
Product Data Sheet

Product Name: AH 11110 hydrochloride

Cat. No.: GC10197

Chemical Properties

Cas. No. 179388-65-9

Chemical Name (S)-1-([1,1'-biphenyl]-2-yloxy)-4-imino-4-(piperidin-1-yl)butan-2-ol hydrochloride

SMILES O[C@H](COC1=CC=CC=C1C2=CC=CC=C2)CC(N3CCCCC3)=N.Cl

Formula $C_{21}H_{26}N_2O_2.HCl$ M.Wt 374.91

Solubility Soluble to 25 mM in Water Storage Store at RT

General tips For obtaining a higher solubility, please warm the tube at 37 °C and shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C 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

Background

AH 11110 hydrochloride is a selective antagonist of α_1B -adrenoceptor [1].

α_1B -adrenoceptor (α_1B -AR) belongs to α_1 -adrenergic receptors, which include three subtypes α_1A , α_1B and α_1D and play an important role in regulating cell growth and proliferation.

AH 11110 hydrochloride is a selective α_1B -AR antagonist. AH11110A inhibited cloned α_1B -AR with K_i value of 79.4 nM and exhibited 32- and 26-fold selectivity over α_1A - and α_1D -ARs, respectively [1]. In rat vas deferens and rat perfused kidney, AH11110A exhibited affinities for α_1A -AR, α_1B -AR and α_1D -AR with pA_2 values of 6.41, 5.40-6.54 and 5.47-5.48, respectively. Also, AH11110A displayed affinity for α_2 -adrenoceptor in rabbit vas deferens with pA_2 value of 5.44. In ligand binding studies, AH11110A exhibited affinities for native and cloned α_1B -AR with pK_i of 7.10-7.73. AH11110A increased contraction of rat vas deferens [2]. In isolated spleen strips from guinea-pig, AH11110A competitively antagonized tissue contraction induced by noradrenaline in a

Caution: Product has not been fully validated for medical applications. For research use only.

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concentration-dependent way [2].

References:

- [1]. Erami C, Zhang H, Ho JG, et al. Alpha(1)-adrenoceptor stimulation directly induces growth of vascular wall in vivo. *Am J Physiol Heart Circ Physiol*, 2002, 283(4): H1577-1587.
- [2]. Eltze M, König H, Ullrich B, et al. Failure of AH11110A to functionally discriminate between alpha(1)-adrenoceptor subtypes A, B and D or between alpha(1)- and alpha(2)-adrenoceptors. *Eur J Pharmacol*, 2001, 415(2-3): 265-276.

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