Calcium chloride dihydrate
Cell Culture Tested

Product Number C 7902
Store at Room Temperature

Product Description
Molecular Formula: CaCl₂ • 2H₂O
Molecular Weight: 147.0
CAS Number: 10035-04-8

This product is cell culture tested (0.265 mg/ml) and insect cell culture tested (0.66 mg/ml). It is appropriate for use in cell culture and insect cell culture applications.

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. Extensive reviews of the experimental measurement of biological calcium have been published.

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. The CaCl₂-mediated electroporation of E. coli with the plasmid DNA pBR322 has been studied. A protocol for the concentration of virus vectors that uses CaCl₂ has been published.

CaCl₂ has been used in the stabilization and two-dimensional crystallization of the NADH-ubiquinone oxidoreductase (complex I) from Escherichia coli. 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. 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.

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

Preparation Instructions
This product is soluble in water (294 mg/ml, 2 M), yielding a clear, colorless solution.

References