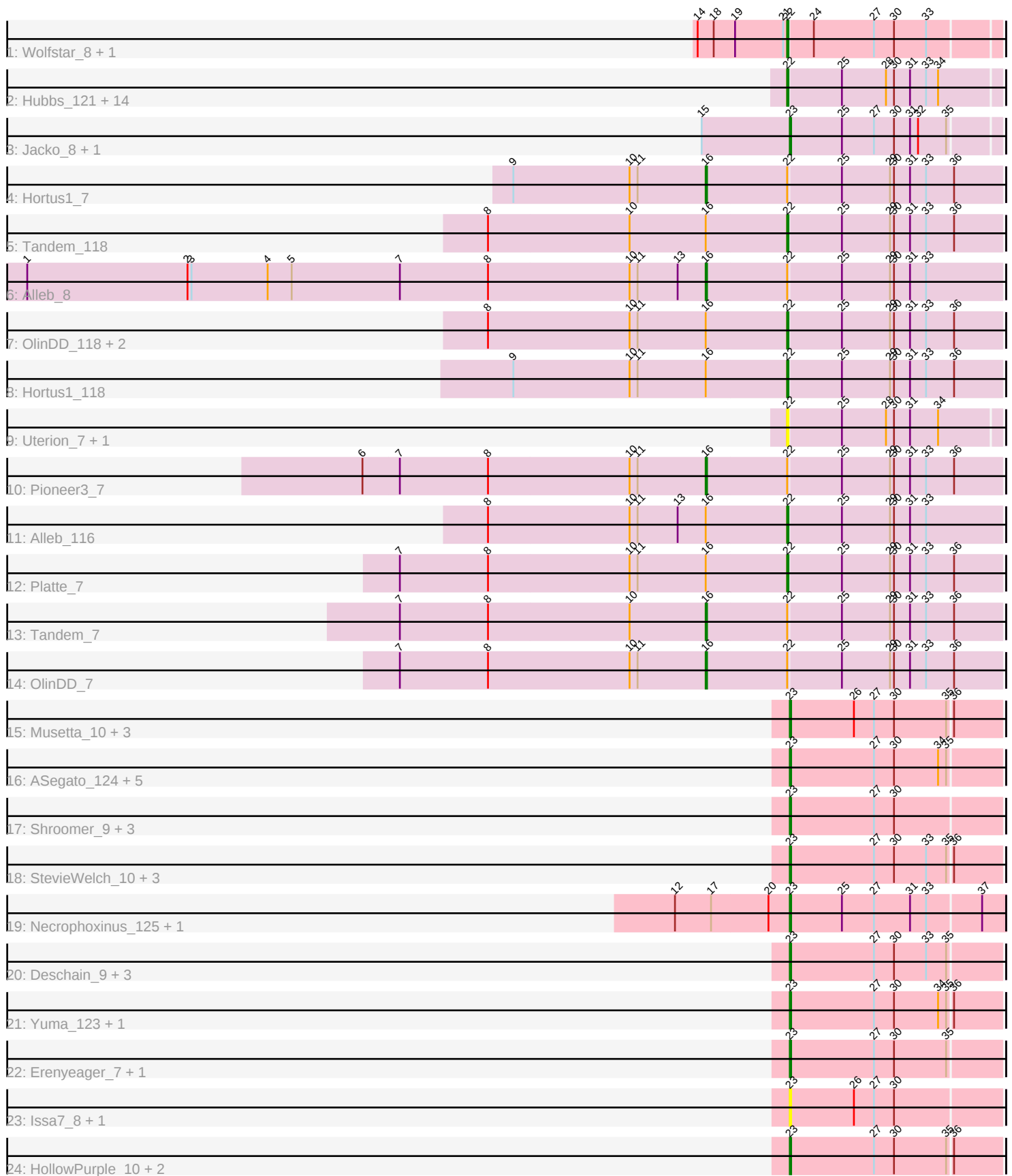


Pham 278182



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 278182 Report

This analysis was run 02/07/26 on database version 634.

Pham number 278182 has 66 members, 14 are drafts.

Phages represented in each track:

- Track 1 : Wolfstar_8, Wolfstar_124
- Track 2 : Hubbs_121, Roman_123, DejaVu_7, Hubbs_7, PhillyPhilly_118, Pavlo_119, Solimine_6, Lupine_117, PhillyPhilly_8, Lupine_7, DejaVu_123, Saradis_125, Pavlo_7, Roman_7, Saradis_7
- Track 3 : Jacko_8, Jacko_117
- Track 4 : Hortus1_7
- Track 5 : Tandem_118
- Track 6 : Alleb_8
- Track 7 : OlinDD_118, Platte_117, Pioneer3_118
- Track 8 : Hortus1_118
- Track 9 : Uterion_7, Uterion_126
- Track 10 : Pioneer3_7
- Track 11 : Alleb_116
- Track 12 : Platte_7
- Track 13 : Tandem_7
- Track 14 : OlinDD_7
- Track 15 : Musetta_10, Lyell_125, Lyell_10, Musetta_123
- Track 16 : ASegato_124, DustyDino_10, ASegato_10, DustyDino_128, RunningBrook_9, RunningBrook_125
- Track 17 : Shroomer_9, Fork_7, Fork_119, Shroomer_128
- Track 18 : StevieWelch_10, Casablanacas_8, Casablanacas_123, StevieWelch_128
- Track 19 : Necrophoxinus_125, Necrophoxinus_9
- Track 20 : Deschain_9, Welcome_127, Welcome_10, Deschain_123
- Track 21 : Yuma_123, Yuma_10
- Track 22 : Erenyeager_7, Erenyeager_122
- Track 23 : Issa7_8, Issa7_122
- Track 24 : HollowPurple_10, HollowPurple_126, SteakFry_9

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

The start number called the most often in the published annotations is 23, it was called in 26 of the 52 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- ASegato_10, ASegato_124, Casablanacas_123, Casablanacas_8, Deschain_123, Deschain_9, DustyDino_10, DustyDino_128, Erenyeager_122, Erenyeager_7, Fork_119, Fork_7, HollowPurple_10, HollowPurple_126, Issa7_122, Issa7_8, Jacko_117, Jacko_8, Lyell_10, Lyell_125, Musetta_10, Musetta_123, Necrophoxinus_125, Necrophoxinus_9, RunningBrook_125, RunningBrook_9, Shroomer_128, Shroomer_9, SteakFry_9, StevieWelch_10, StevieWelch_128, Welcome_10, Welcome_127, Yuma_10, Yuma_123,

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

-

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

- Alleb_116, Alleb_8, DejaVu_123, DejaVu_7, Hortus1_118, Hortus1_7, Hubbs_121, Hubbs_7, Lupine_117, Lupine_7, OlinDD_118, OlinDD_7, Pavlo_119, Pavlo_7, PhillyPhilly_118, PhillyPhilly_8, Pioneer3_118, Pioneer3_7, Platte_117, Platte_7, Roman_123, Roman_7, Saradis_125, Saradis_7, Solimine_6, Tandem_118, Tandem_7, Uterion_126, Uterion_7, Wolfstar_124, Wolfstar_8,

Summary by start number:

Start 16:

- Found in 12 of 66 (18.2%) of genes in pham
- Manual Annotations of this start: 5 of 52
- Called 41.7% of time when present
- Phage (with cluster) where this start called: Alleb_8 (ED1), Hortus1_7 (ED1), OlinDD_7 (ED1), Pioneer3_7 (ED1), Tandem_7 (ED1),

Start 22:

- Found in 31 of 66 (47.0%) of genes in pham
- Manual Annotations of this start: 21 of 52
- Called 83.9% of time when present
- Phage (with cluster) where this start called: Alleb_116 (ED1), DejaVu_123 (ED1), DejaVu_7 (ED1), Hortus1_118 (ED1), Hubbs_121 (ED1), Hubbs_7 (ED1), Lupine_117 (ED1), Lupine_7 (ED1), OlinDD_118 (ED1), Pavlo_119 (ED1), Pavlo_7 (ED1), PhillyPhilly_118 (ED1), PhillyPhilly_8 (ED1), Pioneer3_118 (ED1), Platte_117 (ED1), Platte_7 (ED1), Roman_123 (ED1), Roman_7 (ED1), Saradis_125 (ED1), Saradis_7 (ED1), Solimine_6 (ED1), Tandem_118 (ED1), Uterion_126 (ED1), Uterion_7 (ED1), Wolfstar_124 (ED), Wolfstar_8 (ED),

Start 23:

- Found in 35 of 66 (53.0%) of genes in pham
- Manual Annotations of this start: 26 of 52
- Called 100.0% of time when present
- Phage (with cluster) where this start called: ASegato_10 (ED2), ASegato_124 (ED2), Casablanacas_123 (ED2), Casablanacas_8 (ED2), Deschain_123 (ED2), Deschain_9 (ED2), DustyDino_10 (ED2), DustyDino_128 (ED2), Erenyeager_122 (ED2), Erenyeager_7 (ED2), Fork_119 (ED2), Fork_7 (ED2), HollowPurple_10 (ED2), HollowPurple_126 (ED2), Issa7_122 (ED2), Issa7_8 (ED2), Jacko_117 (ED1), Jacko_8 (ED1), Lyell_10 (ED2), Lyell_125 (ED2), Musetta_10 (ED2), Musetta_123 (ED2), Necrophoxinus_125 (ED2), Necrophoxinus_9 (ED2), RunningBrook_125 (ED2), RunningBrook_9 (ED2), Shroomer_128 (ED2), Shroomer_9 (ED2), SteakFry_9 (ED2), StevieWelch_10 (ED2), StevieWelch_128 (ED2), Welcome_10 (ED2), Welcome_127 (ED2), Yuma_10 (ED2), Yuma_123 (ED2),

Summary by clusters:

There are 3 clusters represented in this pham: ED2, ED, ED1,

Info for manual annotations of cluster ED:

- Start number 22 was manually annotated 2 times for cluster ED.

Info for manual annotations of cluster ED1:

- Start number 16 was manually annotated 5 times for cluster ED1.
- Start number 22 was manually annotated 19 times for cluster ED1.
- Start number 23 was manually annotated 2 times for cluster ED1.

Info for manual annotations of cluster ED2:

- Start number 23 was manually annotated 24 times for cluster ED2.

Gene Information:

Gene: ASegato_124 Start: 62989, Stop: 62834, Start Num: 23

Candidate Starts for ASegato_124:

(Start: 23 @62989 has 26 MA's), (27, 62926), (30, 62911), (34, 62878), (35, 62872),

Gene: ASegato_10 Start: 3540, Stop: 3385, Start Num: 23

Candidate Starts for ASegato_10:

(Start: 23 @3540 has 26 MA's), (27, 3477), (30, 3462), (34, 3429), (35, 3423),

Gene: Alleb_8 Start: 3008, Stop: 2790, Start Num: 16

Candidate Starts for Alleb_8:

(1, 3515), (2, 3395), (3, 3392), (4, 3335), (5, 3317), (7, 3236), (8, 3170), (10, 3065), (11, 3059), (13, 3029), (Start: 16 @3008 has 5 MA's), (Start: 22 @2948 has 21 MA's), (25, 2909), (29, 2873), (30, 2870), (31, 2858), (33, 2846),

Gene: Alleb_116 Start: 62427, Stop: 62269, Start Num: 22

Candidate Starts for Alleb_116:

(8, 62649), (10, 62544), (11, 62538), (13, 62508), (Start: 16 @62487 has 5 MA's), (Start: 22 @62427 has 21 MA's), (25, 62388), (29, 62352), (30, 62349), (31, 62337), (33, 62325),

Gene: Casablancas_8 Start: 3366, Stop: 3211, Start Num: 23

Candidate Starts for Casablancas_8:

(Start: 23 @3366 has 26 MA's), (27, 3303), (30, 3288), (33, 3264), (35, 3249), (36, 3246),

Gene: Casablancas_123 Start: 62383, Stop: 62228, Start Num: 23

Candidate Starts for Casablancas_123:

(Start: 23 @62383 has 26 MA's), (27, 62320), (30, 62305), (33, 62281), (35, 62266), (36, 62263),

Gene: DejaVu_7 Start: 2697, Stop: 2542, Start Num: 22

Candidate Starts for DejaVu_7:

(Start: 22 @2697 has 21 MA's), (25, 2658), (28, 2625), (30, 2619), (31, 2607), (33, 2595), (34, 2586),

Gene: DejaVu_123 Start: 63077, Stop: 62922, Start Num: 22

Candidate Starts for DejaVu_123:

(Start: 22 @63077 has 21 MA's), (25, 63038), (28, 63005), (30, 62999), (31, 62987), (33, 62975), (34, 62966),

Gene: Deschain_9 Start: 3472, Stop: 3317, Start Num: 23

Candidate Starts for Deschain_9:

(Start: 23 @3472 has 26 MA's), (27, 3409), (30, 3394), (33, 3370), (35, 3355),

Gene: Deschain_123 Start: 63053, Stop: 62898, Start Num: 23

Candidate Starts for Deschain_123:

(Start: 23 @63053 has 26 MA's), (27, 62990), (30, 62975), (33, 62951), (35, 62936),

Gene: DustyDino_10 Start: 3578, Stop: 3423, Start Num: 23

Candidate Starts for DustyDino_10:

(Start: 23 @3578 has 26 MA's), (27, 3515), (30, 3500), (34, 3467), (35, 3461),

Gene: DustyDino_128 Start: 63668, Stop: 63513, Start Num: 23

Candidate Starts for DustyDino_128:

(Start: 23 @63668 has 26 MA's), (27, 63605), (30, 63590), (34, 63557), (35, 63551),

Gene: Erenyeager_7 Start: 2956, Stop: 2801, Start Num: 23

Candidate Starts for Erenyeager_7:

(Start: 23 @2956 has 26 MA's), (27, 2893), (30, 2878), (35, 2839),

Gene: Erenyeager_122 Start: 62617, Stop: 62462, Start Num: 23

Candidate Starts for Erenyeager_122:

(Start: 23 @62617 has 26 MA's), (27, 62554), (30, 62539), (35, 62500),

Gene: Fork_7 Start: 2844, Stop: 2689, Start Num: 23

Candidate Starts for Fork_7:

(Start: 23 @2844 has 26 MA's), (27, 2781), (30, 2766),

Gene: Fork_119 Start: 61835, Stop: 61680, Start Num: 23

Candidate Starts for Fork_119:

(Start: 23 @61835 has 26 MA's), (27, 61772), (30, 61757),

Gene: HollowPurple_10 Start: 3540, Stop: 3385, Start Num: 23

Candidate Starts for HollowPurple_10:

(Start: 23 @3540 has 26 MA's), (27, 3477), (30, 3462), (35, 3423), (36, 3420),

Gene: HollowPurple_126 Start: 63613, Stop: 63458, Start Num: 23

Candidate Starts for HollowPurple_126:

(Start: 23 @63613 has 26 MA's), (27, 63550), (30, 63535), (35, 63496), (36, 63493),

Gene: Hortus1_7 Start: 2961, Stop: 2743, Start Num: 16

Candidate Starts for Hortus1_7:

(9, 3105), (10, 3018), (11, 3012), (Start: 16 @2961 has 5 MA's), (Start: 22 @2901 has 21 MA's), (25, 2862), (29, 2826), (30, 2823), (31, 2811), (33, 2799), (36, 2778),

Gene: Hortus1_118 Start: 62861, Stop: 62703, Start Num: 22

Candidate Starts for Hortus1_118:

(9, 63065), (10, 62978), (11, 62972), (Start: 16 @62921 has 5 MA's), (Start: 22 @62861 has 21 MA's), (25, 62822), (29, 62786), (30, 62783), (31, 62771), (33, 62759), (36, 62738),

Gene: Hubbs_121 Start: 63600, Stop: 63445, Start Num: 22

Candidate Starts for Hubbs_121:

(Start: 22 @63600 has 21 MA's), (25, 63561), (28, 63528), (30, 63522), (31, 63510), (33, 63498), (34, 63489),

Gene: Hubbs_7 Start: 3201, Stop: 3046, Start Num: 22

Candidate Starts for Hubbs_7:

(Start: 22 @3201 has 21 MA's), (25, 3162), (28, 3129), (30, 3123), (31, 3111), (33, 3099), (34, 3090),

Gene: Issa7_8 Start: 3095, Stop: 2940, Start Num: 23

Candidate Starts for Issa7_8:

(Start: 23 @3095 has 26 MA's), (26, 3047), (27, 3032), (30, 3017),

Gene: Issa7_122 Start: 62253, Stop: 62098, Start Num: 23

Candidate Starts for Issa7_122:

(Start: 23 @62253 has 26 MA's), (26, 62205), (27, 62190), (30, 62175),

Gene: Jacko_8 Start: 2762, Stop: 2610, Start Num: 23

Candidate Starts for Jacko_8:

(15, 2828), (Start: 23 @2762 has 26 MA's), (25, 2723), (27, 2699), (30, 2684), (31, 2672), (32, 2666), (35, 2645),

Gene: Jacko_117 Start: 61155, Stop: 61003, Start Num: 23

Candidate Starts for Jacko_117:

(15, 61221), (Start: 23 @61155 has 26 MA's), (25, 61116), (27, 61092), (30, 61077), (31, 61065), (32, 61059), (35, 61038),

Gene: Lupine_117 Start: 62271, Stop: 62116, Start Num: 22

Candidate Starts for Lupine_117:

(Start: 22 @62271 has 21 MA's), (25, 62232), (28, 62199), (30, 62193), (31, 62181), (33, 62169), (34, 62160),

Gene: Lupine_7 Start: 2998, Stop: 2843, Start Num: 22

Candidate Starts for Lupine_7:

(Start: 22 @2998 has 21 MA's), (25, 2959), (28, 2926), (30, 2920), (31, 2908), (33, 2896), (34, 2887),

Gene: Lyell_125 Start: 62460, Stop: 62305, Start Num: 23

Candidate Starts for Lyell_125:

(Start: 23 @62460 has 26 MA's), (26, 62412), (27, 62397), (30, 62382), (35, 62343), (36, 62340),

Gene: Lyell_10 Start: 3293, Stop: 3138, Start Num: 23

Candidate Starts for Lyell_10:

(Start: 23 @3293 has 26 MA's), (26, 3245), (27, 3230), (30, 3215), (35, 3176), (36, 3173),

Gene: Musetta_10 Start: 3554, Stop: 3399, Start Num: 23

Candidate Starts for Musetta_10:

(Start: 23 @3554 has 26 MA's), (26, 3506), (27, 3491), (30, 3476), (35, 3437), (36, 3434),

Gene: Musetta_123 Start: 63349, Stop: 63194, Start Num: 23

Candidate Starts for Musetta_123:

(Start: 23 @63349 has 26 MA's), (26, 63301), (27, 63286), (30, 63271), (35, 63232), (36, 63229),

Gene: Necrophoxinus_125 Start: 63328, Stop: 63170, Start Num: 23

Candidate Starts for Necrophoxinus_125:

(12, 63412), (17, 63385), (20, 63343), (Start: 23 @63328 has 26 MA's), (25, 63289), (27, 63265), (31, 63238), (33, 63226), (37, 63187),

Gene: Necrophoxinus_9 Start: 3085, Stop: 2927, Start Num: 23

Candidate Starts for Necrophoxinus_9:

(12, 3169), (17, 3142), (20, 3100), (Start: 23 @3085 has 26 MA's), (25, 3046), (27, 3022), (31, 2995), (33, 2983), (37, 2944),

Gene: OlinDD_118 Start: 62866, Stop: 62708, Start Num: 22

Candidate Starts for OlinDD_118:

(8, 63088), (10, 62983), (11, 62977), (Start: 16 @62926 has 5 MA's), (Start: 22 @62866 has 21 MA's), (25, 62827), (29, 62791), (30, 62788), (31, 62776), (33, 62764), (36, 62743),

Gene: OlinDD_7 Start: 2961, Stop: 2743, Start Num: 16

Candidate Starts for OlinDD_7:

(7, 3189), (8, 3123), (10, 3018), (11, 3012), (Start: 16 @2961 has 5 MA's), (Start: 22 @2901 has 21 MA's), (25, 2862), (29, 2826), (30, 2823), (31, 2811), (33, 2799), (36, 2778),

Gene: Pavlo_119 Start: 63348, Stop: 63193, Start Num: 22

Candidate Starts for Pavlo_119:

(Start: 22 @63348 has 21 MA's), (25, 63309), (28, 63276), (30, 63270), (31, 63258), (33, 63246), (34, 63237),

Gene: Pavlo_7 Start: 3092, Stop: 2937, Start Num: 22

Candidate Starts for Pavlo_7:

(Start: 22 @3092 has 21 MA's), (25, 3053), (28, 3020), (30, 3014), (31, 3002), (33, 2990), (34, 2981),

Gene: PhillyPhilly_118 Start: 62607, Stop: 62452, Start Num: 22

Candidate Starts for PhillyPhilly_118:

(Start: 22 @62607 has 21 MA's), (25, 62568), (28, 62535), (30, 62529), (31, 62517), (33, 62505), (34, 62496),

Gene: PhillyPhilly_8 Start: 3118, Stop: 2963, Start Num: 22

Candidate Starts for PhillyPhilly_8:

(Start: 22 @3118 has 21 MA's), (25, 3079), (28, 3046), (30, 3040), (31, 3028), (33, 3016), (34, 3007),

Gene: Pioneer3_7 Start: 2994, Stop: 2776, Start Num: 16

Candidate Starts for Pioneer3_7:

(6, 3249), (7, 3222), (8, 3156), (10, 3051), (11, 3045), (Start: 16 @2994 has 5 MA's), (Start: 22 @2934 has 21 MA's), (25, 2895), (29, 2859), (30, 2856), (31, 2844), (33, 2832), (36, 2811),

Gene: Pioneer3_118 Start: 62697, Stop: 62539, Start Num: 22

Candidate Starts for Pioneer3_118:

(8, 62919), (10, 62814), (11, 62808), (Start: 16 @62757 has 5 MA's), (Start: 22 @62697 has 21 MA's), (25, 62658), (29, 62622), (30, 62619), (31, 62607), (33, 62595), (36, 62574),

Gene: Platte_7 Start: 2923, Stop: 2765, Start Num: 22

Candidate Starts for Platte_7:

(7, 3211), (8, 3145), (10, 3040), (11, 3034), (Start: 16 @2983 has 5 MA's), (Start: 22 @2923 has 21 MA's), (25, 2884), (29, 2848), (30, 2845), (31, 2833), (33, 2821), (36, 2800),

Gene: Platte_117 Start: 62471, Stop: 62313, Start Num: 22

Candidate Starts for Platte_117:

(8, 62693), (10, 62588), (11, 62582), (Start: 16 @62531 has 5 MA's), (Start: 22 @62471 has 21 MA's), (25, 62432), (29, 62396), (30, 62393), (31, 62381), (33, 62369), (36, 62348),

Gene: Roman_123 Start: 63997, Stop: 63842, Start Num: 22

Candidate Starts for Roman_123:

(Start: 22 @63997 has 21 MA's), (25, 63958), (28, 63925), (30, 63919), (31, 63907), (33, 63895), (34, 63886),

Gene: Roman_7 Start: 2910, Stop: 2755, Start Num: 22

Candidate Starts for Roman_7:

(Start: 22 @2910 has 21 MA's), (25, 2871), (28, 2838), (30, 2832), (31, 2820), (33, 2808), (34, 2799),

Gene: RunningBrook_9 Start: 3578, Stop: 3423, Start Num: 23

Candidate Starts for RunningBrook_9:

(Start: 23 @3578 has 26 MA's), (27, 3515), (30, 3500), (34, 3467), (35, 3461),

Gene: RunningBrook_125 Start: 63668, Stop: 63513, Start Num: 23

Candidate Starts for RunningBrook_125:

(Start: 23 @63668 has 26 MA's), (27, 63605), (30, 63590), (34, 63557), (35, 63551),

Gene: Saradis_125 Start: 63342, Stop: 63187, Start Num: 22

Candidate Starts for Saradis_125:

(Start: 22 @63342 has 21 MA's), (25, 63303), (28, 63270), (30, 63264), (31, 63252), (33, 63240), (34, 63231),

Gene: Saradis_7 Start: 2965, Stop: 2810, Start Num: 22

Candidate Starts for Saradis_7:

(Start: 22 @2965 has 21 MA's), (25, 2926), (28, 2893), (30, 2887), (31, 2875), (33, 2863), (34, 2854),

Gene: Shroomer_9 Start: 2907, Stop: 2752, Start Num: 23

Candidate Starts for Shroomer_9:

(Start: 23 @2907 has 26 MA's), (27, 2844), (30, 2829),

Gene: Shroomer_128 Start: 62970, Stop: 62815, Start Num: 23

Candidate Starts for Shroomer_128:

(Start: 23 @62970 has 26 MA's), (27, 62907), (30, 62892),

Gene: Solimine_6 Start: 2706, Stop: 2551, Start Num: 22

Candidate Starts for Solimine_6:

(Start: 22 @2706 has 21 MA's), (25, 2667), (28, 2634), (30, 2628), (31, 2616), (33, 2604), (34, 2595),

Gene: SteakFry_9 Start: 3540, Stop: 3385, Start Num: 23

Candidate Starts for SteakFry_9:

(Start: 23 @3540 has 26 MA's), (27, 3477), (30, 3462), (35, 3423), (36, 3420),

Gene: StevieWelch_10 Start: 3469, Stop: 3314, Start Num: 23

Candidate Starts for StevieWelch_10:

(Start: 23 @3469 has 26 MA's), (27, 3406), (30, 3391), (33, 3367), (35, 3352), (36, 3349),

Gene: StevieWelch_128 Start: 63715, Stop: 63560, Start Num: 23

Candidate Starts for StevieWelch_128:

(Start: 23 @63715 has 26 MA's), (27, 63652), (30, 63637), (33, 63613), (35, 63598), (36, 63595),

Gene: Tandem_118 Start: 62871, Stop: 62713, Start Num: 22

Candidate Starts for Tandem_118:

(8, 63093), (10, 62988), (Start: 16 @62931 has 5 MA's), (Start: 22 @62871 has 21 MA's), (25, 62832), (29, 62796), (30, 62793), (31, 62781), (33, 62769), (36, 62748),

Gene: Tandem_7 Start: 3088, Stop: 2870, Start Num: 16

Candidate Starts for Tandem_7:

(7, 3316), (8, 3250), (10, 3145), (Start: 16 @3088 has 5 MA's), (Start: 22 @3028 has 21 MA's), (25, 2989), (29, 2953), (30, 2950), (31, 2938), (33, 2926), (36, 2905),

Gene: Uterion_7 Start: 3230, Stop: 3075, Start Num: 22

Candidate Starts for Uterion_7:

(Start: 22 @3230 has 21 MA's), (25, 3191), (28, 3158), (30, 3152), (31, 3140), (34, 3119),

Gene: Uterion_126 Start: 63321, Stop: 63166, Start Num: 22

Candidate Starts for Uterion_126:

(Start: 22 @63321 has 21 MA's), (25, 63282), (28, 63249), (30, 63243), (31, 63231), (34, 63210),

Gene: Welcome_127 Start: 63695, Stop: 63540, Start Num: 23

Candidate Starts for Welcome_127:

(Start: 23 @63695 has 26 MA's), (27, 63632), (30, 63617), (33, 63593), (35, 63578),

Gene: Welcome_10 Start: 3551, Stop: 3396, Start Num: 23

Candidate Starts for Welcome_10:

(Start: 23 @3551 has 26 MA's), (27, 3488), (30, 3473), (33, 3449), (35, 3434),

Gene: Wolfstar_8 Start: 3487, Stop: 3335, Start Num: 22

Candidate Starts for Wolfstar_8:

(14, 3553), (18, 3541), (19, 3526), (21, 3490), (Start: 22 @3487 has 21 MA's), (24, 3469), (27, 3424), (30, 3409), (33, 3385),

Gene: Wolfstar_124 Start: 64628, Stop: 64476, Start Num: 22

Candidate Starts for Wolfstar_124:

(14, 64694), (18, 64682), (19, 64667), (21, 64631), (Start: 22 @64628 has 21 MA's), (24, 64610), (27, 64565), (30, 64550), (33, 64526),

Gene: Yuma_123 Start: 62501, Stop: 62346, Start Num: 23

Candidate Starts for Yuma_123:

(Start: 23 @62501 has 26 MA's), (27, 62438), (30, 62423), (34, 62390), (35, 62384), (36, 62381),

Gene: Yuma_10 Start: 3450, Stop: 3295, Start Num: 23

Candidate Starts for Yuma_10:

(Start: 23 @3450 has 26 MA's), (27, 3387), (30, 3372), (34, 3339), (35, 3333), (36, 3330),