

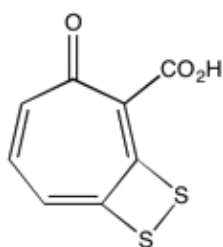
Catalog # 10-3307

Tropodithietic acid

CAS# 750590-18-2

3-Oxo-8,9-dithiabicyclo[5.2.0]non-1,4,6-triene-2-carboxylic acid

Lot # X107942



Displays potent broad-spectrum anticancer activity.¹ Displays cytotoxic effects on mammalian cell lines (neuronal N2a cells and OLN-93 cells as model systems for nerve cells and glia) acting via disruption of mitochondrial membrane potential, activation of ERK1/2 and induction of HSP32/HO-1 (considered as a sensor of oxidative stress).² A broad-spectrum antibiotic agent produced by marine bacteria which does not appear to induce resistance after long-term exposure.³

- 1) Wilson *et al.* (2016), *Mode of action and resistance studies unveil new roles for tropodithietic acid as an anticancer agent and the γ -glutamyl cycle as a proton sink*; Proc. Natl. Acad. Sci. USA, **113** 1630
- 2) Wichmann *et al.* (2015), *Cytotoxic Effects of Tropodithietic Acid on Mammalian Clonal Cell Lines of Neuronal and Glial Origin*; Mar. Drugs, **13** 7113
- 3) Rasmussen *et al.* (2016), *Vibro anguillarum is Genetically and Phenotypically Unaffected by Long-Term Continuous Exposure to the Antibacterial Compound Tropodithietic Acid*; Appl. Environ. Microbiol., **82** 4802

PHYSICAL DATA

Molecular Weight:	212.25
Molecular Formula:	C ₈ H ₄ O ₃ S ₂
Purity:	98% by HPLC
	NMR: (Conforms)
Solubility:	DMSO (up to 5 mg/ml)
Physical Description:	Orange solid
Storage and Stability:	Store as supplied at -20°C for up to 1 year from the date of purchase. Solutions in DMSO may be stored at -20°C for up to 1 month.

Materials provided by Focus Biomolecules are for laboratory research use only and are not intended for human or veterinary applications.