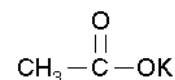


60035 Potassium acetate

CAS number: 127-08-2

Product Description:

Molecular Formula:	C ₂ H ₃ KO ₂
Molecular Weight:	98.14 g/mol
pH:	7.0-9.0 (25°C, 1 M in H ₂ O) ¹
Melting Point:	292°C ²
A _{260nm} (1 M in H ₂ O):	0.2 ¹
A _{280nm} (1 M in H ₂ O):	0.06 ¹



BioUltra for molecular biology

Trace elemental analyses have been performed on this BioUltra quality. BioUltra Potassium acetate, is for applications which require tight control of elemental content.

Potassium acetate is also available as molecular biology grade (BioUltra for molecular biology) as a stock solution 5 M (Cat. No 95843) or as a solid salt (Cat. No 60035). It has been analyzed for the absence of nucleases and proteases.

Applications:

Potassium acetate is used as a buffer in molecular biology research, notably in the isolation of DNA. It is buffering effective in the pH range 3.8 - 5.8. The preparation of a potassium acetate/acetic acid buffer for the isolation of mammalian DNA has been reported.³ Protocols that use potassium acetate have been published on the isolation of DNA from soil samples.^{4,5}

Potassium acetate may be utilized in the isolation of RNA intermediates and products from *in vitro* splicing reactions performed with a HeLa cell nuclear extract.⁶

Potassium acetate has been used to study the interactions between the TATA box binding protein from *Pyrococcus woesei* and an oligonucleotide with a specific binding site.⁷ The use of potassium acetate in the analysis of oligogalacturonic acids by high performance anion-exchange chromatography has been described.⁸

Preparation Instructions

This product is soluble in water (100 mg/ml), yielding a clear, colorless solution. It is also soluble in alcohol. The pH of a 0.1 M aqueous solution of potassium acetate is 9.7.²



References:

1. Sigma-Aldrich quality control
2. The Merck Index, 12th ed., Entry# 7764.
3. Molecular Cloning: A Laboratory Manual, 3rd ed., Sambrook, J. and Russell, D. W., CSHL Press (Cold Spring Harbor, NY: 2001), pp. 6.28-6.30.
4. Krsek, M., and Wellington, E. M., Comparison of different methods for the isolation and purification of total community DNA from soil. J. Microbiol. Methods, **39(1)**, 1-16 (1999).
5. Yeates, C., et al., PCR amplification of crude microbial DNA extracted from soil. Lett. Appl. Microbiol., **25(4)**, 303-307 (1997).
6. Reichert, V., and Moore, M.J., Better conditions for mammalian *in vitro* splicing provided by acetate and glutamate as potassium counterions. Nucleic Acids Res., **28(2)**, 416-423 (2000).
7. O'Brien, R., et al., The effects of salt on the TATA binding protein-DNA interaction from a hyperthermophilic archaeon. J. Mol. Biol., **279(1)** 117-125 (1998).
8. Hotchkiss, A.T., Jr., et al., Isolation of oligogalacturonic acids up to DP 20 by preparative high-performance anion-exchange chromatography and pulsed amperometric detection. Carbohydr. Res., **334(2)**, 135-140 (2001).

Precautions and Disclaimer

This product is for R&D use only, not for drug, household, or other uses. Please consult the Material Safety Data Sheet for information regarding hazards and safe handling practices.

The vibrant M and Sigma-Aldrich are trademarks of Merck KGaA, Darmstadt, Germany or its affiliates. Detailed information on trademarks is available via publicly accessible resources.
© 2018 Merck KGaA, Darmstadt, Germany and/or its affiliates. All Rights Reserved.

The life science business of Merck KGaA, Darmstadt, Germany operates as MilliporeSigma in the US and Canada.

