Datasheet

Moexipril HCl

Product Name	Moexipril HCl
Catalogue Number	BSV-S2079
Chemical Formula	$C_{27}H_{34}N_2O_7$.HCl
Function	RAAS inhibitor
CAS No.:	82586-52-5

Description:

Moexipril HCl is a potent orally active nonsulfhydryl **angiotensin converting enzyme (ACE)** inhibitor, used for the treatment of hypertension and congestive heart failure.

Product Details:

Target: angiotensin converting enzyme (ACE)

Chemical name: (3S)- 2-[(2S)-2-[[(1S)-1-(ethoxycarbonyl)-3-phenylpropyl]amino]-1-oxopropyl]-1,2,3,4-tetrahydro-6,7-dimethoxy-3-isoquinolinecarboxylic acid,hydrochloride (1:1)

Formula: $C_{27}H_{34}N_2O_7$.HCl

Molecular weight: 535.03

Purity: 99.73 %

Solubility: 20 mg/mL (DMSO)

Storage: 3 years -20°C powder, 2 years -80°C in solvent

Regulatory/ Restrictions: For laboratory use only.

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Preparing stock solutions:

Concentration/ Mass	1 mg	5 mg	10 mg
1 mM	1.8691 mL	9.3453 mL	18.6905 mL
5 mM	0.3738 mL	1.8691 mL	3.7381 mL
10 mM	0.1869 mL	0.9345 mL	1.8691 mL

Biological activity:

In vitro:

Moexipril dose-dependently reduces the percentage of damaged neurons, as well as mitochondrial reactive oxygen species generation induced by glutamate, staurosporine or $Fe^{2+/3+}$. Moexipril and enalapril attenuates staurosporine-induced neuronal apoptosis as determined by nuclear staining with Hoechst 33258. [1]

In vivo:
Moexipril (0.3 mg/kg) significantly reduces brain damage after focal ischemia as compared to control mice. Moexipril (0.01 mg/kg) is able to reduce the infarct volume in the rat model after focal cerebral ischemia. [1] Moexipril reduces blood pressure after the first week of treatment but it has no apparent effect on either the proximal tibial metaphysis or the tibial shaft in ovariectomized (OVX) spontaneously hypertensive rats (SHR). Moexipril combined with hydrochlorothiazide (HCTZ) exhibits a much more potent hypotensive effect and has the same effect on bone mass and dynamic end-points as HCTZ alone. [2] Moexiprilat exhibits a higher inhibitory potency than enalaprilat against both plasma ACE and purified ACE from rabbit lung. Moexipril (0.1-30 mg/kg/day) lowers blood pressure and differentially inhibits ACE activity in plasma, lung, aorta, heart and kidney in a dose-dependent fashion. Moexipril (10 mg/kg/day) leads to comparable decreases in blood pressure, inhibition of plasma ACE and reduction of plasma angiotensinogen and to a similar attenuation of the pressor responses to angiotensin I and potentiation of the depressor responses to bradykinin. [3]

References:
[1] Ravati A, et al. Eur J Pharmacol,?999, 373(1), 21-33.
[2] Ma YF, et al. J Endocrinol,?997, 154(3), 467-474.
[3] Edling O, et al. J Pharmacol Exp Ther,?995, 275(2), 854-863.