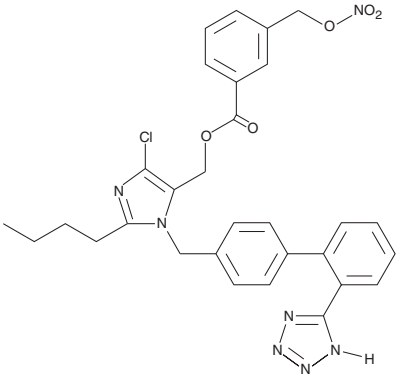
PRODUCT INFORMATION

NO-Losartan A

Item No. 10006456



CAS Registry No.:	791122-48-0
Formal Name:	[2-butyl-4-chloro-1-[[2'-(1H-tetrazol-5-yl) [1,1'-biphenyl]-4-yl]methyl]-1H-imidazol-5-yl] methyl ester
MF:	$C_{30}H_{28}ClN_7O_5$
FW:	602.0
Purity:	≥97%
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

NO-losartan A is supplied as a crystalline solid. A stock solution may be made by dissolving the NO-losartan A in the solvent of choice, which should be purged with an inert gas. NO-losartan A is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of NO-losartan A in these solvents is approximately 30 mg/ml.

NO-losartan A is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, NO-losartan A should first be dissolved in ethanol and then diluted with the aqueous buffer of choice. NO-losartan A has a solubility of approximately 500 µg/ml in a 1:5 solution of ethanol:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

Losartan is a mammalian AT_1 receptor antagonist with a K_i value of 5-20 nM.[1] In humans, losartan effectively controls hypertension while protecting renal function.[2] Nitric oxide (NO) causes vasodilation and also inhibits platelet and neutrophil aggregation in the endothelium.[3,4] NO-losartan A possesses similar anti-hypertensive effects to losartan, with the addition of the vasodilating effects of NO release.[5]

References

1. Ji, H., Leung, M., Zhang, Y., *et al.* Differential structural requirements for specific binding of nonpeptide and peptide antagonists to the AT_1 angiotensin receptor. Identification of amino acid residues that determine binding of the antihypertensive drug losartan. *J. Biol. Chem.* **269(24)**, 16533-16536 (1994).
2. Caruso, D., D'Avino, M., Acampora, C., *et al.* Effects of losartan and chlorthalidone on blood pressure and renal vascular resistance index in non-diabetic patients with essential hypertension and normal renal functions. *J. Cardiovasc. Pharmacol.* **44(5)**, 520-524 (2004).
3. Moncada, S., and Higgs, A. The L-arginine-nitric oxide pathway. *N. Engl. J. Med.* **329**, 2002-2012 (1993).
4. Loscalzo, J. and Welch, G. Nitric oxide and its role in the cardiovascular system. *Prog. Cardiovasc. Dis.* **38**, 87-103 (1995).
5. Breschi, M.C., Calderone, V., Digiacomo, M., *et al.* NO-sartans: A new class of pharmacodynamic hybrids as cardiovascular drugs. *J. Med. Chem.* **47**, 5597-5600 (2004).

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.

WARRANTY AND LIMITATION OF REMEDY
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