Calcium chloride anhydrous

Product Number  C1016
Store at Room Temperature

Product Description
Molecular Formula:  CaCl₂
Molecular Weight:  111.0
CAS Number:  10043-52-4

Calcium chloride is a commonly used reagent in biochemistry. Calcium plays important roles in many biological processes, including signal transduction, muscle contraction, and maintenance of cell membrane and cell wall stability.⁴,⁵ Extensive reviews of the experimental measurement of biological calcium have been published.⁶,⁷

Calcium chloride is used in the preparation and transformation of competent E. coli and in the transfection of eukaryotic cells with either plasmid DNA or high molecular weight genomic DNA.⁸ The CaCl₂-mediated electroporation of E. coli with the plasmid DNA pBR322 has been studied.⁹ A protocol for the concentration of virus vectors that uses CaCl₂ has been published.¹⁰

CaCl₂ has been used in the stabilization and two-dimensional crystallization of the NADH-ubiquinone oxidoreductase (complex I) from Escherichia coli.⁹ The crystallization of porcine pancreatic elastase in the presence of CaCl₂ in the presence of sodium citrate reveals binding of calcium in the metal binding site of the protein.⁹ The effect of CaCl₂ on the total fluorescence in the polymerization of the tubulin-like FtsZ division protein of Escherichia coli has been studied by a multiwell fluorescent assay.¹⁰

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

Preparation Instructions
This product is soluble in water (100 mg/ml), yielding a clear, colorless solution.

References