

# Recombinant Human S100B

Catalog Number: 10181-H07E



## General Information

### Gene Name Synonym:

NEF, S100, S100beta

### Protein Construction:

A DNA sequence encoding the human S100B (NP\_006263.1) (Ser 2- Glu 92 ) was fused with a polyhistidine tag at the N-terminus.

**Source:** Human

**Expression Host:** *E.coli*

## QC Testing

**Purity:** > 90 % as determined by SDS-PAGE.

### Bio-activity:

1. Measured by its ability to bind human AGER in a functional ELISA.
2. Measured by its ability to bind TP53 in a functional ELISA.

### Endotoxin:

Please contact us for more information.

### Stability:

Samples are stable for up to twelve months from date of receipt at -70 °C

**Predicted N terminal:** Met

### Molecular Mass:

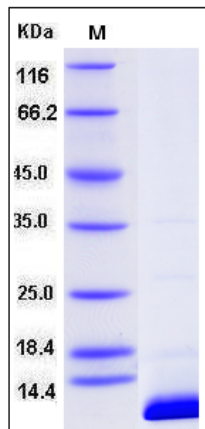
The recombinant human S100B consisting of 102 amino acids and migrates as an approximately 12 KDa band in SDS-PAGE under reducing conditions as predicted.

### Formulation:

Lyophilized from 0.2µm filtered solution of PBS, 10%glycerol, pH 7.5

Normally 5 % - 8 % trehalose and mannitol are added as protectants before lyophilization. Specific concentrations are included in the hardcopy of COA. Please contact us for any concerns or special requirements.

### SDS-PAGE:



## Usage Guide

### Storage:

Store it under sterile conditions at -70°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

**Avoid repeated freeze-thaw cycles.**

### Reconstitution:

Detailed reconstitution instructions are sent along with the products.

## Protein Description

S100B is a member of the S100 family of proteins containing two EF-hand-type calcium-binding motifs. In humans at least 20 S100 family members that are distributed tissue specifically have been identified, and are involved in a number of cellular processes as transducers of calcium signal. Although most of the S100 genes are located as a cluster at 1q21, S100B gene is located at 21q22.3. S100B is glial-specific and is synthesized in considerable amounts in the cytoplasm of astrocytes. This protein has been revealed to perform a variety of intracellular functions including cell proliferation, cell structure, energy metabolism, and calcium homeostasis. S100B is probably implicated in tumor progression by excessive down-regulation of the p53 tumor suppressor protein. As a neurotrophic factor, S100B stimulates neurite outgrowth and enhances survival of neurons during CNS development. Chromosomal rearrangements and aberrant expression of S100B gene are associated with several neurological, neoplastic, and other types of diseases, including Alzheimer's disease, Down's syndrome, epilepsy, amyotrophic lateral sclerosis, melanoma, and type I diabetes.

### References

1. Allore, R. et al., 1988, Science. 239: 1311-1313.
2. Esposito, G. et al., 2008, J. Cell. Mol. Med. 12: 914-927.
3. Rothermundt, M. et al., 2003, Microsc. Res. Tech. 60: 614-632.
4. Lin, J. et al., 2004, J. Biol. Chem. 279: 34071-34077.
5. Nishiyama, H. et al., 2002, Proc. Natl. Acad. Sci. USA. 99: 4037-4042.

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