

Recombinant Mouse S100B Protein (Fc Tag)

Catalog No. PKSM040404

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

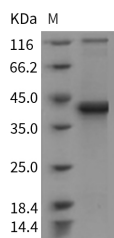
Description

Synonyms	Protein S100-B;S-100 protein beta chain;S-100 protein subunit beta;S100 calcium-binding protein B;S100b;S100 beta;S100 calcium binding protein B
Species	Mouse
Expression Host	HEK293 Cells
Sequence	Ser2-Glu92
Accession	P50114
Calculated Molecular Weight	39.0 kDa
Observed molecular weight	41 kDa
Tag	N-hFc
Bioactivity	1. Measured by its binding ability in a functional ELISA. 2. Immobilized recombinant mouse S100B-Fc at 10 µg/ml (100 µl/well) can bind biotinylated recombinant human AGER with a linear range of 0.03-0.5 µg/ml.

Properties

Purity	> 80 % 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



> 80 % as determined by reducing SDS-PAGE.

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Background

S100B is a member of the S100 family of proteins containing two EF-hand-type calcium-binding motifs. S100B exerts both intracellular and extracellular functions. Intracellular S100B acts as a stimulator of cell proliferation and migration and an inhibitor of apoptosis and differentiation, which might have important implications during brain, cartilage and skeletal muscle development and repair, activation of astrocytes in the course of brain damage and neurodegenerative processes, and of cardiomyocyte remodeling after infarction, as well as in melanomagenesis and gliomagenesis. As an extracellular factor, S100B engages RAGE (receptor for advanced glycation end products) in a variety of cell types with different outcomes depending on the concentration attained by the protein, the cell type and the microenvironment. This calcium binding astrocyte-specific cytokine, presents a marker of astrocytic activation and reflects CNS injury. The excellent sensitivity of S100B has enabled it to confirm the existence of subtle brain injury in patients with mild head trauma, strokes, and after successful resuscitation from cardiopulmonary arrest. Recent findings provide evidence, that S100B may decrease neuronal injury and/or contribute to repair following traumatic brain injury (TBI). Hence, S100B, far from being a negative determinant of outcome, as suggested previously in the human TBI and ischemia literature, is of potential therapeutic value that could improve outcome in patients who sustain various forms of acute brain damage.

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