

Materials List for:

# Optimized Transfection Strategy for Expression and Electrophysiological Recording of Recombinant Voltage-Gated Ion Channels in HEK-293T Cells

Adriano Senatore<sup>1</sup>, Adrienne N. Boone<sup>1</sup>, J. David Spafford<sup>1</sup>

<sup>1</sup>Department of Biology, University of Waterloo

Correspondence to: J. David Spafford at [Spafford@uwaterloo.ca](mailto:Spafford@uwaterloo.ca)

URL: <https://www.jove.com/video/2314>

DOI: [doi:10.3791/2314](https://doi.org/10.3791/2314)

## Materials

Name	Company	Catalog Number	Comments
pIRES2-EGFP plasmid	Clontech Laboratories	6029-1	
Circle glass coverslips	Fisher Scientific	12-545-80	Circles No. 1 - 0.13 to 0.17mm thick, Size: 12mm
Amplifier	Axon Instruments	Axopatch 200B or Multiclamp 700B	
Data Acquisition System	Axon Instruments	Digidata 1440A	
Electrophysiology Software	Axon Instruments	pClamp10.1	
Pipette manipulators	Sutter Instrument Co.	MPC-385-2	
Epifluorescence inverted microscope	Carl Zeiss, Inc.	Axiovert 40 CFL	
Headstage	Axon Instruments	CV-7B	
Headstage electrode holder	Axon Instruments	1-HL-U	
Micr-lectrode holder for ground electrode	World Precision Instruments, Inc.	MEH3RF 15	
Electrophysiology capillary tubes	Sutter Instrument Co.	BF-150-86-15	Borosilicate glass with filament, O.D. 1.5mm, O.D. 0.86mm, 15cm long
Flaming/Brown Micropipette Puller	Sutter Instrument Co.	P-97	
Micropipette fire polisher	Narishige International	Micro Forge MF-830	
Micro drug perfusion system	AutoMate Scientific, Inc.	SmartSquirt8 Valvelink8.2	
Drug perfusion system	AutoMate Scientific, Inc.	Valvelink8.2 with Teflon valves	