

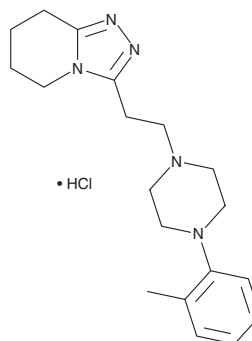
# PRODUCT INFORMATION



## Dapiprazole (hydrochloride)

Item No. 29222

**CAS Registry No.:** 72822-13-0  
**Formal Name:** 5,6,7,8-tetrahydro-3-[2-[4-(2-methylphenyl)-1-piperazinyl]ethyl]-1,2,4-triazolo[4,3-a]pyridine, monohydrochloride  
**MF:** C<sub>19</sub>H<sub>27</sub>N<sub>5</sub> • HCl  
**FW:** 361.9  
**Purity:** ≥98%  
**UV/Vis.:** λ<sub>max</sub>: 236 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

Dapiprazole (hydrochloride) is supplied as a crystalline solid. A stock solution may be made by dissolving the dapiprazole (hydrochloride) in the solvent of choice, which should be purged with an inert gas. Dapiprazole (hydrochloride) is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of dapiprazole (hydrochloride) in these solvents is approximately 30, 3, and 2 mg/ml, respectively.

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 dapiprazole (hydrochloride) can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of dapiprazole (hydrochloride) in PBS, pH 7.2, is approximately 10 mg/ml. We do not recommend storing the aqueous solution for more than one day.

### Description

Dapiprazole is an  $\alpha$ -adrenergic receptor ( $\alpha$ -AR) antagonist.<sup>1</sup> It inhibits norepinephrine-induced contractions in rat vas deferens, guinea pig spleen, and rat aorta, regions that express high levels of  $\alpha_{1A}$ -AR,  $\alpha_{1B}$ -AR, and  $\alpha_{1D}$ -ARs, respectively (pA<sub>2</sub>s = 7.93, 7.13, and 8.26, respectively). It also inhibits contractions induced by histamine, angiotensin II, pentagastrin (Item No. 28546), carbamoylcholine (carbachol; Item No. 14486), and serotonin (Item No. 14332) in guinea pig ileum in a dose-dependent manner.<sup>2</sup> Dapiprazole (0.05%, intracameral) reverses pupil dilation induced by a combination of the  $\alpha_{1A}$ -AR agonist phenylephrine and the muscarinic M<sub>4</sub> antagonist tropicamide (Item No. 16606) in rabbits.<sup>3</sup> Formulations containing dapiprazole have been used in the treatment of iatrogenically induced mydriasis by adrenergic or parasympatholytic agents in certain eye examinations.

### References

1. Eltze, M. Affinity of the miotic drug, dapiprazole, at  $\alpha_1$ -adrenoceptor subtypes A, B and D. *J. Pharm. Pharmacol.* **49(11)**, 1091-1095 (1997).
2. Lograno, M.D. and Reibaldi, A. Effects of dapiprazole on contractile responses of guinea pig isolated ileum. *Pharmacol. Res. Commun.* **19(3)**, 209-221 (1987).
3. Bonomi, L., Marchini, G., Pagello, P., et al. Effects of intraocular dapiprazole in the rabbit eye. *J. Cataract Refract. Surg.* **15(6)**, 681-684 (1989).

#### 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.

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