

Product Data Sheet

Product Name: A-317491 sodium salt hydrate

Cat. No.: GC35211

Chemical Properties

Cas. No.

SMILES O=C(C1=CC(C(N(CC2=CC=CC(OC3=CC=CC=C3)=C2)[C@H]4CCCC5=C4C=CC=C5)=O)=C(C(O)=O)C=C1C(O)=O)O.[Na].O

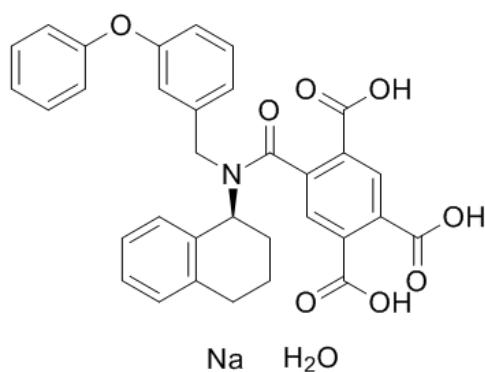
Formula $C_{33}H_{29}NNaO_9$ M.Wt 606.57

Solubility Water: ≥ 100 mg/mL (164.86 mM); Storage Store at -20°C
DMSO: ≥ 100 mg/mL (164.86 mM)

General tips For obtaining a higher solubility, please warm the tube at 37°C and shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C 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



Background

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

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A-317491 sodium salt hydrate is a non-nucleotide P2X3 and P2X2/3 receptor antagonist, which inhibits calcium flux mediated by the receptors. IC50 value: Target: P2X2/3 receptor It is known that P2X3 and P2X2/3 receptors stimulate the pronociceptive effects of ATP upon activation. Studies indicate that the P2X3 receptor is implicated in both neuropathic and inflammatory pain. P2X3 receptor is a promising target for therapeutic intervention in cancer patients for pain management.

[1]. Hansen RR, Nasser A, Falk S, et al. Chronic administration of the selective P2X3, P2X2/3 receptor antagonist, A-317491, transiently attenuates cancer-induced bone pain in mice. Eur J Pharmacol. 2012 Aug 5;688(1-3):27-34. [2]. Wu JX, Xu MY, Miao XR, et al. Functional up-regulation of P2X3 receptors in dorsal root ganglion in a rat model of bone cancer pain. Eur J Pain. 2012;16(10):1378-88. [3]. Xu J, Chu KL, Brederson JD, et al. Spontaneous firing and evoked responses of spinal nociceptive neurons are attenuated by blockade of P2X3 and P2X2/3 receptors in inflamed rats. J Neurosci Res. 2012;90(8):1597-606. [4]. Yasuda M, Shinoda M, Kiyomoto M, et al. P2X3 receptor mediates ectopic mechanical allodynia with inflamed lower lip in mice. Neurosci Lett. 2012 18;528(1):67-72. [5]. Maria Cláudia G. Oliveiraa, Adriana Pelegrini-da-Silvaa, et al. Peripheral mechanisms underlying the essential role of P2X3,2/3 receptors in the development of inflammatory hyperalgesia. PAIN. 2009,141(1-2): 127-134.

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