

TECHNICAL SHEET:

MgCl₂ 25 mM

Ref : PW10

Storage : at Room Temperature.

Quantity : 4 x 1ml

Description :

Magnesium Chloride (MgCl₂) is a versatile reagent in molecular biology, commonly used as a source of Mg²⁺ ions in buffers. Mg²⁺ ions are essential co-factors for many enzymatic activities including DNA polymerases, restriction enzymes, and ribozymes. MgCl₂ is also involved in stabilizing complexes of nucleic acids and proteins.

Typically used in concentrations ranging from 1.5 to 25 mM in reaction mixtures.

Soluble in water, providing a clear solution that can be sterilized by autoclaving if necessary.

Aids in the optimization of enzymatic reactions, including PCR, where it affects DNA denaturation, enzyme activity, and fidelity.

Applications :

- Component of PCR reaction buffers to optimize enzyme activity and reaction efficiency.
- Used in restriction digest reactions as a cofactor for restriction enzymes.
- Plays a role in the preparation of competent cells and transformation protocols.
- Involved in the synthesis of cDNA during reverse transcription processes.