

Materials List for:

# Application of Electrophysiology Measurement to Study the Activity of Electro-Neutral Transporters

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URL: <https://www.jove.com/video/56630>

DOI: [doi:10.3791/56630](https://doi.org/10.3791/56630)

## Materials

Name	Company	Catalog Number	Comments
Patch clamp Amplifier	Molecular Devices		
Dual Channel Differential Electrometer (HiZ-223)	Warner Instruments	64-1650	
Differential Amplifier (DP-301)	Warner Instruments	64-0044	
Patch Clamp Software Based on MatLab	MatLab with acquisition toolbox		The capmeter software is recommended
ThermoClamp-1 Temperature Control System	AutoMate Scientific	03-11-LL	In-line heater
Single-Channel Temperature Controller (TC-324C)	Warner Instruments	64-2400	
Single-Barrel Standard Borosilicate Glass Tubing	World Precision Instruments	1B120F-3	Used for ion selective electrodes
Micropipette Storage Jar	World Precision Instruments	E212	
Bis(dimethylamino)dimethylsilane	Sigma-Aldrich	14755-100ML	
Carbon tetrachloride	Sigma-Aldrich	319961-500ML	
Hydrogen ionophore I - cocktail B	Sigma-Aldrich	95293	
Thin Wall Borosilicate Tubing	Sutter Instrument	B200-156-15	Used for patch clamp pipette
Soft glass (Corning 8161 Patch Glass)	Warner Instruments	64-0815	
Silica Capillary Tubing (150um OD/75um ID)	Molex (Polymicro Technologies)	106815-0018	Used for intra-pipette perfusion system
Potassium chloride	Sigma-Aldrich	P9333	
Potassium aspartate	Sigma-Aldrich	A6558	
EGTA	Sigma-Aldrich	E3889	
Magnesium chloride	Sigma-Aldrich	M4880	
Mg-ATP	Sigma-Aldrich	A9187	
HEPES	Sigma-Aldrich	H3375	
PIPES	Sigma-Aldrich	P6757	
MOPS	Sigma-Aldrich	M1254	
MES	Sigma-Aldrich	M3671	
Calcium chloride	Sigma-Aldrich	C5670	
Tris	Sigma-Aldrich	T1503	
Hydrochloric acid	Sigma-Aldrich	H1758	
Apyrase	Sigma-Aldrich	A6535	
Phosphatidylinositol(4,5) bisphosphate diC8	Echelon Biosciences	P-4508	

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Phosphatidylinositol 3,4,5-trisphosphate diC8	Echelon Biosciences	P-3908	
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