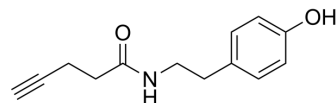


Alkyne-phenol

Cat. No.:	HY-131442		
CAS No.:	1694495-59-4		
Molecular Formula:	C ₁₃ H ₁₅ NO ₂		
Molecular Weight:	217.26		
Target:	Others		
Pathway:	Others		
Storage:	Powder	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	6 months
		-20°C	1 month



SOLVENT & SOLUBILITY

In Vitro	DMSO : 50 mg/mL (230.14 mM; Need ultrasonic)				
		Solvent Concentration	Mass 1 mg	5 mg	10 mg
	Preparing Stock Solutions	1 mM	4.6028 mL	23.0139 mL	46.0278 mL
		5 mM	0.9206 mL	4.6028 mL	9.2056 mL
10 mM		0.4603 mL	2.3014 mL	4.6028 mL	
Please refer to the solubility information to select the appropriate solvent.					
In Vivo	<ol style="list-style-type: none"> Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline Solubility: ≥ 2.5 mg/mL (11.51 mM); Clear solution Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline) Solubility: ≥ 2.5 mg/mL (11.51 mM); Clear solution Add each solvent one by one: 10% DMSO >> 90% corn oil Solubility: ≥ 2.5 mg/mL (11.51 mM); Clear solution 				

BIOLOGICAL ACTIVITY

Description	Alkyne-phenol (Alk-Ph) is a clickable ascorbate peroxidase 2 (APEX2) probe. Alkyne-phenol substantially improves APEX-labeling efficiency in intact yeast cells, as it is more cell wall-permeant than APEX2 substrate biotin-phenol (BP). Alkyne-phenol also facilitates the identification of APEX-labeling sites, allowing the unambiguous assignment of membrane topology of mitochondrial proteins ^[1] . Alkyne-phenol is a click chemistry reagent, it contains an Alkyne group and can undergo copper-catalyzed azide-alkyne cycloaddition (CuAAC) with molecules containing Azide groups.
In Vitro	Yeast cells expressing Su9-APEX2 are incubated with each probe at 2.5 mM final concentration for half an hour, and the

labeling reaction is initiated by the addition of 1 mM H₂O₂. Alkyne-phenol is the most reactive APEX2 substrate for labeling the yeast proteome^[1].

APEX2-mediated Alkyne-phenol labeling in the yeast mitochondria is more effective at probe concentrations above 1 mM^[1].

Alkyne-phenol enables proteomic profiling in the mitochondrial matrix of intact yeast cells with exceptionally high specificity (94%), and offers higher coverage than the traditional APEX2 substrate biotin-phenol (BP)^[1].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Li Y, et al. A Clickable APEX Probe for Proximity-Dependent Proteomic Profiling in Yeast. *Cell Chem Biol.* 2020;27(7):858-865.e8.

Caution: Product has not been fully validated for medical applications. For research use only.

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