

Materials List for

Cryogenic Sample Loading into a Magic Angle Spinning Nuclear Magnetic Resonance Spectrometer that Preserves Cellular Viability

Rupam Ghosh^{*1}, Jaka Kragelj^{*1}, Yiling Xiao^{*1}, Kendra K. Frederick^{1,2}

¹Department of Biophysics, University of Texas Southwestern Medical Center ²Center for Alzheimer's and Neurodegenerative Disease and Center for Systems Biology, University of Texas Southwestern Medical Center

*These authors contributed equally

Corresponding Author

Kendra K. Frederick

kendra.frederick@utsouthwestern.edu

Citation

Ghosh, R., Kragelj, J., Xiao, Y., Frederick, K.K. Cryogenic Sample Loading into a Magic Angle Spinning Nuclear Magnetic Resonance Spectrometer that Preserves Cellular Viability. *J. Vis. Exp.* (), e61733, doi:10.3791/61733 (2020).

Date Published

September 1, 2020

DOI

10.3791/61733

URL

jove.com/video/61733

Materials

Name	Company	Catalog Number	Comments
0.4% Trypan blue stain	Invitrogen	T10282	
100 mm cell culture dish	Thomas Scientific	430167	
150 mm cell culture dish	Nunc	157150	
3.2 mm sapphire rotor	Bruker		
45 ° angled forceps	Hampton Research	HR4-859	
AMUPol	Cortecnet	C010P005	
Black and Silver marker	Sharpie		
Cap removal tool	Bruker	HZ16913	
Cell culture grade water	HyClone	SH30529.03	
Ceramic cap	Cortecnet	HZ12372	
CoolCell	Corning/ Bioscion	UX-04392-00 (Corning) / BCS-405 (Bioscion)	
Countess Cell Counting Chamber Slides	Invitrogen	C10288	
Countess II automated cell counter	Invitrogen	AMQAF1000	
Cryogen tubes	Nalgene	03-337-7Y	
d8-glycerol	Aldrich	447498	
Deuterium oxide, 99.8 % atom D	Aldrich	756822-1	
DMEM	Gibco	10569-010	
DNP NMR system with frequency-matched gyrotron	Bruker		
Foam dewar	Spearlab	FD-800	
Kimwipes	Kimwipes		
Packing tool	Bruker		
Pen-Strep	Gibco	15140-122	

Powdered PBS	VWR	VWRRV0780	
Protonated PBS	Gibco	10010-023	
Silicon plug	Bruker	B7089	
Standard Vessel forceps			
Tryp-L	Gibco	12605010	