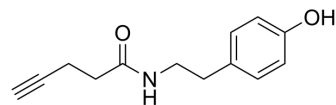


Alkyne tyramide

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	1. 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			
	2. 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			
	3. 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 tyramide is a clickable ascorbate peroxidase 2 (APEX2) probe. Alkyne tyramide substantially improves APEX-labeling efficiency in intact yeast cells, as it is more cell wall-permeant than APEX2 substrate biotin-phenol (BP). Alkyne tyramide also facilitates the identification of APEX-labeling sites, allowing the unambiguous assignment of membrane topology of mitochondrial proteins ^[1] .
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 H ₂ O ₂ . Alkyne tyramide is the most reactive APEX2 substrate for labeling

the yeast proteome^[1].

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

Alkyne tyramide 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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