



Product Information

Potassium chloride Cell Culture Tested

Product Number **P 5405**
Store at Room Temperature

Product Description

Molecular Formula: KCl
Molecular Weight: 74.55
CAS Number: 7447-40-7

This product is cell culture and insect cell culture tested. It is suitable for use in cell culture and insect cell culture applications.

Potassium chloride is a widely used reagent in biochemistry and molecular biology. It is a component of phosphate buffered saline (PBS, Product No. P 3813) and of polymerase chain reaction (PCR) buffer (50 mM KCl).¹ KCl is also used in studies of ion transport and potassium channels.^{2,3}

KCl is also utilized in the solubilization, extraction, purification, and crystallization of proteins.^{4,5,6,7} The use of KCl in the crystallization of histone core octamers 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 (200 mg/ml), yielding a clear, colorless solution. It is also soluble in glycerol.⁹

Storage/Stability

The density of a saturated aqueous KCl solution at 15 °C is 1.172 g/ml. Solutions of KCl may be autoclaved.¹

References

1. Molecular Cloning: A Laboratory Manual, 3rd ed., Sambrook, J. F., et al., Cold Spring Harbor Laboratory Press (Cold Spring Harbor, NY: 2001), pp. 8.6, 8.21, 8.78, A1.27.
2. Lang, F., et al., The diversity of volume regulatory mechanisms. *Cell. Physiol. Biochem.*, **8(1-2)**, 1-45 (1998).
3. Braun, M., et al., Diffusion through channel derivatives of the *Escherichia coli* FhuA transport protein. *Eur. J. Biochem.*, **269(20)**, 4948-4959 (2002).
4. Huvos, P., and Cox, R. A., Solution of ribosomal proteins under mild conditions. *Biochim. Biophys. Acta*, **383(4)**, 421-426 (1975).
5. Garcia-Hernandez, M., et al., *Arabidopsis* p40 homologue. A novel acidic protein associated with the 40 S subunit of ribosomes. *J. Biol. Chem.*, **269(32)**, 20744-20749 (1994).
6. Rush, C., et al., Purification, crystallisation and preliminary X-ray analysis of the vanadium-dependent haloperoxidase from *Corallina officinalis*. *FEBS Lett.*, **359(2-3)**, 244-246 (1995).
7. Wilhelm, H., et al., Purification of recombinant cyclin B1/cdc2 kinase from *Xenopus* egg extracts. *Methods Enzymol.*, **283**, 12-28 (1997).
8. Lambert, S. J., et al., Purification of histone core octamers and 2.15 Å X-ray analysis of crystals in KCl/phosphate. *Acta Crystallogr. D Biol. Crystallogr.*, **55(5)**, 1048-1051 (1999).
9. The Merck Index, 12th ed., Entry# 7783.

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