

## Product Information

Potassium Chloride (KCL) Solution 0.075 M, sterile-filtered  
Cat. No. KCL-B (100 ml)

### General Information

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Potassium Chloride (KCl) is a hypotonic solution formulated with water of cell culture grade quality. It is commonly used for various cytogenetic applications, including karyotyping, fluorescence in situ hybridization (FISH), and chromosome analysis.

One of the fundamental techniques in cytogenetics is karyotyping, which involves the analysis and classification of chromosomes based on their size, shape, and banding patterns. KCl is an essential component in the preparation of metaphase spreads for karyotyping.

Due to the lower osmotic pressure of KCl in comparison to cell plasma, this solution can create an osmotic pressure difference that makes it suitable as a lysing reagent. In this process, it causes the cell's membranes to swell and rupture, exposing the chromosomes for subsequent analysis.

In general, treating cells with KCl facilitates their expansion for optimal spreading of metaphase chromosomes during karyotyping procedures. After treatment, chromosomes can be fixed and stained using various dyes to visualize the banding patterns, allowing cytogeneticists to analyze their structure and identify any abnormalities under the microscope.

The use of KCl, combined with other techniques and dyes, is essential for the study of chromosomal abnormalities and genetic disorders.

#### Applications

- Karyotyping
- Chromosome analysis
- Chromosome harvesting
- Fluorescence *in situ* hybridization (FISH)

### Product Specifications

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Appearance	Colorless, clear liquid
Storage and shelf life	Store at +2°C to +25°C. Solution may be stored for up to 36 months.
Shipping conditions	Ambient

### Precautions and Disclaimer

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This product is for research use only.

### Help Needed?

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If you have any further questions regarding this product, please do not hesitate to contact our cell culture experts by email (techservice@capricorn-scientific.com) or phone (+49 6424 944640).