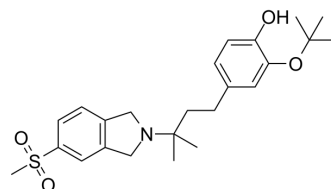


## CT1812

Cat. No.:	HY-111669
CAS No.:	1802632-22-9
Molecular Formula:	C <sub>24</sub> H <sub>33</sub> NO <sub>4</sub> S
Molecular Weight:	431.59
Target:	Sigma Receptor
Pathway:	Neuronal Signaling
Storage:	4°C, protect from light * In solvent : -80°C, 6 months; -20°C, 1 month (protect from light)



### SOLVENT & SOLUBILITY

In Vitro	DMSO : 250 mg/mL (579.25 mM; Need ultrasonic)						
	Preparing Stock Solutions	Solvent Concentration	Mass	1 mg	5 mg	10 mg	
				1 mM	2.3170 mL	11.5851 mL	23.1701 mL
				5 mM	0.4634 mL	2.3170 mL	4.6340 mL
				10 mM	0.2317 mL	1.1585 mL	2.3170 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: ≥ 2.08 mg/mL (4.82 mM); Clear solution						
	2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline) Solubility: ≥ 2.08 mg/mL (4.82 mM); Clear solution						
	3. Add each solvent one by one: 10% DMSO >> 90% corn oil Solubility: ≥ 2.08 mg/mL (4.82 mM); Clear solution						

### BIOLOGICAL ACTIVITY

Description	CT1812 (Sigma-2 receptor antagonist 1) is an orally active and brain penetrant sigma-2 receptor antagonist with a K <sub>i</sub> of 8.5 nM. CT1812 can be used for the research of Alzheimer's disease <sup>[1]</sup> .
IC <sub>50</sub> & Target	Sigma 2 Receptor
In Vitro	CT1812 (0.0001-10 μM, 30 min) displaces and prevents Aβ oligomer binding in neurons and glia <sup>[1]</sup> . CT1812 (4.8 μM, 48 h) increases synaptic number and protein expression in neurons <sup>[1]</sup> . MCE has not independently confirmed the accuracy of these methods. They are for reference only.

#### In Vivo

CT1812 (0.3-3 mg/kg, i.v., once time) selectively reduces A $\beta$  oligomer extracellular concentrations in transgenic hAPP/PS1 mice<sup>[1]</sup>.

CT1812 (10 mg/kg, p.o., daily, 9-10 weeks) improves cognitive performance in transgenic Thy1 huAPP<sup>Swe/Lnd+</sup> male mice<sup>[1]</sup>.  
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

#### CUSTOMER VALIDATION

- J Cell Mol Med. 2021 Nov 16.

See more customer validations on [www.MedChemExpress.com](http://www.MedChemExpress.com)

#### REFERENCES

[1]. Izzo NJ, et al. Preclinical and clinical biomarker studies of CT1812: A novel approach to Alzheimer's disease modification. *Alzheimers Dement.* 2021 Aug;17(8):1365-1382.

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

Tel: 609-228-6898

Fax: 609-228-5909

E-mail: [tech@MedChemExpress.com](mailto:tech@MedChemExpress.com)

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA