Product Data Sheet

Product Name: Trx-red
Cat. No.: GC61590

Chemical Properties

Cas. No.	2368978-96-3		
SMILES	O=C(NC1=CC(OC2=C/3)=C(C4=C1C=CC=C4)N=C2C=CC3=[N+](CCC(OC)=O)/CCC(OC)=O)OCCSSCCO.O=Cl(=O)([O-])=O		
Formula	$C_{29}H_{32}ClN_3O_{12}S_2$	M.Wt	714.16
Solubility	DMSO : 50 mg/mL (70.01 mM; Need ultrasonic)	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	Trx-red		

Background

Trx-red (NBL-SS perchlorate) is a red-emitting fluorescent probe derivatized from the nile blue fluorophore. Trx-red is used for selectively imaging thioredoxin (Trx) in live cells and in vivo (Λex=615 nm, Λem=661 nm)[1].

Trx-red (NBL-SS) displayed multiple favorable properties, such as red emission, fast response, and high fluorescence signal. Thioredoxin (Trx) is a ubiquitous redox-regulating protein essentially involved in cell growth, differentiation, and death[1]. When HeLa cells are incubated with Trx-red (NBL-SS; 5 μM; 0-30 min), a clear time-dependent increase of the fluorescence is observed[1].

Trx-red (NBL-SS; 10 μM; 30 min) is also suitable to image thioredoxin in 6 day-old zebrafish larvae[1].

[1]. Huiyi Jia, et al. Fluorophore-Dependent Cleavage of Disulfide Bond Leading to a Highly Selective Fluorescent Probe of Thioredoxin. Anal Chem. 2019 Jul 2;91(13):8524-8531.

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