Proteins

# **UBP301** hydrochloride

Cat. No.: HY-107606A Molecular Formula:  $\mathsf{C_{15}H_{15}ClIN_3O_6}$ 

Molecular Weight: 495.65 Target: iGluR

Membrane Transporter/Ion Channel; Neuronal Signaling Pathway:

Storage: 4°C, sealed storage, away from moisture and light

\* In solvent: -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture

and light)

**Product** Data Sheet

### **SOLVENT & SOLUBILITY**

In Vitro

DMSO: 100 mg/mL (201.76 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent Mass Concentration	1 mg	5 mg	10 mg
	1 mM	2.0176 mL	10.0878 mL	20.1755 mL
	5 mM	0.4035 mL	2.0176 mL	4.0351 mL
	10 mM	0.2018 mL	1.0088 mL	2.0176 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 (5.04 mM); Clear solution
- 2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline) Solubility: ≥ 2.5 mg/mL (5.04 mM); Clear solution
- 3. Add each solvent one by one: 10% DMSO >> 90% corn oil Solubility: ≥ 2.5 mg/mL (5.04 mM); Clear solution

## **BIOLOGICAL ACTIVITY**

Description	UBP301 hydrochloride is a potent and selective antagonist of kainate receptor with IC $_{50}$ and K $_{D}$ of 164 $\mu$ M and 5.94 $\mu$ M, respectively. UBP301 hydrochloride has $\boxtimes$ 30-fold selectivity of kainate receptor over AMPA receptor. UBP301 hydrochloride is the derivative of willardiine $^{[1]}$ .
IC <sub>50</sub> & Target	164 $\mu$ M (kainate receptor) $^{[1]}$

#### **REFERENCES**

1]. More JC, et al. Structural rec	quirements for novel willardiine derivatives acting as AMPA and ka	inate receptor antagonists. Br J Pharmacol. 2003;138(6):1093-1100.
	Caution: Product has not been fully validated for medica	al applications. For research use only.
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