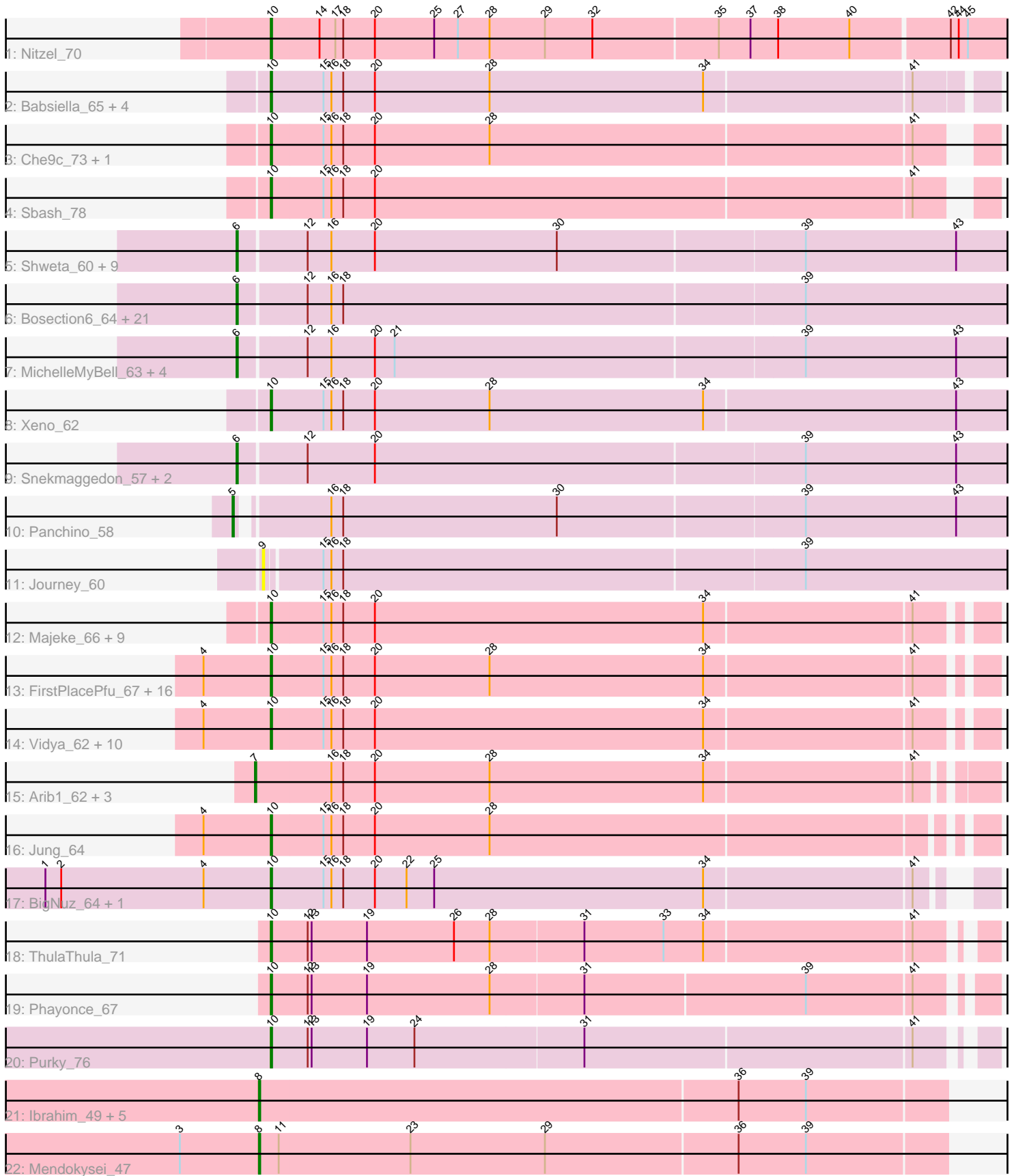


Pham 159096



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 159096 Report

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

Pham number 159096 has 107 members, 9 are drafts.

Phages represented in each track:

- Track 1 : Nitzel_70
- Track 2 : Babsiella_65, Bunnies_69, Brujita_64, Ksquared_67, Langerak_63
- Track 3 : Che9c_73, Xavia_65
- Track 4 : Sbash_78
- Track 5 : Shweta_60, Redi_62, Nenae_62, ShrimpFriedEgg_62, Raymond7_55, BabeRuth_62, Purgamenstris_62, Phrann_61, Andies_59, PhancyPhin_62
- Track 6 : Bosection6_64, Pipsqueaks_66, Smurph_65, SkinnyPete_62, Aggie_61, Carcharodon_65, Silvy_66, Magsby_64, Chewbacca_68, Schnauzer_66, Philonius_65, Silvafighter_67, Fulbright_63, Scitech_60, Xerxes_65, Parmesanjohn_65, Tapioca_63, Duplicity_63, Charlie_62, Melville_70, Phloss_63, Gex_66
- Track 7 : MichelleMyBell_63, Rebel_59, Butters_61, Rubeelu_61, Kevin1_64
- Track 8 : Xeno_62
- Track 9 : Snekmaggedon_57, SpongeBob_57, Jamie19_57
- Track 10 : Panchino_58
- Track 11 : Journey_60
- Track 12 : Majeke_66, Island3_65, QueenHazel_60, Donovan_63, Phegasus_66, Kari_61, HC_60, Fishburne_62, Xula_59, Mangethe_66
- Track 13 : FirstPlacePfu_67, StevieRay_68, Bogie_66, HUHilltop_66, Zilizebeth_69, Thespis_65, Atcoo_65, Juniormint_61, Brusacoram_65, Polkaroo_65, Megiddo_63, Shipwreck_66, Necropolis_61, Dynamo_63, Pygmy_66, GreaseLightnin_68, Phineas_64
- Track 14 : Vidya_62, Willsammy_65, Jebeks_64, CactusJack_64, Malithi_63, Camster_64, Sonah_64, StressBall_63, Glaske_63, KilKor_64, Phalm_64
- Track 15 : Arib1_62, Techage_64, Venti_61, Bartholomew_59
- Track 16 : Jung_64
- Track 17 : BigNuz_64, Nazo_65
- Track 18 : ThulaThula_71
- Track 19 : Phayonce_67
- Track 20 : Purky_76
- Track 21 : Ibrahim_49, Bernal13_49, Whitty_48, ZenTime222_48, RonRayGun_49, Nairb_48
- Track 22 : Mendokysei_47

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

The start number called the most often in the published annotations is 10, it was called in 50 of the 98 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Atcoo_65, Babsiella_65, BigNuz_64, Bogie_66, Brujita_64, Brusacoram_65, Bunnies_69, CactusJack_64, Camster_64, Che9c_73, Donovan_63, Dynamo_63, FirstPlacePfu_67, Fishburne_62, Glaske_63, GreaseLightnin_68, HC_60, HUHilltop_66, Island3_65, Jebeks_64, Jung_64, Juniormint_61, Kari_61, KilKor_64, Ksqared_67, Langerak_63, Majeke_66, Malithi_63, Mangethe_66, Megiddo_63, Nazo_65, Necropolis_61, Nitzel_70, Phalm_64, Phayonce_67, Phegasus_66, Phineas_64, Polkaroo_65, Purky_76, Pygmy_66, QueenHazel_60, Sbash_78, Shipwreck_66, Sonah_64, StevieRay_68, StressBall_63, Thespiis_65, ThulaThula_71, Vidya_62, Willsammy_65, Xavia_65, Xeno_62, Xula_59, Zilizebeth_69,

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

-

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

- Aggie_61, Andies_59, Arib1_62, BabeRuth_62, Bartholomew_59, Bernal13_49, Bosection6_64, Butters_61, Carcharodon_65, Charlie_62, Chewbacca_68, Duplicity_63, Fulbright_63, Gex_66, Ibrahim_49, Jamie19_57, Journey_60, Kevin1_64, Magsby_64, Melville_70, Mendokysei_47, MichelleMyBell_63, Nairb_48, Nenae_62, Panchino_58, Parmesanjohn_65, PhancyPhin_62, Philonius_65, Phloss_63, Phrann_61, Pipsqueaks_66, Purgamenstris_62, Raymond7_55, Rebel_59, Redi_62, RonRayGun_49, Rubeelu_61, Schnauzer_66, Scitech_60, ShrimpFriedEgg_62, Shweta_60, Silvafighter_67, Silvy_66, SkinnyPete_62, Smurph_65, Snekmaggedon_57, SpongeBob_57, Tapioca_63, Techage_64, Venti_61, Whitty_48, Xerxes_65, ZenTime222_48,

Summary by start number:

Start 5:

- Found in 1 of 107 (0.9%) of genes in pham
- Manual Annotations of this start: 1 of 98
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Panchino_58 (N),

Start 6:

- Found in 40 of 107 (37.4%) of genes in pham
- Manual Annotations of this start: 36 of 98
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Aggie_61 (N), Andies_59 (N), BabeRuth_62 (N), Bosection6_64 (N), Butters_61 (N), Carcharodon_65 (N), Charlie_62 (N), Chewbacca_68 (N), Duplicity_63 (N), Fulbright_63 (N), Gex_66 (N), Jamie19_57 (N), Kevin1_64 (N), Magsby_64 (N), Melville_70 (N), MichelleMyBell_63 (N), Nenae_62 (N), Parmesanjohn_65 (N), PhancyPhin_62 (N), Philonius_65 (N), Phloss_63 (N), Phrann_61 (N), Pipsqueaks_66 (N), Purgamenstris_62 (N), Raymond7_55 (N), Rebel_59 (N), Redi_62 (N), Rubeelu_61 (N), Schnauzer_66 (N), Scitech_60 (N), ShrimpFriedEgg_62 (N), Shweta_60 (N), Silvafighter_67 (N), Silvy_66 (N), SkinnyPete_62 (N), Smurph_65 (N), Snekmaggedon_57 (N), SpongeBob_57 (N), Tapioca_63 (N), Xerxes_65 (N),

Start 7:

- Found in 4 of 107 (3.7%) of genes in pham
- Manual Annotations of this start: 4 of 98
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Arib1_62 (P1), Bartholomew_59 (P1), Techage_64 (P1), Venti_61 (P1),

Start 8:

- Found in 7 of 107 (6.5%) of genes in pham
- Manual Annotations of this start: 7 of 98
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Bernal13_49 (T), Ibrahim_49 (T), Mendokysei_47 (T), Nairb_48 (T), RonRayGun_49 (T), Whitty_48 (T), ZenTime222_48 (T),

Start 9:

- Found in 1 of 107 (0.9%) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Journey_60 (N),

Start 10:

- Found in 54 of 107 (50.5%) of genes in pham
- Manual Annotations of this start: 50 of 98
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Atcoo_65 (P1), Babsiella_65 (I1), BigNuz_64 (P4), Bogie_66 (P1), Brujita_64 (I1), Brusacoram_65 (P1), Bunnies_69 (P1), CactusJack_64 (P1), Camster_64 (P1), Che9c_73 (I2), Donovan_63 (P1), Dynamo_63 (P1), FirstPlacePfu_67 (P1), Fishburne_62 (P1), Glaske_63 (P1), GreaseLightnin_68 (P1), HC_60 (I1), HUHilltop_66 (P1), Island3_65 (I1), Jebeks_64 (P1), Jung_64 (P1), Juniormint_61 (P1), Kari_61 (P1), KilKor_64 (P1), Ksquared_67 (P1), Langerak_63 (P1), Majeke_66 (P1), Malithi_63 (P1), Mangethe_66 (P1), Megiddo_63 (P1), Nazo_65 (P4), Necropolis_61 (P1), Nitzel_70 (F1), Phalm_64 (P1), Phayonce_67 (P5), Phegasus_66 (P1), Phineas_64 (P1), Polkaroo_65 (P1), Purky_76 (P6), Pygmy_66 (P1), QueenHazel_60 (I1), Sbash_78 (I2), Shipwreck_66 (P1), Sonah_64 (P1), StevieRay_68 (P1), StressBall_63 (P1), Thespi_65 (P1), ThulaThula_71 (P5), Vidya_62 (P1), Willsammy_65 (P1), Xavia_65 (P3), Xeno_62 (N), Xula_59 (I1), Zilizebeth_69 (P1),

Summary by clusters:

There are 10 clusters represented in this pham: F1, P1, P6, P4, P5, I1, P3, I2, N, T,

Info for manual annotations of cluster F1:

- Start number 10 was manually annotated 1 time for cluster F1.

Info for manual annotations of cluster I1:

- Start number 10 was manually annotated 6 times for cluster I1.

Info for manual annotations of cluster I2:

- Start number 10 was manually annotated 2 times for cluster I2.

Info for manual annotations of cluster N:

- Start number 5 was manually annotated 1 time for cluster N.
- Start number 6 was manually annotated 36 times for cluster N.
- Start number 10 was manually annotated 1 time for cluster N.

Info for manual annotations of cluster P1:

- Start number 7 was manually annotated 4 times for cluster P1.
- Start number 10 was manually annotated 34 times for cluster P1.

Info for manual annotations of cluster P3:

- Start number 10 was manually annotated 1 time for cluster P3.

Info for manual annotations of cluster P4:

- Start number 10 was manually annotated 2 times for cluster P4.

Info for manual annotations of cluster P5:

- Start number 10 was manually annotated 2 times for cluster P5.

Info for manual annotations of cluster P6:

- Start number 10 was manually annotated 1 time for cluster P6.

Info for manual annotations of cluster T:

- Start number 8 was manually annotated 7 times for cluster T.

Gene Information:

Gene: Aggie_61 Start: 41047, Stop: 41649, Start Num: 6

Candidate Starts for Aggie_61:

(Start: 6 @41047 has 36 MA's), (12, 41095), (16, 41113), (18, 41122), (39, 41467),

Gene: Andies_59 Start: 40492, Stop: 41094, Start Num: 6

Candidate Starts for Andies_59:

(Start: 6 @40492 has 36 MA's), (12, 40540), (16, 40558), (20, 40591), (30, 40729), (39, 40912), (43, 41026),

Gene: Arib1_62 Start: 40287, Stop: 40829, Start Num: 7

Candidate Starts for Arib1_62:

(Start: 7 @40287 has 4 MA's), (16, 40344), (18, 40353), (20, 40377), (28, 40464), (34, 40626), (41, 40779),

Gene: Atcoo_65 Start: 43667, Stop: 44197, Start Num: 10

Candidate Starts for Atcoo_65:

(4, 43616), (Start: 10 @43667 has 50 MA's), (15, 43706), (16, 43712), (18, 43721), (20, 43745), (28, 43832), (34, 43994), (41, 44147),

Gene: BabeRuth_62 Start: 39143, Stop: 39745, Start Num: 6

Candidate Starts for BabeRuth_62:

(Start: 6 @39143 has 36 MA's), (12, 39191), (16, 39209), (20, 39242), (30, 39380), (39, 39563), (43, 39677),

Gene: Babsiella_65 Start: 41599, Stop: 42135, Start Num: 10

Candidate Starts for Babsiella_65:

(Start: 10 @41599 has 50 MA's), (15, 41638), (16, 41644), (18, 41653), (20, 41677), (28, 41764), (34, 41926), (41, 42079),

Gene: Bartholomew_59 Start: 39614, Stop: 40162, Start Num: 7

Candidate Starts for Bartholomew_59:

(Start: 7 @39614 has 4 MA's), (16, 39671), (18, 39680), (20, 39704), (28, 39791), (34, 39953), (41, 40106),

Gene: Bernal13_49 Start: 35954, Stop: 36469, Start Num: 8

Candidate Starts for Bernal13_49:

(Start: 8 @35954 has 7 MA's), (36, 36314), (39, 36365),

Gene: BigNuz_64 Start: 42336, Stop: 42854, Start Num: 10

Candidate Starts for BigNuz_64:

(1, 42165), (2, 42177), (4, 42285), (Start: 10 @42336 has 50 MA's), (15, 42375), (16, 42381), (18, 42390), (20, 42414), (22, 42438), (25, 42459), (34, 42663), (41, 42816),

Gene: Bogie_66 Start: 42649, Stop: 43179, Start Num: 10

Candidate Starts for Bogie_66:

(4, 42598), (Start: 10 @42649 has 50 MA's), (15, 42688), (16, 42694), (18, 42703), (20, 42727), (28, 42814), (34, 42976), (41, 43129),

Gene: Bosection6_64 Start: 40096, Stop: 40698, Start Num: 6

Candidate Starts for Bosection6_64:

(Start: 6 @40096 has 36 MA's), (12, 40144), (16, 40162), (18, 40171), (39, 40516),

Gene: Brujita_64 Start: 41657, Stop: 42181, Start Num: 10

Candidate Starts for Brujita_64:

(Start: 10 @41657 has 50 MA's), (15, 41696), (16, 41702), (18, 41711), (20, 41735), (28, 41822), (34, 41984), (41, 42137),

Gene: Brusacoram_65 Start: 42210, Stop: 42740, Start Num: 10

Candidate Starts for Brusacoram_65:

(4, 42159), (Start: 10 @42210 has 50 MA's), (15, 42249), (16, 42255), (18, 42264), (20, 42288), (28, 42375), (34, 42537), (41, 42690),

Gene: Bunnies_69 Start: 43411, Stop: 43941, Start Num: 10

Candidate Starts for Bunnies_69:

(Start: 10 @43411 has 50 MA's), (15, 43450), (16, 43456), (18, 43465), (20, 43489), (28, 43576), (34, 43738), (41, 43891),

Gene: Butters_61 Start: 38432, Stop: 39028, Start Num: 6

Candidate Starts for Butters_61:

(Start: 6 @38432 has 36 MA's), (12, 38480), (16, 38498), (20, 38531), (21, 38546), (39, 38849), (43, 38963),

Gene: CactusJack_64 Start: 42282, Stop: 42812, Start Num: 10

Candidate Starts for CactusJack_64:

(4, 42231), (Start: 10 @42282 has 50 MA's), (15, 42321), (16, 42327), (18, 42336), (20, 42360), (34, 42609), (41, 42762),

Gene: Camster_64 Start: 41110, Stop: 41640, Start Num: 10

Candidate Starts for Camster_64:

(4, 41059), (Start: 10 @41110 has 50 MA's), (15, 41149), (16, 41155), (18, 41164), (20, 41188), (34, 41437), (41, 41590),

Gene: Carcharodon_65 Start: 40394, Stop: 40996, Start Num: 6

Candidate Starts for Carcharodon_65:

(Start: 6 @40394 has 36 MA's), (12, 40442), (16, 40460), (18, 40469), (39, 40814),

Gene: Charlie_62 Start: 39720, Stop: 40322, Start Num: 6

Candidate Starts for Charlie_62:

(Start: 6 @39720 has 36 MA's), (12, 39768), (16, 39786), (18, 39795), (39, 40140),

Gene: Che9c_73 Start: 51368, Stop: 51892, Start Num: 10

Candidate Starts for Che9c_73:

(Start: 10 @51368 has 50 MA's), (15, 51407), (16, 51413), (18, 51422), (20, 51446), (28, 51533), (41, 51848),

Gene: Chewbacca_68 Start: 40289, Stop: 40891, Start Num: 6

Candidate Starts for Chewbacca_68:

(Start: 6 @40289 has 36 MA's), (12, 40337), (16, 40355), (18, 40364), (39, 40709),

Gene: Donovan_63 Start: 41244, Stop: 41774, Start Num: 10

Candidate Starts for Donovan_63:

(Start: 10 @41244 has 50 MA's), (15, 41283), (16, 41289), (18, 41298), (20, 41322), (34, 41571), (41, 41724),

Gene: Duplicity_63 Start: 39651, Stop: 40253, Start Num: 6

Candidate Starts for Duplicity_63:

(Start: 6 @39651 has 36 MA's), (12, 39699), (16, 39717), (18, 39726), (39, 40071),

Gene: Dynamo_63 Start: 40683, Stop: 41213, Start Num: 10

Candidate Starts for Dynamo_63:

(4, 40632), (Start: 10 @40683 has 50 MA's), (15, 40722), (16, 40728), (18, 40737), (20, 40761), (28, 40848), (34, 41010), (41, 41163),

Gene: FirstPlacePfu_67 Start: 40276, Stop: 40806, Start Num: 10

Candidate Starts for FirstPlacePfu_67:

(4, 40225), (Start: 10 @40276 has 50 MA's), (15, 40315), (16, 40321), (18, 40330), (20, 40354), (28, 40441), (34, 40603), (41, 40756),

Gene: Fishburne_62 Start: 41070, Stop: 41600, Start Num: 10

Candidate Starts for Fishburne_62:

(Start: 10 @41070 has 50 MA's), (15, 41109), (16, 41115), (18, 41124), (20, 41148), (34, 41397), (41, 41550),

Gene: Fulbright_63 Start: 39088, Stop: 39690, Start Num: 6

Candidate Starts for Fulbright_63:

(Start: 6 @39088 has 36 MA's), (12, 39136), (16, 39154), (18, 39163), (39, 39508),

Gene: Gex_66 Start: 40410, Stop: 41012, Start Num: 6

Candidate Starts for Gex_66:

(Start: 6 @40410 has 36 MA's), (12, 40458), (16, 40476), (18, 40485), (39, 40830),

Gene: Glaske_63 Start: 42282, Stop: 42812, Start Num: 10

Candidate Starts for Glaske_63:

(4, 42231), (Start: 10 @42282 has 50 MA's), (15, 42321), (16, 42327), (18, 42336), (20, 42360), (34, 42609), (41, 42762),

Gene: GreaseLightnin_68 Start: 43064, Stop: 43594, Start Num: 10

Candidate Starts for GreaseLightnin_68:

(4, 43013), (Start: 10 @43064 has 50 MA's), (15, 43103), (16, 43109), (18, 43118), (20, 43142), (28, 43229), (34, 43391), (41, 43544),

Gene: HC_60 Start: 39145, Stop: 39687, Start Num: 10

Candidate Starts for HC_60:

(Start: 10 @39145 has 50 MA's), (15, 39184), (16, 39190), (18, 39199), (20, 39223), (34, 39472), (41, 39625),

Gene: HUHilltop_66 Start: 40906, Stop: 41436, Start Num: 10

Candidate Starts for HUHilltop_66:

(4, 40855), (Start: 10 @40906 has 50 MA's), (15, 40945), (16, 40951), (18, 40960), (20, 40984), (28, 41071), (34, 41233), (41, 41386),

Gene: Ibrahim_49 Start: 36400, Stop: 36915, Start Num: 8

Candidate Starts for Ibrahim_49:

(Start: 8 @36400 has 7 MA's), (36, 36760), (39, 36811),

Gene: Island3_65 Start: 41657, Stop: 42181, Start Num: 10

Candidate Starts for Island3_65:

(Start: 10 @41657 has 50 MA's), (15, 41696), (16, 41702), (18, 41711), (20, 41735), (34, 41984), (41, 42137),

Gene: Jamie19_57 Start: 37823, Stop: 38425, Start Num: 6

Candidate Starts for Jamie19_57:

(Start: 6 @37823 has 36 MA's), (12, 37871), (20, 37922), (39, 38243), (43, 38357),

Gene: Jebeks_64 Start: 40203, Stop: 40733, Start Num: 10

Candidate Starts for Jebeks_64:

(4, 40152), (Start: 10 @40203 has 50 MA's), (15, 40242), (16, 40248), (18, 40257), (20, 40281), (34, 40530), (41, 40683),

Gene: Journey_60 Start: 38700, Stop: 39281, Start Num: 9

Candidate Starts for Journey_60:

(9, 38700), (15, 38739), (16, 38745), (18, 38754), (39, 39099),

Gene: Jung_64 Start: 41206, Stop: 41730, Start Num: 10

Candidate Starts for Jung_64:

(4, 41155), (Start: 10 @41206 has 50 MA's), (15, 41245), (16, 41251), (18, 41260), (20, 41284), (28, 41371),

Gene: Juniormint_61 Start: 39659, Stop: 40189, Start Num: 10

Candidate Starts for Juniormint_61:

(4, 39608), (Start: 10 @39659 has 50 MA's), (15, 39698), (16, 39704), (18, 39713), (20, 39737), (28, 39824), (34, 39986), (41, 40139),

Gene: Kari_61 Start: 41067, Stop: 41597, Start Num: 10

Candidate Starts for Kari_61:

(Start: 10 @41067 has 50 MA's), (15, 41106), (16, 41112), (18, 41121), (20, 41145), (34, 41394), (41, 41547),

Gene: Kevin1_64 Start: 38938, Stop: 39537, Start Num: 6

Candidate Starts for Kevin1_64:

(Start: 6 @38938 has 36 MA's), (12, 38986), (16, 39004), (20, 39037), (21, 39052), (39, 39358), (43, 39472),

Gene: KilKor_64 Start: 42975, Stop: 43505, Start Num: 10

Candidate Starts for KilKor_64:

(4, 42924), (Start: 10 @42975 has 50 MA's), (15, 43014), (16, 43020), (18, 43029), (20, 43053), (34, 43302), (41, 43455),

Gene: Ksquared_67 Start: 43288, Stop: 43818, Start Num: 10

Candidate Starts for Ksquared_67:

(Start: 10 @43288 has 50 MA's), (15, 43327), (16, 43333), (18, 43342), (20, 43366), (28, 43453), (34, 43615), (41, 43768),

Gene: Langerak_63 Start: 41047, Stop: 41577, Start Num: 10

Candidate Starts for Langerak_63:

(Start: 10 @41047 has 50 MA's), (15, 41086), (16, 41092), (18, 41101), (20, 41125), (28, 41212), (34, 41374), (41, 41527),

Gene: Magsby_64 Start: 40356, Stop: 40958, Start Num: 6

Candidate Starts for Magsby_64:

(Start: 6 @40356 has 36 MA's), (12, 40404), (16, 40422), (18, 40431), (39, 40776),

Gene: Majeke_66 Start: 41694, Stop: 42224, Start Num: 10

Candidate Starts for Majeke_66:

(Start: 10 @41694 has 50 MA's), (15, 41733), (16, 41739), (18, 41748), (20, 41772), (34, 42021), (41, 42174),

Gene: Malithi_63 Start: 40833, Stop: 41363, Start Num: 10

Candidate Starts for Malithi_63:

(4, 40782), (Start: 10 @40833 has 50 MA's), (15, 40872), (16, 40878), (18, 40887), (20, 40911), (34, 41160), (41, 41313),

Gene: Mangethe_66 Start: 41694, Stop: 42224, Start Num: 10

Candidate Starts for Mangethe_66:

(Start: 10 @41694 has 50 MA's), (15, 41733), (16, 41739), (18, 41748), (20, 41772), (34, 42021), (41, 42174),

Gene: Megiddo_63 Start: 42843, Stop: 43373, Start Num: 10

Candidate Starts for Megiddo_63:

(4, 42792), (Start: 10 @42843 has 50 MA's), (15, 42882), (16, 42888), (18, 42897), (20, 42921), (28, 43008), (34, 43170), (41, 43323),

Gene: Melville_70 Start: 39965, Stop: 40567, Start Num: 6

Candidate Starts for Melville_70:

(Start: 6 @39965 has 36 MA's), (12, 40013), (16, 40031), (18, 40040), (39, 40385),

Gene: Mendokysei_47 Start: 35526, Stop: 36041, Start Num: 8

Candidate Starts for Mendokysei_47:

(3, 35466), (Start: 8 @35526 has 7 MA's), (11, 35541), (23, 35640), (29, 35742), (36, 35886), (39, 35937),

Gene: MichelleMyBell_63 Start: 38786, Stop: 39388, Start Num: 6

Candidate Starts for MichelleMyBell_63:

(Start: 6 @38786 has 36 MA's), (12, 38834), (16, 38852), (20, 38885), (21, 38900), (39, 39206), (43, 39320),

Gene: Nairb_48 Start: 35954, Stop: 36469, Start Num: 8

Candidate Starts for Nairb_48:

(Start: 8 @35954 has 7 MA's), (36, 36314), (39, 36365),

Gene: Nazo_65 Start: 42521, Stop: 43039, Start Num: 10

Candidate Starts for Nazo_65:

(1, 42350), (2, 42362), (4, 42470), (Start: 10 @42521 has 50 MA's), (15, 42560), (16, 42566), (18, 42575), (20, 42599), (22, 42623), (25, 42644), (34, 42848), (41, 43001),

Gene: Necropolis_61 Start: 40272, Stop: 40802, Start Num: 10

Candidate Starts for Necropolis_61:

(4, 40221), (Start: 10 @40272 has 50 MA's), (15, 40311), (16, 40317), (18, 40326), (20, 40350), (28, 40437), (34, 40599), (41, 40752),

Gene: Nенаe_62 Start: 39145, Stop: 39747, Start Num: 6

Candidate Starts for Nенаe_62:

(Start: 6 @39145 has 36 MA's), (12, 39193), (16, 39211), (20, 39244), (30, 39382), (39, 39565), (43, 39679),

Gene: Nitzel_70 Start: 44595, Stop: 45167, Start Num: 10

Candidate Starts for Nitzel_70:

(Start: 10 @44595 has 50 MA's), (14, 44631), (17, 44643), (18, 44649), (20, 44673), (25, 44718), (27, 44736), (28, 44760), (29, 44802), (32, 44838), (35, 44931), (37, 44955), (38, 44976), (40, 45030), (42, 45102), (44, 45108), (45, 45114),

Gene: Panchino_58 Start: 39928, Stop: 40521, Start Num: 5

Candidate Starts for Panchino_58:

(Start: 5 @39928 has 1 MA's), (16, 39985), (18, 39994), (30, 40156), (39, 40339), (43, 40453),

Gene: Parmesanjohn_65 Start: 40414, Stop: 41016, Start Num: 6

Candidate Starts for Parmesanjohn_65:

(Start: 6 @40414 has 36 MA's), (12, 40462), (16, 40480), (18, 40489), (39, 40834),

Gene: Phalm_64 Start: 42273, Stop: 42803, Start Num: 10

Candidate Starts for Phalm_64:

(4, 42222), (Start: 10 @42273 has 50 MA's), (15, 42312), (16, 42318), (18, 42327), (20, 42351), (34, 42600), (41, 42753),

Gene: PhancyPhin_62 Start: 39139, Stop: 39741, Start Num: 6

Candidate Starts for PhancyPhin_62:

(Start: 6 @39139 has 36 MA's), (12, 39187), (16, 39205), (20, 39238), (30, 39376), (39, 39559), (43, 39673),

Gene: Phayonce_67 Start: 44806, Stop: 45330, Start Num: 10

Candidate Starts for Phayonce_67:

(Start: 10 @44806 has 50 MA's), (12, 44833), (13, 44836), (19, 44878), (28, 44971), (31, 45040), (39, 45205), (41, 45283),

Gene: Phegasus_66 Start: 41661, Stop: 42191, Start Num: 10

Candidate Starts for Phegasus_66:

(Start: 10 @41661 has 50 MA's), (15, 41700), (16, 41706), (18, 41715), (20, 41739), (34, 41988), (41, 42141),

Gene: Philonius_65 Start: 40579, Stop: 41181, Start Num: 6

Candidate Starts for Philonius_65:

(Start: 6 @40579 has 36 MA's), (12, 40627), (16, 40645), (18, 40654), (39, 40999),

Gene: Phineas_64 Start: 41241, Stop: 41771, Start Num: 10

Candidate Starts for Phineas_64:

(4, 41190), (Start: 10 @41241 has 50 MA's), (15, 41280), (16, 41286), (18, 41295), (20, 41319), (28, 41406), (34, 41568), (41, 41721),

Gene: Phloss_63 Start: 39821, Stop: 40423, Start Num: 6

Candidate Starts for Phloss_63:

(Start: 6 @39821 has 36 MA's), (12, 39869), (16, 39887), (18, 39896), (39, 40241),

Gene: Phrann_61 Start: 41688, Stop: 42290, Start Num: 6

Candidate Starts for Phrann_61:

(Start: 6 @41688 has 36 MA's), (12, 41736), (16, 41754), (20, 41787), (30, 41925), (39, 42108), (43, 42222),

Gene: Pipsqueaks_66 Start: 40392, Stop: 40994, Start Num: 6

Candidate Starts for Pipsqueaks_66:

(Start: 6 @40392 has 36 MA's), (12, 40440), (16, 40458), (18, 40467), (39, 40812),

Gene: Polkaroo_65 Start: 42987, Stop: 43517, Start Num: 10

Candidate Starts for Polkaroo_65:

(4, 42936), (Start: 10 @42987 has 50 MA's), (15, 43026), (16, 43032), (18, 43041), (20, 43065), (28, 43152), (34, 43314), (41, 43467),

Gene: Purgamenstris_62 Start: 39143, Stop: 39745, Start Num: 6

Candidate Starts for Purgamenstris_62:

(Start: 6 @39143 has 36 MA's), (12, 39191), (16, 39209), (20, 39242), (30, 39380), (39, 39563), (43, 39677),

Gene: Purky_76 Start: 46764, Stop: 47285, Start Num: 10

Candidate Starts for Purky_76:

(Start: 10 @46764 has 50 MA's), (12, 46791), (13, 46794), (19, 46836), (24, 46872), (31, 46998), (41, 47241),

Gene: Pygmy_66 Start: 42705, Stop: 43235, Start Num: 10

Candidate Starts for Pygmy_66:

(4, 42654), (Start: 10 @42705 has 50 MA's), (15, 42744), (16, 42750), (18, 42759), (20, 42783), (28, 42870), (34, 43032), (41, 43185),

Gene: QueenHazel_60 Start: 40826, Stop: 41356, Start Num: 10

Candidate Starts for QueenHazel_60:

(Start: 10 @40826 has 50 MA's), (15, 40865), (16, 40871), (18, 40880), (20, 40904), (34, 41153), (41, 41306),

Gene: Raymond7_55 Start: 38931, Stop: 39533, Start Num: 6

Candidate Starts for Raymond7_55:

(Start: 6 @38931 has 36 MA's), (12, 38979), (16, 38997), (20, 39030), (30, 39168), (39, 39351), (43, 39465),

Gene: Rebel_59 Start: 37248, Stop: 37847, Start Num: 6

Candidate Starts for Rebel_59:

(Start: 6 @37248 has 36 MA's), (12, 37296), (16, 37314), (20, 37347), (21, 37362), (39, 37668), (43, 37782),

Gene: Redi_62 Start: 39142, Stop: 39744, Start Num: 6

Candidate Starts for Redi_62:

(Start: 6 @39142 has 36 MA's), (12, 39190), (16, 39208), (20, 39241), (30, 39379), (39, 39562), (43, 39676),

Gene: RonRayGun_49 Start: 36400, Stop: 36915, Start Num: 8

Candidate Starts for RonRayGun_49:

(Start: 8 @36400 has 7 MA's), (36, 36760), (39, 36811),

Gene: Rubeelu_61 Start: 38432, Stop: 39028, Start Num: 6

Candidate Starts for Rubeelu_61:

(Start: 6 @38432 has 36 MA's), (12, 38480), (16, 38498), (20, 38531), (21, 38546), (39, 38849), (43, 38963),

Gene: Sbash_78 Start: 50081, Stop: 50605, Start Num: 10

Candidate Starts for Sbash_78:

(Start: 10 @50081 has 50 MA's), (15, 50120), (16, 50126), (18, 50135), (20, 50159), (41, 50561),

Gene: Schnauzer_66 Start: 40414, Stop: 41016, Start Num: 6

Candidate Starts for Schnauzer_66:

(Start: 6 @40414 has 36 MA's), (12, 40462), (16, 40480), (18, 40489), (39, 40834),

Gene: Scitech_60 Start: 39817, Stop: 40419, Start Num: 6

Candidate Starts for Scitech_60:

(Start: 6 @39817 has 36 MA's), (12, 39865), (16, 39883), (18, 39892), (39, 40237),

Gene: Shipwreck_66 Start: 42680, Stop: 43210, Start Num: 10

Candidate Starts for Shipwreck_66:

(4, 42629), (Start: 10 @42680 has 50 MA's), (15, 42719), (16, 42725), (18, 42734), (20, 42758), (28, 42845), (34, 43007), (41, 43160),

Gene: ShrimpFriedEgg_62 Start: 39142, Stop: 39744, Start Num: 6

Candidate Starts for ShrimpFriedEgg_62:

(Start: 6 @39142 has 36 MA's), (12, 39190), (16, 39208), (20, 39241), (30, 39379), (39, 39562), (43, 39676),

Gene: Shweta_60 Start: 39374, Stop: 39976, Start Num: 6

Candidate Starts for Shweta_60:

(Start: 6 @39374 has 36 MA's), (12, 39422), (16, 39440), (20, 39473), (30, 39611), (39, 39794), (43, 39908),

Gene: Silvafighter_67 Start: 39957, Stop: 40559, Start Num: 6
Candidate Starts for Silvafighter_67:
(Start: 6 @39957 has 36 MA's), (12, 40005), (16, 40023), (18, 40032), (39, 40377),

Gene: Silvy_66 Start: 41047, Stop: 41649, Start Num: 6
Candidate Starts for Silvy_66:
(Start: 6 @41047 has 36 MA's), (12, 41095), (16, 41113), (18, 41122), (39, 41467),

Gene: SkinnyPete_62 Start: 40161, Stop: 40763, Start Num: 6
Candidate Starts for SkinnyPete_62:
(Start: 6 @40161 has 36 MA's), (12, 40209), (16, 40227), (18, 40236), (39, 40581),

Gene: Smurph_65 Start: 40414, Stop: 41016, Start Num: 6
Candidate Starts for Smurph_65:
(Start: 6 @40414 has 36 MA's), (12, 40462), (16, 40480), (18, 40489), (39, 40834),

Gene: Snekmaggedon_57 Start: 37823, Stop: 38425, Start Num: 6
Candidate Starts for Snekmaggedon_57:
(Start: 6 @37823 has 36 MA's), (12, 37871), (20, 37922), (39, 38243), (43, 38357),

Gene: Sonah_64 Start: 40377, Stop: 40907, Start Num: 10
Candidate Starts for Sonah_64:
(4, 40326), (Start: 10 @40377 has 50 MA's), (15, 40416), (16, 40422), (18, 40431), (20, 40455), (34, 40704), (41, 40857),

Gene: SpongeBob_57 Start: 37823, Stop: 38425, Start Num: 6
Candidate Starts for SpongeBob_57:
(Start: 6 @37823 has 36 MA's), (12, 37871), (20, 37922), (39, 38243), (43, 38357),

Gene: StevieRay_68 Start: 43444, Stop: 43974, Start Num: 10
Candidate Starts for StevieRay_68:
(4, 43393), (Start: 10 @43444 has 50 MA's), (15, 43483), (16, 43489), (18, 43498), (20, 43522), (28, 43609), (34, 43771), (41, 43924),

Gene: StressBall_63 Start: 41975, Stop: 42505, Start Num: 10
Candidate Starts for StressBall_63:
(4, 41924), (Start: 10 @41975 has 50 MA's), (15, 42014), (16, 42020), (18, 42029), (20, 42053), (34, 42302), (41, 42455),

Gene: Tapioca_63 Start: 40931, Stop: 41533, Start Num: 6
Candidate Starts for Tapioca_63:
(Start: 6 @40931 has 36 MA's), (12, 40979), (16, 40997), (18, 41006), (39, 41351),

Gene: Techage_64 Start: 41242, Stop: 41784, Start Num: 7
Candidate Starts for Techage_64:
(Start: 7 @41242 has 4 MA's), (16, 41299), (18, 41308), (20, 41332), (28, 41419), (34, 41581), (41, 41734),

Gene: Thespis_65 Start: 42210, Stop: 42740, Start Num: 10
Candidate Starts for Thespis_65:
(4, 42159), (Start: 10 @42210 has 50 MA's), (15, 42249), (16, 42255), (18, 42264), (20, 42288), (28, 42375), (34, 42537), (41, 42690),

Gene: ThulaThula_71 Start: 46227, Stop: 46748, Start Num: 10

Candidate Starts for ThulaThula_71:

(Start: 10 @46227 has 50 MA's), (12, 46254), (13, 46257), (19, 46299), (26, 46365), (28, 46392), (31, 46461), (33, 46521), (34, 46551), (41, 46704),

Gene: Venti_61 Start: 39614, Stop: 40162, Start Num: 7

Candidate Starts for Venti_61:

(Start: 7 @39614 has 4 MA's), (16, 39671), (18, 39680), (20, 39704), (28, 39791), (34, 39953), (41, 40106),

Gene: Vidya_62 Start: 40498, Stop: 41028, Start Num: 10

Candidate Starts for Vidya_62:

(4, 40447), (Start: 10 @40498 has 50 MA's), (15, 40537), (16, 40543), (18, 40552), (20, 40576), (34, 40825), (41, 40978),

Gene: Whitty_48 Start: 35955, Stop: 36470, Start Num: 8

Candidate Starts for Whitty_48:

(Start: 8 @35955 has 7 MA's), (36, 36315), (39, 36366),

Gene: Willsammy_65 Start: 42459, Stop: 42989, Start Num: 10

Candidate Starts for Willsammy_65:

(4, 42408), (Start: 10 @42459 has 50 MA's), (15, 42498), (16, 42504), (18, 42513), (20, 42537), (34, 42786), (41, 42939),

Gene: Xavia_65 Start: 46537, Stop: 47067, Start Num: 10

Candidate Starts for Xavia_65:

(Start: 10 @46537 has 50 MA's), (15, 46576), (16, 46582), (18, 46591), (20, 46615), (28, 46702), (41, 47017),

Gene: Xeno_62 Start: 39097, Stop: 39681, Start Num: 10

Candidate Starts for Xeno_62:

(Start: 10 @39097 has 50 MA's), (15, 39136), (16, 39142), (18, 39151), (20, 39175), (28, 39262), (34, 39424), (43, 39613),

Gene: Xerxes_65 Start: 40411, Stop: 41013, Start Num: 6

Candidate Starts for Xerxes_65:

(Start: 6 @40411 has 36 MA's), (12, 40459), (16, 40477), (18, 40486), (39, 40831),

Gene: Xula_59 Start: 40447, Stop: 40989, Start Num: 10

Candidate Starts for Xula_59:

(Start: 10 @40447 has 50 MA's), (15, 40486), (16, 40492), (18, 40501), (20, 40525), (34, 40774), (41, 40927),

Gene: ZenTime222_48 Start: 35954, Stop: 36469, Start Num: 8

Candidate Starts for ZenTime222_48:

(Start: 8 @35954 has 7 MA's), (36, 36314), (39, 36365),

Gene: Zilizebeth_69 Start: 42019, Stop: 42549, Start Num: 10

Candidate Starts for Zilizebeth_69:

(4, 41968), (Start: 10 @42019 has 50 MA's), (15, 42058), (16, 42064), (18, 42073), (20, 42097), (28, 42184), (34, 42346), (41, 42499),