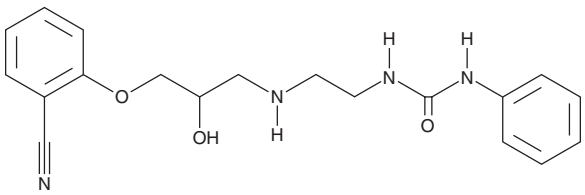
PRODUCT INFORMATION

ICI 89406

Item No. 42370

CAS Registry No.: 53671-71-9
Formal Name: N-[2-[[3-(2-cyanophenoxy)-2-hydroxypropyl]amino]ethyl]-N′-phenyl-urea
MF: $C_{19}H_{22}N_4O_3$
FW: 354.4
Purity: ≥98%
Supplied as: A 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

ICI 89406 is supplied as a solid. A stock solution may be made by dissolving the ICI 89406 in the solvent of choice, which should be purged with an inert gas. ICI 89406 is sparingly soluble (1-10 mg/ml) in DMSO.

Description

ICI 89406 is an antagonist of β_1-adrenergic receptors (IC_{50} = 4.2 nM).[1] It is selective for β_1-adrenergic receptors over β_2-adrenergic receptors (IC_{50} = 678 nM). ICI 89406 also acts as a partial agonist at β_1- and β_2-adrenergic receptors, inducing cAMP accumulation in CHO-K1 cells expressing the human receptors (EC_{50}s = 0.81 and 60.26 nM, respectively).[2]

References

1. Nanoff, C., Freissmuth, M., and Schütz, W. The role of a low β_1-adrenoceptor selectivity of [^{3}H]CGP-12177 for resolving subtype-selectivity of competitive ligands. *Naunyn Schmiedebergs Arch. Pharmacol.* **336(5)**, 519-525 (1987).
2. Mistry, S.N., Baker, J.G., Fischer, P.M., *et al.* Synthesis and in vitro and in vivo characterization of highly β_1-selective β-adrenoceptor partial agonists. *J. Med. Chem.* **56(10)**, 3852-3865 (2013).

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