

<p>Télot L, Rousseau E, Lesuisse E, Garcia C, Morlet B, Camadro JM, and Serrano A (2018) "Quantitative proteomics of lymphocytes: A valuable approach to decipher the biochemical events responsible for Friedreich's ataxia pathogenesis." <i>Biochim Biophys Acta</i> 1864: 9971009.</p>	<p>LCMS/MS quantitative proteomics</p>	<p>FA Blymphoblasts.</p>	<p>https://www.ncbi.nlm.nih.gov/pubmed/29329987</p>	
<p>Pathak D, Srivastava AK, Padma MV, Gulati S, Rajeswari R. Quantitative Proteomic and Network Analysis of Differentially Expressed Proteins in PBMC of Friedreich's Ataxia Patients. <i>Front Neurosci</i>. 2019 Oct 14;13:1054.</p>	<p>2D Differential Gel Electrophoresis</p>	<p>PBMG</p>	<p>https://pubmed.ncbi.nlm.nih.gov/31680804/</p>	
<p>Napierala JS, Rajapakshe K, Clark A, Chen YY, Huang M, Mesaros C, Xu Blair IA, Hauser LA, Farmer J, Lynch Edwards DP, Coarfa C, Napierala M. Reverse phase protein array reveals correlation of redox metabolism with cardiomyopathy in Friedreich's ataxia. <i>Mol Cell Proteomics</i>. 2021 May 12:100094. doi: 10.1016/j.mcpro.2021.100094</p>	<p>Reverse phase protein array</p>	<p>Fibroblasts</p>	<p>https://pubmed.ncbi.nlm.nih.gov/33991687/</p>	
<p>Patient Plasma</p>				
<p>Swarup V, Srivastava AK, Padma MV, Rajeswari R. (2013) "Quantitative profiling and identification of differentially expressed plasma proteins in Friedreich's ataxia." <i>PLoS One</i> Res 9: 148391.</p>	<p>Proteomics (2D) of protein samples labeled with fluorescent cyanine (Cy) dyes. Internal standard prepared by mixing equal amounts of a</p>	<p>Patient plasma.</p>	<p>https://www.ncbi.nlm.nih.gov/pubmed/23996585</p>	

	samples with a Cy dye). LC-MS/MS			
Bulteau AL, Planamente S, Jornea L, Dur A, Lesuisse E, Camadro JM, Auchere F. (2012) "Changes in mitochondrial glutathione levels and protein thiol oxidation in Yfh1 deficient yeast cells and the lymphoblasts of patients with Friedreich's ataxia." <i>Biochim Biophys Acta</i> . 1822: 212-25.	Proteomic analysis of glutathionylated mitochondrial proteins (MALDI MS and MS/MS)	Patient plasma.	https://www.ncbi.nlm.nih.gov/pubmed/22200491	

Published Metabolomic FA Studies				
Reference	Method	Sample	PubMed link	
KIKO FA Mouse Model				
Hayashi G, Shen Y, Pedersen TL, Newman JW, Pook M, Cortopassi G. (2014) "Fratxin deficiency increases cyclooxygenase 2 and prostaglandins in cell and animal models of Friedreich's ataxia." <i>Hum. Mol. Genet.</i> 23:6838-47.	UPLC-tandem mass spectrometry	KIKO mouse cerebellum.	https://www.ncbi.nlm.nih.gov/pubmed/25104852	
MCK-FXNKO Mouse				
Martin AS, Abraham DM, Hershberger KA, Bhatt DP, Mao L, Cui H, Liu J, Liu X, Muehlbauer MJ, Grimsrud PA, Locasale JW, Payne RM, Hirschey MD. (2017) "Nicotinamide mononucleotide requires SIRT3	nanoLC-MS/MS	Heart of MCK-FXNKO mouse (i.e., heart and skeletal	https://www.ncbi.nlm.nih.gov/pubmed/28724806	

to improve cardiac function and bioenergetics in a Friedreich's ataxia cardiomyopathy model." <i>JCI Insight</i> . 2 : e93885.		muscle FXN knockout).		
FA Patient Platelets				
Worth AJ, Basu SS, Deutsch EC, Hwang WT, Snyder NW, Lynch DR, Blair IA. (2015) "Stable isotopes and LC–MS for monitoring metabolic disturbances in Friedreich's ataxia platelets." <i>Bioanalysis</i> . 7 :1843-55.	Stable isotope labeling; LC-MS	Patient platelets.	https://www.ncbi.nlm.nih.gov/pubmed/26295986	