

Recombinant Mouse S100A4 Protein

Catalog No. PKSM040657

Note: Centrifuge before opening to ensure complete recovery of vial contents.

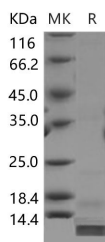
Description

Synonyms	18A2;42a;Cap1;FSp1;metastasin;Mts1;PeL98;pk9a
Species	Mouse
Expression Host	HEK293 Cells
Sequence	Ala2-Lys101
Accession	P07091
Calculated Molecular Weight	11.7 kDa
Observed molecular weight	12 kDa
Tag	None
Bioactivity	Not validated for activity

Properties

Purity	> 85 % as determined by reducing SDS-PAGE.
Endotoxin	< 1.0 EU per µg of the protein as determined by the LAL method.
Storage	Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.
Shipping	This product is provided as lyophilized powder which is shipped with ice packs.
Formulation	Lyophilized from sterile PBS, pH 7.4 Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Please refer to the specific buffer information in the printed manual.
Reconstitution	Please refer to the printed manual for detailed information.

Data



> 85 % as determined by reducing SDS-PAGE.

Background

S100A4, also known as metastasis-associated protein Mts1, belongs to the family of small calcium-binding S100 proteins containing two EF-hand calcium-binding motifs. In humans at least 20 S100 family members that are distributed tissue

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specifically have been identified, and are involved in a number of cellular processes as transducers of calcium signal. S100A4 is a symmetric homodimer, and undergoes a relatively large conformational change upon the typical EF-hand binding calcium, which is necessary for S100A4 to interact with its protein targets and generate biological effects. It can bind the already known targets p53, F-actin, liprin β , myosin heavy chain II, and prevent their phosphorylation and multimerization. It has been demonstrated that S100A4 is directly involved in tumor metastasis including cell motility, invasion, apoptosis, angiogenesis and differentiation, and appears to be a metastasis factor and a molecular marker for clinical prognosis. Multiple alternatively spliced variants encoding the same protein have been identified.