Proteins

Methoxy-X04

Cat. No.: HY-103240 CAS No.: 863918-78-9 Molecular Formula: $C_{23}H_{20}O_{3}$ Molecular Weight: 344

Amyloid-β Target:

Pathway: **Neuronal Signaling** Storage: 4°C, protect from light

* In solvent: -80°C, 6 months; -20°C, 1 month (protect from light)

Product Data Sheet

SOLVENT & SOLUBILITY

In Vitro

DMSO: 25 mg/mL (72.67 mM; ultrasonic and warming and heat to 80°C)

Preparing Stock Solutions	Solvent Mass Concentration	1 mg	5 mg	10 mg
	1 mM	2.9070 mL	14.5349 mL	29.0698 mL
	5 mM	0.5814 mL	2.9070 mL	5.8140 mL
	10 mM	0.2907 mL	1.4535 mL	2.9070 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: ≥ 1.25 mg/mL (3.63 mM); Clear solution
- 2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline) Solubility: 1.25 mg/mL (3.63 mM); Suspended solution; Need ultrasonic

BIOLOGICAL ACTIVITY

Description	Methoxy-X04 is a fluorescent dye that crosses the blood-brain barrier and selectively binds to beta-pleated sheets found in dense core amyloid A β plaques. Methoxy-X04 retains in vitro binding affinity for amyloid b (Ab) fibrils (K_i = 26.8 nM). Methoxy-X04 is fluorescent and stains plaques, tangles, and cerebrovascular amyloid in postmortem sections of AD brain with good specificity ^{[1][2]} .

In Vivo Methoxy-X04 (5-10 mg/kg, i.p., once time) differentiates individual plaques in PS1/APP mice within 30 to 60 min^[2].

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

REFERENCES

[1]. Klunk WE, et al. Imaging Abo Neuropathol Exp Neurol. 2002 S		enic mice with multiphoton micr	oscopy and methoxy-X04, a systemic	cally administered Congo red derivative. J		
[2]. Bisht K, et al. Correlative Light and Electron Microscopy to Study Microglial Interactions with β-Amyloid Plaques. J Vis Exp. 2016 Jun 1;(112):54060.						
	Caution Dradust has	not been fully validated for m	edical applications. For researc	h usa anlu		
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