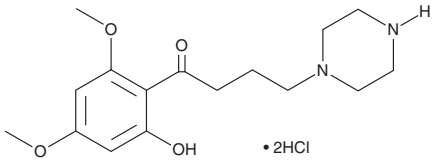
PRODUCT INFORMATION

Y13g (hydrochloride)

Item No. 46474

Formal Name:	1-(2-hydroxy-4,6-dimethoxyphenyl)-4-(1-piperazinyl)-1-butanone, dihydrochloride
MF:	$C_{16}H_{24}N_2O_4 \bullet 2HCl$
FW:	381.3
Purity:	≥98%
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

Y13g (hydrochloride) is supplied as a solid. A stock solution may be made by dissolving the Y13g (hydrochloride) in the solvent of choice, which should be purged with an inert gas. Y13g (hydrochloride) is soluble (≥10 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 Y13g (hydrochloride) can be prepared by directly dissolving the solid in aqueous buffers. Y13g (hydrochloride) is soluble (≥10 mg/ml) in PBS (pH 7.2). We do not recommend storing the aqueous solution for more than one day.

Description

Y13g is an inhibitor of acetylcholinesterase (AChE; IC_{50} = 1.11 µM in rat cortex homogenates).[1] It is selective for AChE over butyrylcholinesterase (BChE; IC_{50} = 12.51 µM in rat serum) and inhibits IL-6 production in isolated mouse splenocytes (IC_{50} = 0.38 µM). Y13g (0.8 mg/kg, p.o.) reverses streptozotocin-induced increases in brain AChE activity, lipid peroxidation, and amyloid-β (Aβ) accumulation in a mouse model of amnesia. It also reduces streptozotocin-induced learning and memory deficits in the same model.

Reference

1. Kaur, S. and Bansal, Y. Design, molecular docking, synthesis and evaluation of xanthoxylin hybrids as dual inhibitors of IL-6 and acetylcholinesterase for Alzheimer's disease. *Bioorg. Chem.* **121**, 105670 (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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