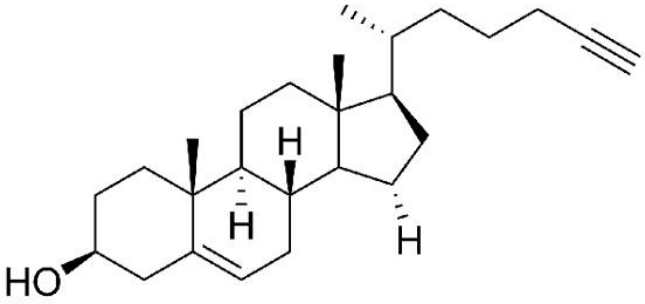
www.vectorlabs.com
Email: customerservice@vectorlabs.com
Telephone: (650) 697-3600

ALKYNE CHOLESTEROL

SKU: CCT-1409



DESCRIPTION

This reagent is a modified lipid containing an omega-terminal alkyne. The terminal alkyne group can be used in a highly specific linking reaction with azide-containing reagents, known as ‘click chemistry’, in the presence of a copper (Cu)-containing catalyst.

Alkyne cholesterol is accepted by cellular enzymes from different biological species (Brevibacterium, yeast, rat, human) and these enzymes include cholesterol oxidases, hydroxylases, and acyl transferases that generate the expected metabolites in in vitro and in vivo assays. Using fluorescence microscopy, researchers can study the distribution of cholesterol at subcellular resolution, detecting the lipid in the Golgi and at the plasma membrane, but also in the endoplasmic reticulum and mitochondria.

In summary, alkyne cholesterol represents a versatile, sensitive, and easy-to-use tool for tracking cellular
cholesterol metabolism and localization as it allows for manifold detection methods including mass spectrometry, and fluorescence microscopy.

SPECIFICATIONS

CAS Number	1631985-09-5

For research use only. Not intended for therapeutic or diagnostic use in animals or humans.

Molecular Weight	368.61
Appearance	White crystalline
Chemical Formula	C28H40O
Purity	>95% (H NMR)
Unit Size	1 mg, 5 mg, 25 mg
Solubility	DMSO, DMF
Storage Instructions	-20°C.
Shipping Conditions	Ambient temperature
Shipping Instructions	Ambient temperature

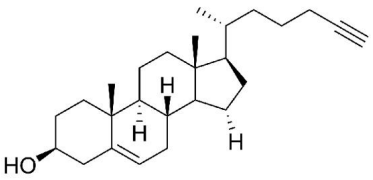
SELECTED REFERENCES

1. Gray, R. A. V., *et al.* (2021). Optimized Incorporation of Alkynyl Fatty Acid Analogs for the Detection of Fatty Acylated Proteins using Click Chemistry. *JoVE Journal,* **10 (3791)**, 62107. [JoVE Journal]
2. Windsor K., *et al.* (2013). Probing lipid-protein adduction with alkynyl surrogates: application to Smith-Lemli-Opitz syndrome. *J. Lipid. Res.*, **54**, 2842-50. [PubMed]

DOCUMENTS

- Safety Data Sheet
- Datasheet

GALLERY IMAGES



For research use only. Not intended for therapeutic or diagnostic use in animals or humans.