

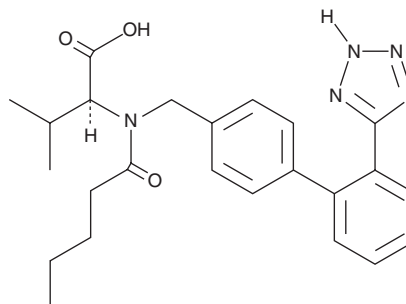
PRODUCT INFORMATION



Valsartan

Item No. 14178

CAS Registry No.: 137862-53-4
Formal Name: N-(1-oxopentyl)-N-[[2'-(2H-tetrazol-5-yl)[1,1'-biphenyl]-4-yl]methyl]-L-valine
Synonym: CGP 48933
MF: C₂₄H₂₉N₅O₃
FW: 435.5
Purity: ≥98%
Supplied as: A crystalline solid
Storage: -20°C
Stability: ≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

Valsartan is supplied as a crystalline solid. A stock solution may be made by dissolving the valsartan in the solvent of choice. Valsartan is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide, which should be purged with an inert gas. The solubility of valsartan in these solvents is approximately 30 mg/ml.

Valsartan is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, valsartan should first be dissolved in ethanol and then diluted with the aqueous buffer of choice. Valsartan has a solubility of approximately 0.5 mg/ml in a 1:1 solution of ethanol:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

Valsartan is a nonpeptide angiotensin II receptor antagonist of the angiotensin II type 1 (AT₁) receptor (IC₅₀ = 2.7 nM).¹ It is 20,000-fold selective for AT₁ over AT₂ and, unlike some other AT receptor antagonists, does not alter peroxisome proliferator-activated receptor γ (PPAR γ) activity *in vitro*.² *In vivo*, valsartan (30 mg/kg) increases cardiac output and reduces left ventricular fibrosis in a model of heart failure with reduced ejection fraction in mice with streptozotocin-induced diabetes.³ Formulations containing valsartan have been used in the treatment of hypertension and heart failure.^{2,4-5}

References

1. Burnier, M. Angiotensin II type 1 receptor blockers. *Circulation* **103**(6), 904-912 (2001).
2. Munger, M.A. Use of angiotensin receptor blockers in cardiovascular protection: Current evidence and future directions. *PT* **36**(1), 22-40 (2011).
3. Suematsu, Y., Miura, S., Goto, M., et al. LCZ696, an angiotensin receptor-neprilysin inhibitor, improves cardiac function with the attenuation of fibrosis in heart failure with reduced ejection fraction in streptozotocin-induced diabetic mice. *Eur. J. Heart Fail.* **18**(4), 386-393 (2016).
4. Irons, B.K., Tsikouris, J.P., and Thomas, A.A. The use of angiotensin receptor blockers in the treatment of chronic heart failure. *J. Cardiovasc. Pharmacol.* **44**(6), 718-724 (2004).
5. Schiffrin, E.L. Beyond blood pressure: The endothelium and atherosclerosis progression. *Am. J. Hypertens.* **15**(10 Pt 2), 115S-122S (2002).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

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