



LKT Laboratories, Inc.

Tropodithietic Acid

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Product Information

Product ID T698579
CAS No. 750590-18-2
Chemical Name 3-Oxo-8,9-dithiabicyclo[5.2.0]nona-1,4,6-triene-2-carboxylic acid

Synonym TDA

Formula $C_8H_4O_3S_2$
Formula Wt. 212.24

Melting Point

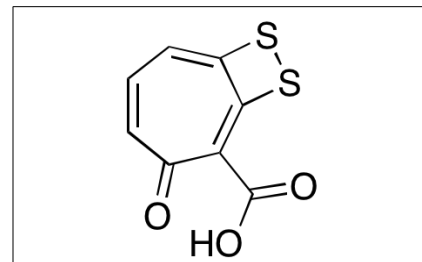
Purity $\geq 99\%$

Solubility Soluble in polar organic solvents, such as DMSO, Methanol, Acetone

Store Temp $-20^{\circ}C$

Ship Temp Ambient

Description Tropodithietic acid is an antibiotic produced by various marine proteobacteria. Tropodithietic acid has been found to have the same activity as endogenous N-acyl-homoserine lactones and can trigger quorum-sensing in marine bacterium. Furthermore, it has been shown that long-term exposure to tropodithietic acid does not result in antibacterial resistant or tolerant strains. In addition, screening of the NCI-60 human tumor cell lines showed tropodithietic acid to have strong growth-inhibitory anticancer activity.



Pricing and Availability

Bulk quantities available upon request

Product ID	Size	List Price
T698579	1 mg	\$240.30
T698579	5 mg	\$961.60

References Beyersmann PG, Tomasch J, Son K, et al. Dual function of tropodithietic acid as antibiotic and signaling molecule in global gene regulation of the probiotic bacterium *Phaeobacter inhibens*. *Sci Rep*. 2017 Apr 7;7(1):730. PMID: 28389641.

Rasmussen BB, Grotkjaer T, D'Alvise PW, et al. *Vibrio anguillarum* is genetically and phenotypically unaffected by long-term continuous exposure to the antibacterial compound tropodithietic acid. *Appl Environ Microbiol*. 2016 Jul 15;82(15):4802-4810. PMID: 27235441.

Wilson MZ, Wang R, Gitai Z, et al. Mode of action and resistance studies unveil new roles for tropodithietic acid as an anticancer agent and the gamma-glutamyl cycle as a proton sink. *Proc Natl Acad Sci USA*. 2016 Feb 9;113(6):1630-1635. PMID: 26802120.

Porsby CH, Webber MA, Nielsen KF, et al. Resistance and tolerance to tropodithietic acid, an antimicrobial in aquaculture, is hard to select. *Antimicrob Agents Chemother*. 2011 Apr;55(4):1332-1337. PMID: 21263047.

Caution: This product is intended for laboratory and research use only. It is not for human or drug use.