Product Data Sheet

Product Name: LY171883
Cat. No.: GC13087

Chemical Properties

Cas. No.	88107-10-2		
Chemical Name	1-[2-hydroxy-3-propyl-4-[4-(1H-tetrazol-5-yl)butoxy]phenyl]-ethanone		
SMILES	CCCc1c(OCCCCc2nnn[nH]2)ccc(C(=O)C)c1O		
Formula	$C_{16}H_{22}N_4O_3$	M.Wt	318.4
Solubility	≤25mg/ml in ethanol;25mg/ml in DMSO;25mg/ml in dimethyl formamide	Storage	Room temperature
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	LY171883		

Background

LY171883 is a leukotriene D4 receptor antagonist.

Leukotriene D4 is one of the leukotrienes, whose major function is to induce the smooth muscle contraction, leading to vasoconstriction and bronchoconstriction. Leukotriene D4 can also increase vascular permeability.

In vitro: In GH(3) cells, LY-171883 was able to reversibly increase the amplitude of Ca(2+)-activated K(+) current concentration-dependently with an EC(50) value of 15 μM. Moreover, the treatment of LY-171883 to cytosolic face did not affect single channel conductance of large-conductance Ca(2+)-activated K(+) channels in excised inside-out patches recorded from GH(3) cells, however, LY-171883 did increase the channel activity. In addition, the LY-171883-stimulated activity of BK(Ca) channels was dependent on membrane potential [1].

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In vivo: The effect of LY-171883 on the respiratory and cardiovascular changes in endotoxemia was studied in unanesthetized sheep. In group one, LY-171883 at 4 mg/kg was i.v. injected. In group two, Escherichia coli endotoxin (1 μg/kg) was infused, and in group three, LY-171883 at 4 mg/kg was administered before and after the same dose of endotoxin. Results showed that infusion of LY-171883 in group one did not alter baseline ventilatory and cardiovascular measurements. In group two, a two-phase pulmonary response was found. An early pulmonary hypertension phase with a fall in cardiac index was observed in group three [2].

Clinical trial: Up to now, no clinical data have been released.

References:
[1] PC Li et al. Enhanced Activity of Ca2+-Activated K+ Channels by 1-[2-Hydroxy-3-Propyl-4-[(1h-Tetrazol-5-Yl)butoxyl]phenyl] Ethanone (LY-171883) in Neuroendocrine and Neuroblastoma Cell Lines. J Cell Physiol 192 (2), 188-199. 8 2002.
[2] Gross D, Ben Dahan J, Landau EH, Krausz MM. Effect of leukotriene inhibitor LY-171883 on the pulmonary response to Escherichia coli endotoxemia. Crit Care Med. 1990 Feb;18(2):190-7.

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