Product Data Sheet

Product Name: Sulforhodamine B acid chloride
Cat. No.: GC30195

Chemical Properties

Cas. No.	62796-29-6		
SMILES	CCN(C1=CC2=[O+]C3=C(C=CC(N(CC)CC)=C3)C(C4=CC=C(S(=O)(Cl)=O)C=C4S(=O)([O-])=O)=C2C=C1)CC		
Formula	$C_{27}H_{29}ClN_2O_6S_2$	M.Wt	577.11
Solubility	DMSO : ≥ 100 mg/mL (173.28 mM);Water : 10 mg/mL (17.33 mM)	Storage	Store at -20°C
General tips	For obtaining a higher solubility , please warm the tube at 37 ℃ and shake it in the ultrasonic bath for a while.Stock solution can be stored below -20℃ 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			

Background

Sulforhodamine B acid chloride is a fluorescent protein label forming stable conjugates.

Sulforhodamine B (SRB) is often used as a membrane-impermeable polar tracer or used for cell density determination via determination of cellular proteins (cytotoxicity assay). The SRB assay has been used to inexpensively conduct various screening assays to investigate cytotoxicity in cell based studies. This method relies on the property of SRB, which binds stoichiometrically to proteins under mild acidic conditions and then can be extracted using basic conditions; thus, the amount of bound dye can be used as a proxy for cell mass, which can then be extrapolated to measure cell proliferation. The protocol can be divided into four main steps: preparation of treatment, incubation of cells with treatment of choice, cell fixation and SRB staining, and absorbance measurement. This assay is limited to manual or semiautomatic screening, and can be used in an efficient and sensitive manner to test chemotherapeutic drugs or small molecules in adherent cells. It also has applications in evaluating the effects of gene expression modulation (knockdown, gene expression upregulation), as well as to study the effects of miRNA

Tel: (909) 407-4943 Fax: (626) 353-8530 E-mail: tech@glpbio.com
Address: 10292 Central Ave. #205, Montclair, CA, USA

replacement on cell proliferation[1].

[1]. Orellana EA, et al. Sulforhodamine B (SRB) Assay in Cell Culture to Investigate Cell Proliferation. Bio Protoc. 2016 Nov 5;6(21). pii: e1984.

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