Product Data Sheet

Product Name: Propargylcholine (bromide)

Cat. No.: GC18872

Chemical Properties

Cas. No.	111755-76-1		
Chemical Name	N-(2-hydroxyethyl)-N,N-dimethyl-2-propyn-1-aminium, monobromide		
SMILES	C[N+](CC#C)(C)CCO.[Br-]		
Formula	$C_7H_{14}NO.Br$	M.Wt	208.1
Solubility	DMF: 30 mg/ml,DMSO: 30 mg/ml,Ethanol: 30 mg/ml,PBS (pH 7.2): 10 mg/ml	Storage	Store at -20°C
General tips	For obtaining a higher solubility , please warm the tube at 37 ℃ and shake it in the ultrasonic bath for a while.Stock solution can be stored below -20℃ for several months.		
Shipping Condition	Evaluation sample solution : ship with blue ice All other available size: ship with RT , or blue ice upon request.		
Structure	Propargylcholine (bromide)		

Protocol

Propargylcholine (bromide)□□□□□□□□□[1]

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1.□□□□□□□□Propargylcholine (bromide)□□□□□□□□□□□□□□□□□100-500μM□□0.22μm□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□24□□□□□□

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3.□□□□□□□□□□□□□□□□□□□□□□□□□□Propargylcholine (bromide)□□

4.□□□□□□□□□Propargylcholine (bromide)□□□□PBS□□□□1M□□□□□□□□□□□□□□□□3□□□□□□

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[illegible]3[illegible]

References:

[1] Jao CY, Roth M, Welti R, et al. Metabolic labeling and direct imaging of choline phospholipids in vivo. Proc Natl Acad Sci U S A. 2009 Sep 8;106(36):15332-7.

Background

Propargylcholine (bromide) is a choline analog containing a terminal propargyl group. Propargylcholine (bromide) can serve as a metabolic precursor for incorporation into various choline-containing phospholipids (such as phosphatidylcholine), enabling their high-sensitivity and high-resolution visualization. The alkyne group within the Propargylcholine (bromide) structure allows for efficient covalent linkage with azide-containing molecules via a copper-catalyzed azide-alkyne cycloaddition reaction. Propargylcholine (bromide) can be used to study the dynamic metabolic processes of intracellular choline phospholipids and serves as an efficient chemical reporter probe in the fields of click chemistry labeling and bioimaging[1-3].

References:

[1] Karen R. Bottenfield, Tara L. Moore, Farzad, Mortazavi, et al. Optimization of Propargylcholine to Label Newly Synthesized Myelin in the Rhesus Monkey Brain. FASEB J. 2020, 34(S1): 1-1.
[2] Acharya HP, Miyoshi K, Kobayashi Y. Mercury-free preparation and selective reactions of propargyl (and propargylic) Grignard reagents. Org Lett. 2007 Aug 30;9(18):3535-8.
[3] Wang W, Zhao J, Li T, et al. Enzalutamide-Resistant STEAP4+ MyoCAF Secrete Phosphatidylcholine to Foster Progression by Activating Stemness in Hormone-Sensitive Prostate Cancer. Adv Sci (Weinh). 2025 Nov;12(44):e10602.

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