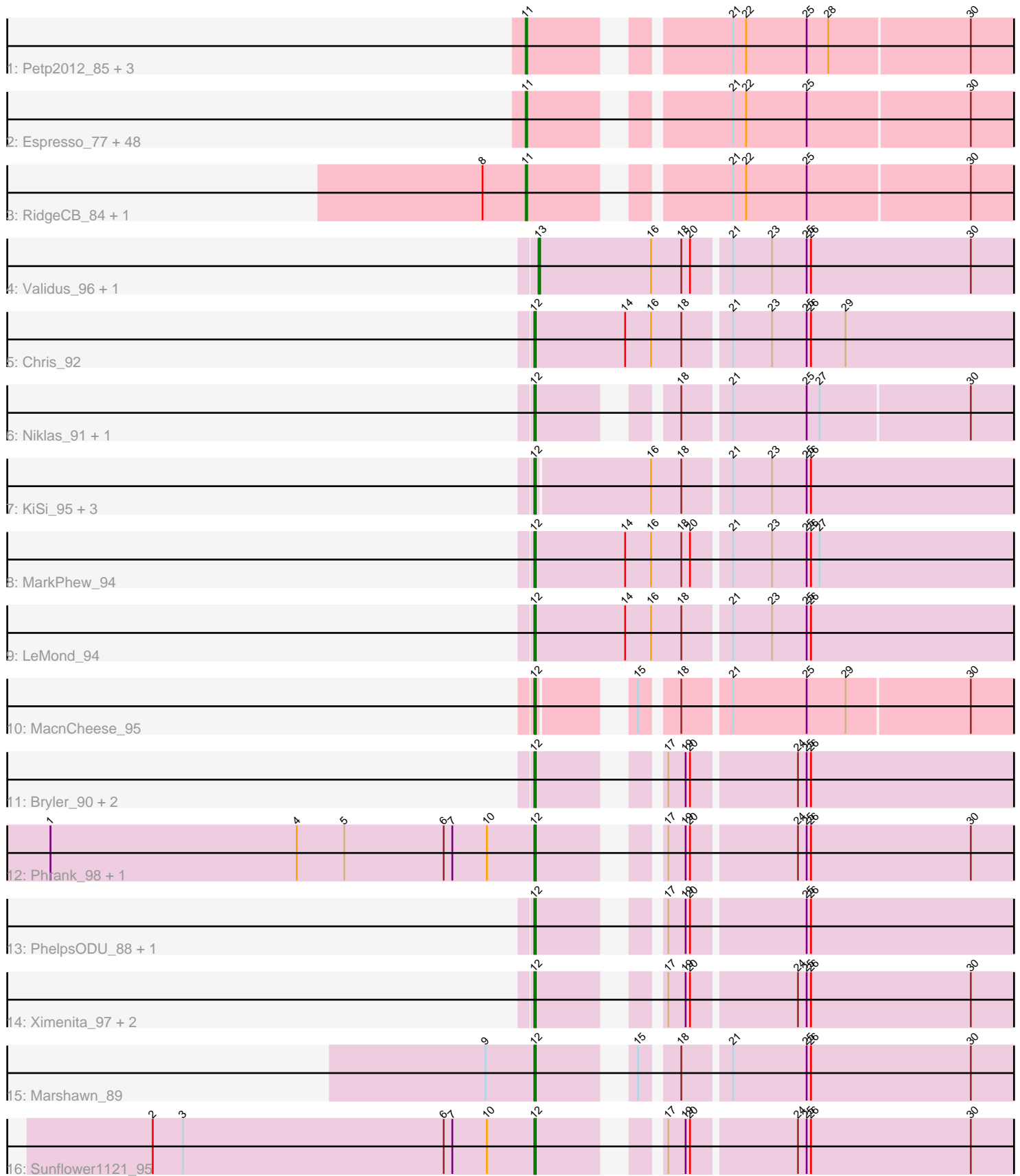


Pham 85432



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 85432 Report

This analysis was run 04/28/24 on database version 559.

Pham number 85432 has 79 members, 7 are drafts.

Phages represented in each track:

- Track 1 : Petp2012_85, Graduation_88, Gandalf20_83, Cueylyss_71
- Track 2 : Espresso_77, Swole_83, Ruotula_91, Bexan_81, Marsha_88, Sibs6_87, Agaliana_81, Peterson_85, KBG_82, MPlant7149_85, Francis47_85, Kenmech_87, Niza_83, Dussy_83, LilBib_76, JuliaChild_86, Makemake_87, Barriga_92, Burton_86, Beatrix_83, BaconJack_88, Sandaddy_84, Tote_81, Manatee_83, Molly_84, Museum_85, BigMau_86, Ichabod_87, Jerm2_85, PattyP_84, PacerPaul_88, PascalRango_82, Bruns_89, Jorgensen_95, Jasper_84, Dreamboat_85, Abbyshoes_84, Fenn_88, PherrisBueller_84, Switzer_83, StrongArm_82, Zephyr_85, PSullivan_81, Rohr_87, Sorpresa_83, Lopton_84, TwoPeat_80, Pita2_86, Bob3_85
- Track 3 : RidgeCB_84, Rufus_87
- Track 4 : Validus_96, Peanam_91
- Track 5 : Chris_92
- Track 6 : Niklas_91, Shaobing_90
- Track 7 : KiSi_95, Nibb_94, Oscar_95, Scarlett_94
- Track 8 : MarkPhew_94
- Track 9 : LeMond_94
- Track 10 : MacnCheese_95
- Track 11 : Bryler_90, Cain_98, Tierra_98
- Track 12 : Phrank_98, Shadow1_95
- Track 13 : PhelpsODU_88, Unicorn_98
- Track 14 : Ximenita_97, Syra333_94, Krueger_95
- Track 15 : Marshawn_89
- Track 16 : Sunflower1121_95

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

The start number called the most often in the published annotations is 11, it was called in 48 of the 72 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Abbyshoes_84, Agaliana_81, BaconJack_88, Barriga_92, Beatrix_83, Bexan_81, BigMau_86, Bob3_85, Bruns_89, Burton_86, Cueylyss_71, Dreamboat_85, Dussy_83, Espresso_77, Fenn_88, Francis47_85, Gandalf20_83, Graduation_88, Ichabod_87, Jasper_84, Jerm2_85, Jorgensen_95, JuliaChild_86, KBG_82,

Kenmech_87, LilBib_76, Lopton_84, MPlant7149_85, Makemake_87, Manatee_83, Marsha_88, Molly_84, Museum_85, Niza_83, PSullivan_81, PacerPaul_88, PascalRango_82, PattyP_84, Peterson_85, Petp2012_85, PherrisBueller_84, Pita2_86, RidgeCB_84, Rohr_87, Rufus_87, Ruotula_91, Sandaddy_84, Sibs6_87, Sorpresa_83, StrongArm_82, Switzer_83, Swole_83, Tote_81, TwoPeat_80, Zephyr_85,

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

-

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

- Bryler_90, Cain_98, Chris_92, KiSi_95, Krueger_95, LeMond_94, MacnCheese_95, MarkPhew_94, Marshawn_89, Nibb_94, Niklas_91, Oscar_95, Peanam_91, PhelpsODU_88, Phrank_98, Scarlett_94, Shadow1_95, Shaobing_90, Sunflower1121_95, Syra333_94, Tierra_98, Unicorn_98, Validus_96, Ximenita_97,

Summary by start number:

Start 11:

- Found in 55 of 79 (69.6%) of genes in pham
- Manual Annotations of this start: 48 of 72
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Abbyshoes_84 (A1), Agaliana_81 (A1), BaconJack_88 (A1), Barriga_92 (A1), Beatrix_83 (A1), Bexan_81 (A1), BigMau_86 (A1), Bob3_85 (A1), Bruns_89 (A1), Burton_86 (A1), Cueylyss_71 (A1), Dreamboat_85 (A1), Dussy_83 (A1), Espresso_77 (A1), Fenn_88 (A1), Francis47_85 (A1), Gandalf20_83 (A1), Graduation_88 (A1), Ichabod_87 (A1), Jasper_84 (A1), Jerm2_85 (A1), Jorgensen_95 (A1), JuliaChild_86 (A1), KBG_82 (A1), Kenmech_87 (A1), LilBib_76 (A1), Lopton_84 (A1), MPlant7149_85 (A1), Makemake_87 (A1), Manatee_83 (A1), Marsha_88 (A1), Molly_84 (A1), Museum_85 (A1), Niza_83 (A1), PSullivan_81 (A1), PacerPaul_88 (A1), PascalRango_82 (A1), PattyP_84 (A1), Peterson_85 (A1), Petp2012_85 (A1), PherrisBueller_84 (A1), Pita2_86 (A1), RidgeCB_84 (A1), Rohr_87 (A1), Rufus_87 (A1), Ruotula_91 (A1), Sandaddy_84 (A1), Sibs6_87 (A1), Sorpresa_83 (A1), StrongArm_82 (A1), Switzer_83 (A1), Swole_83 (A1), Tote_81 (A1), TwoPeat_80 (A1), Zephyr_85 (A1),

Start 12:

- Found in 22 of 79 (27.8%) of genes in pham
- Manual Annotations of this start: 22 of 72
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Bryler_90 (K6), Cain_98 (K6), Chris_92 (K1), KiSi_95 (K1), Krueger_95 (K6), LeMond_94 (K1), MacnCheese_95 (K3), MarkPhew_94 (K1), Marshawn_89 (K6), Nibb_94 (K1), Niklas_91 (K1), Oscar_95 (K1), PhelpsODU_88 (K6), Phrank_98 (K6), Scarlett_94 (K1), Shadow1_95 (K6), Shaobing_90 (K1), Sunflower1121_95 (K6), Syra333_94 (K6), Tierra_98 (K6), Unicorn_98 (K6), Ximenita_97 (K6),

Start 13:

- Found in 2 of 79 (2.5%) of genes in pham
- Manual Annotations of this start: 2 of 72
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Peanam_91 (K1), Validus_96 (K1),

Summary by clusters:

There are 4 clusters represented in this pham: A1, K3, K1, K6,

Info for manual annotations of cluster A1:

- Start number 11 was manually annotated 48 times for cluster A1.

Info for manual annotations of cluster K1:

- Start number 12 was manually annotated 9 times for cluster K1.
- Start number 13 was manually annotated 2 times for cluster K1.

Info for manual annotations of cluster K3:

- Start number 12 was manually annotated 1 time for cluster K3.

Info for manual annotations of cluster K6:

- Start number 12 was manually annotated 12 times for cluster K6.

Gene Information:

Gene: Abbyshoes_84 Start: 48926, Stop: 48609, Start Num: 11

Candidate Starts for Abbyshoes_84:

(Start: 11 @48926 has 48 MA's), (21, 48812), (22, 48803), (25, 48761), (30, 48650),

Gene: Agaliana_81 Start: 47083, Stop: 46766, Start Num: 11

Candidate Starts for Agaliana_81:

(Start: 11 @47083 has 48 MA's), (21, 46969), (22, 46960), (25, 46918), (30, 46807),

Gene: BaconJack_88 Start: 50835, Stop: 50518, Start Num: 11

Candidate Starts for BaconJack_88:

(Start: 11 @50835 has 48 MA's), (21, 50721), (22, 50712), (25, 50670), (30, 50559),

Gene: Barriga_92 Start: 49456, Stop: 49139, Start Num: 11

Candidate Starts for Barriga_92:

(Start: 11 @49456 has 48 MA's), (21, 49342), (22, 49333), (25, 49291), (30, 49180),

Gene: Beatrix_83 Start: 48784, Stop: 48467, Start Num: 11

Candidate Starts for Beatrix_83:

(Start: 11 @48784 has 48 MA's), (21, 48670), (22, 48661), (25, 48619), (30, 48508),

Gene: Bexan_81 Start: 48558, Stop: 48241, Start Num: 11

Candidate Starts for Bexan_81:

(Start: 11 @48558 has 48 MA's), (21, 48444), (22, 48435), (25, 48393), (30, 48282),

Gene: BigMau_86 Start: 49851, Stop: 49534, Start Num: 11

Candidate Starts for BigMau_86:

(Start: 11 @49851 has 48 MA's), (21, 49737), (22, 49728), (25, 49686), (30, 49575),

Gene: Bob3_85 Start: 49280, Stop: 48963, Start Num: 11

Candidate Starts for Bob3_85:

(Start: 11 @49280 has 48 MA's), (21, 49166), (22, 49157), (25, 49115), (30, 49004),

Gene: Bruns_89 Start: 49026, Stop: 48709, Start Num: 11

Candidate Starts for Bruns_89:

(Start: 11 @49026 has 48 MA's), (21, 48912), (22, 48903), (25, 48861), (30, 48750),

Gene: Bryler_90 Start: 55493, Stop: 55798, Start Num: 12

Candidate Starts for Bryler_90:

(Start: 12 @55493 has 22 MA's), (17, 55556), (19, 55568), (20, 55571), (24, 55640), (25, 55646), (26, 55649),

Gene: Burton_86 Start: 50881, Stop: 50564, Start Num: 11

Candidate Starts for Burton_86:

(Start: 11 @50881 has 48 MA's), (21, 50767), (22, 50758), (25, 50716), (30, 50605),

Gene: Cain_98 Start: 58640, Stop: 58945, Start Num: 12

Candidate Starts for Cain_98:

(Start: 12 @58640 has 22 MA's), (17, 58703), (19, 58715), (20, 58718), (24, 58787), (25, 58793), (26, 58796),

Gene: Chris_92 Start: 57748, Stop: 58083, Start Num: 12

Candidate Starts for Chris_92:

(Start: 12 @57748 has 22 MA's), (14, 57811), (16, 57829), (18, 57850), (21, 57880), (23, 57907), (25, 57931), (26, 57934), (29, 57958),

Gene: Cueylyss_71 Start: 45818, Stop: 45501, Start Num: 11

Candidate Starts for Cueylyss_71:

(Start: 11 @45818 has 48 MA's), (21, 45704), (22, 45695), (25, 45653), (28, 45638), (30, 45542),

Gene: Dreamboat_85 Start: 47931, Stop: 47614, Start Num: 11

Candidate Starts for Dreamboat_85:

(Start: 11 @47931 has 48 MA's), (21, 47817), (22, 47808), (25, 47766), (30, 47655),

Gene: Dussy_83 Start: 48946, Stop: 48629, Start Num: 11

Candidate Starts for Dussy_83:

(Start: 11 @48946 has 48 MA's), (21, 48832), (22, 48823), (25, 48781), (30, 48670),

Gene: Espresso_77 Start: 47491, Stop: 47174, Start Num: 11

Candidate Starts for Espresso_77:

(Start: 11 @47491 has 48 MA's), (21, 47377), (22, 47368), (25, 47326), (30, 47215),

Gene: Fenn_88 Start: 49638, Stop: 49321, Start Num: 11

Candidate Starts for Fenn_88:

(Start: 11 @49638 has 48 MA's), (21, 49524), (22, 49515), (25, 49473), (30, 49362),

Gene: Francis47_85 Start: 50927, Stop: 50610, Start Num: 11

Candidate Starts for Francis47_85:

(Start: 11 @50927 has 48 MA's), (21, 50813), (22, 50804), (25, 50762), (30, 50651),

Gene: Gandalf20_83 Start: 48776, Stop: 48459, Start Num: 11

Candidate Starts for Gandalf20_83:

(Start: 11 @48776 has 48 MA's), (21, 48662), (22, 48653), (25, 48611), (28, 48596), (30, 48500),

Gene: Graduation_88 Start: 49219, Stop: 48902, Start Num: 11

Candidate Starts for Graduation_88:

(Start: 11 @49219 has 48 MA's), (21, 49105), (22, 49096), (25, 49054), (28, 49039), (30, 48943),

Gene: Ichabod_87 Start: 49282, Stop: 48965, Start Num: 11

Candidate Starts for Ichabod_87:

(Start: 11 @49282 has 48 MA's), (21, 49168), (22, 49159), (25, 49117), (30, 49006),

Gene: Jasper_84 Start: 47817, Stop: 47500, Start Num: 11

Candidate Starts for Jasper_84:

(Start: 11 @47817 has 48 MA's), (21, 47703), (22, 47694), (25, 47652), (30, 47541),

Gene: Jerm2_85 Start: 50415, Stop: 50098, Start Num: 11

Candidate Starts for Jerm2_85:

(Start: 11 @50415 has 48 MA's), (21, 50301), (22, 50292), (25, 50250), (30, 50139),

Gene: Jorgensen_95 Start: 50820, Stop: 50503, Start Num: 11

Candidate Starts for Jorgensen_95:

(Start: 11 @50820 has 48 MA's), (21, 50706), (22, 50697), (25, 50655), (30, 50544),

Gene: JuliaChild_86 Start: 49311, Stop: 48994, Start Num: 11

Candidate Starts for JuliaChild_86:

(Start: 11 @49311 has 48 MA's), (21, 49197), (22, 49188), (25, 49146), (30, 49035),

Gene: KBG_82 Start: 49954, Stop: 49637, Start Num: 11

Candidate Starts for KBG_82:

(Start: 11 @49954 has 48 MA's), (21, 49840), (22, 49831), (25, 49789), (30, 49678),

Gene: Kenmech_87 Start: 50072, Stop: 49755, Start Num: 11

Candidate Starts for Kenmech_87:

(Start: 11 @50072 has 48 MA's), (21, 49958), (22, 49949), (25, 49907), (30, 49796),

Gene: KiSi_95 Start: 58155, Stop: 58487, Start Num: 12

Candidate Starts for KiSi_95:

(Start: 12 @58155 has 22 MA's), (16, 58233), (18, 58254), (21, 58284), (23, 58311), (25, 58335), (26, 58338),

Gene: Krueger_95 Start: 57826, Stop: 58131, Start Num: 12

Candidate Starts for Krueger_95:

(Start: 12 @57826 has 22 MA's), (17, 57889), (19, 57901), (20, 57904), (24, 57973), (25, 57979), (26, 57982), (30, 58093),

Gene: LeMond_94 Start: 58110, Stop: 58445, Start Num: 12

Candidate Starts for LeMond_94:

(Start: 12 @58110 has 22 MA's), (14, 58173), (16, 58191), (18, 58212), (21, 58242), (23, 58269), (25, 58293), (26, 58296),

Gene: LilBib_76 Start: 47778, Stop: 47461, Start Num: 11

Candidate Starts for LilBib_76:

(Start: 11 @47778 has 48 MA's), (21, 47664), (22, 47655), (25, 47613), (30, 47502),

Gene: Lopton_84 Start: 50022, Stop: 49705, Start Num: 11

Candidate Starts for Lopton_84:

(Start: 11 @50022 has 48 MA's), (21, 49908), (22, 49899), (25, 49857), (30, 49746),

Gene: MPlant7149_85 Start: 48576, Stop: 48259, Start Num: 11

Candidate Starts for MPlant7149_85:

(Start: 11 @48576 has 48 MA's), (21, 48462), (22, 48453), (25, 48411), (30, 48300),

Gene: MacnCheese_95 Start: 58839, Stop: 59138, Start Num: 12

Candidate Starts for MacnCheese_95:

(Start: 12 @58839 has 22 MA's), (15, 58887), (18, 58908), (21, 58938), (25, 58989), (29, 59016), (30, 59100),

Gene: Makemake_87 Start: 49700, Stop: 49383, Start Num: 11

Candidate Starts for Makemake_87:

(Start: 11 @49700 has 48 MA's), (21, 49586), (22, 49577), (25, 49535), (30, 49424),

Gene: Manatee_83 Start: 47543, Stop: 47226, Start Num: 11

Candidate Starts for Manatee_83:

(Start: 11 @47543 has 48 MA's), (21, 47429), (22, 47420), (25, 47378), (30, 47267),

Gene: MarkPhew_94 Start: 57825, Stop: 58160, Start Num: 12

Candidate Starts for MarkPhew_94:

(Start: 12 @57825 has 22 MA's), (14, 57888), (16, 57906), (18, 57927), (20, 57933), (21, 57957), (23, 57984), (25, 58008), (26, 58011), (27, 58017),

Gene: Marsha_88 Start: 51617, Stop: 51300, Start Num: 11

Candidate Starts for Marsha_88:

(Start: 11 @51617 has 48 MA's), (21, 51503), (22, 51494), (25, 51452), (30, 51341),

Gene: Marshawn_89 Start: 57666, Stop: 57971, Start Num: 12

Candidate Starts for Marshawn_89:

(9, 57633), (Start: 12 @57666 has 22 MA's), (15, 57717), (18, 57738), (21, 57768), (25, 57819), (26, 57822), (30, 57933),

Gene: Molly_84 Start: 48051, Stop: 47734, Start Num: 11

Candidate Starts for Molly_84:

(Start: 11 @48051 has 48 MA's), (21, 47937), (22, 47928), (25, 47886), (30, 47775),

Gene: Museum_85 Start: 49276, Stop: 48959, Start Num: 11

Candidate Starts for Museum_85:

(Start: 11 @49276 has 48 MA's), (21, 49162), (22, 49153), (25, 49111), (30, 49000),

Gene: Nibb_94 Start: 57539, Stop: 57874, Start Num: 12

Candidate Starts for Nibb_94:

(Start: 12 @57539 has 22 MA's), (16, 57620), (18, 57641), (21, 57671), (23, 57698), (25, 57722), (26, 57725),

Gene: Niklas_91 Start: 58101, Stop: 58403, Start Num: 12

Candidate Starts for Niklas_91:

(Start: 12 @58101 has 22 MA's), (18, 58173), (21, 58203), (25, 58254), (27, 58263), (30, 58365),

Gene: Niza_83 Start: 49276, Stop: 48959, Start Num: 11

Candidate Starts for Niza_83:

(Start: 11 @49276 has 48 MA's), (21, 49162), (22, 49153), (25, 49111), (30, 49000),

Gene: Oscar_95 Start: 58034, Stop: 58369, Start Num: 12

Candidate Starts for Oscar_95:

(Start: 12 @58034 has 22 MA's), (16, 58115), (18, 58136), (21, 58166), (23, 58193), (25, 58217), (26, 58220),

Gene: PSullivan_81 Start: 47379, Stop: 47062, Start Num: 11

Candidate Starts for PSullivan_81:

(Start: 11 @47379 has 48 MA's), (21, 47265), (22, 47256), (25, 47214), (30, 47103),

Gene: PacerPaul_88 Start: 50294, Stop: 49977, Start Num: 11

Candidate Starts for PacerPaul_88:

(Start: 11 @50294 has 48 MA's), (21, 50180), (22, 50171), (25, 50129), (30, 50018),

Gene: PascalRango_82 Start: 48272, Stop: 47955, Start Num: 11

Candidate Starts for PascalRango_82:

(Start: 11 @48272 has 48 MA's), (21, 48158), (22, 48149), (25, 48107), (30, 47996),

Gene: PattyP_84 Start: 48820, Stop: 48503, Start Num: 11

Candidate Starts for PattyP_84:

(Start: 11 @48820 has 48 MA's), (21, 48706), (22, 48697), (25, 48655), (30, 48544),

Gene: Peanam_91 Start: 58075, Stop: 58407, Start Num: 13

Candidate Starts for Peanam_91:

(Start: 13 @58075 has 2 MA's), (16, 58153), (18, 58174), (20, 58180), (21, 58204), (23, 58231), (25, 58255), (26, 58258), (30, 58369),

Gene: Peterson_85 Start: 50220, Stop: 49903, Start Num: 11

Candidate Starts for Peterson_85:

(Start: 11 @50220 has 48 MA's), (21, 50106), (22, 50097), (25, 50055), (30, 49944),

Gene: Petp2012_85 Start: 49597, Stop: 49280, Start Num: 11

Candidate Starts for Petp2012_85:

(Start: 11 @49597 has 48 MA's), (21, 49483), (22, 49474), (25, 49432), (28, 49417), (30, 49321),

Gene: PhelpsODU_88 Start: 54383, Stop: 54688, Start Num: 12

Candidate Starts for PhelpsODU_88:

(Start: 12 @54383 has 22 MA's), (17, 54446), (19, 54458), (20, 54461), (25, 54536), (26, 54539),

Gene: PherrisBueller_84 Start: 47468, Stop: 47151, Start Num: 11

Candidate Starts for PherrisBueller_84:

(Start: 11 @47468 has 48 MA's), (21, 47354), (22, 47345), (25, 47303), (30, 47192),

Gene: Phrank_98 Start: 58618, Stop: 58923, Start Num: 12

Candidate Starts for Phrank_98:

(1, 58282), (4, 58453), (5, 58486), (6, 58555), (7, 58561), (10, 58585), (Start: 12 @58618 has 22 MA's), (17, 58681), (19, 58693), (20, 58696), (24, 58765), (25, 58771), (26, 58774), (30, 58885),

Gene: Pita2_86 Start: 48875, Stop: 48558, Start Num: 11

Candidate Starts for Pita2_86:

(Start: 11 @48875 has 48 MA's), (21, 48761), (22, 48752), (25, 48710), (30, 48599),

Gene: RidgeCB_84 Start: 47907, Stop: 47590, Start Num: 11

Candidate Starts for RidgeCB_84:

(8, 47937), (Start: 11 @47907 has 48 MA's), (21, 47793), (22, 47784), (25, 47742), (30, 47631),

Gene: Rohr_87 Start: 50666, Stop: 50349, Start Num: 11

Candidate Starts for Rohr_87:

(Start: 11 @50666 has 48 MA's), (21, 50552), (22, 50543), (25, 50501), (30, 50390),

Gene: Rufus_87 Start: 49841, Stop: 49524, Start Num: 11

Candidate Starts for Rufus_87:

(8, 49871), (Start: 11 @49841 has 48 MA's), (21, 49727), (22, 49718), (25, 49676), (30, 49565),

Gene: Ruotula_91 Start: 50822, Stop: 50505, Start Num: 11

Candidate Starts for Ruotula_91:

(Start: 11 @50822 has 48 MA's), (21, 50708), (22, 50699), (25, 50657), (30, 50546),

Gene: Sandaddy_84 Start: 49406, Stop: 49089, Start Num: 11

Candidate Starts for Sandaddy_84:

(Start: 11 @49406 has 48 MA's), (21, 49292), (22, 49283), (25, 49241), (30, 49130),

Gene: Scarlett_94 Start: 57903, Stop: 58238, Start Num: 12

Candidate Starts for Scarlett_94:

(Start: 12 @57903 has 22 MA's), (16, 57984), (18, 58005), (21, 58035), (23, 58062), (25, 58086), (26, 58089),

Gene: Shadow1_95 Start: 57964, Stop: 58269, Start Num: 12

Candidate Starts for Shadow1_95:

(1, 57628), (4, 57799), (5, 57832), (6, 57901), (7, 57907), (10, 57931), (Start: 12 @57964 has 22 MA's), (17, 58027), (19, 58039), (20, 58042), (24, 58111), (25, 58117), (26, 58120), (30, 58231),

Gene: Shaobing_90 Start: 58142, Stop: 58444, Start Num: 12

Candidate Starts for Shaobing_90:

(Start: 12 @58142 has 22 MA's), (18, 58214), (21, 58244), (25, 58295), (27, 58304), (30, 58406),

Gene: Sibs6_87 Start: 46747, Stop: 46430, Start Num: 11

Candidate Starts for Sibs6_87:

(Start: 11 @46747 has 48 MA's), (21, 46633), (22, 46624), (25, 46582), (30, 46471),

Gene: Sorpresa_83 Start: 49412, Stop: 49095, Start Num: 11

Candidate Starts for Sorpresa_83:

(Start: 11 @49412 has 48 MA's), (21, 49298), (22, 49289), (25, 49247), (30, 49136),

Gene: StrongArm_82 Start: 48686, Stop: 48369, Start Num: 11

Candidate Starts for StrongArm_82:

(Start: 11 @48686 has 48 MA's), (21, 48572), (22, 48563), (25, 48521), (30, 48410),

Gene: Sunflower1121_95 Start: 57722, Stop: 58027, Start Num: 12

Candidate Starts for Sunflower1121_95:

(2, 57458), (3, 57479), (6, 57659), (7, 57665), (10, 57689), (Start: 12 @57722 has 22 MA's), (17, 57785), (19, 57797), (20, 57800), (24, 57869), (25, 57875), (26, 57878), (30, 57989),

Gene: Switzer_83 Start: 48784, Stop: 48467, Start Num: 11

Candidate Starts for Switzer_83:

(Start: 11 @48784 has 48 MA's), (21, 48670), (22, 48661), (25, 48619), (30, 48508),

Gene: Swole_83 Start: 48785, Stop: 48468, Start Num: 11

Candidate Starts for Swole_83:

(Start: 11 @48785 has 48 MA's), (21, 48671), (22, 48662), (25, 48620), (30, 48509),

Gene: Syra333_94 Start: 57782, Stop: 58087, Start Num: 12

Candidate Starts for Syra333_94:

(Start: 12 @57782 has 22 MA's), (17, 57845), (19, 57857), (20, 57860), (24, 57929), (25, 57935), (26, 57938), (30, 58049),

Gene: Tierra_98 Start: 59248, Stop: 59553, Start Num: 12

Candidate Starts for Tierra_98:

(Start: 12 @59248 has 22 MA's), (17, 59311), (19, 59323), (20, 59326), (24, 59395), (25, 59401), (26, 59404),

Gene: Tote_81 Start: 46053, Stop: 45736, Start Num: 11

Candidate Starts for Tote_81:

(Start: 11 @46053 has 48 MA's), (21, 45939), (22, 45930), (25, 45888), (30, 45777),

Gene: TwoPeat_80 Start: 48242, Stop: 47925, Start Num: 11

Candidate Starts for TwoPeat_80:

(Start: 11 @48242 has 48 MA's), (21, 48128), (22, 48119), (25, 48077), (30, 47966),

Gene: Unicorn_98 Start: 59011, Stop: 59316, Start Num: 12

Candidate Starts for Unicorn_98:

(Start: 12 @59011 has 22 MA's), (17, 59074), (19, 59086), (20, 59089), (25, 59164), (26, 59167),

Gene: Validus_96 Start: 58944, Stop: 59276, Start Num: 13

Candidate Starts for Validus_96:

(Start: 13 @58944 has 2 MA's), (16, 59022), (18, 59043), (20, 59049), (21, 59073), (23, 59100), (25, 59124), (26, 59127), (30, 59238),

Gene: Ximenita_97 Start: 58538, Stop: 58843, Start Num: 12

Candidate Starts for Ximenita_97:

(Start: 12 @58538 has 22 MA's), (17, 58601), (19, 58613), (20, 58616), (24, 58685), (25, 58691), (26, 58694), (30, 58805),

Gene: Zephyr_85 Start: 48874, Stop: 48557, Start Num: 11

Candidate Starts for Zephyr_85:

(Start: 11 @48874 has 48 MA's), (21, 48760), (22, 48751), (25, 48709), (30, 48598),