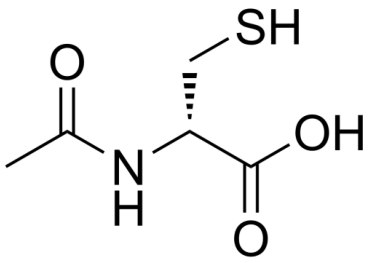
Data Sheet

Product Name:	N-Acetyl-D-cysteine
Cat. No.:	CS-0128949
CAS No.:	26117-28-2
Molecular Formula:	$C_5H_9NO_3S$
Molecular Weight:	163.19
Target:	Reactive Oxygen Species
Pathway:	Immunology/Inflammation; Metabolic Enzyme/Protease; NF-κB
Solubility:	H2O : 250 mg/mL (1531.96 mM; Need ultrasonic)



BIOLOGICAL ACTIVITY:

N-Acetyl-D-cysteine has antioxidant activities and scavenges **ROS** through the reaction with its thiol group, but cannot enter the glutathione metabolic pathway[1]. ***In Vitro:*** N-Acetyl-D-cysteine (20 mM; 1 hour pretreatment; 12 hours) does not increase intracellular GSH levels, but GSH monoester does. D-NAC can not enhance hypoxic apoptosis. This demonstrate that GSH rather than D-NAC or NAC is responsible for enhancing hypoxic apoptosis[3].

References:

[1]. Maika Deffieu, et al. Glutathione Participates in the Regulation of Mitophagy in Yeast.J Biol Chem. 2009 May 29;284(22):14828-37.

[2]. B K Wong,et al. Selective Effects of N-acetylcysteine Stereoisomers on Hepatic Glutathione and Plasma Sulfate in Mice. Toxicol Appl Pharmacol

[3]. Suparna Qanungo, et al. N-Acetyl-L-cysteine Enhances Apoptosis Through Inhibition of Nuclear factor-kappaB in Hypoxic Murine Embryonic Fibroblasts. J Biol Chem

CAIndexNames:

D-Cysteine, N-acetyl-

SMILES:

SC[C@H](C(O)=O)NC(C)=O

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