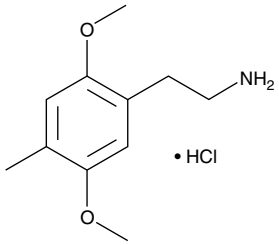
Product Information

2C-D (hydrochloride) (exempt preparation)

Item No. 15721

CAS Registry No.: 25505-65-1
Formal Name: 2,5-dimethoxy-4-methyl-benzeneethanamine, monohydrochloride
Synonym: 2,5-Dimethoxy-4-methylphenethylamine
MF: $C_{11}H_{17}NO_2 \cdot HCl$
FW: 231.7
Purity: ≥98%
Stability: ≥2 years at -20°C
Supplied as: A solution in methanol
UV/Vis.: λ_{max}: 227, 292 nm



Laboratory Procedures

For long term storage, we suggest that 2C-D (hydrochloride) (exempt preparation) be stored as supplied at -20°C. It should be stable for at least two years.

2C-D (hydrochloride) (exempt preparation) is supplied as a solution in methanol. To change the solvent, simply evaporate the methanol under a gentle stream of nitrogen and immediately add the solvent of choice. Solvents such as ethanol, DMSO, and dimethyl formamide (DMF) purged with an inert gas can be used. The solubility of 2C-D (hydrochloride) (exempt preparation) in ethanol and DMSO is approximately 14 mg/ml and approximately 5 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. If an organic solvent-free solution of 2C-D (hydrochloride) (exempt preparation) is needed, it can be prepared by evaporating the methanol and directly dissolving the neat oil in aqueous buffers. The solubility of 2C-D (hydrochloride) (exempt preparation) in PBS, pH 7.2, is approximately 10 mg/ml. We do not recommend storing the aqueous solution for more than one day.

A series of 2,5-dimethoxyphenethylamines, collectively referred to as 2Cs, have psychoactive effects.[1,2] The most effective 2C compounds are substituted at the four position of the aromatic ring. Many are scheduled as illegal substances.[3,4] 2C-D is described formally as 2,5-dimethoxy-4-methylphenethylamine. It is a weak agonist of serotonin (5-HT; Item No. 14332) receptors (pEC_{50}s = 5.09 and 4.73 for $5\text{-}HT_{2A}$ and $5\text{-}HT_{2C}$, respectively).[2] Its metabolism in rats has been described.[4] LC-MS/MS screening methods for this designer drug have been developed.[5] This product is intended for forensic and research purposes.

References

1. Bruno, R., Matthews, A.J., Dunn, M., *et al.* Emerging psychoactive substance use among regular ecstasy users in Australia. *Drug Alcohol Depend.* **124(1-2)**, 19-25 (2012).
2. Moya, P.R., Berg, K.A., Gutiérrez-Hernandez, M.A., *et al.* Functional selectivity of hallucinogenic phenethylamine and phenylisopropylamine derivatives at human 5-hydroxytryptamine (5-HT)$_{2A}$ and 5-HT$_{2C}$ receptors. *J. Pharmacol. Exp. Ther.* **321**, 1054-1061 (2007).
3. Meyer, M.R. and Maurer, H.H. Metabolism of designer drugs of abuse: An updated review. *Curr. Drug Metab.* **11**, 468-482 (2010).
4. Nagai, F., Nonaka, R., and Satoh Hisashi Kamimura, K. The effects of non-medically used psychoactive drugs on monoamine neurotransmission in rat brain. *Eur. J. Pharmacol.* **559(2-3)**, 132-137 (2007).
5. Wohlfarth, A., Weinmann, W., and Dresen, S. LC-MS/MS screening method for designer amphetamines, tryptamines, and piperazines in serum. *Anal. Bioanal. Chem.* **396**, 2403-2414 (2010).

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WARNING: THIS PRODUCT IS FOR LABORATORY RESEARCH ONLY: NOT FOR ADMINISTRATION TO HUMANS. NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

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