Product Data Sheet

Product Name: A 317491 sodium salt
Cat. No.: GC50474

Chemical Properties

Cas. No.			
SMILES	O=C(C1=CC(C(O)=O)=C(C(N([C@H]2CCCC3=CC=CC=C23)CC4=CC(OC5=CC=CC=C5)=CC=C4)=O)C=C1C(O[Na])=O)O[Na]		
Formula	$C_{33}H_{25}NO_8Na_2$	M.Wt	609.54
Solubility	Soluble in DMSO	Storage	Store at -20°C
General tips	For obtaining a higher solubility , please warm the tube at 37 ℃ and shake it in the ultrasonic bath for a while.Stock solution can be stored below -20℃ for several months.		
Shipping Condition	Evaluation sample solution : ship with blue ice All other available size: ship with RT , or blue ice upon request.		
Structure	A 317491 sodium salt		

Background

Selective, high affinity non-nucleotide P2X3 and P2X2/3 receptor antagonist (Ki values are 9, 22, 22 and 92 nM at human P2X2/3, rat P2X3, human P2X3 and rat P2X2/3, respectively); blocks recombinant human and rat P2X3 and P2X2/3 receptor-mediated calcium flux (Ki = 22 - 92 nM). Exhibits selectivity over other P2 receptors and other neurotransmitter receptors, ion channels, and enzymes (IC50 > 5 μM). Reduces mechanical allodynia and thermal hyperalgesia in the CCI in vivo models. Antinociceptive.

Jarvis et al (2002) A-317491, a novel potent and selective non-nucleotide antagonist of P2X3 and P2X2/3 receptors, reduces chronic inflammatory and neuropathic pain in the rat. Proc.Nat.Acad.Sci.USA 99 17179 PMID:12482951 |McGaraughty et al (2003) Effects of A-317491, a novel and selective P2X3/P2X2/3 receptor antagonist, on neuropathic, inflammatory and chemogenic nociception following intrathecal and intraplantar administration. Br.J.Pharmacol. 140 1381 PMID:14623769 |McGaraughty et al (2005) Endogenous opioid mechanisms partially mediate P2X3/P2X2/3-related antinociception in rat models of inflammatory and chemogenic pain but not neuropathic pain. Br.J.Pharmacol. 146 180 PMID:16041397 |Mansoor et al (2016) X-ray structures define human P2X3 receptor gating cycle and antagonist action. Nature 538 66 PMID:27626375 |Neelands et al (2003) 2', 3'-O-(2,4,6,trinitrophenyl)-ATP and A-317491 are competitive antagonists at a slowly desensitizing chimeric human P2X3 receptor. Br.J.Pharmacol. 140 202 PMID:12967950

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