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siehe unsere Liefer- und Versandbedingungen

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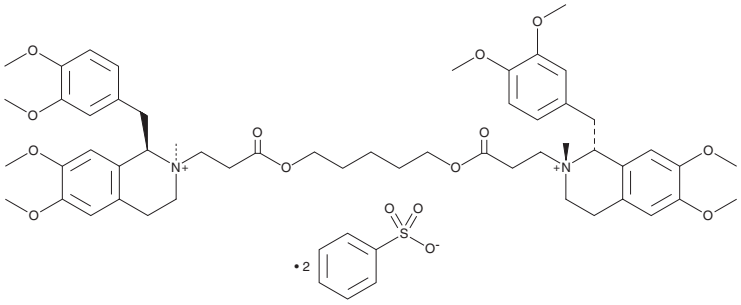
PRODUCT INFORMATION

Cisatracurium (besylate)

Item No. 22959

CAS Registry No.: 96946-42-8
Formal Name: (1R,1'R,2R,2'R)-2,2'-[1,5-pentanediyl*bis*[oxy(3-oxo-3,1-propanediyl)]]*bis*[1-[(3,4-dimethoxyphenyl)methyl]-1,2,3,4-tetrahydro-6,7-dimethoxy-2-methyl-isoquinolinium, dibenzenesulfonate



MF: $C_{53}H_{72}N_2O_{12} \bullet 2C_6H_5O_3S$
FW: 1,243.5
Purity: ≥98%
UV/Vis.: λ_{max}: 280 nm
Supplied as: A crystalline solid
Storage: -20°C
Stability: ≥2 years

Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

Cisatracurium (besylate) is supplied as a crystalline solid. A stock solution may be made by dissolving the cisatracurium (besylate) in the solvent of choice. Cisatracurium (besylate) is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF), which should be purged with an inert gas. The solubility of cisatracurium (besylate) in ethanol is approximately 10 mg/ml and approximately 30 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 cisatracurium (besylate) can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of cisatracurium (besylate) in PBS, pH 7.2, is approximately 10 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

Cisatracurium is a competitive antagonist of nicotinic acetylcholine receptors (nAChRs) and non-depolarizing muscle relaxant.[1,2] It inhibits stimulation of human adult muscle nAChRs by acetylcholine (Item No. 23829) with an IC_{50} value of 10 nM.[1] It also inhibits mouse nAChRs with IC_{50} values of 54 and 115 nM for adult and embryonic receptors, respectively.[3] Cisatracurium increases apoptosis in HUVEC cells and decreases proliferation of HepG2 and HUVEC cells *in vitro* in a concentration-dependent manner.[4,5] It reduces the magnitude of electrically-evoked twitch tensions in isolated rat extensor digitorum longus and soleus sciatic nerve muscle preparations in a dose-dependent manner.[2] Cisatracurium blocks electrically-evoked muscle twitches in anesthetized rabbits with an ED_{95} value of 0.04 mg/kg.[6] Formulations containing cisatracurium have been used to facilitate intubation prior to surgery and as muscle relaxants.

WARNING
THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA
This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent *via* email to your institution.

WARRANTY AND LIMITATION OF REMEDY
Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

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References

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2. Huang, L., Chen, D., and Li, S. Streptozotocin diabetes attenuates the effects of nondepolarizing neuromuscular relaxants on rat muscles. *Korean J. Physiol. Pharmacol.* **18(6)**, 461-467 (2014).
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6. Diaz, L.L., Zhang, J., and Heerdt, P.M. Comparative pharmacodynamics of pancuronium, cisatracurium, and CW002 in rabbits. *J. Am. Assoc. Lab. Anim. Sci.* **53(3)**, 283-289 (2014).

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