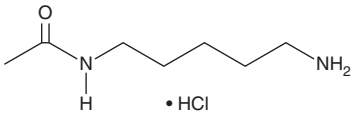
PRODUCT INFORMATION

Monoacetylcadaverine (hydrochloride)

Item No. 35275

CAS Registry No.: 102029-76-5
Formal Name: N-(5-aminopentyl)-acetamide, monohydrochloride
MF: $C_7H_{16}N_2O \bullet HCl$
FW: 180.7
Purity: ≥95%
Supplied as: A 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

Monoacetylcadaverine (hydrochloride) is supplied as a solid. A stock solution may be made by dissolving the monoacetylcadaverine (hydrochloride) in the solvent of choice, which should be purged with an inert gas. Monoacetylcadaverine (hydrochloride) is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of monoacetylcadaverine (hydrochloride) in these solvents is approximately 12, 16, and 14 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. Organic solvent-free aqueous solutions of monoacetylcadaverine (hydrochloride) can be prepared by directly dissolving the solid in aqueous buffers. The solubility of monoacetylcadaverine (hydrochloride) in PBS (pH 7.2) is approximately 3 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

Monoacetylcadaverine is a metabolite of the endogenous polyamine cadaverine.[1] It is formed from cadaverine *via* acetylation in the nuclear and microsomal fractions of isolated mouse brain.[2] Plasma levels of monoacetylcadaverine are increased in patients with schizophrenia.[3]

References

1. van den Berg, G.A., Muskiet, F.A., Kingma, A.W., *et al*. Simultaneous gas-chromatographic determination of free and acetyl-conjugated polyamines in urine. *Clin. Chem.* **32(10)**, 1930-1937 (1986).
2. Ortiz, J.G., Giacobini, E., and Schmidt-Glenewinkel, T. Acetylation of polyamines in mouse brain: Subcellular and regional distribution. *J. Neurosci. Res.* **9(2)**, 193-201 (1983).
3. Dolezalova, H. and Kauco, M.S. Monoacylcadaverines in the blood of schizophrenic patients. *J. Chromatogr.* **146(1)**, 67-76 (1978).

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