Sulforhodamine 101

CAS Registry No.: 60311-02-6
Formal Name: 9-(2,4-disulfophenyl)-2,3,6,7,12,13,16,17-octahydro-1H,5H,11H,15H-xantheno[2,3,4-ij:5,6,7-ij']diquinolizin-18-ium, inner salt
Synonyms: SR 101, Sulforhodamine 640
MF: C31H30N2O7S2
FW: 606.7
Purity: ≥95%
Stability: ≥2 years at -20°C
Supplied as: A crystalline solid
UV/Vis.: λmax: 265, 315, 370, 420, 575 nm

Laboratory Procedures

For long term storage, we suggest that sulforhodamine 101 be stored as supplied at -20°C. It should be stable for at least two years.

Sulforhodamine 101 is supplied as a crystalline solid. A stock solution may be made by dissolving the sulforhodamine 101 in the solvent of choice. Sulforhodamine 101 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide, which should be purged with an inert gas. The solubility of sulforhodamine 101 in these solvents is approximately 1, 25, and 20 mg/ml, respectively.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. Organic solvent-free aqueous solutions of sulforhodamine 101 can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of sulforhodamine 101 in PBS, pH 7.2, is approximately 2 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Sulforhodamine 101 is a nonfixable red fluorescent dye (excitation max: 586 nm; emission max: 605 nm) that can be used as a specific marker for astrocytes and an activity-dependent probe for monitoring regulated exocytosis.1 It has been reported to induce long-term potentiation of intrinsic neuronal excitability and a long-lasting increase in evoked excitatory postsynaptic potentials in CA1 pyramidal neurons in hippocampal slices.2

References


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WARNING: THIS PRODUCT IS FOR LABORATORY RESEARCH ONLY: NOT FOR ADMINISTRATION TO HUMANS. NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA
This material should be considered hazardous until information to the contrary becomes available. Do not ingest, swallow, or inhale. Do not get in eyes, on skin, or on clothing. Wash thoroughly after handling. This information contains some, but not all, of the information required for the safe and proper use of this material. Before use, the user must review the complete Safety Data Sheet, which has been sent to your institution.

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