

## Certificate of Analysis

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**Product Name:** Strontium chloride

**Catalog No.:** 4749

**Batch No.:** 1

CAS Number: 10476-85-4

EC Number: 233-971-6

### 1. PHYSICAL AND CHEMICAL PROPERTIES

<b>Batch Molecular Formula:</b>	SrCl <sub>2</sub>
<b>Batch Molecular Weight:</b>	158.53
<b>Physical Appearance:</b>	White solid
<b>Solubility:</b>	water to 100 mM
<b>Storage:</b>	Desiccate at RT
<b>Batch Molecular Structure:</b>	SrCl <sub>2</sub>

### 2. ANALYTICAL DATA

<b>Purity (based on trace metals):</b>	≥ 99.999%
<b>Trace Metal Analysis:</b>	≤ 34.6 ppm
<b>Sodium (Na):</b>	6.9 ppm
<b>Nickel (Ni):</b>	0.2 ppm
<b>Rubidium (Rb):</b>	1.0 ppm
<b>Cesium (Cs):</b>	0.5 ppm
<b>Calcium (Ca):</b>	1.9 ppm
<b>Barium (Ba):</b>	15.0 ppm
<b>Yttrium (Y):</b>	2.2 ppm
<b>Zinc (Zn):</b>	0.3 ppm
<b>Hafnium (Hf):</b>	0.4 ppm
<b>Lanthanum (La):</b>	2.1 ppm
<b>Boron (B):</b>	2.5 ppm
<b>Vanadium (V):</b>	0.1 ppm
<b>Cerium (Ce):</b>	0.3 ppm
<b>Chromium (Cr):</b>	0.3 ppm
<b>Tin (Sn):</b>	0.1 ppm
<b>Lead (Pb):</b>	0.2 ppm
<b>Manganese (Mn):</b>	0.4 ppm
<b>Antimony (Sb):</b>	0.1 ppm

Caution - Not Fully Tested • Research Use Only • Not For Human or Veterinary Use

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## Product Information

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**Product Name:** Strontium chloride

**Catalog No.:** 4749

**Batch No.:** 1

CAS Number: 10476-85-4

EC Number: 233-971-6

**Description:**

Calcium sensing receptor (CaSR) agonist. Activates ERK1/2 signaling, intracellular calcium mobilization, and calcitonin secretion. Enhances osteogenic differentiation of mesenchymal stem cells.

**Physical and Chemical Properties:**

Batch Molecular Formula: SrCl<sub>2</sub>

Batch Molecular Weight: 158.53

Physical Appearance: White solid

**Batch Molecular Structure:**



**Storage:** Desiccate at RT. This product is packaged under an inert atmosphere.

**Solubility & Usage Info:**

water to 100 mM

**Stability and Solubility Advice:**

Some solutions can be difficult to obtain and can be encouraged by rapid stirring, sonication or gentle warming (in a 45-60°C water bath).

Information concerning product stability, particularly in solution, has rarely been reported and in most cases we can only offer a general guide. Our standard recommendations are:

**SOLIDS:** Provided storage is as stated on the product label and the vial is kept tightly sealed, the product can be stored for up to 6 months from date of receipt.

**SOLUTIONS:** We recommend that stock solutions, once prepared, are stored aliquoted in tightly sealed vials at -20°C or below and used within 1 month. Wherever possible solutions should be made up and used on the same day.

**References:**

**Thomsen *et al*** (2012) Strontium is a biased agonist of the calcium-sensing receptor in rat medullary thyroid carcinoma 6-23 cells. *J.Pharmacol.Exp.Ther.* **343** 638. PMID: 22942242.

**Yang *et al*** (2011) Strontium enhances osteogenic differentiation of mesenchymal stem cells and *in vivo* bone formation by activating Wnt/catenin signaling. *Stem Cells* **29** 981. PMID: 21563277.

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