

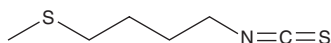
PRODUCT INFORMATION



Erucin

Item No. 14017

CAS Registry No.: 4430-36-8
Formal Name: 1-isothiocyanato-4-(methylthio)-butane
MF: $C_6H_{11}NS_2$
FW: 161.3
Purity: $\geq 98\%$
UV/Vis.: λ_{max} : 244 nm
Supplied as: A solution in ethanol
Storage: $-20^\circ C$
Stability: ≥ 2 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

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 DMSO and dimethyl formamide purged with an inert gas can be used. The solubility of erucin in these solvents is approximately 14 and 12 mg/ml, respectively.

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 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.

Description

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(9)**, 10899-10910 (2012).
2. Melchini, A. and Traka, M.H. Biological profile of erucin: A new promising anticancer agent from cruciferous vegetables. *Toxins (Basel)* **2(4)**, 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(6)**, 2399-2403 (1992).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

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