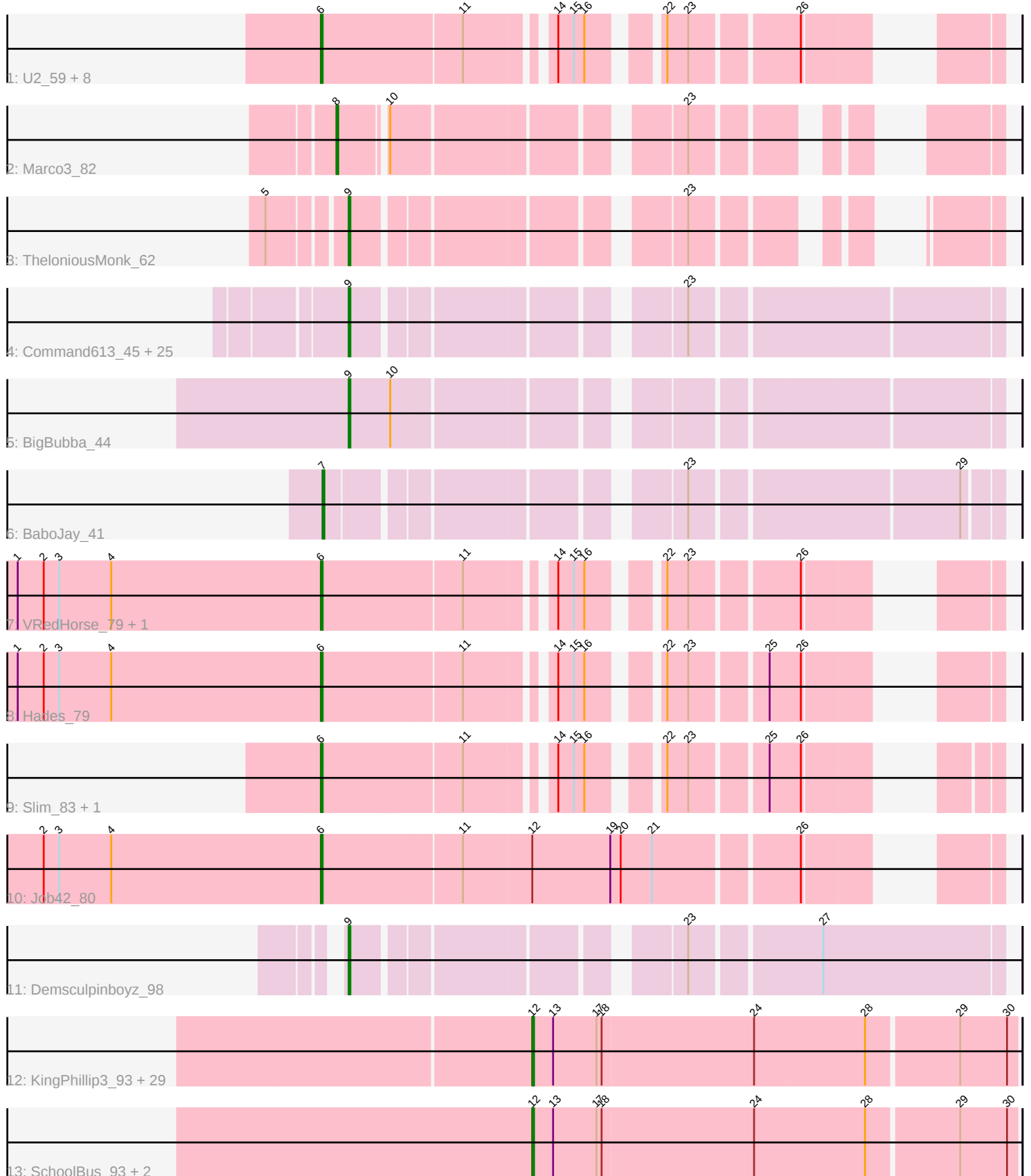


Pham 328963



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 328963 Report

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

Pham number 328963 has 79 members, 2 are drafts.

Phages represented in each track:

- Track 1 : U2_59, PinkPlastic_61, HermioneGrange_63, Madiba_83, Ichabod_65, BigMau_63, Juniormint_56, Pacc40_72, MPlant7149_61
- Track 2 : Marco3_82
- Track 3 : TheloniouMonk_62
- Track 4 : Command613_45, Icee_43, Goldilocks_45, Rakim_45, AmericanBeauty_47, Sotrice96_44, Moldemort_46, Gage_46, Hoonter_46, Thimble_45, Highbury_44, Stank_47, Cactus_45, Kimchi_46, Asriel_43, Adnama_47, StolenFromERC_46, Barbarian_43, Saints25_44, Gemini_47, Wiggins_45, Bask21_44, GooberAzure_46, TBrady12_46, GoldenSpark_46, Argent26_46
- Track 5 : BigBubba_44
- Track 6 : BaboJay_41
- Track 7 : VRedHorse_79, Cornucopia_80
- Track 8 : Hades_79
- Track 9 : Slim_83, Emmaloid_83
- Track 10 : Job42_80
- Track 11 : Demsculpinboyz_98
- Track 12 : KingPhillip3_93, Murai_95, FoulBall_94, Vagabond_94, Shida_94, Krili_94, Wildflower_95, Schuy_95, Wogge42_94, Catdawg_94, Mori_94, JangDynasty_93, Corndog_94, Alkhayr_94, Idergollasper_94, TelAviv_91, Dylan_93, Smooch_96, Winget_95, YungJamal_95, Vorrs_94, Firecracker_98, Zebo_93, YoyoKar_91, Ashwin_95, Zakhe101_93, Bora_92, Imara_94, MadKillah_96, NiebruSaylor_94
- Track 13 : SchoolBus_93, Blessica_95, Familton_95

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

The start number called the most often in the published annotations is 12, it was called in 31 of the 77 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Alkhayr_94, Ashwin_95, Blessica_95, Bora_92, Catdawg_94, Corndog_94, Dylan_93, Familton_95, Firecracker_98, FoulBall_94, Idergollasper_94, Imara_94, JangDynasty_93, KingPhillip3_93, Krili_94, MadKillah_96, Mori_94, Murai_95, NiebruSaylor_94, SchoolBus_93, Schuy_95, Shida_94, Smooch_96, TelAviv_91,

Vagabond_94, Vorrrps_94, Wildflower_95, Winget_95, Wogge42_94, YoyoKar_91, YungJamal_95, Zakhe101_93, Zebo_93,

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

- Job42_80,

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

- Adnama_47, AmericanBeauty_47, Argent26_46, Asriel_43, BaboJay_41, Barbarian_43, Bask21_44, BigBubba_44, BigMau_63, Cactus_45, Command613_45, Cornucopia_80, Demsculpinboyz_98, Emmaloid_83, Gage_46, Gemini_47, GoldenSpark_46, Goldilocks_45, GooberAzure_46, Hades_79, HermioneGrange_63, Highbury_44, Hoonter_46, Icee_43, Ichabod_65, Juniormint_56, Kimchi_46, MPlant7149_61, Madiba_83, Marco3_82, Moldemort_46, Pacc40_72, PinkPlastic_61, Rakim_45, Saints25_44, Slim_83, Sotrice96_44, Stank_47, StolenFromERC_46, TBrady12_46, TheloniousMonk_62, Thimble_45, U2_59, VRedHorse_79, Wiggin_45,

Summary by start number:

Start 6:

- Found in 15 of 79 (19.0%) of genes in pham
- Manual Annotations of this start: 15 of 77
- Called 100.0% of time when present
- Phage (with cluster) where this start called: BigMau_63 (A1), Cornucopia_80 (F1), Emmaloid_83 (F1), Hades_79 (F1), HermioneGrange_63 (A1), Ichabod_65 (A1), Job42_80 (F1), Juniormint_56 (P1), MPlant7149_61 (A1), Madiba_83 (F1), Pacc40_72 (F1), PinkPlastic_61 (A1), Slim_83 (F1), U2_59 (A1), VRedHorse_79 (F1),

Start 7:

- Found in 1 of 79 (1.3%) of genes in pham
- Manual Annotations of this start: 1 of 77
- Called 100.0% of time when present
- Phage (with cluster) where this start called: BaboJay_41 (E),

Start 8:

- Found in 1 of 79 (1.3%) of genes in pham
- Manual Annotations of this start: 1 of 77
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Marco3_82 (A1),

Start 9:

- Found in 29 of 79 (36.7%) of genes in pham
- Manual Annotations of this start: 29 of 77
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Adnama_47 (E), AmericanBeauty_47 (E), Argent26_46 (E), Asriel_43 (E), Barbarian_43 (E), Bask21_44 (E), BigBubba_44 (E), Cactus_45 (E), Command613_45 (E), Demsculpinboyz_98 (F2), Gage_46 (E), Gemini_47 (E), GoldenSpark_46 (E), Goldilocks_45 (E), GooberAzure_46 (E), Highbury_44 (E), Hoonter_46 (E), Icee_43 (E), Kimchi_46 (E), Moldemort_46 (E), Rakim_45 (E), Saints25_44 (E), Sotrice96_44 (E), Stank_47 (E), StolenFromERC_46 (E), TBrady12_46 (E), TheloniousMonk_62 (A1), Thimble_45 (E), Wiggin_45 (E),

Start 12:

- Found in 34 of 79 (43.0%) of genes in pham
- Manual Annotations of this start: 31 of 77
- Called 97.1% of time when present
- Phage (with cluster) where this start called: Alkhayr_94 (O), Ashwin_95 (O), Blessica_95 (O), Bora_92 (O), Catdawg_94 (O), Corndog_94 (O), Dylan_93 (O), Familton_95 (O), Firecracker_98 (O), FoulBall_94 (O), Idergollasper_94 (O), Imara_94 (O), JangDynasty_93 (O), KingPhillip3_93 (O), Krili_94 (O), MadKillah_96 (O), Mori_94 (O), Murai_95 (O), NiebruSaylor_94 (O), SchoolBus_93 (O), Schuy_95 (O), Shida_94 (O), Smooch_96 (O), TelAviv_91 (O), Vagabond_94 (O), Vorrrps_94 (O), Wildflower_95 (O), Winget_95 (O), Wogge42_94 (O), YoyoKar_91 (O), YungJamal_95 (O), Zakhe101_93 (O), Zebo_93 (O),

Summary by clusters:

There are 6 clusters represented in this pham: F1, F2, P1, E, O, A1,

Info for manual annotations of cluster A1:

- Start number 6 was manually annotated 6 times for cluster A1.
- Start number 8 was manually annotated 1 time for cluster A1.
- Start number 9 was manually annotated 1 time for cluster A1.

Info for manual annotations of cluster E:

- Start number 7 was manually annotated 1 time for cluster E.
- Start number 9 was manually annotated 27 times for cluster E.

Info for manual annotations of cluster F1:

- Start number 6 was manually annotated 8 times for cluster F1.

Info for manual annotations of cluster F2:

- Start number 9 was manually annotated 1 time for cluster F2.

Info for manual annotations of cluster O:

- Start number 12 was manually annotated 31 times for cluster O.

Info for manual annotations of cluster P1:

- Start number 6 was manually annotated 1 time for cluster P1.

Gene Information:

Gene: Adnama_47 Start: 36141, Stop: 35812, Start Num: 9

Candidate Starts for Adnama_47:

(Start: 9 @36141 has 29 MA's), (23, 35979),

Gene: Alkhayr_94 Start: 57681, Stop: 57409, Start Num: 12

Candidate Starts for Alkhayr_94:

(Start: 12 @57681 has 31 MA's), (13, 57669), (17, 57645), (18, 57642), (24, 57555), (28, 57492), (29, 57441), (30, 57414),

Gene: AmericanBeauty_47 Start: 35986, Stop: 35657, Start Num: 9

Candidate Starts for AmericanBeauty_47:

(Start: 9 @35986 has 29 MA's), (23, 35824),

Gene: Argent26_46 Start: 35624, Stop: 35295, Start Num: 9

Candidate Starts for Argent26_46:

(Start: 9 @35624 has 29 MA's), (23, 35462),

Gene: Ashwin_95 Start: 58202, Stop: 57930, Start Num: 12

Candidate Starts for Ashwin_95:

(Start: 12 @58202 has 31 MA's), (13, 58190), (17, 58166), (18, 58163), (24, 58076), (28, 58013), (29, 57962), (30, 57935),

Gene: Asriel_43 Start: 34478, Stop: 34149, Start Num: 9

Candidate Starts for Asriel_43:

(Start: 9 @34478 has 29 MA's), (23, 34316),

Gene: BaboJay_41 Start: 35075, Stop: 34737, Start Num: 7

Candidate Starts for BaboJay_41:

(Start: 7 @35075 has 1 MA's), (23, 34901), (29, 34757),

Gene: Barbarian_43 Start: 34478, Stop: 34149, Start Num: 9

Candidate Starts for Barbarian_43:

(Start: 9 @34478 has 29 MA's), (23, 34316),

Gene: Bask21_44 Start: 34812, Stop: 34483, Start Num: 9

Candidate Starts for Bask21_44:

(Start: 9 @34812 has 29 MA's), (23, 34650),

Gene: BigBubba_44 Start: 35433, Stop: 35098, Start Num: 9

Candidate Starts for BigBubba_44:

(Start: 9 @35433 has 29 MA's), (10, 35409),

Gene: BigMau_63 Start: 41412, Stop: 41104, Start Num: 6

Candidate Starts for BigMau_63:

(Start: 6 @41412 has 15 MA's), (11, 41334), (14, 41292), (15, 41283), (16, 41277), (22, 41247), (23, 41235), (26, 41178),

Gene: Blessica_95 Start: 58487, Stop: 58215, Start Num: 12

Candidate Starts for Blessica_95:

(Start: 12 @58487 has 31 MA's), (13, 58475), (17, 58451), (18, 58448), (24, 58361), (28, 58298), (29, 58247), (30, 58220),

Gene: Bora_92 Start: 58010, Stop: 57738, Start Num: 12

Candidate Starts for Bora_92:

(Start: 12 @58010 has 31 MA's), (13, 57998), (17, 57974), (18, 57971), (24, 57884), (28, 57821), (29, 57770), (30, 57743),

Gene: Cactus_45 Start: 34845, Stop: 34516, Start Num: 9

Candidate Starts for Cactus_45:

(Start: 9 @34845 has 29 MA's), (23, 34683),

Gene: Catdawg_94 Start: 58223, Stop: 57951, Start Num: 12

Candidate Starts for Catdawg_94:

(Start: 12 @58223 has 31 MA's), (13, 58211), (17, 58187), (18, 58184), (24, 58097), (28, 58034), (29, 57983), (30, 57956),

Gene: Command613_45 Start: 35884, Stop: 35555, Start Num: 9
Candidate Starts for Command613_45:
(Start: 9 @35884 has 29 MA's), (23, 35722),

Gene: Corndog_94 Start: 57469, Stop: 57197, Start Num: 12
Candidate Starts for Corndog_94:
(Start: 12 @57469 has 31 MA's), (13, 57457), (17, 57433), (18, 57430), (24, 57343), (28, 57280), (29, 57229), (30, 57202),

Gene: Cornucopia_80 Start: 47245, Stop: 47553, Start Num: 6
Candidate Starts for Cornucopia_80:
(1, 47071), (2, 47086), (3, 47095), (4, 47125), (Start: 6 @47245 has 15 MA's), (11, 47323), (14, 47365), (15, 47374), (16, 47380), (22, 47410), (23, 47422), (26, 47479),

Gene: Demsculpinboyz_98 Start: 49573, Stop: 49905, Start Num: 9
Candidate Starts for Demsculpinboyz_98:
(Start: 9 @49573 has 29 MA's), (23, 49735), (27, 49804),

Gene: Dylan_93 Start: 57935, Stop: 57663, Start Num: 12
Candidate Starts for Dylan_93:
(Start: 12 @57935 has 31 MA's), (13, 57923), (17, 57899), (18, 57896), (24, 57809), (28, 57746), (29, 57695), (30, 57668),

Gene: Emmaloid_83 Start: 48537, Stop: 48842, Start Num: 6
Candidate Starts for Emmaloid_83:
(Start: 6 @48537 has 15 MA's), (11, 48615), (14, 48657), (15, 48666), (16, 48672), (22, 48702), (23, 48714), (25, 48753), (26, 48771),

Gene: Familton_95 Start: 58180, Stop: 57908, Start Num: 12
Candidate Starts for Familton_95:
(Start: 12 @58180 has 31 MA's), (13, 58168), (17, 58144), (18, 58141), (24, 58054), (28, 57991), (29, 57940), (30, 57913),

Gene: Firecracker_98 Start: 59573, Stop: 59301, Start Num: 12
Candidate Starts for Firecracker_98:
(Start: 12 @59573 has 31 MA's), (13, 59561), (17, 59537), (18, 59534), (24, 59447), (28, 59384), (29, 59333), (30, 59306),

Gene: FoulBall_94 Start: 57964, Stop: 57692, Start Num: 12
Candidate Starts for FoulBall_94:
(Start: 12 @57964 has 31 MA's), (13, 57952), (17, 57928), (18, 57925), (24, 57838), (28, 57775), (29, 57724), (30, 57697),

Gene: Gage_46 Start: 35624, Stop: 35295, Start Num: 9
Candidate Starts for Gage_46:
(Start: 9 @35624 has 29 MA's), (23, 35462),

Gene: Gemini_47 Start: 36141, Stop: 35812, Start Num: 9
Candidate Starts for Gemini_47:
(Start: 9 @36141 has 29 MA's), (23, 35979),

Gene: GoldenSpark_46 Start: 35624, Stop: 35295, Start Num: 9

Candidate Starts for GoldenSpark_46:
(Start: 9 @35624 has 29 MA's), (23, 35462),

Gene: Goldilocks_45 Start: 35126, Stop: 34797, Start Num: 9
Candidate Starts for Goldilocks_45:
(Start: 9 @35126 has 29 MA's), (23, 34964),

Gene: GooberAzure_46 Start: 35624, Stop: 35295, Start Num: 9
Candidate Starts for GooberAzure_46:
(Start: 9 @35624 has 29 MA's), (23, 35462),

Gene: Hades_79 Start: 46591, Stop: 46899, Start Num: 6
Candidate Starts for Hades_79:
(1, 46417), (2, 46432), (3, 46441), (4, 46471), (Start: 6 @46591 has 15 MA's), (11, 46669), (14, 46711),
(15, 46720), (16, 46726), (22, 46756), (23, 46768), (25, 46807), (26, 46825),

Gene: HermioneGrange_63 Start: 41906, Stop: 41598, Start Num: 6
Candidate Starts for HermioneGrange_63:
(Start: 6 @41906 has 15 MA's), (11, 41828), (14, 41786), (15, 41777), (16, 41771), (22, 41741), (23,
41729), (26, 41672),

Gene: Highbury_44 Start: 35223, Stop: 34894, Start Num: 9
Candidate Starts for Highbury_44:
(Start: 9 @35223 has 29 MA's), (23, 35061),

Gene: Hoonter_46 Start: 35624, Stop: 35295, Start Num: 9
Candidate Starts for Hoonter_46:
(Start: 9 @35624 has 29 MA's), (23, 35462),

Gene: Icee_43 Start: 35292, Stop: 34963, Start Num: 9
Candidate Starts for Icee_43:
(Start: 9 @35292 has 29 MA's), (23, 35130),

Gene: Ichabod_65 Start: 42033, Stop: 41725, Start Num: 6
Candidate Starts for Ichabod_65:
(Start: 6 @42033 has 15 MA's), (11, 41955), (14, 41913), (15, 41904), (16, 41898), (22, 41868), (23,
41856), (26, 41799),

Gene: Idergollasper_94 Start: 58174, Stop: 57902, Start Num: 12
Candidate Starts for Idergollasper_94:
(Start: 12 @58174 has 31 MA's), (13, 58162), (17, 58138), (18, 58135), (24, 58048), (28, 57985), (29,
57934), (30, 57907),

Gene: Imara_94 Start: 57767, Stop: 57495, Start Num: 12
Candidate Starts for Imara_94:
(Start: 12 @57767 has 31 MA's), (13, 57755), (17, 57731), (18, 57728), (24, 57641), (28, 57578), (29,
57527), (30, 57500),

Gene: JangDynasty_93 Start: 57983, Stop: 57711, Start Num: 12
Candidate Starts for JangDynasty_93:
(Start: 12 @57983 has 31 MA's), (13, 57971), (17, 57947), (18, 57944), (24, 57857), (28, 57794), (29,
57743), (30, 57716),

Gene: Job42_80 Start: 51187, Stop: 51525, Start Num: 6

Candidate Starts for Job42_80:

(2, 51028), (3, 51037), (4, 51067), (Start: 6 @51187 has 15 MA's), (11, 51265), (Start: 12 @51304 has 31 MA's), (19, 51349), (20, 51355), (21, 51373), (26, 51451),

Gene: Juniormint_56 Start: 37481, Stop: 37798, Start Num: 6

Candidate Starts for Juniormint_56:

(Start: 6 @37481 has 15 MA's), (11, 37559), (14, 37601), (15, 37610), (16, 37616), (22, 37646), (23, 37658), (26, 37715),

Gene: Kimchi_46 Start: 35627, Stop: 35298, Start Num: 9

Candidate Starts for Kimchi_46:

(Start: 9 @35627 has 29 MA's), (23, 35465),

Gene: KingPhillip3_93 Start: 57931, Stop: 57659, Start Num: 12

Candidate Starts for KingPhillip3_93:

(Start: 12 @57931 has 31 MA's), (13, 57919), (17, 57895), (18, 57892), (24, 57805), (28, 57742), (29, 57691), (30, 57664),

Gene: Krili_94 Start: 57732, Stop: 57460, Start Num: 12

Candidate Starts for Krili_94:

(Start: 12 @57732 has 31 MA's), (13, 57720), (17, 57696), (18, 57693), (24, 57606), (28, 57543), (29, 57492), (30, 57465),

Gene: MPlant7149_61 Start: 39794, Stop: 39486, Start Num: 6

Candidate Starts for MPlant7149_61:

(Start: 6 @39794 has 15 MA's), (11, 39716), (14, 39674), (15, 39665), (16, 39659), (22, 39629), (23, 39617), (26, 39560),

Gene: MadKillah_96 Start: 58001, Stop: 57729, Start Num: 12

Candidate Starts for MadKillah_96:

(Start: 12 @58001 has 31 MA's), (13, 57989), (17, 57965), (18, 57962), (24, 57875), (28, 57812), (29, 57761), (30, 57734),

Gene: Madiba_83 Start: 49691, Stop: 49999, Start Num: 6

Candidate Starts for Madiba_83:

(Start: 6 @49691 has 15 MA's), (11, 49769), (14, 49811), (15, 49820), (16, 49826), (22, 49856), (23, 49868), (26, 49925),

Gene: Marco3_82 Start: 49254, Stop: 48967, Start Num: 8

Candidate Starts for Marco3_82:

(Start: 8 @49254 has 1 MA's), (10, 49230), (23, 49086),

Gene: Moldemort_46 Start: 35741, Stop: 35412, Start Num: 9

Candidate Starts for Moldemort_46:

(Start: 9 @35741 has 29 MA's), (23, 35579),

Gene: Mori_94 Start: 58260, Stop: 57988, Start Num: 12

Candidate Starts for Mori_94:

(Start: 12 @58260 has 31 MA's), (13, 58248), (17, 58224), (18, 58221), (24, 58134), (28, 58071), (29, 58020), (30, 57993),

Gene: Murai_95 Start: 58393, Stop: 58121, Start Num: 12

Candidate Starts for Murai_95:

(Start: 12 @58393 has 31 MA's), (13, 58381), (17, 58357), (18, 58354), (24, 58267), (28, 58204), (29, 58153), (30, 58126),

Gene: NiebruSaylor_94 Start: 57654, Stop: 57382, Start Num: 12

Candidate Starts for NiebruSaylor_94:

(Start: 12 @57654 has 31 MA's), (13, 57642), (17, 57618), (18, 57615), (24, 57528), (28, 57465), (29, 57414), (30, 57387),

Gene: Pacc40_72 Start: 48264, Stop: 48572, Start Num: 6

Candidate Starts for Pacc40_72:

(Start: 6 @48264 has 15 MA's), (11, 48342), (14, 48384), (15, 48393), (16, 48399), (22, 48429), (23, 48441), (26, 48498),

Gene: PinkPlastic_61 Start: 40826, Stop: 40518, Start Num: 6

Candidate Starts for PinkPlastic_61:

(Start: 6 @40826 has 15 MA's), (11, 40748), (14, 40706), (15, 40697), (16, 40691), (22, 40661), (23, 40649), (26, 40592),

Gene: Rakim_45 Start: 35740, Stop: 35411, Start Num: 9

Candidate Starts for Rakim_45:

(Start: 9 @35740 has 29 MA's), (23, 35578),

Gene: Saints25_44 Start: 35223, Stop: 34894, Start Num: 9

Candidate Starts for Saints25_44:

(Start: 9 @35223 has 29 MA's), (23, 35061),

Gene: SchoolBus_93 Start: 57900, Stop: 57628, Start Num: 12

Candidate Starts for SchoolBus_93:

(Start: 12 @57900 has 31 MA's), (13, 57888), (17, 57864), (18, 57861), (24, 57774), (28, 57711), (29, 57660), (30, 57633),

Gene: Schuy_95 Start: 57749, Stop: 57477, Start Num: 12

Candidate Starts for Schuy_95:

(Start: 12 @57749 has 31 MA's), (13, 57737), (17, 57713), (18, 57710), (24, 57623), (28, 57560), (29, 57509), (30, 57482),

Gene: Shida_94 Start: 57844, Stop: 57572, Start Num: 12

Candidate Starts for Shida_94:

(Start: 12 @57844 has 31 MA's), (13, 57832), (17, 57808), (18, 57805), (24, 57718), (28, 57655), (29, 57604), (30, 57577),

Gene: Slim_83 Start: 48528, Stop: 48833, Start Num: 6

Candidate Starts for Slim_83:

(Start: 6 @48528 has 15 MA's), (11, 48606), (14, 48648), (15, 48657), (16, 48663), (22, 48693), (23, 48705), (25, 48744), (26, 48762),

Gene: Smooch_96 Start: 59418, Stop: 59146, Start Num: 12

Candidate Starts for Smooch_96:

(Start: 12 @59418 has 31 MA's), (13, 59406), (17, 59382), (18, 59379), (24, 59292), (28, 59229), (29, 59178), (30, 59151),

Gene: Sotrice96_44 Start: 35588, Stop: 35259, Start Num: 9

Candidate Starts for Sotrice96_44:
(Start: 9 @35588 has 29 MA's), (23, 35426),

Gene: Stank_47 Start: 36140, Stop: 35811, Start Num: 9
Candidate Starts for Stank_47:
(Start: 9 @36140 has 29 MA's), (23, 35978),

Gene: StolenFromERC_46 Start: 35624, Stop: 35295, Start Num: 9
Candidate Starts for StolenFromERC_46:
(Start: 9 @35624 has 29 MA's), (23, 35462),

Gene: TBrady12_46 Start: 35624, Stop: 35295, Start Num: 9
Candidate Starts for TBrady12_46:
(Start: 9 @35624 has 29 MA's), (23, 35462),

Gene: TelAviv_91 Start: 58138, Stop: 57866, Start Num: 12
Candidate Starts for TelAviv_91:
(Start: 12 @58138 has 31 MA's), (13, 58126), (17, 58102), (18, 58099), (24, 58012), (28, 57949), (29, 57898), (30, 57871),

Gene: TheloniousMonk_62 Start: 42583, Stop: 42305, Start Num: 9
Candidate Starts for TheloniousMonk_62:
(5, 42622), (Start: 9 @42583 has 29 MA's), (23, 42421),

Gene: Thimble_45 Start: 34806, Stop: 34477, Start Num: 9
Candidate Starts for Thimble_45:
(Start: 9 @34806 has 29 MA's), (23, 34644),

Gene: U2_59 Start: 41499, Stop: 41191, Start Num: 6
Candidate Starts for U2_59:
(Start: 6 @41499 has 15 MA's), (11, 41421), (14, 41379), (15, 41370), (16, 41364), (22, 41334), (23, 41322), (26, 41265),

Gene: VRedHorse_79 Start: 46063, Stop: 46371, Start Num: 6
Candidate Starts for VRedHorse_79:
(1, 45889), (2, 45904), (3, 45913), (4, 45943), (Start: 6 @46063 has 15 MA's), (11, 46141), (14, 46183), (15, 46192), (16, 46198), (22, 46228), (23, 46240), (26, 46297),

Gene: Vagabond_94 Start: 57797, Stop: 57525, Start Num: 12
Candidate Starts for Vagabond_94:
(Start: 12 @57797 has 31 MA's), (13, 57785), (17, 57761), (18, 57758), (24, 57671), (28, 57608), (29, 57557), (30, 57530),

Gene: Vorrrps_94 Start: 58261, Stop: 57989, Start Num: 12
Candidate Starts for Vorrrps_94:
(Start: 12 @58261 has 31 MA's), (13, 58249), (17, 58225), (18, 58222), (24, 58135), (28, 58072), (29, 58021), (30, 57994),

Gene: Wiggin_45 Start: 35708, Stop: 35379, Start Num: 9
Candidate Starts for Wiggin_45:
(Start: 9 @35708 has 29 MA's), (23, 35546),

Gene: Wildflower_95 Start: 57834, Stop: 57562, Start Num: 12

Candidate Starts for Wildflower_95:

(Start: 12 @57834 has 31 MA's), (13, 57822), (17, 57798), (18, 57795), (24, 57708), (28, 57645), (29, 57594), (30, 57567),

Gene: Winget_95 Start: 58434, Stop: 58162, Start Num: 12

Candidate Starts for Winget_95:

(Start: 12 @58434 has 31 MA's), (13, 58422), (17, 58398), (18, 58395), (24, 58308), (28, 58245), (29, 58194), (30, 58167),

Gene: Wogge42_94 Start: 57926, Stop: 57654, Start Num: 12

Candidate Starts for Wogge42_94:

(Start: 12 @57926 has 31 MA's), (13, 57914), (17, 57890), (18, 57887), (24, 57800), (28, 57737), (29, 57686), (30, 57659),

Gene: YoyoKar_91 Start: 57462, Stop: 57190, Start Num: 12

Candidate Starts for YoyoKar_91:

(Start: 12 @57462 has 31 MA's), (13, 57450), (17, 57426), (18, 57423), (24, 57336), (28, 57273), (29, 57222), (30, 57195),

Gene: YungJamal_95 Start: 58239, Stop: 57967, Start Num: 12

Candidate Starts for YungJamal_95:

(Start: 12 @58239 has 31 MA's), (13, 58227), (17, 58203), (18, 58200), (24, 58113), (28, 58050), (29, 57999), (30, 57972),

Gene: Zakhe101_93 Start: 57939, Stop: 57667, Start Num: 12

Candidate Starts for Zakhe101_93:

(Start: 12 @57939 has 31 MA's), (13, 57927), (17, 57903), (18, 57900), (24, 57813), (28, 57750), (29, 57699), (30, 57672),

Gene: Zebo_93 Start: 57909, Stop: 57637, Start Num: 12

Candidate Starts for Zebo_93:

(Start: 12 @57909 has 31 MA's), (13, 57897), (17, 57873), (18, 57870), (24, 57783), (28, 57720), (29, 57669), (30, 57642),