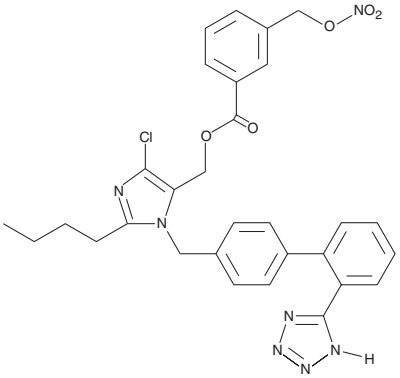
PRODUCT INFORMATION

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:	≥2 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).

CAYMAN CHEMICAL
1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA
PHONE: [800] 364-9897
[734] 971-3335
FAX: [734] 971-3640
CUSTSERV@CAYMANCHEM.COM
WWW.**CAYMANCHEM**.COM