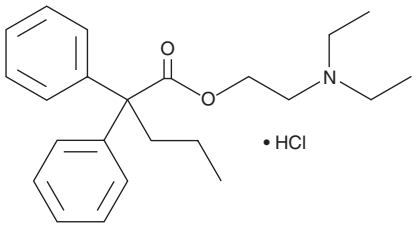
PRODUCT INFORMATION

SKF 525A (hydrochloride)

Item No. 15040

CAS Registry No.: 62-68-0
Formal Name: α-phenyl-α-propyl-benzeneacetic acid, 2-(diethylamino)ethyl ester, monohydrochloride
Synonyms: RP 5171, U 5446
MF: $C_{23}H_{31}NO_2$ • HCl
FW: 390.0
Purity: ≥95%
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

SKF 525A (hydrochloride) is supplied as a crystalline solid. A stock solution may be made by dissolving the SKF 525A (hydrochloride) in the solvent of choice, which should be purged with an inert gas. SKF 525A (hydrochloride) is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of SKF 525A (hydrochloride) in ethanol and DMSO is approximately 20 mg/ml and approximately 25 mg/ml in 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 SKF 525A (hydrochloride) can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of SKF 525A (hydrochloride) in PBS (pH 7.2) is approximately 0.14 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

SKF 525A is a widely used, nonspecific cytochrome P (CYP)450 inhibitor that demonstrates 100% inhibition of the various CYP450 isoforms at 1-100 µM.[1] It therefore potentiates the effects of many different drugs by inhibiting their metabolism (IC_{50} values in the µM range when tested using human liver microsomes).[2] SKF 525A inhibits CYP450-dependent arachidonic acid conversion to active EET metabolites, antagonizing the recovery of functional calcium pools.[3] It also acts as a noncompetitive inhibitor of acetylcholine nicotinic receptors (IC_{50} = 19 µM in mouse skeletal muscle).[4,5]

References

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2. Emoto, C., Murase, S., Sawada, Y., *et al. Drug Metab. Pharmacokinet.* **20(5)**, 351-357 (2005).
3. Graber, M.N., Alfonso, A., and Gill, D.L. *J. Biol. Chem.* **272(47)**, 29546-29553 (1997).
4. Kagota, S., Yamaguchi, Y., Nakamura, K., *et al. Clin. Exp. Pharmacol. Physiol.* **26(10)**, 790-796 (1999).
5. Spitzmaul, G., Gumilar, F., Dilger, J.P., *et al. Br. J. Pharmacol.* **157(5)**, 804-817 (2009).

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