

Certificate of Analysiswww.tocris.com**Product Name:** Strontium chloride
CAS Number: 10476-85-4**Catalog No.:** 4749 **Batch No.:** 1
EC Number: 233-971-6**1. PHYSICAL AND CHEMICAL PROPERTIES**

Batch Molecular Formula: SrCl₂
Batch Molecular Weight: 158.53
Physical Appearance: White solid
Solubility: water to 100 mM
Storage: Desiccate at RT
Batch Molecular Structure: SrCl₂

2. ANALYTICAL DATA

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

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

Product Information

www.tocris.com**Product Name:** Strontium chloride

CAS Number: 10476-85-4

Catalog No.: 4749**Batch No.:** 1

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: SrCl₂

Batch Molecular Weight: 158.53

Physical Appearance: White solid

Batch Molecular Structure:SrCl2**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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