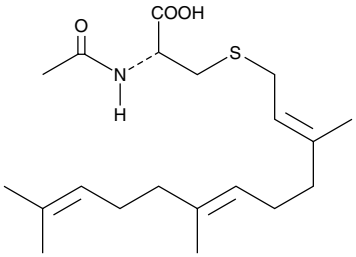
Product Information

N-acetyl-S-farnesyl-L-Cysteine

Item No. 63270

CAS Registry No.: 135304-07-3
Formal Name: N-acetyl-S-(3,7,11-trimethyl-2E,6E,10-dodecatrienyl)-L-cysteine
Synonym: AFC
MF: $C_{20}H_{33}NO_3S$
FW: 367.5
Purity: ≥98%
Stability: ≥1 year at -20°C
Supplied as: A solution in methyl acetate



Laboratory Procedures

For long term storage, we suggest that N-acetyl-S-farnesyl-L-cysteine be stored as supplied at -20°C. It should be stable for at least one year.

N-acetyl-S-farnesyl-L-Cysteine is supplied as a solution in ethanol. To change the solvent, simply evaporate the methyl acetate 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 N-acetyl-S-farnesyl-L-cysteine in these solvents is approximately 20 mg/ml.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. If an organic solvent-free solution of N-acetyl-S-farnesyl-L-cysteine is needed, it can be prepared by evaporating the methyl acetate and directly dissolving the neat oil in aqueous buffers. N-acetyl-S-farnesyl-L-cysteine is sparingly soluble in neutral aqueous buffers. For maximum aqueous solubility, N-acetyl-S-farnesyl-L-cysteine can be directly disolved in 0.1 M Na_2CO_3 (63 mg/ml) and then diluted with PBS (pH 7.2) to achieve the desired concentration or pH. We do not recommend storing the aqueous solution for more than one day.

N-acetyl-S-farnesyl-L-Cysteine is a synthetic substrate for the isoprenylated protein methyltransferase (also known as S-adenosylmethionine-dependent methyltransferase).[1,2] Because it is able to serve as a substrate for the methyltransferase, it effectively functions as an inhibitor of methylation of endogenous isoprenylated proteins.

References

1. Volker, C., Lane, P., Kwee, C., *et al.* A single activity carboxyl methylates both farnesyl and geranylgeranyl cysteine residues. *FEBS Lett.* **295**, 189-194 (1991).
2. Pérez-Sala, D., Gilbert, B.A., Tan, E.W., *et al.* Prenylated protein methyltransferases do not distinguish between farnesylated and geranylgeranylated substrates. *Biochem. J.* **284**, 835-840 (1992).

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