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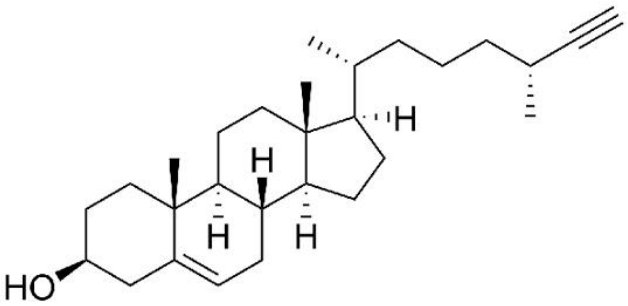
27-ALKYNE CHOLESTEROL

SKU: CCT-1410



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-containing catalyst.

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.

27-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.

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SPECIFICATIONS

CAS Number	1527467-07-7
Molecular Weight	396.66
Appearance	White crystalline
Chemical Formula	C28H44O
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

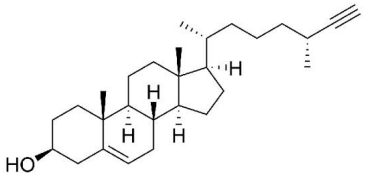
SELECTED REFERENCES

1. Friedrich, F., *et al.* (2021). Direct Measurement of Intermolecular Mechanical Force for Nonspecific Interactions between Small Molecules. *J Phys Chem Lett.*, **12 (46)**, 11316-11322. [PubMed]
2. Hofmann K., *et al.* (2014). A novel alkyne cholesterol to trace cellular cholesterol metabolism and localization. *J. Lipid. Res.*, **55**, 583-91. [PubMed]

DOCUMENTS

- Safety Data Sheet
- Datasheet

GALLERY IMAGES



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