

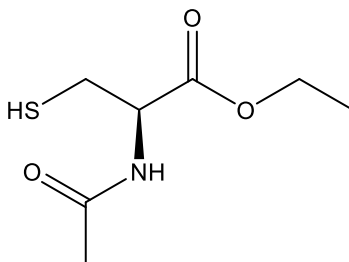
Catalog # 10-5233

N-Acetylcysteine ethyl ester

CAS# 59587-09-6

N-Acetyl-L-cysteine ethyl ester; (R)-Ethyl 2-acetamido-3-mercaptopropanoate; NACET; NAC ethyl ester

Lot # R110492



A lipophilic, cell permeable ethyl ester derivative of N-acetylcysteine.¹ In oxidative stressed retinal pigment epithelial (RPE) cells NACET increases viability more efficiently than NAC and pretreatment predisposes RPE cells to oxidative stress resistance.¹ Enhances intracellular glutathione concentration in HUVECs.² Acts as a potent protector against hydroperoxide-induced oxidative damage.³ Protects against UV-induced reactive intermediates in human keratinocytes.⁴

- 1) Tosi *et al.* (2021), *Superior Properties of N-Acetylcysteine Ethyl Ester over N-Acetyl Cysteine to Prevent Retinal Pigment Epithelial Cells Oxidative Damage*; *Int. J. Mol. Sci.* **22** 600
- 2) Giustarini *et al.* (2018), *N-acetylcysteine ethyl ester as GSH enhancer in human primary endothelial cells: A comparative study with other drugs*; *Free Radic. Biol. Med.* **126** 202
- 3) Giustarini *et al.* (2012), *N-Acetylcysteine ethyl ester (NACET): a novel lipophilic cell-permeable cysteine derivative with an unusual pharmacokinetic feature and remarkable antioxidant potential*; *Biochem. Pharmacol.* **84** 1522
- 4) Steenvoorden *et al.* (1997), *Cysteine derivatives protect against UV-induced reactive intermediates in human keratinocytes: the role of glutathione synthesis*; *Photochem. Photobiol.* **66** 665

PHYSICAL DATA

Molecular Weight:	191.25
Molecular Formula:	C ₇ H ₁₃ NO ₃ S
Purity:	>95% by TLC
	NMR: (Conforms)
Solubility:	DMSO (60 mg/ml)
Physical Description:	White solid
Storage and Stability:	Store as supplied desiccated at -20°C for up to 2 years from the date of purchase. Solutions in DMSO may be stored at -20°C for up to 1 week.

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