

Product Data Sheet

Product Name: AdipoRon hydrochloride

Cat. No.: GC35251

Chemical Properties

Cas. No. 1781835-20-8

SMILES O=C(C1=CC=CC=C1)C2=CC=C(OCC(NC3CCN(CC4=CC=CC=C4)CC3)=O)C=C2.Cl

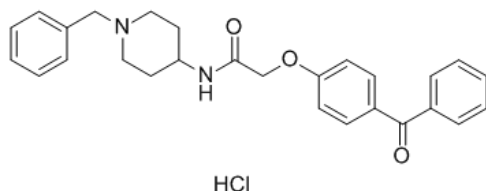
Formula $C_{27}H_{29}ClN_2O_3$ M.Wt 464.98

Solubility Soluble in DMSO Storage Store at -20°C

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

AdipoRon hydrochloride is an orally active and specific AdipoR agonist, binding to AdipoR1 and AdipoR2, with Kds of 1.8 and 3.1 μ M, respectively. Kd: 1.8 μ M (AdipoR1), 3.1 μ M (AdipoR2)[1]

AdipoRon hydrochloride is an orally active and specific AdipoR agonist, binds to AdipoR1 and AdipoR2, with Kds of 1.8 and 3.1 μ M. AdipoRon (50 nM-50 μ M) increases AMPK phosphorylation via AdipoR1[1]. AdipoRon (50 μ M) dose-dependently attenuates the expression of TNF- α and TGF- β 1 in the L02 cells. AdipoRon exhibits significant and dosage-dependent growth suppression on

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

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macrophages[2]. AdipoRon treatment significantly improves cardiac functional recovery after reperfusion, and inhibits post-MI apoptosis[3]. AdipoRon exerts vasodilation by mechanisms distinct to adiponectin and induces vasorelaxation without a marked decrease in VSMC $[Ca^{2+}]_i$ [4].

AdipoRon (50 mg/kg, i.v.) causes significant phosphorylation of AMPK in skeletal muscle and liver of wild-type mice but not AdipoR1^{-/-} AdipoR2^{-/-} double-knockout mice[1]. AdipoRon (0.02, 0.1, and 0.5 mg/kg, i.g.) alleviates D-GalN induced hepatotoxicity in mice, and prevents hepatic architecture distortion against D-GalN challenge. The hepatoprotective potential of AdipoRon is particularly evident in higher dosages (0.1 and 0.5 mg/kg)[2]. Enhanced cardiomyocyte apoptosis in APN-deficient mice is rescued by AdipoRon (50 mg/kg, p.o.) administration. Antiapoptotic effect of AdipoRon is attenuated but not lost in AMPK-DN mice[3].

[1]. Okada-Iwabu M, et al. A small-molecule AdipoR agonist for type 2 diabetes and short life in obesity. *Nature*. 2013 Nov 28;503(7477):493-9. [2]. Wang Y, et al. Hepatoprotective effects of AdipoRon against d-galactosamine-induced liver injury in mice. *Eur J Pharm Sci*. 2016 Aug 9;93:123-131. [3]. Zhang Y, et al. AdipoRon, the first orally active adiponectin receptor activator, attenuates postischemic myocardial apoptosis through both AMPK-mediated and AMPK-independent signalings. *Am J Physiol Endocrinol Metab*. 2015 Aug 1;309(3):E275-82. [4]. Hong K, et al. Adiponectin Receptor Agonist, AdipoRon, Causes Vasorelaxation Predominantly Via a Direct Smooth Muscle Action. *Microcirculation*. 2016 Apr;23(3):207-20.

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