

Materials List for:

# Defining Hsp33's Redox-regulated Chaperone Activity and Mapping Conformational Changes on Hsp33 Using Hydrogen-deuterium Exchange Mass Spectrometry

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URL: <https://www.jove.com/video/57806>

DOI: [doi:10.3791/57806](https://doi.org/10.3791/57806)

## Materials

Name	Company	Catalog Number	Comments
<b>Chemicals, Reagents</b>			
Acetonitrile HPLC plus	Sigma Aldrich	34998-2.5L	solvent
Formic acid Optima LC/MS	Fisher Chemicals	A117-50	solvent supplement
Isopropyl alcohol, HPLC grade	Fisher Chemicals	P750717	solvent
Methanol	Fisher Chemicals	A456-212	solvent
Tris(hydroxymethyl)aminomethane	Sigma Aldrich	252859	buffer
Trifluoroacetic acid	Sigma Aldrich	76-05-1	solvent
Water for HPLC	Sigma Aldrich	270733-2.5L-M	solvent
ZnCl <sub>2</sub> , Zinc Chloride	Merck	B0755416 308	reagent
DTT	goldbio	27565-41-9	reducing agent
PD mini trap G-25 columns GE healthcare	GE healthcare	29-9180-07	desalting column
Potassium Phosphate	United states Biochemical Corporation	20274	buffer
Hydrogen peroxide 30%	Merck	K46809910526	oxidizing agent
citrate synthase	sigma aldrich	C3260	substrate
HEPES acid free	sigma aldrich	7365-45-9	buffer
Gndcl	sigma aldrich	G3272-500G	denaturant
Deuterium Chloride Solution	sigma aldrich	543047-10G	buffer
Deuterium Oxide 99%	sigma aldrich	151882-100G	solvent
TCEP	bioworld	42000058-2	reducing agent
150uL Micro-Insert with Mandrel Interior & Polymer Feet, 29*5mm	La-Pha-Pack -Thermo Fischer Scientific		
1.5mL Clear Short Thread Vial 9mm Thread, 11.6*32mm	La-Pha-Pack -Thermo Fischer Scientific		
quartz cuvette	Hellma 101-QS		
<b>Instruments</b>			
Jasco FP-8500 Fluorospectrometer	Jasco		
Thermomixer Comfort	Eppendorf	13058/0	
Heraeus Megafuge 16R, bench topCentrifuge	Thermo Scientific		
pH meter , PB-11 sartorius	Sartorius	13119/0	
AffiPro Immobilized Pepsin column (20mm length, 2.0mm diameter).	AffiPro		

Waters Pre-column (ACQUITY UPLC BEH C18 VanGuard 130 Å, 1.7µm, 2.1mmx5mm)	Waters		
C18 analytical column (ACQUITY UPLC Peptide BEH c18 Column, 130 Å, 1.7µm, 2.1mmx50mm)			
Vinyl Anaerobic chamber with Airlock door	COY		
Q-exactive-orbitrap mass spectrometer	Thermo-Fischer Scientific		
PAL system LHX - robotic system for handling HDX samples	PAL system	<a href="https://www.palsystem.com/index.php?id=840">https://www.palsystem.com/index.php?id=840</a>	
Dionex Ultimate 3000, XRS pump	Thermo Scientific		
Dionex AXP-MS auxiliary pump	Thermo Scientific		
<b>Software, Software Tools, Database search</b>			
Kfits: Fit aggregation Data	<a href="http://kfits.reichmannlab.com/fitter/">http://kfits.reichmannlab.com/fitter/</a>		
Thermo Scientific Xcalibur software	<a href="https://www.thermofisher.com/order/catalog/product/OPTON-30487">https://www.thermofisher.com/order/catalog/product/OPTON-30487</a>		
Q Exactive MS Series Tune Interface (Tune)	<a href="https://tools.thermofisher.com/content/sfs/brochures/WS-MS-Q-Exactive-Calibration-Maintenance-iQuan2016-EN.pdf">https://tools.thermofisher.com/content/sfs/brochures/WS-MS-Q-Exactive-Calibration-Maintenance-iQuan2016-EN.pdf</a>		
Chronos software (Axel Semrau)	<a href="http://www.axel-semrau.de/en/Software/Software+Solutions/Chronos-p-966.html">http://www.axel-semrau.de/en/Software/Software+Solutions/Chronos-p-966.html</a>		
Proteome Discoverer V1.4 software	<a href="https://www.thermofisher.com/order/catalog/product/OPTON-30795">https://www.thermofisher.com/order/catalog/product/OPTON-30795</a>		
HDX workbench software	<a href="http://hdx.florida.scripps.edu/hdx_workbench/Home.html">http://hdx.florida.scripps.edu/hdx_workbench/Home.html</a>		