

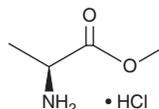
# PRODUCT INFORMATION



## L-Alanine methyl ester (hydrochloride)

Item No. 30527

**CAS Registry No.:** 2491-20-5  
**Formal Name:** L-alanine, methyl ester, monohydrochloride  
**Synonym:** Methyl L-Alaninate  
**MF:** C<sub>4</sub>H<sub>9</sub>NO<sub>2</sub> • HCl  
**FW:** 139.6  
**Purity:** ≥95%  
**Supplied as:** A crystalline 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

L-Alanine methyl ester (hydrochloride) is supplied as a crystalline solid. A stock solution may be made by dissolving the L-alanine methyl ester (hydrochloride) in the solvent of choice, which should be purged with an inert gas. L-Alanine methyl ester (hydrochloride) is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of L-alanine methyl ester (hydrochloride) in ethanol is approximately 30 mg/ml and approximately 20 mg/ml in DMSO and 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. Organic solvent-free aqueous solutions of L-alanine methyl ester (hydrochloride) can be prepared by directly dissolving the crystalline solid powder in aqueous buffers. The solubility of L-alanine methyl ester (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

L-Alanine methyl ester is an amino acid-containing building block.<sup>1,2</sup> It has been used in the synthesis of azidothymidine (AZT) nucleotides with anti-HIV activity, as well as anticancer agents.

### References

1. McGuigan, C., Pathirana, R.N., Balzarini, J., *et al.* Intracellular delivery of bioactive AZT nucleotides by aryl phosphate derivatives of AZT. *J. Med. Chem.* **36**(8), 1048-1052 (1993).
2. Ali, I.A.I., Al-Masoudi, I.A., Saeed, B., *et al.* Amino acid derivatives, part 2: Synthesis, antiviral, and antitumor activity of simple protected amino acids functionalized at N-terminus with naphthalene side chain. *Heteroatom Chem.* **16**(2), 148-155 (2005).

#### 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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