

Product Specification Sheet

Product Name: Strontium ranelate

Catalog Number: C7876

Technical information:

Chemical Formula: $C_{12}H_6N_2O_8SSr_2$

CAS #: 135459-87-9

Molecular Weight: 513.49

Purity: > 98%

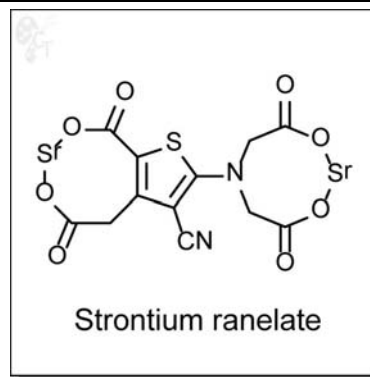
Appearance: White solid

Solubility: Soluble in DMSO up to 22 mM

Chemical Name: 5-[Bis(carboxymethyl)amino]-2-carboxy-4-cyano-3-thiopheneacetic Acid Strontium Salt

Storage: Store solid powder at 4°C desiccated; Store DMSO solution at -20°C.

Shelf Life: In the unopened package, powder is stable for 1 year and DMSO solution is stable for 6 months under proper storage condition.



Handling: • To make 10 mM stock solution, add 0.195mL of DMSO for each mg of Strontium ranelate.

- For DMSO solution, briefly spin the vial at 500 rpm in a 50 mL conical tube to ensure maximum sample recovery.

Biological Activity: Strontium ranelate (Protelos), a strontium (II) salt of ranelic acid, is an agent for the treatment of osteoarthritis and osteoporosis. Classified as a dual-action bone agent (DABA), strontium ranelate is unique in that it can simultaneously inhibit bone resorption and stimulate bone formation. [1]

More specifically, strontium ranelate increases in vitro osteoblast differentiation from progenitors, as well as osteoblast-induced osteoclastogenesis both in vitro and in vivo. Regarding bone-antiresorbing mechanisms, strontium ranelate decreases osteoclast differentiation and activity, while increasing their apoptosis. [2]

Reference: 1. Ireland, G., Protos: The first dual-action bone agent for osteoporosis, JEMDSA, 2006, 11(1), 35.

2. Fonseca et al., Mechanism of action of strontium ranelate: what are the facts? Clin. Cases. Mineral Bone Metabol. 2010, 7(1), 17-18. Pubmed ID: 22461285

To reorder: <http://www.cellagentech.com/Strontium-ranelate/>

For Technical Support: technical@cellagentech.com

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