

PRODUCT INFORMATION



Putrescine

Item No. 43878

CAS Registry No.: 110-60-1

Synonyms: 1,4-Butanediamine, 1,4-Diaminobutane,
NSC 60545

MF: C₄H₁₂N₂

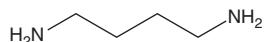
FW: 88.2

Purity: ≥95%

Supplied as: A neat oil

Storage: -20°C

Stability: ≥4 years



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

Laboratory Procedures

Putrescine is supplied as a neat oil. A stock solution may be made by dissolving the putrescine in the solvent of choice, which should be purged with an inert gas. Putrescine is slightly soluble (0.1-1 mg/ml) in methanol.

Putrescine is sparingly soluble (1-10 mg/ml) in aqueous solutions. To enhance aqueous solubility, dilute the organic solvent solution into aqueous buffers or isotonic saline. If performing biological experiments, ensure the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. We do not recommend storing the aqueous solution for more than one day.

Description

Putrescine is an endogenous polyamine.¹⁻³ It is formed through the catabolism of arginine via an ornithine intermediate.² Levels of putrescine are increased in the cerebrospinal fluid (CSF) of patients with Parkinson's disease. Plasma levels and bone levels of putrescine are decreased in patients with osteoarthritis and osteoporosis, respectively.

References

1. Bienz, S., Detterbeck, R., Ensch, C., et al. Putrescine, spermidine, spermine, and related polyamine alkaloids. *Alkaloids Chem. Biol.* **58**, 83-338 (2002).
2. Jimenez Gutierrez, G.E., Borbolla Jiménez, F.V., Muñoz, L.G., et al. The molecular role of polyamines in age-related diseases: An update. *Int. J. Mol. Sci.* **24**(22), 16469 (2023).
3. Kara, D.A., Borzova, V.A., Roman, S.G., et al. Polyamines putrescine and spermidine as modulators of protein aggregation rate: The effect on DTT-induced aggregation of α-lactalbumin. *Biochimie* **227**(Pt A), 182-192 (2024).

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.

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