

## **Lumiprobe Corporation**

115 Airport Dr Suite 160 Westminster, Maryland 21157

USA

Phone: +1 888 973 6353 Fax: +1 888 973 6354 Email: order@lumiprobe.com

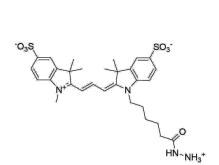
## sulfo-Cyanine3 hydrazide

http://www.lumiprobe.com/p/sulfo-cy3-hydrazide

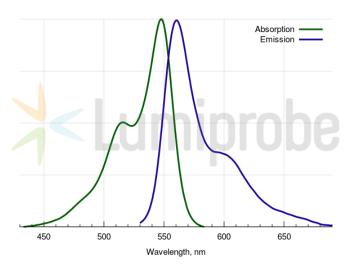
sulfo-Cyanine3 is a sulfated derivative of Cyanine3 dye, well soluble in water because of two negatively charged sulfo groups in its structure. By its spectral characteristics, this yellow-orange fluorescent dye is an analog of  $Cy^{\text{TM}}3$ .

Hydrazides efficiently react with aldehydes and ketones resulting in hydrazones, so this compound can be used for conjugation with carbonyl derivatives of biomolecules.

The reaction runs in aqueous conditions, which is important when working with antibodies and proteins. Cys-diol groups in sugars in glycosylated proteins and antibodies can be oxidized into dialdehydes, and cysteine in proteins can be converted with enzymes to formyl glycerol (i. e. reactive groups for conjugation with sulfo-Cyanine3 hydrazide). Carboxyl groups of aspartic and glutamic acids in proteins and peptides can be also conjugated with sulfo-Cyanine3 hydrazide in the presence of activating agents: carbodiimide (EDAC) or methyl morpholine (DMTMM) derivatives.



Structure of sulfo-Cyanine3 hydrazide



Absorption and emission spectra of sulfo-Cyanine3

## **General properties**

Appearance: dark red solid
Molecular weight: 630.78
CAS number: 2144762-62-7

CAS number: 2144762-62-7 Molecular formula:  $C_{30}H_{38}N_4O_7S_2$ 

IUPAC name: 3H-Indolium, 2-[3-[1-(6-hydrazinyl-6-oxohexyl)-1,3-dihydro-3,3-dimethyl-5-sulfo-2H-

indol-2-ylidene]-1-propen-1-yl]-1,3,3-trimethyl-5-sulfo-, inner salt

Solubility: soluble in water, DMF, DMSO

Quality control: NMR <sup>1</sup>H. HPLC-MS (90%)

Storage conditions: Storage: 24 months after receival at -20°C in the dark. Transportation: at room

temperature for up to 3 weeks. Avoid prolonged exposure to light.

Legal statement: This Product is offered and sold for research purposes only. It has not been tested for

safety and efficacy in food, drug, medical device, cosmetic, commercial or any other use. Supply does not express or imply authorization to use for any other purpose, including, without limitation, in vitro diagnostic purposes, in the manufacture of food

or pharmaceutical products, in medical devices or in cosmetic products.

## Spectral properties

Excitation/absorption maximum, nm: 548  $\epsilon$ , L·mol<sup>-1</sup>·cm<sup>-1</sup>: 162000 Emission maximum, nm: 563 Fluorescence quantum yield: 0.1

 $CF_{260}$ : 0.03  $CF_{280}$ : 0.06

 $\mathsf{Cy}^{\scriptscriptstyle\mathsf{TM}}$  is a registered trademark of Cytiva in some countries.