

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+](C(C8)CCC7)=O

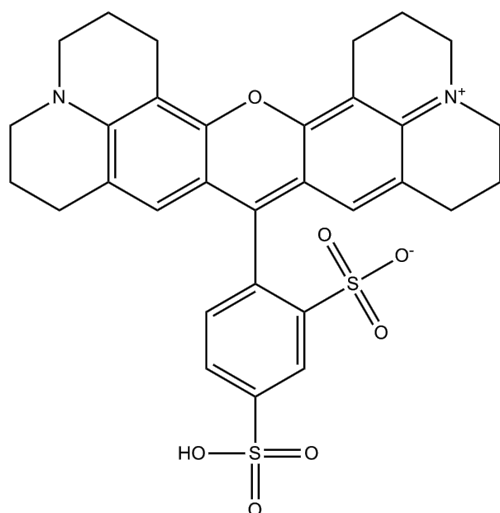
Formula $C_{31}H_{30}N_2O_7S_2$ M.Wt 606.71

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

Caution: Product has not been fully validated for medical applications. For research use only.

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Cell experiment: Acute brain slices are usually incubated in carbonated extracellular solution containing 0.5 to 1 μ M 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 μ M 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 μ M Sulforhodamine 101 or topical application of 100 μ M[1].

References:

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

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