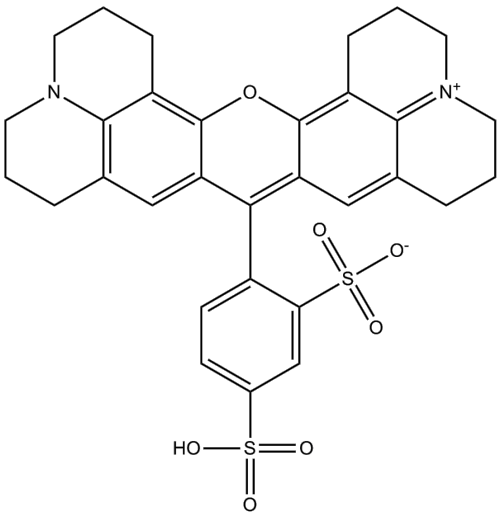
Product Data Sheet

Product Name: Sulforhodamine 101
Cat. No.: GC12347

Chemical Properties

Cas. No.	60311-02-6		
Chemical Name	A name could not be generated for this structure.		
SMILES	[O-]S(=O)(C1=CC(S(O)(=O)=O)=CC=C1C2=C3C(OC(C2=C4)=C5C6=C4CCCN6CCC5)=C7C(C8=C3)=[N+](CCC8)CCC7)=O		
Formula	$C_{31}H_{30}N_2O_7S_2$	M.Wt	606.71
Solubility	DMF: 20 mg/ml,DMSO: 25 mg/ml,Ethanol: 1 mg/ml,PBS (pH 7.2): 2 mg/ml	Storage	Store at -20°C, protect from light
General tips	For obtaining a higher solubility , please warm the tube at 37 °C and shake it in the ultrasonic bath for a while.Stock solution can be stored below -20°C for several months.		
Shipping Condition	Evaluation sample solution : ship with blue ice All other available size: ship with RT , or blue ice upon request.		

Structure



Protocol

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Cell experiment: Acute brain slices are usually incubated in carbonated extracellular solution containing 0.5 to1 μM Sulforhodamine 101 for 20 to 30 min and 34 to 37°C. Following this, excess dye is removed over a period of 10 to 30 min using different protocols that were described earlier[1].

Animal experiment: For in vivo imaging, Sulforhodamine 101 (SR101) is applied topically at concentrations of 250 nM to 300 μM or by bolus injection. Additionally, Sulforhodamine 101 injection over the tail vein (10 mg/mL) has been reported to be successful[1].

References:

[1]. Hülsmann S, et al. Limitations of Sulforhodamine 101 for Brain Imaging. Front Cell Neurosci. 2017 Feb 28;11:44.

Background

Sulforhodamine 101 is a red fluorescent dye.

Sulforhodamine 101 does not label astrocytes in brainstem slices as strong and specific as in the hippocampus or cortex. To minimize excitatory side effects, the concentration of Sulforhodamine 101 has to be kept as low as possible or the labeling procedure can be performed after the actual experiment[1].

In vivo, epileptic activity can be induced by intra-hippocampal injection of small volumes of 10 μM Sulforhodamine 101 or topical application of 100 μM[1].

References:
[1]. Hülsmann S, et al. Limitations of Sulforhodamine 101 for Brain Imaging. Front Cell Neurosci. 2017 Feb 28;11:44.