

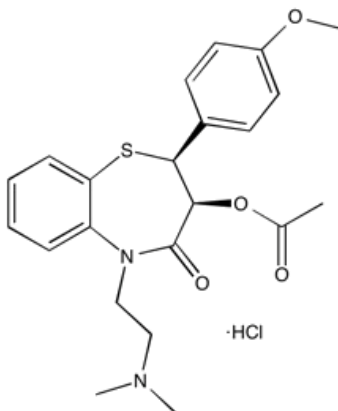
Catalog # 10-1139

Diltiazem HCl

CAS# 33286-22-5

(2S-cis)-3-(Acetyloxy)-5-[2-(dimethylamino)ethyl]-2,3-dihydro-2-(methoxyphenyl)-1,5-benzothiazepin-4-(5H)-one hydrochloride

Lot # X101481



A non-dihydropyridine-type blocker of L-type Ca^{2+} channels^{1,2}. Reduces Ca^{2+} oscillations in subcellular compartments in vascular smooth muscle cells³. Also blocks P-type Ca^{2+} channels in freshly dissociated rat cerebellar Purkinje neurons⁴. Clinically useful antihypertensive agent⁵. Cell permeable.

- 1) Kraus *et al.* (1998), *Molecular mechanism of diltiazem interaction with L-type Ca^{2+} channels*; J. Biol. Chem., **273** 27205
- 2) Godfraind *et al.* (1986), *Calcium antagonism and calcium entry blockade*; Pharmacol. Rev., **38** 321
- 3) Fedoryak *et al.* (2004), *Spontaneous Ca^{2+} oscillations in subcellular compartments of vascular smooth muscle cells rely on different Ca^{2+} pools*; Cell Res., **14** 379
- 4) Ishibashi *et al.* (1995), *Block of P-type Ca^{2+} channels in freshly dissociated rat cerebellar Purkinje neurons by diltiazem and verapamil*; Brain Res., **695** 88
- 5) Chaffman and Bogden (1985), *Diltiazem. A review of its pharmacological properties and therapeutic efficacy*; Drugs, **29** 387

PHYSICAL DATA

Molecular Weight:	450.98
Molecular Formula:	$\text{C}_{22}\text{H}_{26}\text{N}_2\text{O}_4\text{S} \cdot \text{HCl}$
Purity:	99% by HPLC
	NMR: (Conforms)
Solubility:	Soluble in Water (up to 50 mg/ml) or in DMSO (up to 45 mg/ml)
Physical Description:	White or off-white solid
Storage and Stability:	Store as supplied, desiccated at room temperature for up to 1 year from the date of purchase. Solutions in DMSO or distilled water may be stored at -20°C for up to 3 months.

Materials provided by Focus Biomolecules are for laboratory research use only and are not intended for human or veterinary applications.