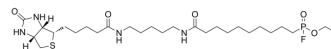


FP-Biotin

Cat. No.:	HY-136924
CAS No.:	259270-28-5
Molecular Formula:	C ₂₇ H ₅₀ FN ₄ O ₅ PS
Molecular Weight:	592.75
Target:	FAAH
Pathway:	Metabolic Enzyme/Protease; Neuronal Signaling
Storage:	-20°C, stored under nitrogen * In solvent : -80°C, 6 months; -20°C, 1 month (stored under nitrogen)



SOLVENT & SOLUBILITY

In Vitro	DMSO : 25 mg/mL (42.18 mM); ultrasonic and warming and heat to 60°C						
	Preparing Stock Solutions	Solvent Concentration	Mass	1 mg	5 mg	10 mg	
				1 mM	1.6871 mL	8.4353 mL	16.8705 mL
				5 mM	0.3374 mL	1.6871 mL	3.3741 mL
				10 mM	0.1687 mL	0.8435 mL	1.6871 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 (4.22 mM); Clear solution						
	2. Add each solvent one by one: 10% DMSO >> 90% corn oil Solubility: ≥ 2.5 mg/mL (4.22 mM); Clear solution						

BIOLOGICAL ACTIVITY

Description	FP-biotin is a potent organophosphorus toxicant, well-suited for searching for new biomarkers of organophosphorus toxicants exposure. FP-Biotin quantifies FAAH, ABHD6, and MAG-lipase activity. FP-biotin is used for studies with plasma because biotinylated peptides are readily purified by binding to immobilized avidin beads ^{[1][2][3]} .
In Vitro	FP-biotin has good reactivity with human AChE and BChE despite its large biotin group. FP-biotin is suitable for the proposed task of identifying organophosphorus toxicants reactive proteins ^[1] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

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- [1]. Schopfer LM, et al. Reaction kinetics of biotinylated organophosphorus toxicant, FP-biotin, with human acetylcholinesterase and human butyrylcholinesterase. Chem Res Toxicol. 2005;18(4):747-754.
- [2]. Baggelaar MP, et al. Chemical Proteomics Maps Brain Region Specific Activity of Endocannabinoid Hydrolases. ACS Chem Biol. 2017;12(3):852-861.
- [3]. Grigoryan H, et al. Covalent binding of the organophosphorus agent FP-biotin to tyrosine in eight proteins that have no active site serine. Chem Biol Interact. 2009;180(3):492-498.
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Caution: Product has not been fully validated for medical applications. For research use only.

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