

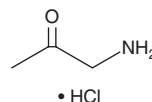
PRODUCT INFORMATION



Aminoacetone (hydrochloride)

Item No. 17573

CAS Registry No.: 7737-17-9
Formal Name: 1-amino-2-propanone, monohydrochloride
Synonym: 1-Amino-2-propanone
MF: C₃H₇NO • HCl
FW: 109.6
Purity: ≥95%
Supplied as: A crystalline solid
Storage: -20°C
Stability: ≥4 years
Special Conditions: Hygroscopic



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

Laboratory Procedures

Aminoacetone (hydrochloride) is supplied as a crystalline solid. A stock solution may be made by dissolving the aminoacetone (hydrochloride) in the solvent of choice, which should be purged with an inert gas. Aminoacetone (hydrochloride) is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of aminoacetone (hydrochloride) in these solvents is approximately 10, 15, and 25 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 aminoacetone (hydrochloride) can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of aminoacetone (hydrochloride) in PBS (pH 7.2) is approximately 10 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

Aminoacetone is a threonine and glycine catabolite that can be converted to methylglyoxal by amine oxidases.¹ It has been identified as one of several endogenous sources of methylglyoxal found in the plasma of diabetes patients.² As a pro-oxidant, 0.10-5 mM aminoacetone can induce cell death in RINm5f pancreatic β-cells.² Aminoacetone is used as a growth substrate for *Pseudomonas*.³

References

1. Ray, S. and Ray, M. Formation of methylglyoxal from aminoacetone by amine oxidase from goat plasma. *J. Biol. Chem.* **258(6)**, 3461-3462 (1983).
2. Sartori, A., Garay-Malpartida, H.M., Forni, M.F., et al. Aminoacetone, a putative endogenous source of methylglyoxal, causes oxidative stress and death to insulin-producing RINm5f cells. *Chem. Res. Toxicol.* **21(9)**, 1841-1850 (2008).
3. Higgins, I.J., Pickard, M.A., and Turner, J.M. Aminoacetone formation and utilization by *pseudomonads* grown on DL-1-aminopropan-2-ol. *J. Gen. Microbiol.* **54(1)**, 105-114 (1968).

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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