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Product Information

Ammonium tartrate dibasic SigmaUltra

Product Number **A 2956**
Store at Room Temperature

Product Description

Molecular Formula: $C_4H_{12}N_2O_6$

Molecular Weight: 184.2

CAS Number: 3164-29-2

Synonyms: L(+)-tartaric acid diammonium salt,
diammonium tartrate

Trace elemental analyses have been performed on the SigmaUltra ammonium tartrate. The Certificate of Analysis provides lot-specific results. SigmaUltra ammonium tartrate is for applications which require tight control of elemental content.

Ammonium tartrate, the ammonium salt of tartaric acid, is used in such applications as cell culture and chromatography. Ammonium tartrate has been used to displace sodium for the analysis of a modified oligonucleotide by matrix-assisted laser desorption/ionization post-source decay (MALDI-PSD).¹ Ammonium tartrate is also utilized in electron spin resonance (ESR) dosimetry research, and has been probed as a more sensitive standard than L-alanine for high dose determinations.^{2,3,4}

The growth and toxigenesis by *Fusarium graminearum* R6576 in culture at various concentrations of ammonium tartrate has been investigated.⁵ The use of ammonium tartrate in culturing the white rot fungus *Phanerochaete chrysosporium* for study of quinone production has been reported.⁶ A study has probed the effect of various nitrogen sources, including ammonium tartrate, on production of the extracellular cellulolytic enzyme system by *Nectria catalinensis*.⁷ The use of ammonium tartrate in cultured *Cyathus stercoreus* to examine activity of ligninolytic enzymes has been described.⁸ In a report on the regeneration of auxotrophic mutants of *Physcomitrella patens*, protoplast survival was found to be higher in media containing 2.5 mM ammonium tartrate.⁹

Precautions and Disclaimer

For Laboratory Use Only. Not for drug, household or other uses.

Preparation Instructions

This product is soluble in water (184 mg/ml, 1 M), yielding a clear, colorless solution.

References

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3. Bartolotta, A., et al., Response characterization of ammonium tartrate solid state pellets for ESR dosimetry with radiotherapeutic photon and electron beams. *Phys. Med. Biol.*, **46(2)**, 461-71 (2001).
4. Lund, A., et al., New materials for ESR dosimetry. *Spectrochim. Acta A Mol. Biomol. Spectrosc.*, **58(6)**, 1301-1311 (2002).
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6. Rasmussen, S. J., et al., Reductions catalyzed by a quinone and peroxidases from *Phanerochaete chrysosporium*. *Arch. Biochem. Biophys.*, **320(2)**, 243-249 (1995).
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8. Sethuraman, A., et al., Production of ligninolytic enzymes and synthetic lignin mineralization by the bird's nest fungus *Cyathus stercoreus*. Appl. Microbiol. Biotechnol., **52(5)**, 689-697 (1999).
9. Schween, G., et al., Effects of nutrients, cell density and culture techniques on protoplast regeneration and early protonema development in a moss, *Physcomitrella patens*. J. Plant Physiol., **160(2)**, 209-212 (2003).

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