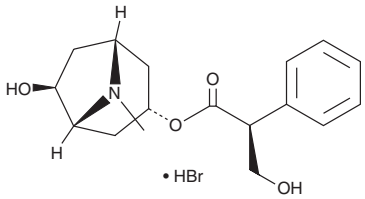
PRODUCT INFORMATION

Anisodamine (hydrobromide)

Item No. 46260

CAS Registry No.:	55449-49-5
Formal Name:	αS-(hydroxymethyl)-benzeneacetic acid, (1R,3S,5R,6S)-6-hydroxy-8-methyl-8-azabicyclo[3.2.1]oct-3-yl ester, monohydrobromide
Synonym:	AniHBr
MF:	$C_{17}H_{23}NO_4$ • HBr
FW:	386.3
Purity:	≥98%
Supplied as:	A solid
Storage:	-20°C
Stability:	≥4 years
Item Origin:	Plant/*Anisodus tanguticus* (Maxim.) Pascher



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

Laboratory Procedures

Anisodamine (hydrobromide) is supplied as a solid. A stock solution may be made by dissolving the anisodamine (hydrobromide) in the solvent of choice, which should be purged with an inert gas. Anisodamine (hydrobromide) is slightly soluble (0.1-1 mg/ml) in DMSO.

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 anisodamine (hydrobromide) can be prepared by directly dissolving the solid in aqueous buffers. Anisodamine (hydrobromide) is sparingly soluble (1-10 mg/ml) in PBS (pH 7.2). We do not recommend storing the aqueous solution for more than one day.

Description

Anisodamine is a polyketide synthase-derived tropane alkaloid that has been found in *S. tangutica* and has diverse biological activities.[1-5] It induces relaxation in isolated rat and rabbit intestinal smooth muscles precontracted with acetylcholine (ACh; Item No. 23829).[2] Anisodamine (3.6 mg/kg, i.v.) reduces serum and renal TNF-α, IL-1β, malondialdehyde (MDA), and superoxide dismutase (SOD) levels and rescues decreases in mean arterial pressure (MAT) in a rat model of sepsis induced by LPS.[3] It decreases myocardial tissue damage and increases sublingual and intestinal microcirculatory blood flow in a pig model of ischemia-reperfusion injury.[4] Anisodamine inhibits the replication of severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) in Vero E6 cells.[5]

References

1. Zeng, J., Liu, M., Zeng, L., *et al.* Engineering the production of medicinal tropane alkaloids through enhancement of tropinone and littorine biosynthesis in root cultures of *Atropa belladonna*. *Ind. Crops Prod.* **189**, 115778 (2022).
2. Wan, F., Zeng, Y., Zhang, H., *et al.* The inhibitory effect of anisodamine hydrobromide against contraction of intestinal smooth muscles induced by acetylcholine, with its pharmacokinetics and mechanism investigation. *Nat. Prod. Commun.* **21(5)**, 1-14 (2026).
3. Wan, F., Du, X., Liu, H., *et al.* Protective effect of anisodamine hydrobromide on lipopolysaccharide-induced acute kidney injury. *Biosci. Rep.* **40(7)**, BSR20201812 (2020).
4. Dong, G.J., Yang, J., Zhao, X., *et al.* Anisodamine hydrobromide ameliorates cardiac damage after resuscitation. *Exp. Ther. Med.* **23(6)**, 422 (2022).
5. Wei, W., Kong, N., Liu, M.Z., *et al.* Anisodamine potently inhibits SARS-CoV-2 infection in vitro and targets its main protease. *Biochem. Biophys. Res. Commun.* **616**, 8-13 (2022).

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
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