

Materials List for:

Magnetic Resonance Spectroscopy of live *Drosophila melanogaster* using Magic Angle Spinning

Valeria Righi^{1,2,3}, Yiorgos Apidianakis^{2,4}, Laurence G. Rahme^{2,4}, A. Aria Tzika^{1,2,3}

¹NMR Surgical Laboratory, Department of Surgery, Massachusetts General Hospital, Harvard Medical School

²Shriners Burn Institute

³Department of Radiology, Athinoula A. Martinos Center of Biomedical Imaging, Harvard Medical School

⁴Molecular Surgery Laboratory, Department of Surgery, Massachusetts General Hospital, Harvard Medical School

Correspondence to: A. Aria Tzika at atzika@hms.harvard.edu

URL: <https://www.jove.com/video/1710>

DOI: [doi:10.3791/1710](https://doi.org/10.3791/1710)

Materials

Name	Type	Company	Catalog Number	Comments
Deuterium oxide	Reagent	Sigma-Aldrich	7789-20-0	
3-(trimethylsilyl)propionic-2,2,3,3-d ₄ acid	Reagent	Sigma-Aldrich	24493-21-8	
agar, sucrose, yeast, cornmeal	Food	Genesee Scientific		http://www.flystuff.com/
Oregon RS or Canton-S flies	Adult fly lines	Bloomington Stock center		http://flystocks.bio.indiana.edu/
Paintbrush	Equipment			(size 0)
2ml tubes	Equipment	Fisher Scientific	K749521-1590	
Fly incubators	Equipment			high humidity capacity (60-75%), adjustable temperature, and a 12 h:12 h light: dark cycle.
Bruker Bio-Spin Avance NMR spectrometer (600.13 MHz) 4mm triple resonance (¹ H, ¹³ C, ² H) HRMAS probe	Equipment	Bruker Corporation		
BTO-2000 unit in combination with a MAS pneumatic unit	Equipment	Bruker Corporation		
4mm zirconium oxide rotor (capacity 50 ul)	Equipment	Bruker Corporation	B3829 (Bruker store)	
MestReC (Mestrelab Research)	Software			1D NMR spectra analysis http://mestrelab.com/
SPARKY 3, USCF	Software			2D NMR spectraanalysis http://www.cgl.ucsf.edu/home/sparky/