



RayBiotech, Inc.

3607 Parkway Lane suite 200
Norcross, GA 30092
Tel: 770-729-2992, 1-888-494-8555
Fax: 770-206-2393
Website: www.raybiotech.com
Email: info@raybiotech.com

Recombinant Human S100 Calcium Binding Protein P (S100P)

Catalog No.	Size	Species	Protein Accession No.
230-00031	10, 50, 100 µg	Human	AAH06819

Synonyms

S100 calcium-binding protein P, Protein S100-E, Protein S100-P, S100 calcium-binding protein P, S100E.

Description

S100 calcium-binding protein P (S100P) is one member of S100 family and shares 50% sequence identity with human S100A1 and 44% identity with S100B. S100P contains 2 EF-hands (calcium binding domains) with different affinities for Ca^{2+} , Zn^{2+} and Mg^{2+} , a central hinge region and the C-terminal extension. S100P presents in various normal tissues (such as lung, placenta, kidney, heart, bladder, spleen, bone marrow, prostate gland, and intestinal mucosa), malignant tissues (such as non-small-cell lung cancer, melanoma, gastric adenocarcinoma, ovarian, breast, colon and prostate carcinoma), and the body fluids (such as blood, pancreatic juice, tear, and urine).

Preparation

The gene encoding the full length of human S100P protein was cloned and expressed in *Escherichia coli*. The recombinant S100P protein was purified by proprietary chromatographic techniques.

Source

Recombinant protein, purified from *E. coli*.

Predicted Molecular Mass

~11 kDa.

Formulation & Reconstitution

- Fine white powder, lyophilized.

- Recombinant S100P was lyophilized from a 0.2 µm filtered phosphate-buffered saline (PBS) with protein concentration at 0.7 mg/mL.
- It is recommended to briefly spin the vial prior to opening, bring the contents to the bottom, and reconstitute the lyophilized product with sterile 18 MΩ-cm deionized water or your desired buffer.

Stability & Storage

- Lyophilized product is stable at room temperature for 3 weeks, it is recommended to be stored desiccated below -20°C in a manual defrost freezer.
- Upon reconstituted, the protein should be stored at 4°C for one week. For long term storage, it is recommended to add a carrier protein (0.1% HSA or BSA) and store at -20 or -80°C. **Please avoid repeated freeze-thaw cycles.**

Purity

>95%, determined by SDS-PAGE and stained with Coomassie blue.

References

- Donato R. (2001) S100: a multigenic family of calcium-modulated proteins of the EF-hand type with intracellular and extracellular functional roles. *Int J Biochem Cell Biol.* 33(7): 637-68.
- de Souza GA, et al. (2006) Identification of 491 proteins in the tear fluid proteome reveals a large number of proteases and protease inhibitors. *Genome Biol.* 7(8):R72.
- Basu GD, et al. (2008) Functional evidence implicating S100P in prostate cancer progression. *Int J Cancer.* 15;123(2):330-9.
- Parkkila S, et al. (2008) The calcium-binding protein S100P in normal and malignant human tissues. *BMC Clin Pathol.* 8:2.
- Donato R. (2003) Intracellular and extracellular roles of S100 proteins. *Microsc Res Tech.* 15;60(6):540-5

**The products are furnished for LABORATORY RESEARCH USE ONLY.
Not for diagnostic or therapeutic use.**