Recombinant Human S100 Calcium Binding Protein B, GST-tagged

Cat. No. S100B-4571H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	S100B Human Recombinant produced in E.Coli is single, a non-glycosylated, polypeptide chain fused to a GST tag and having a total molecular mass of 36kDa. The S100B is purified by proprietary chromatographic techniques.
Species	Human
Source	Human
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. There are at least 13 members in the S100 gene family, which are located as a cluster on chromosome 1q21; however, S100b is located at 21q22.3. 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

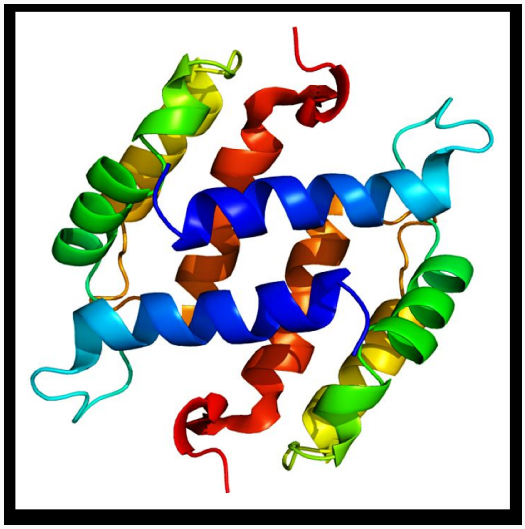
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	diseases, including Alzheimer"s disease, Down"s syndrome, epilepsy, amyotrophic lateral sclerosis, melanoma, and type I diabetes.
Form	S100B is supplied in 50mM Tris-Acetate, pH-7.5, 1mM EDTA and 20% Glycerol.
Physical Appearance	Sterile Filtered clear solution.
Storage	Store at 4°C if entire vial will be used within 2-4 weeks. Store, frozen at -20°C for longer periods of time. Please avoid freeze thaw cycles.

GENE INFORMATION

Gene Name	S100B S100 calcium binding protein B [Homo sapiens]
Official Symbol	S100B
Synonyms	S100B; S100 calcium binding protein B; NEF; S100; S100 calcium-binding protein, beta; S100 beta; OTTHUMP00000174958; S-100 calcium-binding protein, beta chain; S100 calcium binding protein, beta (neural); S100 calcium-binding protein, beta (neural); Protein S100-B; S100 calcium-binding protein B; S-100 protein subunit beta; S-100 protein beta chain
Gene ID	6285
mRNA Refseq	NM_006272
Protein Refseq	NP_006263
MIM	176990
UniProt ID	P04271

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Chromosome Location	21q22.3
Pathway	Activated TLR4 signalling; MyD88 dependent cascade initiated on endosome; Viral dsRNA:TLR3:TRIF Complex Activates RIP1
Function	S100 beta binding; calcium ion binding; calcium-dependent protein binding; protein homodimerization activity; protein homodimerization activity; tau protein binding; zinc ion binding
PDB rendering basedon 1b4c.	

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