

Magnesium Sulfate Solutions

Sterile-filtered
Endotoxin tested
Cell culture tested

Catalog Number **LS 020-01 (19.534 mg/mL)**

LS 020-02 (1.0 M)

Storage Temperature 2~8°C

Product Description

Magnesium sulfate is used in chemistry and molecular biology as a source of magnesium ions. Magnesium has a variety of biological roles in enzymology, cell membrane and wall structural integrity, muscle cell physiology, and nucleic acid structure. Magnesium is an essential co-factor in many enzymes, including deoxyribonuclease (DNase), the restriction enzymes *EcoR* I and *EcoR* V, and Ribonuclease H. Magnesium also stabilizes polymeric nucleic acids such as transfer RNA and ribozymes.

LS 020-01 contains 19.534 g/L MgSO₄ (anhydrous) in cell/tissue culture grade water (**LS016-01**).

LS 020-02 contains 120.4 g/L MgSO₄ (anhydrous) in cell/tissue culture grade water (**LS016-01**).

Storage/Stability

The concentrated Magnesium sulfate solutions should be stored at 2~8°C. Deterioration of the solution may be recognized by (1) precipitate or particulate matter throughout the solution, (2) cloudy appearance, (3) color change, and/or (4) pH change. Product label bears expiration date.

Molecular Weight

120.4 g/mol

Molecular Formula

MgSO₄

Precautions

For *In Vitro* Use Only

Product Profile

Appearance	Clear colorless solution
Endotoxin	≤ 1.0 EU/ml
Sterility	Sterilized by 0.2 μm filtration system. Sterility tests are performed in accordance with protocols described in USP.

References

Cowan, J. A., in *The Biological Chemistry of Magnesium*, Cowan, J. A., ed., VCH Publishers (New York: 1995), pp. 1-23.
The Biological Chemistry of the Elements, Frausto da Silva, J. J. R., and Williams, R. J. P., Clarendon Press (Oxford, UK: 1991), pp. 243-267.
 Brooks, J. E., Properties and uses of restriction endonucleases. *Methods Enzymol.*, **152**, 113-129 (1987).
 Black, C. B., and Cowan, J. A., in *The Biological Chemistry of Magnesium*, Cowan, J. A., ed., VCH Publishers (New York: 1995), pp. 137-157.
Principles of Bioinorganic Chemistry, Lippard, S. J., and Berg, J. M., University Science Books (Mill Valley, CA: 1994), pp. 192-196.