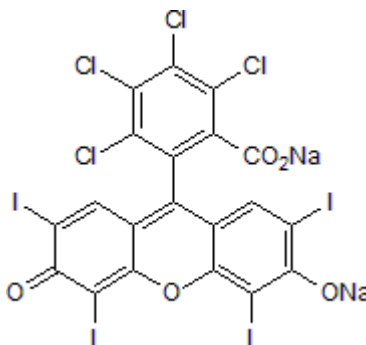


Product Name: Rose Bengal **Catalog No.:** 5168 **Batch No.:** 1
CAS Number: 632-69-9
IUPAC Name: 4,5,6,7-Tetrachloro-3',6'-dihydroxy-2',4',5',7'-tetraiodo-spiro[isobenzofuran-1(3*H*),9'-[9*H*]xanthen]-3-one disodium salt

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₂₀H₂Cl₄I₄Na₂O₅·5H₂O
Batch Molecular Weight: 1107.72
Physical Appearance: Red solid
Solubility: water to 100 mM
DMSO to 50 mM
Storage: Store at RT
Batch Molecular Structure:



2. ANALYTICAL DATA

HPLC: Shows 99.6% purity
¹H NMR: Consistent with structure
Mass Spectrum: Consistent with structure
Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	21.69	1.09	
Found	21.7	0.8	

Absorption: λ_{max} = 548nm (in 0.02M ammonium acetate solution)

Caution - Not Fully Tested • Research Use Only • Not For Human or Veterinary Use

Product Name:	Rose Bengal	Catalog No.:	5168	Batch No.:	1
CAS Number:	632-69-9				
IUPAC Name:	4,5,6,7-Tetrachloro-3',6'-dihydroxy-2',4',5',7'-tetraiodo-spiro[isobenzofuran-1(3H),9'-[9H]xanthen]-3-one disodium salt				

Description:

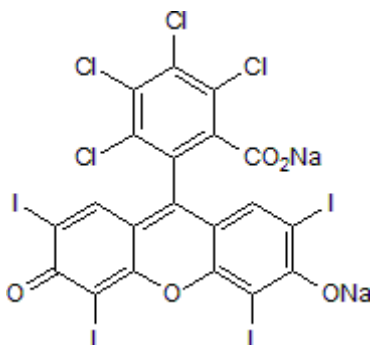
Potent VGLut and vesicular monoamine transporter (VMAT) inhibitor (K_i values are 19 and 64 nM, respectively). Inhibits ATP dependent vesicular glutamate uptake ($IC_{50} = 37$ nM) and diminishes the amount of exocytotically released glutamate in synaptosomes. Decreases synaptic transmission in the dentate gyrus. Also stains exposed epithelium in the eye. Cell permeable.

Physical and Chemical Properties:

Batch Molecular Formula: $C_{20}H_2Cl_4I_4Na_2O_5 \cdot 5H_2O$
 Batch Molecular Weight: 1107.72
 Physical Appearance: Red solid

Minimum Purity: >98%

Batch Molecular Structure:



References:

- Neale et al** (2013) Modulation of hippocampal synaptic transmission by the kynurenine pathway member xanthurenic acid and other VGLUT inhibitors. *Neuropsychopharmacology*. **38** 1060. PMID: 23303071.
- Pietrancosta et al** (2010) Rose Bengal analogs and vesicular glutamate transporters (VGLUTs). *Bioorg.Med.Chem.* **18** 6922. PMID: 20708942.
- Ogita et al** (2001) Inhibition of vesicular glutamate storage and exocytotic release by Rose Bengal. *J Neurochem.* **77** 34. PMID: 11279259.
- Feenstra et al** (1992) What is actually stained by rose bengal? *Arch.Ophthalmol.* **110** 984. PMID: 1637285.

Storage: Store at RT

CAUTION - This product is light sensitive and we recommend that the solid material and any solutions obtained are protected from exposure to light.

Solubility & Usage Info:

water to 100 mM
 DMSO to 50 mM

Stability and Solubility Advice:

Some solutions can be difficult to obtain and can be encouraged by rapid stirring, sonication or gentle warming (in a 45-60°C water bath).

Information concerning product stability, particularly in solution, has rarely been reported and in most cases we can only offer a general guide. Our standard recommendations are:

SOLIDS: Provided storage is as stated on the product label and the vial is kept tightly sealed, the product can be stored for up to 6 months from date of receipt.

SOLUTIONS: We recommend that stock solutions, once prepared, are stored aliquoted in tightly sealed vials at -20°C or below and used within 1 month. Wherever possible solutions should be made up and used on the same day.

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