

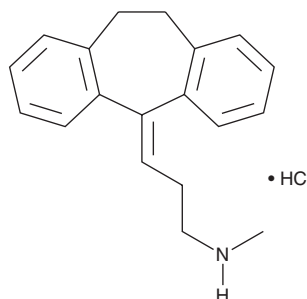
PRODUCT INFORMATION



Nortriptyline (hydrochloride)

Item No. 15904

CAS Registry No.: 894-71-3
Formal Name: 3-(10,11-dihydro-5H-dibenzo[a,d]cyclohepten-5-ylidene)-N-methyl-1-propanamine, monohydrochloride
MF: $C_{19}H_{21}N \cdot HCl$
FW: 299.8
Purity: $\geq 98\%$
UV/Vis.: λ_{max} : 240 nm
Supplied as: A crystalline solid
Storage: $-20^{\circ}C$
Stability: ≥ 4 years



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

Laboratory Procedures

Nortriptyline (hydrochloride) is supplied as a crystalline solid. A stock solution may be made by dissolving the nortriptyline (hydrochloride) in the solvent of choice. Nortriptyline (hydrochloride) is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF), which should be purged with an inert gas. The solubility of nortriptyline (hydrochloride) in ethanol is approximately 15 mg/ml and approximately 30 mg/ml in DMSO and 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 nortriptyline (hydrochloride) can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of nortriptyline (hydrochloride) in PBS, pH 7.2, is approximately 1 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

Nortriptyline is a tricyclic antidepressant that blocks norepinephrine and serotonin (Item No. 14332) transporters ($K_D = 4.4$ and 18 nM, respectively) more potently than the dopamine transporter ($K_D = 1.1$ μM).¹ It also antagonizes serotonin, histamine, muscarinic, and α -adrenergic receptors (K_i s = 5.0 , 8.5 , 10 , 40 , and 60 nM for $5-HT_{2A}$, $5-HT_{2C}$, H_1 , α_1 , and M_1 receptors, respectively).²⁻⁵

References

1. Tatsumi, M., Groshan, K., Blakely, R.D., et al. *Eur. J. Pharmacol.* **340**(2-3), 249-258 (1997).
2. Pälviäki, E.P., Roth, B.L., Majasuo, H., et al. *Psychopharmacology (Berl)* **126**(3), 234-240 (1996).
3. Richelson, E. and Nelson, A. *J. Pharmacol. Exp. Ther.* **230**(1), 94-102 (1984).
4. Stanton, T., Bolden-Watson, C., Cusack, B., et al. *Biochem. Pharmacol.* **45**(11), 2352-2354 (1993).
5. Cusack, B., Nelson, A., and Richelson, E. *Psychopharmacology (Berl)* **114**(4), 559-565 (1994).

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

Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

Copyright Cayman Chemical Company, 11/02/2023

CAYMAN CHEMICAL

1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA

PHONE: [800] 364-9897
[734] 971-3335

FAX: [734] 971-3640

CUSTSERV@CAYMANCHEM.COM
WWW.CAYMANCHEM.COM