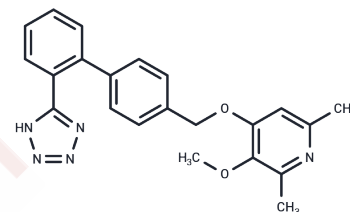


ME-3221

Chemical Properties

CAS No. : 139958-16-0
 Formula: C₂₂H₂₁N₅O₂
 Molecular Weight: 387.43
 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	ME-3221 is an angiotensin AT1 receptor antagonist that prevents hypertensive complications in aged stroke-prone hypertensive rats.
Targets(IC50)	RAAS,Angiotensin-converting Enzyme (ACE)
In vivo	ME3221 inhibited the pressor response to angiotensin II in rats at doses of 0.3-1.0 mg/kg. Higher doses of ME3221 (3-10 mg/kg) were required to achieve the same inhibitory potency in dogs.The antagonistic potency of ME3221 against angiotensin II-induced contraction in rabbit aorta (pA ₂ = 8.82) was approximately fivefold higher than in canine aorta (pA ₂ = 8.18).[1];Long-term (8 months) oral administration of ME3221 (10 mg/kg/d) to aged (32 weeks) stroke-prone hypertensive rats (SHRSP) suppressed mortality and hypertensive complications observed in control SHRSP: stroke (hemorrhage, spongiosis and flaccidity in the cerebral cortex), increased proteinuria, total N-acetyl-β-D-glucosaminidase activity and cardiac hypertrophy and pleural effusion. [2]; SHRSP were orally administered ME3221 (3 and 10 mg/kg per day) from 6 to 20 weeks, and ME3221 inhibited to a considerable extent the elevation of SBP in salt-containing SHRSP, increased survival to >90%, and reduced hypertensive complications such as stroke (moderate), renal injury (increased proteinuria and total N-acetyl-β-D-glucosaminidase activity), and heart failure (cardiac hypertrophy and pleural effusion). [3]

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.5811 mL	12.9056 mL	25.8111 mL
5 mM	0.5162 mL	2.5811 mL	5.1622 mL
10 mM	0.2581 mL	1.2906 mL	2.5811 mL
50 mM	0.0516 mL	0.2581 mL	0.5162 mL

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

Kawano K, et al. Nonpeptide angiotensin II receptor antagonist recognizes inter-species differences in angiotensin AT1 receptors. *Eur J Pharmacol.* 1998 Sep 11;357(1):33-9.

Nagura J, et al. ME3221, a surmountable angiotensin AT1-receptor antagonist, prevents hypertensive complications in aged stroke-prone spontaneously hypertensive rats. *Jpn J Pharmacol.* 1996 May;71(1):39-49.

Nagura J, et al. Protective effects of ME3221 on hypertensive complications and lifespan in salt-loaded stroke-prone spontaneously hypertensive rats. *Clin Exp Pharmacol Physiol.* 1996 Mar;23(3):229-35.

Nagura J, et al. Pharmacological profile of ME3221, a novel angiotensin II receptor antagonist. *Eur J Pharmacol.* 1995 Feb 14;274(1-3):201-11.

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