# Recombinant Human S100B Protein (Fc Tag)

**Catalog Number: PKSH031789**

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

## Description

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|---|---|
| **Species** | Human |
| **Source** | HEK293 Cells-derived Human S100B protein Ser 2-Glu 92, with an N-terminal hFc |
| **Calculated MW** | 11 kDa |
| **Observed MW** | 40 kDa |
| **Accession** | NP_006263.1 |
| **Bio-activity** | 1. Measured by its ability to bind TP53 in a functional ELISA. 2. Immobilized recombinant human Fc-S100B at 10 μg/mL (100 μl/well) can bind biotinylated human S100A1 with a linear range of 15.6-250 ng/mL. |

## Properties

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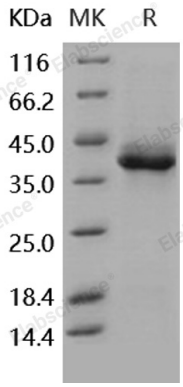
|---|---|
| **Purity** | > 95% as determined by reducing SDS-PAGE. |
| **Endotoxin** | < 1.0 EU per μg of the protein as determined by the LAL method. |
| **Storage** | Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C. Reconstituted protein solution can be stored 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<br>Normally 5% - 8% trehalose, mannitol and 0.01% Tween 80 are added as protectants before lyophilization.<br>Please refer to the specific buffer information in the printed manual. |
| **Reconstitution** | Please refer to the printed manual for detailed information. |

## Data




> 95 % as determined by reducing SDS-PAGE.

## 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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