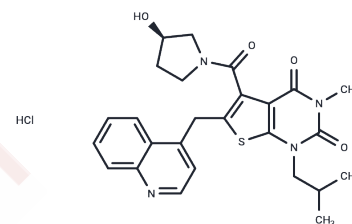


## AR-C141990 hydrochloride

## Chemical Properties

CAS No. :	2250019-94-2
Formula:	C <sub>26</sub> H <sub>29</sub> ClN <sub>4</sub> O <sub>4</sub> S
Molecular Weight:	529.05
Storage:	Powder: -20°C for 3 years   In solvent: -80°C for 1 year Actual storage temperature shall be subject to the COA.



## Biological Description

Description	AR-C141990 hydrochloride is a potent inhibitor of lactate transporters known as monocarboxylate transporters (MCTs), with pK <sub>i</sub> values of 7.6 and 6.6 for MCT-1 and MCT-2, respectively. This compound also exhibits immunosuppressive properties and effectively inhibits the graft versus host response.
Targets(IC <sub>50</sub> )	Others, Monocarboxylate transporter
In vitro	AR-C141990 hydrochloride exhibits negligible activity against MCT-3 (pIC <sub>50</sub> <5) and MCT-4 (pIC <sub>50</sub> <5)[1]. However, it effectively inhibits the uptake of [3H]HOCPCA in oocytes expressing MCT1 or 2, demonstrating concentration-dependent inhibition with IC <sub>50</sub> values of 0.21 μM for MCT1 and 2.32 μM for MCT2, respectively[2].
In vivo	Administering AR-C141990 hydrochloride (10 mg/kg; SC) to male NMRI mice (18-22 g) resulted in a rapid decrease in its plasma concentrations, exhibiting a half-life of approximately 20 minutes[2]. The plasma levels of AR-C141990 hydrochloride (0.3-90 mg/kg) were found to reduce the B/P of HOCPCA in a concentration-dependent manner, with an EC <sub>50</sub> of 860 ng/ml[2]. Furthermore, a dose of AR-C141990 (100 mg/kg; s.c.) was observed to moderately extend the survival of grafts to 40 days in PVG rats that underwent DA cardiac transplants[1].

### Preparing Stock Solutions

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	1mg	5mg	10mg
1 mM	1.8902 mL	9.4509 mL	18.9018 mL
5 mM	0.378 mL	1.8902 mL	3.7804 mL
10 mM	0.189 mL	0.9451 mL	1.8902 mL
50 mM	0.0378 mL	0.189 mL	0.378 mL

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Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

### Reference

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

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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