

Materials List for:

# Monitoring Endoplasmic Reticulum Calcium Homeostasis Using a *Gaussia* Luciferase SERCaMP

Mark J. Henderson\*<sup>1</sup>, Emily S. Wires\*<sup>1</sup>, Kathleen A. Trychta<sup>1</sup>, Xiaokang Yan<sup>1</sup>, Brandon K. Harvey<sup>1</sup>

<sup>1</sup>National Institute on Drug Abuse, National Institutes of Health

\*These authors contributed equally

Correspondence to: Brandon K. Harvey at [bharvey@mail.nih.gov](mailto:bharvey@mail.nih.gov)

URL: <https://www.jove.com/video/53199>

DOI: [doi:10.3791/53199](https://doi.org/10.3791/53199)

## Materials

Name	Company	Catalog Number	Comments
1.5 ml tubes	Fisher	02-682-550	
10% NP-40 solution	Pierce	28324	for intracellular GLuc assays
1 ml luer-lok syringes	Fisher	14-823-30	
200 microliter filter tips	Rainin	RT-L200F	
3-0 surgical sutures	Fisher	NC9598192	
30 G needles	Fisher Scientific	14-821-13A	
Adhesive microplate sealing sheets	Thermo	AB-0558	
Alcohol prep pads	Fisher	22-246-073	
Anesthesia Auto Flow System	E-Z Anesthesia	EZ-AF9000	
Animal recovery chamber	Lyon Vet	ICU-912-004	
B27 supplement	Life Technologies	17504-044	
Betadine solution	Fisher	NC9386574	
Bleach	Clorox	n/a	
Bovine growth serum	Thermo	SH30541.03	
Coelenterazine, Native	Regis Technologies	1-361204-200	
Cotton tipped applicators	Puritan	806-WC	
Cutting needles 3/8 circle sutures	WPI	501803	
Digital ultrasonic cleaner	Fisher Scientific	FS60D	
DMEM high glucose, GlutaMAX, pyruvate	Life Technologies	10569-010	
DNA mass ladder	Life Technologies	10496-016	
Gaussia luciferase (recombinant protein)	Nanolight	321-100	
Gaussia luciferase antibody (for WB, ICC, or IHC)	New England Biolabs	E8023S	1:2,000 (WB)
Germinator 500	CellPoint Scientific	DS-401	
Gluc assay plates (96 well, opaque)	Fisher	07-200-589	
Hank's balanced salt solution	Life Technologies	14175-095	
Heparin	Allmedtech	63323-276-02	
Isoflurane	Butler Schein	29404	
Ketamine	Henry Schein	995-2949	
Kwik Stop Styptic powder	Butler Schein	5867	
L-glutamine	Sigma	G8540	

Methanol	Fisher	a452-4	
Microfuge 22R Centrifuge	Bekman Colter	368831	
Neosporin	Fisher	19-898-143	
Neurobasal medium	Life Technologies	21103049	
Nikon Stereoscope	Nikon	SMZ745T	
Nucleospin Gel and PCR Cleanup	Machery-Nagel	740609	
P200 pipet	Rainin	L-200XLS+	
p24 Lenti-X rapid titer kit	Clontech	632200	
PCR film seal	Fisher	AB0558	
Penicillin/streptomycin	Life Technologies	15140-122	
Protease inhibitor cocktail	Sigma	P8340	
ReFresh Charcoal Filter canister	E-Z Anesthesia	EZ-258	
Scalpel blades, #10	Fine Science tools Inc	10010-00	
SD rats 150-200 g	Charles River	Rats	rats ordered at 150-200 g. Surgery 5 days after arrival
Small animal ear tags	National Band and Tag co	1005-1	
Sterile surgical drapes	Braintree Scientific	SP-MPS	
Synergy 2 plate reader	BioTek	n/a	
TaqMan Universal PCR Master Mix	Applied Biosystems	4304437	
Thapsigargin	Sigma	T9033	harmful to human health
Virapower lentiviral packaging mix	Life Technologies	K4975-00	
Xfect Transfection reagent	Clontech	631318	
Xylazine	Valley Vet	468RX	