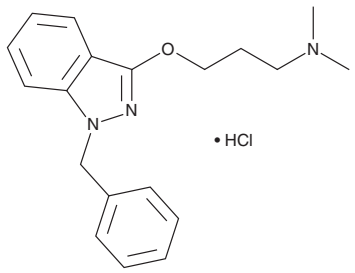
PRODUCT INFORMATION

Benzydamine (hydrochloride)

Item No. 39808

CAS Registry No.:	132-69-4
Formal Name:	N,N-dimethyl-3-[[1-(phenylmethyl)-1H-indazol-3-yl]oxy]-1-propanamine, monohydrochloride
MF:	$C_{19}H_{23}N_3O \bullet HCl$
FW:	345.9
Purity:	≥95%
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

Benzydamine (hydrochloride) is supplied as a solid. A stock solution may be made by dissolving the benzydamine (hydrochloride) in water. We do not recommend storing the aqueous solution for more than one day.

Description

Benzydamine is a non-steroidal anti-inflammatory drug (NSAID).[1] It decreases the viability of THP-1 monocytes, Saos-2 osteosarcoma, and HGF-1 gingival cancer cells (IC_{50}s = 59.08, 30.79, and 52.06 µg/ml, respectively). Benzydamine (10 µg/ml) reduces LPS-induced increases in the levels of IL-6 and TNF-α secreted by THP-1 cells. It decreases the levels of prostaglandin E_2 (PGE_2; Item No. 14010) and $PGF_{1\alpha}$ (Item No. 15010) in unstimulated or IL-1β- or TNF-α-stimulated primary human gingival fibroblasts when used at a concentration of 1 µM.[2] Benzydamine (100 mg/kg) reduces hydrochloric acid levels and increases mucin levels in gastric juices isolated from rats.[3] It inhibits carrageenan-induced paw edema in rats when administered orally at a dose of 60 mg/kg or applied topically at 3% (w/w).[4] Formulations containing benzydamine have been used in the treatment of acute sore throat. This product is also available as an analytical reference standard (Item No. 15161).

References

1. Kaval, M.E., Cakir, B., Polatli, E., *et al.* IL-1ß, IL-6 and TNF-α expression levels of macrophage cells induced by benzydamine hydrochloride, benzydamine hydrochloride with chitosan, calcium hydroxide and chlorhexidine medicaments: An ELISA study. *Dent. Mater. J.* **41(4)**, 545-551 (2022).
2. Modéer, T. and Yucel-Lindberg, T. Benzydamine reduces prostaglandin production in human gingival fibroblasts challenged with interleukin-1*β* or tumor necrosis factor *α*. *Acta Odontol. Scand.* **57(1)**, 40-45 (1999).
3. Catanese, B., Lisciani, R., and Silvestrini, B. Effects of ulcerogenic and antiulcer drugs on gastric secretion in rats. *Pharmacol. Res. Commun.* **2(2)**, 83-90 (1970).
4. Lisciani, R., Barcellona, P.S., and Silvestrini, B. Researches on the topical activity of benzydamine. *Eur. J. Pharmacol.* **3(2)**, 157-162 (1968).

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