



Enzymatic activity of electron transport system Complexes I [↗](#)

PLOS Genetics

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Cage Studies

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EXTERNAL LINK

<https://doi.org/10.1371/journal.pgen.1007735>

THIS PROTOCOL ACCOMPANIES THE FOLLOWING PUBLICATION

Aw WC, Towarnicki SG, Melvin RG, Youngson NA, Garvin MR, Hu Y, Nielsen S, Thomas T, Pickford R, Bustamante S, Vila-Sanjurjo A, Smyth GK, Ballard JWO (2018) Genotype to phenotype: Diet-by-mitochondrial DNA haplotype interactions drive metabolic flexibility and organismal fitness. PLoS Genet 14(11): e1007735. doi: [10.1371/journal.pgen.1007735](https://doi.org/10.1371/journal.pgen.1007735)

nprot.2012.pdf

PROTOCOL STATUS

Working

- 1 Dilute the mitochondrial into 0.4ug/uL with distilled water
- 2 Add 5uL of diluted mitochondria to 73uL of distilled water and incubate for 1 minute
- 3 Prepare buffer mix= 100uL of potassium phosphate buffer (0.5M, pH 7.5), 60uL of fatty acid free BSA (50mg/mL), 30uL of KCN (10mM), and 10uL of NADH (10mM)
- 4 Add 20uL of buffer mix
- 5 Prepare in parallel, a separate well containing the same quantity of reagent and sample with the addition of 10uL of 1mM rotenone
- 6 Start the reaction by adding 1uL of 10mM Ubiquinone. Measure the reading for 3 min



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