



Product Information

Calcium chloride anhydrous Insect Cell Culture Tested

Product Number **C 5670**
Store at Room Temperature

Product Description

Molecular Formula: CaCl_2
Molecular Weight: 111.0
CAS Number: 10043-52-7

This product is insect cell culture tested and is appropriate for 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.^{1,2} Extensive reviews of the experimental measurement of biological calcium have been published.^{3,4}

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.⁵ The CaCl_2 -mediated electroporation of *E. coli* with the plasmid DNA pBR322 has been studied.⁶ A protocol for the concentration of virus vectors that uses CaCl_2 has been published.⁷

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

1. The Biological Chemistry of the Elements, Frausto da Silva, J. J. R., and Williams, R. J. P., Clarendon Press (Oxford, UK: 1991), pp. 268-298.
2. Williams, R. J. P., in Calcium as a Cellular Regulator, Carafoli, E., and Klee, C., eds., Oxford University Press (New York, NY: 1999), pp. 3-27.
3. Cellular Calcium: A Practical Approach, McCormack, J. G., and Cobbold, P. H., eds., IRL Press (Oxford, UK: 1991).
4. Calcium Signaling Protocols, Lambert, D. G., ed., Humana Press (Totowa, NJ: 1999).
5. Molecular Cloning: A Laboratory Manual, 3rd ed., Sambrook, J., and Russell, D. W., Cold Spring Harbor Laboratory Press (Cold Spring Harbor, NY: 2001), pp. 1.116-1.118, 16.14-16.26.
6. Xie, T. D., et al., Study of mechanisms of electric field-induced DNA transfection. I. DNA entry by surface binding and diffusion through membrane pores. *Biophys. J.*, **58(1)**, 13-19 (1990).
7. Pham, L., et al., Concentration of viral vectors by co-precipitation with calcium phosphate. *J. Gene Med.*, **3(2)**, 188-194 (2001).

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