

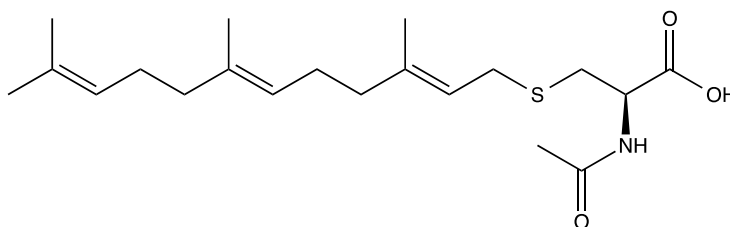
**Catalog #10-4610**

**N-Acetyl-S-farnesyl-L-cysteine**

CAS# 135304-07-3

2-Acetamido-3-(3,7,11-trimethyldodeca-2,6,10-trienylsulfanyl)propanoic acid; AFC

Lot # FBA4131



N-Acetyl-S-farnesyl-L-cysteine (AFC) inhibits S-farnesylcysteine methyl transferase ( $K_m = 20 \mu\text{M}$ ).<sup>1</sup> AFC blocked capacitative  $\text{Ca}^{2+}$  influx in human embryonic kidney 293 cells<sup>2</sup> and store-regulated  $\text{Ca}^{2+}$  entry in human platelets<sup>3</sup>. Topical AFC has been shown to inhibit neutrophil chemotaxis and other inflammatory responses without systemic effects.<sup>4,5</sup>

- 1) Volker *et al.* (1991), *Effects of farnesylcysteine analogs on protein carboxyl methylation and signal transduction*; J.Biol.Chem. **266** 21515
- 2) Xu *et al.* (1996), *Inhibition of capacitative  $\text{Ca}^{2+}$  entry into cells by farnesyl analogs*; Mol.Pharmacol. **50** 1495
- 3) Rosado and Sage (2000), *Farnesylcysteine analogues inhibit store-regulated  $\text{Ca}^{2+}$  entry in human platelets: evidence for involvement of small GTP-binding proteins and actin cytoskeleton*; Biochem.J. **347** 183
- 4) Gordon *et al.* (2008), *Topical N-acetyl-S-farnesyl-L-cysteine inhibits mouse skin inflammation, and unlike dexamethasone, its effects are restricted to the application site*; J.Invest.Dermatol. **128** 643
- 5) Adhami *et al.* (2012), *N-acetyl-S-farnesyl-L-cysteine suppresses chemokine production by human dermal microvascular endothelial cells* Exp.Dermatol. **21** 700

**PHYSICAL DATA**

Molecular Weight:	367.55
Molecular Formula:	$\text{C}_{20}\text{H}_{33}\text{NO}_3\text{S}$
Purity:	>98% (TLC)
	NMR: (Conforms)
Solubility:	DMSO (25 mg/mL) and ethanol (25 mg/mL)
Physical Description:	Yellow oil
Storage and Stability:	Store as supplied at $-20^\circ\text{C}$ for up to 1 year from the date of purchase. Solutions in DMSO or ethanol may be stored at $-20^\circ\text{C}$ for up to 3 months.

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