

## Recombinant Mouse S100B Protein (His Tag)

**Catalog Number:** PDEM100211

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

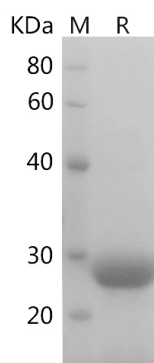
### Description

<b>Species</b>	Mouse
<b>Source</b>	E.coli-derived Mouse S100B protein Met1-Glu92, with an C-terminal His
<b>Calculated MW</b>	11.8 kDa
<b>Observed MW</b>	12 kDa
<b>Accession</b>	P50114
<b>Bio-activity</b>	Not validated for activity

### Properties

<b>Purity</b>	> 95% as determined by reducing SDS-PAGE.
<b>Endotoxin</b>	< 10 EU/mg of the protein as determined by the LAL method
<b>Storage</b>	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.
<b>Shipping</b>	This product is provided as lyophilized powder which is shipped with ice packs.
<b>Formulation</b>	Lyophilized from a 0.2 µm filtered solution in PBS with 5% Trehalose and 5% Mannitol.
<b>Reconstitution</b>	It is recommended that sterile water be added to the vial to prepare a stock solution of 0.5 mg/mL. Concentration is measured by UV-Vis.

### Data



> 95 % as determined by reducing SDS-PAGE.

### Background

### For Research Use Only

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S100-B, is an acidic protein with a molecular weight of 21 kDa belonging to the S100 family. S100-B contains two EF-hand-type calcium-binding motifs separated by a hinge region with a hydrophobic cleft. S100-B plays an important role in neurodevelopment, differentiation, and brain construction. S100-B has neuroprotective effects, but at high concentrations S100-B is neurotoxic. Extracellular concentration of S100-B increases following brain damage, which easily penetrates into cerebrospinal fluid in brain damage and then into the blood. S100-B is expressed and produced by astrocytes in vertebrate brains and in the CNS, and the astrocytes are the major cells producing S100-B protein in gray matter, as well as oligodendrocytes are the predominant S100-B in protein producing cells in white matter. The major advantage of using S100-B is that elevations in serum or CSF levels provide a sensitive measure for determining CNS injury at the molecular level before gross changes develop, enabling timely delivery of crucial medical intervention before irreversible damage occurs. In addition, S100-B, which is also present in Mouse melanocytes, is a reliable marker for melanoma malignancy both in bioptic tissue and in serum.