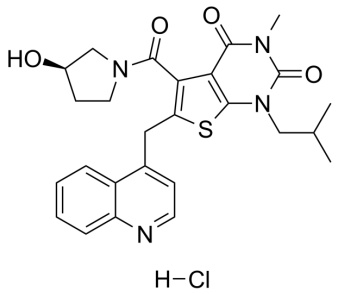
AR-C141990 hydrochloride

Cat. No.:	HY-119996A
CAS No.:	2250019-94-2
Molecular Formula:	$C_{26}H_{29}ClN_4O_4S$
Molecular Weight:	529.05
Target:	Monocarboxylate Transporter
Pathway:	Membrane Transporter/Ion Channel
Storage:	4°C, sealed storage, away from moisture and light * In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture and light)



BIOLOGICAL ACTIVITY

Description	AR-C141990 hydrochloride is a potent lactate transporters (monocarboxylate transporters; MCTs) inhibitor with pK_i values of 7.6, 6.6 for MCT-1 and MCT-2, respectively[1]. AR-C141990 hydrochloride has immunosuppressive properties and inhibits graft versus host response[2].
IC_{50} & Target	pKi: 7.6 (MCT-1) and 6.6 (MCT-2)[1]
In Vitro	AR-C141990 hydrochloride has no significant activity against MCT-3 (pIC_{50}<5) or MCT-4 (pIC_{50}<5)[1]. AR-C141990 hydrochloride inhibits the uptake of [^{3}H]HOCPCA in oocytes expressing MCT1 or 2 in a concentration-dependent manner with IC_{50}s of 0.21 μM and 2.32 μM, respectively[2]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.
In Vivo	AR-C141990 hydrochloride (10 mg/kg; SC) with a parallel decline in plasma concentrations with a half-life around 20 minutes in male NMRI mice (18-22 g) [2]. Application of the corresponding plasma concentrations of AR-C141990 hydrochloride (0.3-90 mg/kg) results in a concentration-dependent decrease in the B/P of HOCPCA with an EC_{50} of 860 ng/ml[2]. AR-C141990 (100 mg/kg; s.c.) has a moderate prolongation of graft survival for 40 days in PVG rats that received DA cardiac transplants[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

CUSTOMER VALIDATION

- Cell Death Differ. 2023 Aug 15.

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REFERENCES

[1]. Clara Påhlman, et al. Immunosuppressive Properties of a Series of Novel Inhibitors of the Monocarboxylate Transporter MCT-1. Transpl Int. 2013 Jan;26(1):22-9.

[2]. Louise Thiesen, et al. In Vitro and In Vivo Evidence for Active Brain Uptake of the GHB Analog HOCPCA by the Monocarboxylate Transporter Subtype 1. J Pharmacol Exp Ther. 2015 Aug;354(2):166-74.

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