Product Data Sheet

Product Name:	1H-1-ethyl Candesartan Cilexetil
Cat. No.:	GC17757

Chemical Properties

Cas. No.	914613-35-7		
Chemical Name	2-ethoxy-1-[[2'-(1-ethyl-1H-tetrazol-5-yl)[1,1'-biphenyl]-4-yl]methyl]-1H-benzimidazole-7-carboxylic acid, 1-[[(cyclohexyloxy)carbonyl]oxy]ethyl ester		
SMILES	O=C(OC(C)OC(C1=C(N(CC2=CC=C(C3=C(C4=NN=NN4CC)C=CC=C3)C=C2)C(OCC)=N5)C5=CC=C1)=O)OC6CCCCC6		
Formula	$C_{35}H_{38}N_6O_6$	M.Wt	638.7
Solubility	≤30mg/ml in DMSO;30mg/ml in dimethyl formamide	Storage	Store at -20°C
General tips	For obtaining a higher solubility , please warm the tube at 37 ℃ and shake it in the ultrasonic bath for a while.Stock solution can be stored below -20℃ for several months.		
Shipping Condition	Evaluation sample solution : ship with blue ice All other available size: ship with RT , or blue ice upon request.		
Structure	1H-1-ethyl Candesartan Cilexetil		

Background

1H-1-ethyl Candesartan Cilexetil, which is a process-related impurity commonly found in the bulk synthesis of candesartan cilexetil, is a potent, long-acting, and selective angiotensin II type 1 receptor (AT1) antagonist.

Angiotensin II is a peptide that is mainly generated by the angiotensin converting enzyme and chymase, which plays a vital role in regulating blood pressure and sodium homeostasis via specific receptors including AT1[1]. AT1, localized in the kidney, heart, brain, adrenal gland, adipocytes, vascular smooth muscle cells, platelets, and placenta, is a major component of the renin-angiotensin system. Furthermore, AT1 mediates the classical biological actions of angiotensin II. Also, AT1 has seven helical transmembrane domains, which is the characteristic of the superfamily of G-protein-coupled receptors. Carboxyl-terminal region structure of AT1 plays important roles in receptor internalization, desensitization and phosphorylation [2].

In vitro: Up to now, in vitro study of 1H-1-ethyl candesartan cilexetil is still in the development stage.

In vivo: Up to now, in vivo study of 1H-1-ethyl candesartan cilexetil is still in the development stage.

References:
[1]. Otsuka, M. Reduction of bleomycin induced lung fibrosis by candesartan cilexetil, an angiotensin II type 1 receptor antagonist. Thorax. 2004; 59(1): 31-38.
[2]. GUO, D., SUN, Y., HAMET, P., & INAGAMI, T. The angiotensin II type 1 receptor and receptor-associated proteins. Cell Research. 2001; 11(3): 165-180.

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