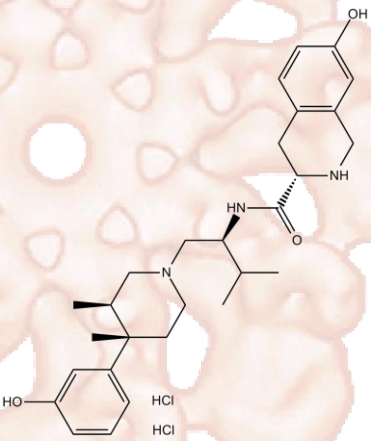
Product Data Sheet

JDTic 2HCl



Cat. No.:	A3518
CAS No.:	785835-79-2
Formula:	C28H41Cl2N3O3
M.Wt:	538.55
Synonyms:	
Target:	Endocrinology and Hormones
Pathway:	Opioid Receptor
Storage:	Store at -20°C

Solvent & Solubility

In Vitro

Soluble in DMSO

Preparing Stock Solutions

Concentration \ Mass	1mg	5mg	10mg
1 mM	1.8568 mL	9.2842 mL	18.5684 mL
5 mM	0.3714 mL	1.8568 mL	3.7137 mL
10 mM	0.1857 mL	0.9284 mL	1.8568 mL

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

Biological Activity

Shortsummary	κ -opioid receptor antagonist
IC_{50} & Target	0.02 nM (kappa opioid receptor)

In Vitro

Cell Viability Assay

Cell Line:	HEK293 cells expressing KOPr-GFP
Preparation method:	The solubility of this compound in DMSO is >10 mM. General tips for obtaining a higher concentration: Please warm the tube at 37 °C for 10 minutes and/or shake it in the ultrasonic bath for a while.Stock solution can be stored below -20°C for several months.
Reacting conditions:	10 μM, 60 min

	Applications:	The compound was administered for 60 min before lysing the cells. And pJNK-ir intensities were examined by Western blot analysis. JDTic significantly increased phospho-JNK-ir at 10 μM.
In Vivo	**Animal experiment**	
	Animal models:	Male Wistar rats
	Dosage form:	Intraperitoneal injection, 3, or 10 mg/kg at 1 ml/kg, dissolved in sterile water
	Applications:	Post-hoc analysis using Newman-Keuls test indicated a significant difference from baseline responding only in the JDTic 10 mg/kg pretreated group at the 2 h pretreatment time point (p=0.002). Furthermore, there was also a significant decrease observed in the 10 mg/kg JDTic treated group when compared to vehicle control at the 2 h time point, while the groups were virtually identical at later time points.
	Other notes:	Please test the solubility of all compounds indoor, and the actual solubility may slightly differ with the theoretical value. This is caused by an experimental system error and it is normal.

Product Citations

See more customer validations on www.apexbt.com.

References

[1] Melief E J, Miyatake M, Carroll F I, et al. Duration of action of a broad range of selective κ-opioid receptor antagonists is positively correlated with c-Jun N-terminal kinase-1 activation. Molecular pharmacology, 2011, 80(5): 920-929.
[2] Schank J R, Goldstein A L, Rowe K E, et al. The kappa opioid receptor antagonist JDTic attenuates alcohol seeking and withdrawal anxiety. Addiction biology, 2012, 17(3): 634-647.

Caution

FOR RESEARCH PURPOSES ONLY.

NOT FOR HUMAN, VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

Specific storage and handling information for each product is indicated on the product datasheet. Most APExBIO products are stable under the recommended conditions. Products are sometimes shipped at a temperature that differs from the recommended storage temperature. Shortterm storage of many products are stable in the short-term at temperatures that differ from that required for long-term storage. We ensure that the product is shipped under conditions that will maintain the quality of the reagents. Upon receipt of the product, follow the storage recommendations on the product data sheet.

APExBIO Technology
www.apexbt.com
7505 Fannin street, Suite 410, Houston, TX 77054.
Tel: +1-832-696-8203 | Fax: +1-832-641-3177 | Email: info@apexbt.com