

S100A4

Calcium-binding Protein A4 human, recombinant, *E. coli*

Cat. No.	Amount
PR-1258	2 μ g

For *in vitro* use only
Quality guaranteed for 12 months
Store at -20°C

Avoid freeze / thaw cycles

Protein synonyms/aliases

S100 calcium-binding protein A4, Metastasin Mts1 protein, Placental calcium-binding protein and Calvasculin.

Form

Liquid. Supplied in 50 mM Tris-Acetate pH 7.5, 1 mM EDTA and 20% glycerol.

Activity

Assayed for calcium binding.

Purity

>95% by SDS-PAGE

Description

The proteins of the S100 family belong to the family of calcium binding proteins with EF-hand type Ca²⁺ binding motive. S100A is composed of an alpha and beta chain whereas S100B is composed of two beta chains.

S100 protein is also expressed in the antigen presenting cells such as the Langerhans cells in skin and interdigitating reticulum cells in the paracortex of lymph nodes.

S100A4 (calcium-binding protein A4) is associated with metastatic tumors and appears to be a molecular marker for clinical prognosis.

Recombinant S100A4 shows a band at 12kDa on SDS-PAGE and is purified by proprietary chromatographic techniques.

Selected References:

Garrett *et al.* (2006) S100A4, a mediator of metastasis. *J Biol Chem.* **281(2)**:677.

Fang *et al.* (2006) Intracellular calcium-binding protein S100A4 influences injury-induced migration of white matter astrocytes. *Acta Neuropathol (Berl).* **4**:1.

Fang *et al.* (2006) Sensory neurite outgrowth on white matter astrocytes is influenced by intracellular and extracellular S100A4 protein. *J Neurosci Res.* **83**:619.

Spiekerkoetter *et al.* (2005) Mts1/S100A4 stimulates human pulmonary artery smooth muscle cell migration through multiple signaling pathways. *Chest.* **128**:577.

Matsubara *et al.* (2005) Differential expression of S100A2 and S100A4 in lung adenocarcinomas: clinicopathological significance, relationship to p53 and identification of their target genes. *Cancer Sci.* **96**:844.

Heizmann *et al.* (1998) New perspectives on S100 proteins: a multi-functional Ca²⁺, Zn²⁺, and Cu²⁺-binding protein family. *Biometals* **11**:383.

Zimmer *et al.* (1995) The S100 protein family - history, function, and expression. *Brain Research Bulletin* **37**:417.