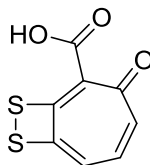


Tropodithietic acid

Code No.: **BIA-T1899**

Pack sizes: **0.1 mg, 0.5 mg**



Synonyms :

Specifications

CAS #	: 750590-18-2
Molecular Formula	: C₈H₄O₃S₂
Molecular Weight	: 212.3
Source	: <i>Roseobacter</i> sp.
Appearance	: Orange solid
Purity	: >95% by HPLC
Long Term Storage	: -20°C
Solubility	: Soluble in ethanol, methanol, DMF or DMSO.

Application Notes

Tropodithietic acid is a potent antibiotic isolated from a *Roseobacter* strain by Brinkhoff and colleagues at the University of Gottingen, Germany in 2004. Tropodithietic acid is a strong inhibitor of marine bacteria, promoter of algal health and a potent quorum sensing regulator. Tropodithietic acid is a tropone that exists as an interconverting tautomer with thiotropocin, itself isolated in the 1980s as a metabolite from a strain of *Pseudomonas*. Tropodithietic acid has potent, broad-spectrum anticancer activity, acting via a mechanism similar to polyether antibiotics.

References

1. Antibiotic production by a *Roseobacter* clade-affiliated species from the German Wadden Sea and its antagonistic effects on indigenous isolates. Brinkhoff T. et al., App. Env. Microbiol. 2004, 70, 2560.
2. Computational studies of the tropone natural products, thiotropocin, tropodithietic acid, and troposulfenin. Significance of thiocarbonyl-enol tautomerism. Greer E.M. et al., J. Org. Chem. 2008, 73, 280.
3. Thiotropocin, a new sulfur-containing 7-membered-ring antibiotic produced by a *Pseudomonas* sp. Kintaka K. et al., J. Antibiot. 1984, 37, 1294.
4. 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. Wilson M.Z. et al., Proc. Nat. Acad. Sci. 2016, 113, 1630.