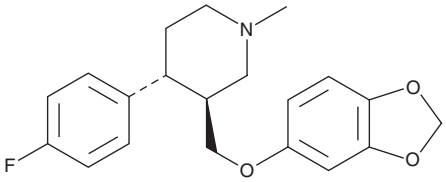
PRODUCT INFORMATION

N-methyl Paroxetine

Item No. 26160

CAS Registry No.: 110429-36-2
Formal Name: (3S,4R)-3-[(1,3-benzodioxol-5-yloxy)methyl]-4-(4-fluorophenyl)-1-methyl-piperidine
Synonym: Paroxetine-Related Compound F
MF: $C_{20}H_{22}FNO_3$
FW: 343.4
Purity: ≥98%
UV/Vis.: λ_{max}: 235, 265, 271, 295 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

N-methyl Paroxetine is supplied as a crystalline solid. A stock solution may be made by dissolving the N-methyl paroxetine in the solvent of choice, which should be purged with an inert gas. N-methyl Paroxetine is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of N-methyl paroxetine in ethanol and DMSO is approximately 20 mg/ml and approximately 33 mg/ml in DMF.

N-methyl Paroxetine is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, N-methyl paroxetine should first be dissolved in DMF and then diluted with the aqueous buffer of choice. N-methyl Paroxetine has a solubility of approximately 0.09 mg/ml in a 1:10 solution of DMF:PBS (pH 7.0) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

N-methyl Paroxetine is a derivative of the selective serotonin reuptake inhibitor (SSRI) antidepressant paroxetine (Item No. 14998) that inhibits [^{3}H]paroxetine binding to rat cortical membranes (K_i = 4.3 nM).[1] It inhibits serotonin (5-HT; Item No. 14332) uptake in rat brain synaptosomes with an IC_{50} value of 22 nM.[2] N-methyl Paroxetine has been used as a precursor in the synthesis of paroxetine and is a potential impurity in commercial preparations of paroxetine.[3]

References

1. Mathis, C.A., Gerdes, J.M., Enas, J.D., *et al.* Binding potency of paroxetine analogues for the 5-hydroxytryptamine uptake complex. *J. Pharm. Pharmacol.* **44(10)**, 801-805 (1992).
2. Plenge, P., Mellerup, E.T., Honoré, T., *et al.* The activity of 25 paroxetine/femoxetine structure variants in various reactions, assumed to be important for the effect of antidepressants. *J. Pharm. Pharmacol.* **39(11)**, 877-882 (1987).
3. Konudula, B.R., Lahiri, S., Rawat, G.S., *et al.* Process for the preparation of paroxetine hydrochloride. *Matrix Laboratories LTD* **WO 2009/138999 A2** (2009).

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