



SIGMA-ALDRICH

3050 Spruce Street
Saint Louis, Missouri 63103 USA
Telephone 800-325-5832 • (314) 771-5765
Fax (314) 286-7828
email: techserv@sial.com
sigma-aldrich.com

Product Information

Rubidium chloride

Product Number **R 2252**
Store at Room Temperature

Replacement for Product Number 215279

Product Description

Molecular Formula: RbCl
Molecular Weight: 120.9
CAS Number: 7791-11-9
Melting Point: 715 °C¹
Boiling Point: 1390 °C¹

Rubidium chloride is an inorganic compound that is used as a catalyst and additive in gasoline.¹ In materials science, RbCl has been used to prepare molecular nanowires as potential precursors of nanoscale devices.² In chromatography, RbCl and other univalent salts have been studied for their influence on the capillary electrophoretic separation of amino acids labeled with 3-(4-carboxybenzoyl)-quinoline-2-carboxaldehyde.³

RbCl is utilized in the transfection of bacteria.⁴ RbCl has been used to investigate the gating and permeability of ion channels produced by botulinum neurotoxin types A and E in membranes from cultured PC12 cells.⁵ The ion distributions between lipid membranes, using solutions of RbCl and BaCl₂ as sources, have been studied with X-ray diffraction.⁶ The use of RbCl in the ATP-mediated activation and inhibition of symmetric pumps in (Na⁺ K⁺-ATPase)-liposomes has been studied.⁷

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 to slightly hazy, colorless to very faint yellow solution.

References

1. The Merck Index., 12th ed., Entry# 8441.
2. Akutagawa, T., et al., Formation of oriented molecular nanowires on mica surface. *Proc. Natl. Acad. Sci. USA*, **99(8)**, 5028-5033 (2002).
3. McLaren, D. G., et al., Univalent salts as modifiers in micellar capillary electrophoresis. *Electrophoresis*, **23(12)**, 1912-1920 (2002).
4. Gasparich, G. E., et al., Optimization of methods for transfecting *Spiroplasma citri* strain R8A2 HP with the spiroplasma virus SpV1 replicative form. *Plasmid*, **29(3)**, 193-205 (1993).
5. Sheridan, R. E., Gating and permeability of ion channels produced by botulinum toxin types A and E in PC12 cell membranes. *Toxicon*, **36(5)**, 703-717 (1998).
6. Kirchner, S., Direct measurement of ion distributions between lipid membranes with X-ray diffraction. *Biochim. Biophys. Acta*, **1279(2)**, 181-189 (1996).
7. Rey, H. G., et al., Characterization of (Na⁺ + K⁺)-ATPase-liposomes. III. Controlled activation and inhibition of symmetric pumps by timed asymmetric ATP, RbCl, and cardiac glycoside addition. *Biochim. Biophys. Acta*, **900(1)**, 27-37 (1987).

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