

CGP-42112 acetate

Chemical Properties

CAS No. :

Formula: C54H73N13O13

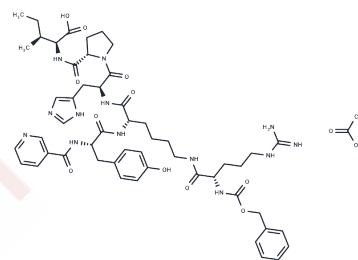
Molecular Weight: 1112.24

Storage:

Store at low temperature, Keep away from moisture

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	CGP-42112 acetate is a potent angiotensin receptor AT ₂ agonist that inhibits the increase in protein kinase A activity produced by LPS.
Targets(IC ₅₀)	RAAS
In vitro	At concentrations of ≥ 1 nM, CGP-42112 acetate significantly inhibits cGMP production from the basal value and also inhibits TH-enzyme activity from the basal value. The inhibitory effects of CGP-42112 acetate on TH-enzyme activity and cGMP production are nullified by PD123319 (AT ₂ -R antagonist), while CV-11974 (AT ₁ -R antagonist) is ineffective[1]. [125I]CGP-42112 acetate selectively binds to the AT ₂ angiotensin II receptor subtype. The binding affinity of [125I]CGP-42112 acetate is higher in the brain than in the adrenal. Beta-mercaptoethanol enhances [125I]CGP-42112 acetate binding in the brain but does not alter its binding in the adrenal[2]. The high-affinity binding of [125I]CGP-42112 acetate ($K_d = 0.07-0.3$ nM, depending on the area studied) is selective for AT ₂ receptors. This selectivity is demonstrated by the lack of competition with the AT ₁ ligand losartan and competition by the AT ₂ ligands PD 123177 and unlabeled CGP-42112 acetate, as well as the non-selective peptides Ang II and angiotensin III (Ang III)
In vivo	Intravenous infusions of CGP-42112 acetate (0.1 and 1 mg kg ⁻¹ min ⁻¹) and PD 123319 (0.36 and 1 mg kg ⁻¹ min ⁻¹) shifted the upper limit of CBF autoregulation toward higher blood pressures without affecting baseline CBF[4].

Solubility Information

Solubility	DMSO: 50 mg/mL (44.95 mM), Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
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Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	0.8991 mL	4.4954 mL	8.9909 mL
5 mM	0.1798 mL	0.8991 mL	1.7982 mL
10 mM	0.0899 mL	0.4495 mL	0.8991 mL
50 mM	0.018 mL	0.0899 mL	0.1798 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

- Takekoshi K, et al. Angiotensin-II subtype 2 receptor agonist (CGP-42112) inhibits catecholamine biosynthesis in cultured porcine adrenal medullary chromaffin cells. *Biochem Biophys Res Commun*. 2000 Jun 7;272(2):544-50.
- Speth RC. [125I]CGP 42112 binding reveals differences between rat brain and adrenal AT2 receptor binding sites. *Regul Pept*. 1993 Mar 19;44(2):189-97.
- Heemskerk FM, et al. Quantitative autoradiography of angiotensin II AT2 receptors with [125I]CGP 42112. *Brain Res*. 1995 Apr 17;677(1):29-38.
- Naveri L, et al. Angiotensin II AT2 receptor stimulation extends the upper limit of cerebral blood flow autoregulation: agonist effects of CGP 42112 and PD 123319. *J Cereb Blood Flow Metab*. 1994 Jan;14(1):38-44.

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