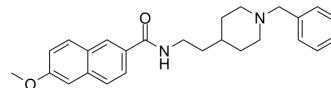


## AChE/BChE-IN-10

Cat. No.:	HY-151368	
CAS No.:	2924824-48-4	
Molecular Formula:	C <sub>26</sub> H <sub>30</sub> N <sub>2</sub> O <sub>2</sub>	
Molecular Weight:	402.53	
Target:	Cholinesterase (ChE)	
Pathway:	Neuronal Signaling	
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 : 25 mg/mL (62.11 mM; ultrasonic and warming and heat to 60°C)

Concentration	Solvent	Mass		
		1 mg	5 mg	10 mg
Preparing Stock Solutions	1 mM	2.4843 mL	12.4214 mL	24.8429 mL
	5 mM	0.4969 mL	2.4843 mL	4.9686 mL
	10 mM	0.2484 mL	1.2421 mL	2.4843 mL

Please refer to the solubility information to select the appropriate solvent.

### BIOLOGICAL ACTIVITY

#### Description

AChE/BChE-IN-10 (Compound 7b) is a potent dual AChE and BChE inhibitor with IC<sub>50</sub> values of 0.176, and 0.47 μM, respectively. AChE/BChE-IN-10 shows good blood brain barrier permeability. AChE/BChE-IN-10 can inhibit Aβ-aggregation and be used in Alzheimer's disease (AD) research<sup>[1]</sup>.

#### IC<sub>50</sub> & Target

AChE	BChE
0.176 μM (IC <sub>50</sub> )	0.47 μM (IC <sub>50</sub> )

#### In Vitro

AChE/BChE-IN-10 inhibits AChE in a non-competitive manner with K<sub>i</sub> of 0.21 μM, and BChE in a mixed-fashion with K<sub>i</sub> of 0.15 μM<sup>[1]</sup>.

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

### REFERENCES

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[1]. Mohd Abdullaha, et al. Discovery of methoxy-naphthyl linked N-(1-benzylpiperidine) benzamide as a blood-brain permeable dual inhibitor of acetylcholinesterase and butyrylcholinesterase. Eur J Med Chem. 2020 Dec 1;207:112761.

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

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