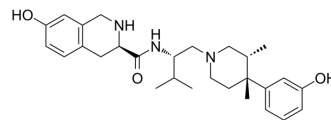


JDTic

Cat. No.:	HY-10486
CAS No.:	361444-66-8
Molecular Formula:	C ₂₈ H ₃₉ N ₃ O ₃
Molecular Weight:	465.63
Target:	Opioid Receptor
Pathway:	GPCR/G Protein; Neuronal Signaling
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description

JDTic is a highly selective antagonist for the κ -opioid receptor; without affecting the μ - or δ -opioid receptors. IC₅₀ value: Target: κ -opioid receptor. JDTic is a 4-phenylpiperidine derivative, distantly structurally related to analgesic drugs such as meperidine and ketobemidone, and more closely to the mu opioid antagonist alvimopan, and is structurally distinct from other kappa antagonists such as norbinaltorphimine. JDTic has a very long duration of action, with effects in animals seen for up to several weeks after administration of a single dose, although its binding to the kappa opioid receptor is not irreversible and its long-acting effects are instead caused by altered activity of c-Jun N-terminal kinases. Animal studies suggest that it may produce antidepressant and anxiolytic effects, as well as having possible application in the treatment of addiction to cocaine and morphine.

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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

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