

S100B

Recombinant Human S100 Calcium Binding Protein B His

Catalog No.	CRS128A	Quantity:	5 µg
	CRS128B		20 µg
	CRS128C		1.0 mg

Alternate Names: S100 calcium binding protein B, NEF, S100, S100beta

Description: S100b is a member of the S100 family of proteins which are a family of EF-hand calcium binding proteins that exist mostly as dimers of the 20 currently identified individual S100 monomers. The S100B homodimer is expressed in cells of the central nervous system, glial cells and in certain peripheral cells e.g. Schwann cells, melanocytes, adipocytes and chondrocytes. S100 proteins are localized either in the cytoplasm or the nucleus of a wide range of cells. S100 proteins are involved in the regulation of a number of cellular processes such as cell cycle progression and differentiation.

The determination of S100B in serum levels may be used to monitor the extent of brain injury and malignant melanoma. S100b proteins may have a role in Neurite extension, proliferation of melanoma cells, stimulation of Ca²⁺ fluxes, inhibition of PKC-mediated phosphorylation, astrocytosis and axonal proliferation, and inhibition of microtubule assembly. Chromosomal rearrangements and altered expression of the S100b gene are implicated in several neurological, neoplastic, and other types of diseases, including Alzheimer's disease, Down's syndrome, epilepsy, amyotrophic lateral sclerosis, melanoma, and type I diabetes.

Recombinant Human S100b is a single non-glycosylated polypeptide containing 112 aa (1-92) with a 20 aa N-terminal His tag.

Concentration: 0.55 mg/ml

GeneID: 6285

Protein Accession No: P04271.2

Source: *E. coli*

Molecular Weight: 12.8 kDa

Formulation: Sterile Filtered clear solution containing 20 mM Tris-HCl buffer, pH8.0, + 1 mM DTT + 10% glycerol.

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

Amino Acid Sequence: **MGSSHHHHH SSGLVPRGSH** MSELEKAMVA LIDVFHQYSG REGDKHKLKK
SELKELINNE LSHFLEEIKE QEVVDKVMET LDNDGDGECDFQEFMAFVAM
VTTACHEFFE HE

Storage & Stability: Stable at 4°C if entire vial will be used within 2-4 weeks. Store, frozen at -20°C for longer periods of time. For long term storage it is recommended to add a carrier protein such as 0.1% HSA or BSA. **Avoid repeated freeze-thaw cycles.**

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