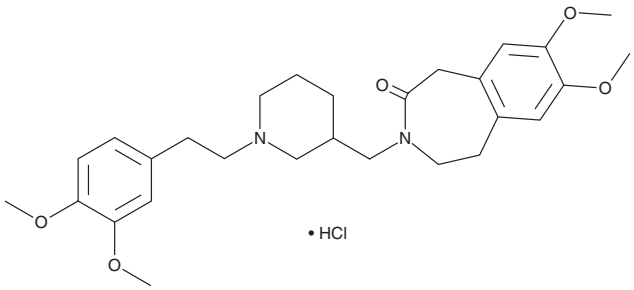
PRODUCT INFORMATION

DK-AH 269

Item No. 21425

CAS Registry No.: 186097-54-1
Formal Name: 3-[[(3S)-1-[2-(3,4-dimethoxyphenyl)ethyl]-3-piperidinyl]methyl]-1,3,4,5-tetrahydro-7,8-dimethoxy-2H-3-benzazepin-2-one, monohydrochloride
Synonym: Cilobradine
MF: $C_{28}H_{38}N_2O_5$ • HCl
FW: 519.1
Purity: ≥98%
UV/Vis.: λ_{max}: 281 nm
Supplied as: A crystalline 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

DK-AH 269 is supplied as a crystalline solid. A stock solution may be made by dissolving the DK-AH 269 in the solvent of choice. DK-AH 269 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF), which should be purged with an inert gas. The solubility of DK-AH 269 in ethanol is approximately 0.5 mg/ml and approximately 3 mg/ml in DMSO and DMF.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. Organic solvent-free aqueous solutions of DK-AH 269 can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of DK-AH 269 in PBS, pH 7.2, is approximately 2 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

DK-AH 269 blocks hyperpolarization-activated cyclic nucleotide-gated (HCN) channels (IC_{50} = 0.62 µM in mouse sinoatrial node cells).[1] DK-AH 269 slows heart rate by decreasing the spontaneous firing rate of the sinoatrial node in the heart.[2] Using telemetric ECG recordings in mice, it reduced heart rate in a dose-dependent fashion with an ED_{50} of 1.2 mg/kg.[1] DK-AH 269 also has proarrhythmic properties at concentrations higher than 5 mg/kg.[1]

References

1. Stieber, J., Wieland, K., Stöckl, G., *et al.* Bradycardic and proarrhythmic properties of sinus node inhibitors. *Mol. Pharmacol.* **69(4)**, 1328-1337 (2006).
2. Bois, P., Chatelier, A., Bescond, J., *et al.* Pharmacology of hyperpolarization-activated cyclic nucleotide-gated (HCN) channels. *Ion channels and their inhibitors.* 33-51 (2011).

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