

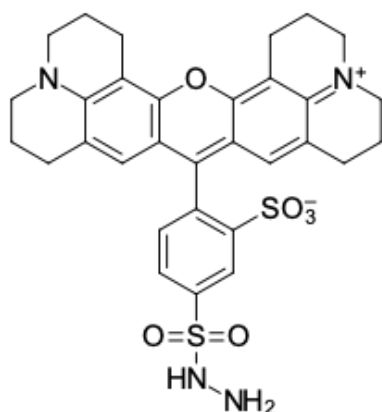
## TR hydrazide, 5-isomer

<http://www.lumiprobe.com/p/tr-hydrazide-5>

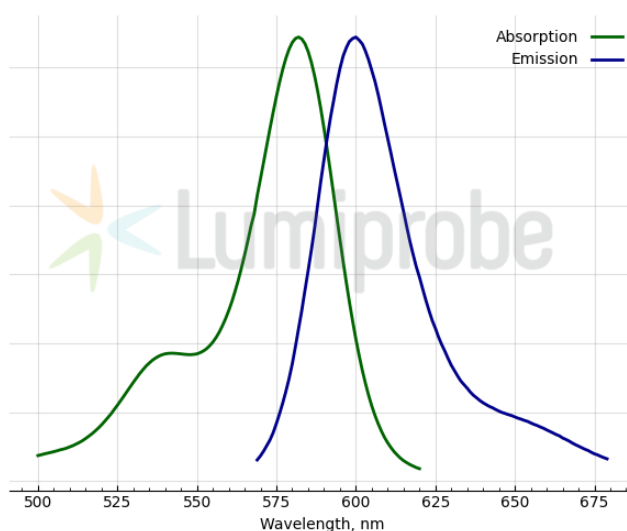
This product is a hydrazide derivative of TR dye. Hydrazides efficiently react with aldehydes and ketones, resulting in hydrazones, so that this compound can be used for conjugation with carbonyl derivatives of biomolecules.

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 hydrazides). Carboxyl groups of aspartic and glutamic acids in proteins and peptides can also be conjugated with hydrazides in the presence of activating agents: carbodiimide (EDAC) or methyl morpholine (DMTMM) derivatives.

TR is a red-fluorescent dye used for cell staining, fluorescence microscopy applications, and cell sorting with fluorescent-activated cell sorting machines. TR is also commonly used in molecular biology, mainly quantitative RT-PCR and cellular assays.



**Structure of TR hydrazide, 5-isomer**



**Absorption and emission spectra of TR**

### General properties

Appearance:	dark fine crystals
Molecular weight:	620.75
Molecular formula:	$C_{31}H_{32}N_4O_6S_2$
Solubility:	good in methanol, DMSO, DCM; moderate in acetonitrile; poor soluble in water
Quality control:	NMR $^1H$ and HPLC-MS (95+%)
Storage conditions:	24 months after receipt at $-20^\circ C$ in the dark. Transportation: at room temperature for up to 3 weeks. Desiccate.
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:	582
$\epsilon$ , $L \cdot mol^{-1} \cdot cm^{-1}$ :	98000
Emission maximum, nm:	600
Fluorescence quantum yield:	0.79