

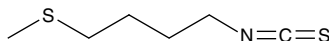
Product Information



Erucin

Item No. 14017

CAS Registry No.: 4430-36-8
Formal Name: 1-isothiocyanato-4-(methylthio)-butane
MF: C₆H₁₁NS₂
FW: 161.3
Purity: ≥98%
Stability: ≥2 years at -20°C
Supplied as: A solution in ethanol
UV/Vis.: λ_{max}: 244 nm



Laboratory Procedures

For long term storage, we suggest that erucin be stored as supplied at -20°C. It should be stable for at least two years.

Erucin is supplied as a solution in ethanol. To change the solvent, simply evaporate the ethanol under a gentle stream of nitrogen and immediately add the solvent of choice. Solvents such as ethanol, DMSO, and dimethyl formamide purged with an inert gas can be used. The solubility of erucin in these solvents is approximately 16, 14, and 12 mg/ml, respectively.

Erucin is sparingly soluble in aqueous buffers. Erucin is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, the ethanolic solution of erucin should be diluted with the aqueous buffer of choice. Erucin has a solubility of approximately 0.02 mg/ml in a 1:50 solution of ethanol:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Erucin is an isothiocyanate derived from glucoerucin, a glucosinolate predominant in arugula (*Eruca sativa* Mill.) and other cruciferous vegetables. At 2.5-5 μM erucin can induce significant neuroprotective and antioxidant effects, increasing both total glutathione levels and total antioxidant capacity at the cytosolic level in dopaminergic-like neuroblastoma SH-SY5Y cells.¹ Growth inhibition, cell cycle regulation, apoptosis, and induction of detoxification enzymes have all been reported from use of erucin in prostate, lung, liver, and colon cancer cells.^{2,3}

References

1. Tarozzi, A., Morroni, F., Bolondi, C., *et al.* Neuroprotective effects of erucin against 6-hydroxydopamine-induced oxidative damage in a dopaminergic-like neuroblastoma cell line. *Int. J. Mol. Sci.* **13**, 10899-10910 (2012).
2. Melchini, A. and Traka, M.H. Biological profile of erucin: A new promising anticancer agent from cruciferous vegetables. *Toxins* **2**, 593-612 (2010).
3. Zhang, Y., Talalay, P., Cho, C.-G., *et al.* A major inducer of anticarcinogenic protective enzymes from broccoli: Isolation and elucidation of structure. *Proc. Natl. Acad. Sci. USA* **89**, 2399-2403 (1992).

Related Products

For a list of related products please visit: www.caymanchem.com/catalog/14017

WARNING: THIS PRODUCT IS FOR LABORATORY RESEARCH ONLY: NOT FOR ADMINISTRATION TO HUMANS. NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

MATERIAL SAFETY DATA

This material should be considered hazardous until information to the contrary becomes available. Do not ingest, swallow, or inhale. Do not get in eyes, on skin, or on clothing. Wash thoroughly after handling. This information contains some, but not all, of the information required for the safe and proper use of this material. Before use, the user must review the complete Material Safety Data Sheet, which has been sent *via* email to your institution.

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