

Supplemental Material

Disease associated mutations in mitochondrial precursor tRNAs affect binding, m1R9 methylation and tRNA processing by mtRNase P

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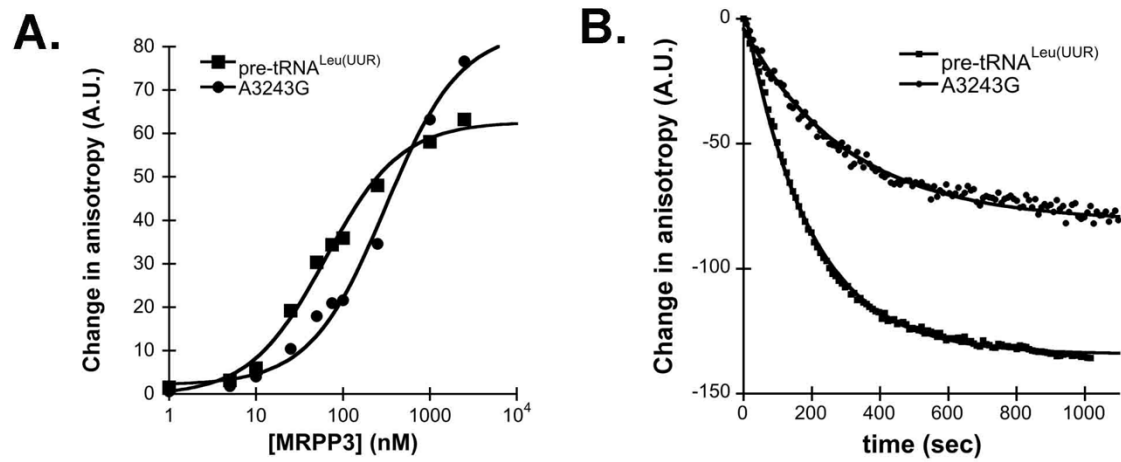
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Supplemental Table 1. Melting temperature values for first transitions for wild type (mt)pre-tRNAs and (mt)pre-tRNA^{Ile} mutants.

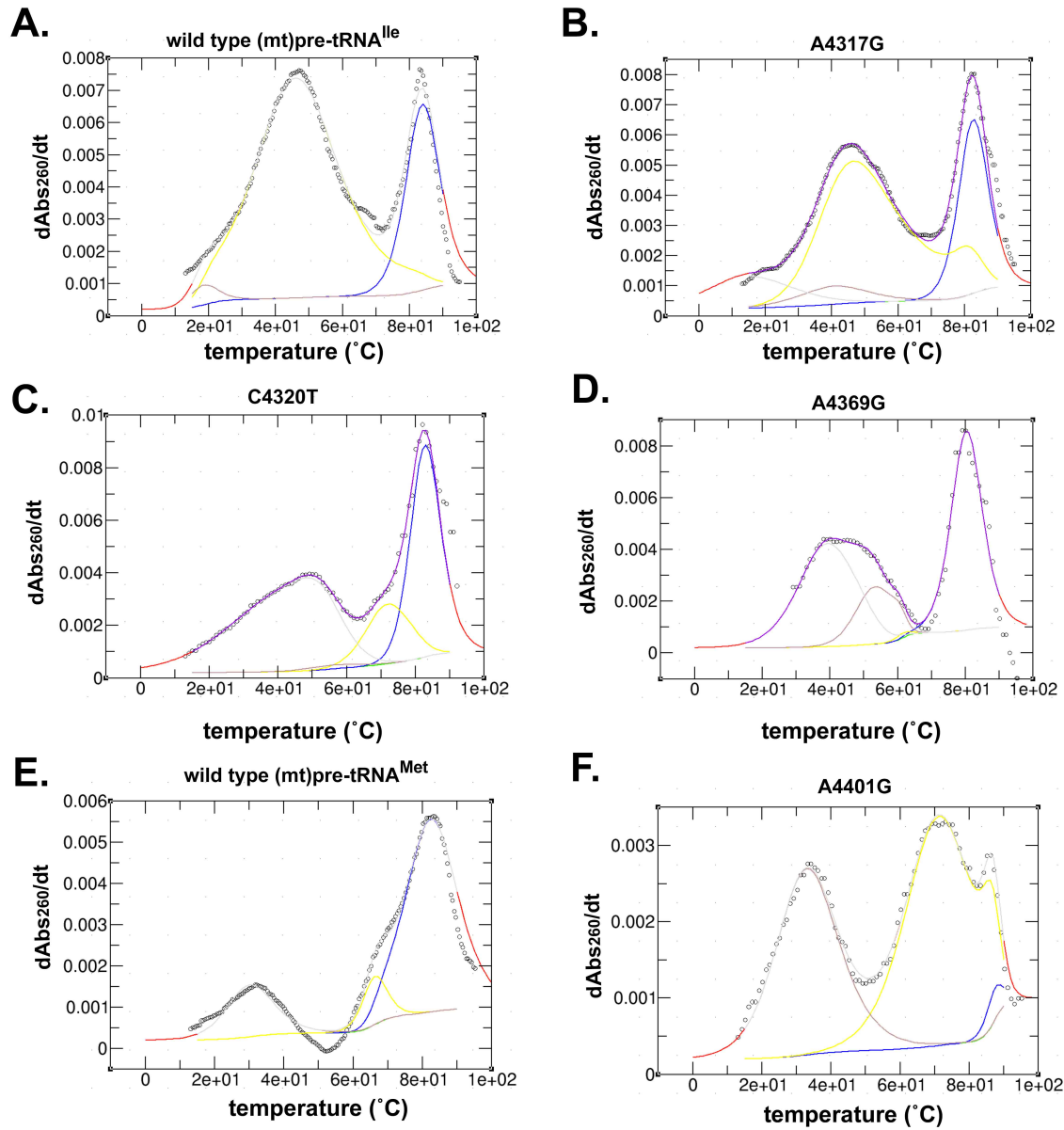
human mitochondrial pre-tRNA	T _m 1 (°C)	T _m 2 (°C)
(mt)pre-tRNA ^{Leu(UUR)}	28.7 ± 0.1	-
(mt)pre-tRNA ^{Met}	32.6 ± 1.1	
(mt)pre-tRNA ^{Ile}	47.7 ± 1.6	
A4269G	40.4 ± 5.4	49.3 ± 1.0
A4317G	42.5 ± 0.9	56.2 ± 0.5
C4320T	27.7 ± 3.7	47.5 ± 0.4

Supplemental Figure 1.



Supplemental Figure 1. A. Example of a wild type and a mutant (mt)pre-tRNA binding in the function of MRPP3 concentrations when 150 nM MRPP1/2 is present using standard binding assay conditions. B. Example of the single turnover cleavage of a wild type and a mutant (mt)pre-tRNA using standard cleavage assay conditions.

Supplemental Figure 2.



Supplemental Figure 2. Examples of fitting data from UV melting experiments by fitUVData.py and Global Melt Fit [33, 34] for different (mt)pre-tRNAs.