

Product datasheet for **TP727413**

S100 beta (S100B) Human Recombinant Protein

Product data:

Product Type:	Recombinant Proteins
Description:	Recombinant Human S100 Calcium Binding Protein B/S100B (N-6His)
Species:	Human
Expression cDNA Clone or AA Sequence:	Met1-Glu92
Tag:	N-His
Buffer:	Lyophilized from a 0.2 um filtered solution of 20mM PB, 150mM NaCl, pH 7.4.
Note:	Recombinant Human S100 Calcium Binding Protein B is produced by our E.coli expression system and the target gene encoding Met1-Glu92 is expressed with a 6His tag at the N-terminus.
Storage:	Lyophilized protein should be stored at < -20°C, though stable at room temperature for 3 weeks. Reconstituted protein solution can be stored at 4-7°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.
Stability:	12 months from date of despatch
Locus ID:	6285
UniProt ID:	<u>P04271</u>
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

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Summary:

S100-B, is an acidic protein with a molecular weight of 21 kDa belonging to the S100 family. S100-B contains two EF-hand-type calcium-binding motifs separated by a hinge region with a hydrophobic cleft. S100-B plays an important role in neurodevelopment, differentiation, and brain construction. S100-B has neuroprotective effects, but at high concentrations S100-B is neurotoxic. Extracellular concentration of S100-B increases following brain damage, which easily penetrates into cerebrospinal fluid in brain damage and then into the blood. S100-B is expressed and produced by astrocytes in vertebrate brains and in the CNS, and the astrocytes are the major cells producing S100-B protein in gray matter, as well as oligodendrocytes are the predominant S100-B in protein producing cells in white matter. The major advantage of using S100-B is that elevations in serum or CSF levels provide a sensitive measure for determining CNS injury at the molecular level before gross changes develop, enabling timely delivery of crucial medical intervention before irreversible damage occurs. In addition, S100-B, which is also present in human melanocytes, is a reliable marker for melanoma malignancy both in bioptic tissue and in serum.