: 41255, Stop: 42595, Start Num: 37

Candidate Starts for Nanao_43:

(Start: 16 @41105 has 1 MA's), (Start: 37 @41255 has 28 MA's), (46, 41300), (52, 41324), (69, 41477), (78, 41519), (79, 41528), (86, 41582), (103, 41720), (119, 41810), (125, 41849), (127, 41858), (133, 41891), (145, 41984), (150, 41999), (154, 42077), (161, 42113), (171, 42188), (176, 42221), (206, 42326), (213, 42353), (218, 42371), (223, 42386), (242, 42482), (251, 42563),

Gene: Nangang_48 Start: 42797, Stop: 44056, Start Num: 48

Candidate Starts for Nangang_48:

(Start: 47 @42794 has 3 MA's), (Start: 48 @42797 has 10 MA's), (58, 42884), (71, 42962), (82, 43040), (93, 43127), (103, 43223), (118, 43310), (120, 43316), (122, 43322), (135, 43403), (137, 43415), (159, 43550), (160, 43553), (163, 43568), (164, 43571), (174, 43643), (178, 43667), (183, 43682), (185, 43691), (194, 43733), (201, 43757), (207, 43775), (223, 43832), (241, 43928),

Gene: Nazo_27 Start: 24702, Stop: 25916, Start Num: 44

Candidate Starts for Nazo_27:

(Start: 44 @24702 has 10 MA's), (57, 24804), (59, 24810), (Start: 66 @24864 has 1 MA's), (68, 24879), (73, 24912), (103, 25122), (109, 25155), (118, 25209), (122, 25221), (148, 25374), (160, 25452), (210, 25662), (221, 25695), (224, 25707), (235, 25767), (244, 25809), (252, 25893),

Gene: Nehemiah_48 Start: 42837, Stop: 44096, Start Num: 48

Candidate Starts for Nehemiah_48:

(Start: 24 @42726 has 1 MA's), (27, 42732), (30, 42762), (33, 42786), (34, 42789), (Start: 47 @42834 has 3 MA's), (Start: 48 @42837 has 10 MA's), (58, 42924), (64, 42972), (71, 43002), (73, 43014), (82, 43080), (93, 43167), (103, 43263), (118, 43350), (122, 43362), (135, 43443), (137, 43455), (160, 43593), (163, 43608), (174, 43683), (178, 43707), (183, 43722), (185, 43731), (204, 43803), (207, 43815), (223, 43872), (227, 43893), (232, 43923), (241, 43968),

Gene: Nigel_43 Start: 41149, Stop: 42477, Start Num: 37

Candidate Starts for Nigel_43:

(Start: 37 @41149 has 28 MA's), (39, 41161), (46, 41185), (52, 41209), (69, 41362), (78, 41404), (79, 41413), (103, 41605), (125, 41734), (132, 41773), (141, 41845), (145, 41869), (150, 41884), (154, 41962), (161, 41998), (167, 42043), (171, 42073), (199, 42187), (206, 42208), (213, 42235), (223, 42268), (237, 42337), (242, 42364), (251, 42445), (254, 42472),

Gene: Nish23_39 Start: 33837, Stop: 35078, Start Num: 45

Candidate Starts for Nish23_39:

(Start: 45 @33837 has 11 MA's), (Start: 66 @33984 has 1 MA's), (78, 34044), (99, 34200), (103, 34233), (109, 34266), (128, 34365), (130, 34371), (159, 34593), (160, 34596), (176, 34713), (203, 34812), (210, 34833), (219, 34857), (223, 34869), (233, 34920), (236, 34932), (241, 34959), (246,

34980), (251, 35043), (253, 35058),

Gene: Nova_39 Start: 33181, Stop: 34440, Start Num: 42

Candidate Starts for Nova_39:

(18, 33031), (19, 33040), (20, 33055), (21, 33058), (25, 33076), (Start: 42 @33181 has 22 MA's), (59, 33280), (73, 33367), (74, 33379), (99, 33559), (103, 33592), (113, 33658), (134, 33757), (140, 33802), (158, 33952), (169, 34030), (176, 34075), (177, 34078), (192, 34132), (196, 34150), (210, 34195), (212, 34201), (223, 34231), (233, 34282),

Gene: Oaker_38 Start: 34095, Stop: 35336, Start Num: 45

Candidate Starts for Oaker_38:

(Start: 45 @34095 has 11 MA's), (Start: 66 @34242 has 1 MA's), (78, 34302), (99, 34458), (103, 34491), (109, 34524), (128, 34623), (130, 34629), (159, 34851), (160, 34854), (176, 34971), (203, 35070), (210, 35091), (219, 35115), (223, 35127), (233, 35178), (236, 35190), (241, 35217), (246, 35238), (251, 35301), (253, 35316),

Gene: PBI1_39 Start: 32686, Stop: 33945, Start Num: 42

Candidate Starts for PBI1_39:

(18, 32536), (19, 32545), (20, 32560), (21, 32563), (25, 32581), (Start: 42 @32686 has 22 MA's), (59, 32785), (73, 32872), (74, 32884), (99, 33064), (103, 33097), (113, 33163), (134, 33262), (140, 33307), (158, 33457), (159, 33460), (169, 33535), (176, 33580), (177, 33583), (192, 33637), (196, 33655), (210, 33700), (212, 33706), (223, 33736), (233, 33787),

Gene: PLOT_40 Start: 32758, Stop: 34017, Start Num: 42

Candidate Starts for PLOT_40:

(18, 32608), (19, 32617), (20, 32632), (21, 32635), (25, 32653), (Start: 42 @32758 has 22 MA's), (59, 32857), (73, 32944), (74, 32956), (99, 33136), (103, 33169), (113, 33235), (134, 33334), (140, 33379), (158, 33529), (159, 33532), (169, 33607), (176, 33652), (177, 33655), (192, 33709), (196, 33727), (210, 33772), (212, 33778), (223, 33808), (233, 33859),

Gene: Pace1224_27 Start: 26635, Stop: 27852, Start Num: 48

Candidate Starts for Pace1224_27:

(Start: 48 @26635 has 10 MA's), (101, 27010), (103, 27031), (109, 27064), (122, 27130), (130, 27169), (137, 27223), (143, 27259), (160, 27361), (170, 27424), (174, 27451), (191, 27535), (197, 27559), (204, 27586), (210, 27610), (222, 27649), (223, 27655), (241, 27751), (250, 27811),

Gene: Penelope2018_40 Start: 32755, Stop: 34014, Start Num: 42

Candidate Starts for Penelope2018_40:

(18, 32605), (19, 32614), (20, 32629), (21, 32632), (25, 32650), (Start: 42 @32755 has 22 MA's), (59, 32854), (73, 32941), (74, 32953), (99, 33133), (103, 33166), (113, 33232), (134, 33331), (140, 33376), (158, 33526), (169, 33604), (176, 33649), (177, 33652), (192, 33706), (196, 33724), (210, 33769), (212, 33775), (223, 33805), (233, 33856),

Gene: PenguinLover67_50 Start: 43824, Stop: 45188, Start Num: 40

Candidate Starts for PenguinLover67_50:

(Start: 40 @43824 has 1 MA's), (69, 44025), (88, 44163), (103, 44271), (135, 44472), (137, 44484), (141, 44511), (147, 44538), (148, 44544), (172, 44742), (173, 44745), (176, 44772), (181, 44790), (187, 44814), (188, 44817), (218, 44955), (228, 45000), (229, 45003), (243, 45078), (251, 45156), (252, 45168),

Gene: Phalaborwa_40 Start: 32782, Stop: 34041, Start Num: 42

Candidate Starts for Phalaborwa_40:

(18, 32632), (19, 32641), (20, 32656), (21, 32659), (25, 32677), (Start: 42 @32782 has 22 MA's), (55, 32848), (59, 32881), (67, 32947), (73, 32968), (76, 32989), (99, 33160), (103, 33193), (113, 33259), (134, 33358), (140, 33403), (158, 33553), (159, 33556), (175, 33667), (176, 33676), (177, 33679), (196, 33751), (210, 33796), (212, 33802), (233, 33883),

Gene: Phayonce_27 Start: 24625, Stop: 25836, Start Num: 44

Candidate Starts for Phayonce_27:

(22, 24511), (Start: 44 @24625 has 10 MA's), (Start: 66 @24787 has 1 MA's), (73, 24835), (95, 24973), (103, 25042), (109, 25075), (118, 25129), (122, 25141), (148, 25294), (161, 25381), (177, 25480), (183, 25501), (188, 25522), (215, 25603), (221, 25615), (224, 25627), (232, 25672), (233, 25678), (235, 25687), (252, 25813),

Gene: Phelemich_47 Start: 42725, Stop: 44095, Start Num: 24

Candidate Starts for Phelemich_47:

(Start: 24 @42725 has 1 MA's), (27, 42731), (30, 42761), (33, 42785), (34, 42788), (Start: 47 @42833 has 3 MA's), (Start: 48 @42836 has 10 MA's), (58, 42923), (64, 42971), (71, 43001), (73, 43013), (82, 43079), (93, 43166), (103, 43262), (118, 43349), (122, 43361), (135, 43442), (137, 43454), (160, 43592), (163, 43607), (174, 43682), (178, 43706), (183, 43721), (185, 43730), (204, 43802), (207, 43814), (223, 43871), (227, 43892), (232, 43922), (241, 43967),

Gene: Phrappuccino_34 Start: 17786, Stop: 18934, Start Num: 72

Candidate Starts for Phrappuccino_34:

(62, 17729), (Start: 72 @17786 has 2 MA's), (Start: 75 @17810 has 2 MA's), (77, 17816), (85, 17870), (90, 17930), (99, 17990), (104, 18029), (108, 18053), (120, 18116), (151, 18329), (168, 18452), (180, 18524), (189, 18563), (194, 18590), (240, 18785), (245, 18809), (247, 18863), (255, 18929),

Gene: Phreeze_38 Start: 33838, Stop: 35079, Start Num: 45

Candidate Starts for Phreeze_38:

(Start: 45 @33838 has 11 MA's), (Start: 66 @33985 has 1 MA's), (78, 34045), (99, 34201), (103, 34234), (109, 34267), (128, 34366), (130, 34372), (159, 34594), (160, 34597), (176, 34714), (203, 34813), (210, 34834), (219, 34858), (223, 34870), (233, 34921), (236, 34933), (241, 34960), (246, 34981), (251, 35044), (253, 35059),

Gene: Pinnie_29 Start: 27535, Stop: 28746, Start Num: 48

Candidate Starts for Pinnie_29:

(Start: 48 @27535 has 10 MA's), (51, 27544), (Start: 66 @27679 has 1 MA's), (103, 27934), (109, 27967), (111, 27976), (122, 28033), (166, 28300), (170, 28327), (174, 28354), (189, 28423), (191, 28438), (199, 28468), (206, 28489), (210, 28504), (222, 28543), (223, 28549), (235, 28615), (240, 28636), (244, 28657), (246, 28666), (250, 28705),

Gene: Poster_43 Start: 41256, Stop: 42596, Start Num: 37

Candidate Starts for Poster_43:

(Start: 16 @41106 has 1 MA's), (Start: 37 @41256 has 28 MA's), (46, 41301), (52, 41325), (69, 41478), (78, 41520), (79, 41529), (86, 41583), (103, 41721), (119, 41811), (125, 41850), (127, 41859), (133, 41892), (145, 41985), (150, 42000), (154, 42078), (161, 42114), (171, 42189), (176, 42222), (206, 42327), (213, 42354), (218, 42372), (223, 42387), (242, 42483), (251, 42564),

Gene: Prager_40 Start: 32767, Stop: 34026, Start Num: 42

Candidate Starts for Prager_40:

(18, 32617), (19, 32626), (20, 32641), (21, 32644), (25, 32662), (Start: 42 @32767 has 22 MA's), (59, 32866), (73, 32953), (74, 32965), (99, 33145), (103, 33178), (113, 33244), (134, 33343), (140, 33388), (158, 33538), (159, 33541), (169, 33616), (176, 33661), (177, 33664), (192, 33718), (196, 33736), (210, 33781), (212, 33787), (223, 33817), (233, 33868),

Gene: Predator_40 Start: 33027, Stop: 34262, Start Num: 45

Candidate Starts for Predator_40:

(41, 33018), (Start: 45 @33027 has 11 MA's), (Start: 66 @33174 has 1 MA's), (82, 33273), (105, 33447), (113, 33495), (123, 33537), (144, 33663), (171, 33834), (175, 33858), (178, 33876), (183, 33891), (200, 33969), (208, 33993), (210, 34002), (222, 34041), (230, 34086), (231, 34095), (236, 34116), (246, 34164), (253, 34242),

Gene: Prince_44 Start: 42469, Stop: 43803, Start Num: 37

Candidate Starts for Prince_44:

(Start: 16 @42319 has 1 MA's), (Start: 37 @42469 has 28 MA's), (46, 42508), (52, 42532), (63, 42649), (69, 42685), (78, 42727), (79, 42736), (86, 42790), (103, 42928), (119, 43018), (125, 43057), (127, 43066), (133, 43099), (145, 43192), (149, 43204), (150, 43207), (154, 43285), (161, 43321), (162, 43324), (171, 43396), (176, 43429), (206, 43534), (213, 43561), (218, 43579), (223, 43594), (251, 43771),

Gene: Puissant_39 Start: 34326, Stop: 35567, Start Num: 45

Candidate Starts for Puissant_39:

(Start: 45 @34326 has 11 MA's), (78, 34533), (103, 34722), (109, 34755), (128, 34854), (130, 34860), (137, 34914), (159, 35082), (160, 35085), (176, 35202), (203, 35301), (210, 35322), (219, 35346), (223, 35358), (230, 35391), (236, 35421), (241, 35448), (246, 35469), (251, 35532), (253, 35547),

Gene: QueenPie_43 Start: 42368, Stop: 43696, Start Num: 37

Candidate Starts for QueenPie_43:

(Start: 16 @42218 has 1 MA's), (Start: 37 @42368 has 28 MA's), (46, 42401), (52, 42425), (63, 42542), (69, 42578), (78, 42620), (79, 42629), (86, 42683), (103, 42821), (116, 42905), (117, 42908), (125, 42950), (127, 42959), (133, 42992), (145, 43085), (150, 43100), (154, 43178), (161, 43214), (162, 43217), (171, 43289), (176, 43322), (177, 43325), (206, 43427), (213, 43454), (218, 43472), (223, 43487), (237, 43556), (242, 43583), (251, 43664),

Gene: Quesadilla_50 Start: 43830, Stop: 45194, Start Num: 37

Candidate Starts for Quesadilla_50:

(Start: 37 @43830 has 28 MA's), (46, 43869), (69, 44046), (88, 44178), (92, 44208), (103, 44286), (121, 44385), (127, 44424), (132, 44454), (141, 44526), (149, 44562), (172, 44757), (173, 44760), (187, 44829), (188, 44832), (218, 44961), (229, 45009), (234, 45042), (236, 45051), (237, 45054), (238, 45060), (243, 45084), (251, 45162),

Gene: RawrgerThat_45 Start: 42320, Stop: 43654, Start Num: 37

Candidate Starts for RawrgerThat_45:

(Start: 16 @42164 has 1 MA's), (Start: 37 @42320 has 28 MA's), (46, 42359), (52, 42383), (63, 42500), (69, 42536), (78, 42578), (79, 42587), (103, 42779), (125, 42908), (127, 42917), (145, 43043), (149, 43055), (150, 43058), (154, 43136), (161, 43172), (162, 43175), (171, 43247), (176, 43280), (206, 43385), (213, 43412), (218, 43430), (223, 43445), (237, 43514), (251, 43622),

Gene: Reccee_49 Start: 42912, Stop: 44171, Start Num: 48

Candidate Starts for Reccee_49:

(Start: 47 @42909 has 3 MA's), (Start: 48 @42912 has 10 MA's), (73, 43089), (93, 43242), (103, 43338), (118, 43425), (122, 43437), (135, 43518), (137, 43530), (160, 43668), (163, 43683), (174, 43758), (177, 43776), (178, 43782), (185, 43806), (197, 43851), (201, 43872), (207, 43890), (223, 43947), (241, 44043),

Gene: Renkei_43 Start: 41290, Stop: 42618, Start Num: 37

Candidate Starts for Renkei_43:

(Start: 16 @41140 has 1 MA's), (Start: 37 @41290 has 28 MA's), (46, 41323), (52, 41347), (63, 41464), (69, 41500), (78, 41542), (79, 41551), (86, 41605), (102, 41740), (103, 41743), (119, 41833), (125, 41872), (127, 41881), (145, 42007), (150, 42022), (154, 42100), (161, 42136), (162, 42139), (171, 42211), (176, 42244), (206, 42349), (213, 42376), (218, 42394), (223, 42409), (237, 42478), (251, 42586),

Gene: Reprobate_48 Start: 42841, Stop: 44100, Start Num: 48

Candidate Starts for Reprobate_48:

(Start: 24 @42730 has 1 MA's), (27, 42736), (30, 42766), (33, 42790), (34, 42793), (Start: 47 @42838 has 3 MA's), (Start: 48 @42841 has 10 MA's), (58, 42928), (64, 42976), (71, 43006), (73, 43018), (82, 43084), (93, 43171), (103, 43267), (118, 43354), (122, 43366), (135, 43447), (137, 43459), (160, 43597), (163, 43612), (174, 43687), (178, 43711), (183, 43726), (185, 43735), (204, 43807), (207, 43819), (223, 43876), (227, 43897), (232, 43927), (241, 43972),

Gene: Rich_47 Start: 42601, Stop: 43860, Start Num: 48

Candidate Starts for Rich_47:

(Start: 47 @42598 has 3 MA's), (Start: 48 @42601 has 10 MA's), (71, 42766), (73, 42778), (93, 42931), (103, 43027), (118, 43114), (120, 43120), (122, 43126), (135, 43207), (137, 43219), (139, 43228), (157, 43345), (160, 43357), (163, 43372), (174, 43447), (178, 43471), (185, 43495), (186, 43498), (197, 43540), (201, 43561), (207, 43579), (223, 43636),

Gene: Rita130_48 Start: 42732, Stop: 43991, Start Num: 48

Candidate Starts for Rita130_48:

(Start: 47 @42729 has 3 MA's), (Start: 48 @42732 has 10 MA's), (73, 42909), (93, 43062), (103, 43158), (118, 43245), (122, 43257), (135, 43338), (137, 43350), (160, 43488), (163, 43503), (174, 43578), (177, 43596), (178, 43602), (185, 43626), (197, 43671), (201, 43692), (207, 43710), (223, 43767), (241, 43863),

Gene: Saguaro_50 Start: 43438, Stop: 44832, Start Num: 29

Candidate Starts for Saguaro_50:

(1, 42550), (2, 42652), (3, 42748), (5, 42829), (6, 42874), (11, 43189), (14, 43273), (Start: 29 @43438 has 1 MA's), (36, 43471), (46, 43516), (54, 43558), (61, 43630), (69, 43693), (78, 43735), (88, 43825), (99, 43900), (103, 43933), (121, 44032), (132, 44101), (141, 44173), (148, 44206), (154, 44290), (162, 44329), (171, 44398), (173, 44404), (177, 44434), (182, 44452), (187, 44473), (202, 44542), (211, 44572), (213, 44581), (229, 44647), (234, 44680), (238, 44698), (240, 44707), (243, 44722), (251, 44800),

Gene: Salvus_33 Start: 25455, Stop: 26642, Start Num: 49

Candidate Starts for Salvus_33:

(Start: 40 @25422 has 1 MA's), (Start: 49 @25455 has 1 MA's), (Start: 66 @25590 has 1 MA's), (67, 25602), (78, 25650), (89, 25746), (109, 25875), (112, 25893), (129, 25986), (155, 26142), (160, 26160), (162, 26172), (169, 26232), (173, 26250), (188, 26322), (198, 26364), (203, 26376), (212, 26403), (235, 26493), (246, 26544), (253, 26622),

Gene: Sejanus_40 Start: 37490, Stop: 38701, Start Num: 44

Candidate Starts for Sejanus_40:

(26, 37385), (41, 37478), (Start: 44 @37490 has 10 MA's), (59, 37598), (Start: 66 @37652 has 1 MA's), (73, 37700), (89, 37811), (103, 37907), (105, 37925), (122, 38006), (133, 38057), (188, 38387), (210, 38447), (221, 38480), (224, 38492), (233, 38543), (235, 38552), (253, 38681),

Gene: Serendipitous_48 Start: 42547, Stop: 43806, Start Num: 48

Candidate Starts for Serendipitous_48:

(Start: 47 @42544 has 3 MA's), (Start: 48 @42547 has 10 MA's), (73, 42724), (82, 42790), (93, 42877), (103, 42973), (118, 43060), (122, 43072), (135, 43153), (137, 43165), (138, 43168), (160, 43303), (163, 43318), (174, 43393), (178, 43417), (185, 43441), (190, 43465), (201, 43507), (207, 43525), (223, 43582), (241, 43678),

Gene: Settecandela_34 Start: 17786, Stop: 18934, Start Num: 72

Candidate Starts for Settecandela_34:

(62, 17729), (Start: 72 @17786 has 2 MA's), (Start: 75 @17810 has 2 MA's), (77, 17816), (85, 17870), (90, 17930), (99, 17990), (104, 18029), (108, 18053), (120, 18116), (151, 18329), (168, 18452), (180, 18524), (189, 18563), (194, 18590), (240, 18785), (245, 18809), (247, 18863), (255, 18929),

Gene: Shenyu_48 Start: 42797, Stop: 44056, Start Num: 48

Candidate Starts for Shenyu_48:

(Start: 47 @42794 has 3 MA's), (Start: 48 @42797 has 10 MA's), (58, 42884), (71, 42962), (82, 43040), (93, 43127), (103, 43223), (118, 43310), (120, 43316), (122, 43322), (135, 43403), (137, 43415), (159, 43550), (160, 43553), (163, 43568), (164, 43571), (174, 43643), (178, 43667), (183, 43682), (185, 43691), (194, 43733), (201, 43757), (207, 43775), (223, 43832), (241, 43928),

Gene: SirHarley_39 Start: 32687, Stop: 33946, Start Num: 42

Candidate Starts for SirHarley_39:

(18, 32537), (19, 32546), (20, 32561), (21, 32564), (25, 32582), (Start: 42 @32687 has 22 MA's), (59, 32786), (73, 32873), (74, 32885), (99, 33065), (103, 33098), (113, 33164), (134, 33263), (140, 33308), (158, 33458), (169, 33536), (176, 33581), (177, 33584), (192, 33638), (196, 33656), (210, 33701), (212, 33707), (223, 33737), (233, 33788),

Gene: SirJeffery_48 Start: 42731, Stop: 43990, Start Num: 48

Candidate Starts for SirJeffery_48:

(Start: 47 @42728 has 3 MA's), (Start: 48 @42731 has 10 MA's), (73, 42908), (93, 43061), (103, 43157), (118, 43244), (122, 43256), (135, 43337), (137, 43349), (160, 43487), (163, 43502), (174, 43577), (177, 43595), (178, 43601), (185, 43625), (197, 43670), (207, 43709), (223, 43766), (241, 43862),

Gene: Sparky_27 Start: 25276, Stop: 26496, Start Num: 44

Candidate Starts for Sparky_27:

(Start: 44 @25276 has 10 MA's), (59, 25384), (Start: 66 @25438 has 1 MA's), (73, 25486), (103, 25702), (105, 25720), (122, 25801), (133, 25852), (188, 26182), (210, 26242), (221, 26275), (224, 26287), (233, 26338), (235, 26347), (252, 26473),

Gene: Stinger_43 Start: 40839, Stop: 42173, Start Num: 37

Candidate Starts for Stinger_43:

(Start: 16 @40689 has 1 MA's), (Start: 37 @40839 has 28 MA's), (46, 40878), (52, 40902), (56, 40965), (69, 41055), (78, 41097), (79, 41106), (103, 41298), (112, 41349), (119, 41388), (125, 41427), (141, 41538), (142, 41544), (154, 41655), (161, 41691), (162, 41694), (176, 41799), (177, 41802), (206, 41904), (213, 41931), (223, 41964), (230, 42000), (235, 42027), (242, 42060), (251, 42141), (254, 42168),

Gene: StinkyVeggy_49 Start: 42869, Stop: 44128, Start Num: 48

Candidate Starts for StinkyVeggy_49:

(Start: 47 @42866 has 3 MA's), (Start: 48 @42869 has 10 MA's), (71, 43034), (82, 43112), (93, 43199), (103, 43295), (118, 43382), (120, 43388), (122, 43394), (135, 43475), (137, 43487), (160, 43625), (163, 43640), (164, 43643), (174, 43715), (177, 43733), (178, 43739), (185, 43763), (186, 43766), (194, 43805), (201, 43829), (207, 43847), (223, 43904), (241, 44000),

Gene: Suigeneris_49 Start: 42734, Stop: 43993, Start Num: 48

Candidate Starts for Suigeneris_49:

(Start: 47 @42731 has 3 MA's), (Start: 48 @42734 has 10 MA's), (73, 42911), (93, 43064), (103, 43160), (118, 43247), (122, 43259), (135, 43340), (137, 43352), (160, 43490), (163, 43505), (174, 43580), (177, 43598), (178, 43604), (185, 43628), (197, 43673), (201, 43694), (207, 43712), (223, 43769), (241, 43865),

Gene: SuperheroCarly_40 Start: 32617, Stop: 33876, Start Num: 42

Candidate Starts for SuperheroCarly_40:

(18, 32467), (19, 32476), (20, 32491), (21, 32494), (25, 32512), (Start: 42 @32617 has 22 MA's), (59, 32716), (73, 32803), (74, 32815), (99, 32995), (103, 33028), (113, 33094), (134, 33193), (140, 33238), (158, 33388), (169, 33466), (176, 33511), (177, 33514), (192, 33568), (196, 33586), (210, 33631), (212, 33637), (223, 33667), (233, 33718),

Gene: Thoth_40 Start: 32752, Stop: 34011, Start Num: 42

Candidate Starts for Thoth_40:

(18, 32602), (19, 32611), (20, 32626), (21, 32629), (25, 32647), (Start: 42 @32752 has 22 MA's), (59, 32851), (73, 32938), (74, 32950), (99, 33130), (103, 33163), (113, 33229), (134, 33328), (140, 33373), (158, 33523), (159, 33526), (169, 33601), (176, 33646), (177, 33649), (192, 33703), (196, 33721), (210, 33766), (212, 33772), (223, 33802), (233, 33853),

Gene: ThulaThula_27 Start: 24631, Stop: 25842, Start Num: 44

Candidate Starts for ThulaThula_27:

(22, 24517), (Start: 44 @24631 has 10 MA's), (57, 24733), (59, 24739), (Start: 66 @24793 has 1 MA's), (73, 24841), (95, 24979), (103, 25048), (109, 25081), (118, 25135), (122, 25147), (148, 25300), (177, 25486), (183, 25507), (188, 25528), (215, 25609), (221, 25621), (224, 25633), (232, 25678), (233, 25684), (235, 25693), (252, 25819),

Gene: Thumb_38 Start: 33835, Stop: 35076, Start Num: 45

Candidate Starts for Thumb_38:

(Start: 45 @33835 has 11 MA's), (Start: 66 @33982 has 1 MA's), (78, 34042), (99, 34198), (103, 34231), (109, 34264), (128, 34363), (130, 34369), (159, 34591), (160, 34594), (176, 34711), (203, 34810), (210, 34831), (219, 34855), (223, 34867), (233, 34918), (236, 34930), (241, 34957), (246, 34978), (251, 35041), (253, 35056),

Gene: Troll4_40 Start: 32756, Stop: 34015, Start Num: 42

Candidate Starts for Troll4_40:

(18, 32606), (19, 32615), (20, 32630), (21, 32633), (25, 32651), (Start: 42 @32756 has 22 MA's), (59, 32855), (73, 32942), (74, 32954), (99, 33134), (103, 33167), (113, 33233), (134, 33332), (140, 33377), (158, 33527), (169, 33605), (176, 33650), (177, 33653), (192, 33707), (196, 33725), (210, 33770), (212, 33776), (223, 33806), (233, 33857),

Gene: Vincenzo_45 Start: 42868, Stop: 44193, Start Num: 37

Candidate Starts for Vincenzo_45:

(15, 42697), (17, 42754), (Start: 37 @42868 has 28 MA's), (46, 42898), (69, 43075), (79, 43126), (84, 43162), (86, 43180), (92, 43240), (98, 43270), (103, 43318), (115, 43399), (121, 43417), (125, 43447), (135, 43519), (136, 43522), (148, 43591), (161, 43711), (171, 43786), (172, 43789), (176, 43819), (206, 43924), (213, 43951), (223, 43984), (229, 44008), (242, 44080), (250, 44155),

Gene: VioletZ_46 Start: 42385, Stop: 43719, Start Num: 37

Candidate Starts for VioletZ_46:

(Start: 16 @42235 has 1 MA's), (Start: 37 @42385 has 28 MA's), (46, 42424), (52, 42448), (63, 42565), (69, 42601), (78, 42643), (79, 42652), (86, 42706), (103, 42844), (119, 42934), (125, 42973), (127,

42982), (133, 43015), (145, 43108), (149, 43120), (150, 43123), (154, 43201), (161, 43237), (162, 43240), (171, 43312), (176, 43345), (206, 43450), (213, 43477), (218, 43495), (223, 43510), (251, 43687),

Gene: Visconti_40 Start: 32765, Stop: 34024, Start Num: 42

Candidate Starts for Visconti_40:

(18, 32615), (19, 32624), (20, 32639), (21, 32642), (25, 32660), (Start: 42 @32765 has 22 MA's), (59, 32864), (73, 32951), (74, 32963), (99, 33143), (103, 33176), (113, 33242), (134, 33341), (140, 33386), (158, 33536), (169, 33614), (176, 33659), (177, 33662), (192, 33716), (196, 33734), (210, 33779), (212, 33785), (223, 33815), (233, 33866),

Gene: WaldoWhy_41 Start: 32761, Stop: 34020, Start Num: 42

Candidate Starts for WaldoWhy_41:

(18, 32611), (19, 32620), (20, 32635), (21, 32638), (25, 32656), (Start: 42 @32761 has 22 MA's), (59, 32860), (73, 32947), (74, 32959), (99, 33139), (103, 33172), (113, 33238), (134, 33337), (140, 33382), (158, 33532), (159, 33535), (169, 33610), (176, 33655), (177, 33658), (192, 33712), (196, 33730), (210, 33775), (212, 33781), (223, 33811), (233, 33862),

Gene: Waleliano_44 Start: 42309, Stop: 43637, Start Num: 37

Candidate Starts for Waleliano_44:

(Start: 16 @42159 has 1 MA's), (Start: 37 @42309 has 28 MA's), (46, 42342), (52, 42366), (63, 42483), (69, 42519), (78, 42561), (79, 42570), (103, 42762), (125, 42891), (127, 42900), (133, 42933), (145, 43026), (150, 43041), (154, 43119), (161, 43155), (162, 43158), (171, 43230), (176, 43263), (206, 43368), (213, 43395), (218, 43413), (223, 43428), (251, 43605),

Gene: Xincheng_43 Start: 41745, Stop: 43079, Start Num: 37

Candidate Starts for Xincheng_43:

(12, 41529), (13, 41538), (Start: 16 @41595 has 1 MA's), (Start: 37 @41745 has 28 MA's), (46, 41784), (52, 41808), (69, 41961), (78, 42003), (79, 42012), (92, 42126), (103, 42204), (116, 42288), (117, 42291), (125, 42333), (127, 42342), (133, 42375), (145, 42468), (150, 42483), (161, 42597), (162, 42600), (171, 42672), (176, 42705), (206, 42810), (213, 42837), (218, 42855), (223, 42870), (237, 42939), (242, 42966), (251, 43047),

Gene: Zemanar_45 Start: 42285, Stop: 43619, Start Num: 37

Candidate Starts for Zemanar_45:

(Start: 16 @42135 has 1 MA's), (Start: 37 @42285 has 28 MA's), (46, 42324), (52, 42348), (69, 42501), (78, 42543), (79, 42552), (86, 42606), (103, 42744), (119, 42834), (125, 42873), (127, 42882), (133, 42915), (145, 43008), (150, 43023), (154, 43101), (161, 43137), (162, 43140), (171, 43212), (176, 43245), (206, 43350), (213, 43377), (218, 43395), (223, 43410), (237, 43479), (251, 43587),