3050 Spruce Street
Saint Louis, Missouri 63103 USA
Telephone (800) 325-5832 (314) 771-5765
Fax (314) 286-7828
email: techserv@sial.com
sigma-aldrich.com

ProductInformation

Ammonium acetate

Product Number **A 1542**
Storage Temperature 2-8 °C

Product Description

Molecular Formula: $C_2H_7NO_2$
Molecular Weight: 77.08
CAS Number: 631-61-8

This product is designated as Molecular Biology grade and is suitable for molecular biology applications. It has been analyzed for the presence of nucleases and proteases.

Ammonium acetate is a widely used reagent in molecular biology and chromatography. Its applications include the purification and precipitation of DNA[1,2,3] and protein crystallization.[4]

Ammonium acetate is commonly used in HPLC and MS analysis of various compounds, such as oligosaccharides,[5] proteins,[6] and peptides.[7] A procedure for the nonaqueous capillary electrophoresis-mass spectrometry (NACE-MS) of lipophilic peptides and therapeutic drugs using ammonium acetate has been reported.[8]

Precautions and Disclaimer

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

Preparation Instructions

This product is soluble in water (570 mg/ml), yielding a clear, colorless solution.

References

1. Stemmer, W. P., A 20-minute ethidium bromide/high-salt extraction protocol for plasmid DNA. Biotechniques, **10(6)**, 726 (1991).
2. Saporito-Irwin, S. M., et al., Ammonium acetate protocol for the preparation of plasmid DNA suitable for mammalian cell transfections. Biotechniques, **23(3)**, 424-427 (1997).
3. Molecular Cloning: A Laboratory Manual, 3rd ed., Sambrook, J., and Russell, D. W., CSHL Press (Cold Spring Harbor, NY: 2001), pp. 10.20-10.21, A8.12.
4. Shilton, B. H., et al., Crystallization of a soluble form of the Kex1p serine carboxypeptidase from *Saccharomyces cerevisiae*. Protein Sci., **5(2)**, 395-397 (1996).
5. Barroso, R., et al., On-line high-performance liquid chromatography/mass spectrometric characterization of native oligosaccharides from glycoproteins. Rapid Commun. Mass Spectrom., **16(13)**, 1320-1329 (2002).
6. Troxler, H., et al., Electrospray ionization mass spectrometry: analysis of the Ca^{2+}-binding properties of human recombinant alpha-parvalbumin and nine mutant proteins. Anal. Biochem., **268(1)**, 64-71 (1999).
7. Cummings, J., et al., Development of a gradient elution high-performance liquid chromatography assay with ultraviolet detection for the determination in plasma of the anticancer peptide [Arg^6, D-$Trp^{7,9}$, $mePhe^8$]-substance P (6-11) (antagonist G), its major metabolites and a C-terminal pyrene-labelled conjugate. J. Chromatogr. B. Biomed. Sci. Appl., **732(2)**, 277-285 (1999).
8. Yang, Q., et al., Analysis of lipophilic peptides and therapeutic drugs: on-line-nonaqueous capillary electrophoresis-mass spectrometry. J. Biochem. Biophys. Methods, **38(2)**,103-121 (1999).

GCY/AJH 4/05