D-Amphetamine (hydrochloride) (exempt preparation)

CAS Registry No.: 1462-73-3
Formal Name: αS-methyl-benzenethanamine, monohydrochloride
Synonyms: (S)-α-Benzylethylamine, Dextroamphetamine
MF: C9H13N • HCl
FW: 171.7
Purity: ≥95%
Stability: ≥2 years at -20°C
Supplied as: A solution in methanol
UV/VIs: λ<sub>max</sub> = 258 nm

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

D-Amphetamine (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 purged with an inert gas can be used. The solubility of D-amphetamine (hydrochloride) (exempt preparation) in these solvents is approximately 20, 5, and 3 mg/ml, respectively.

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 D-amphetamine (hydrochloride) is needed, it can be prepared by evaporating the methanol and directly dissolving the neat oil in aqueous buffers. The solubility of D-amphetamine (hydrochloride) in PBS, pH 7.2, is approximately 5 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Amphetamines are chemical compounds characterized by an α-methylphenethylamine base structure. Two functionally distinct enantiomers can exist, based on the orientation of the α-methyl group. As a class, amphetamines are psychotropic compounds which target monoamine release and re-uptake.1,2 D-Amphetamine is a stimulant which binds the norepinephrine transporter (EC<sub>50</sub> = 7.1 nM) and the dopamine transporter (EC<sub>50</sub> = 24.8 nM).3 It also activates the trace amine-associated receptor 1 (EC<sub>50</sub> = 600 nM) in a stereoselective manner.3 This product is intended for forensic and research purposes.

References

Related Products
For a list of related products please visit: www.caymanchem.com/catalog/15650

WARNING: This product is for laboratory research only; not for administration to humans. Not for human or veterinary diagnostic or therapeutic use.

SAFETY DATA
This material should be considered hazardous until information to the contrary becomes available. Do not ingest, swallow, or inhale. Do not get in eyes, on skin, or on clothing. Wash thoroughly after handling. This information contains some, but not all, of the information required for the safe and proper use of this material. Before use, the user must review the complete Safety Data Sheet, which has been sent to our email at your institution.

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