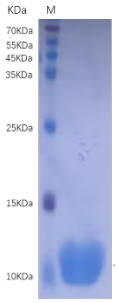
Specification

Product name:	Recombinant human S100 antigen (S100B)
Source:	*E.coli* derived
Accession #:	P04271
SDS-PAGE:	10-15 kDa, reducing conditions
Construction：	S100B
Predicted Molecular Mass:	12kDa
Activity:	Immunoreactivity was confirmed by reacting with monoclonal antibodies specific to human S100B .
Application:	ELISA, immunology, others unspecified.
Form:	Liquid
Formulation:	20 mM Tris, 300 mM NaCl, pH 8.0
Stability & Storage:	Stable at -80°C
Shipping condition:	The product is shipped on ice pack.Upon receiving, store it immediately at the recommended temperature.
Conc. Determined:	BCA
Purity:	＞90%

SDS-PAGE



Greater than 90% as determined by reducing SDS-PAGE. (QC verified).

BACKGROUND

S100B, 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.

References:

1. As CSF-S100B levels in calves with neurologic diseases widely differed, the utility of CSF-S100B as a diagnostic marker for neurologic diseases in cattle remains inconclusive..
2. S100B might participate in the pathophysiology of brain inflammatory disorders via RAGE-dependent regulation of several inflammation-related events including activation and migration of microglia PMID: 21209080.
3. Development of a sensitive ELISA for S100B detection in traumatic brain injury using recombinant protein standards.
4. Structural basis of S100B protein dimerization and calcium-dependent conformational changes.
5. Expression and purification of recombinant human S100B protein in Escherichia coli for antibody production.

Shenzhen Ruimeng Innovation Biotechnology Co., Ltd.
Room 1302-1305, 13F, Building D3, Nanshan Smart Park (Phase II),
No. 1001 Xueyuan Avenue, Nanshan District, Shenzhen City
Tel: +86 755 2616 5996
Web: www.rm-bio.com
PRC: 518055
Fax: +86 755 2616 5986
E-mail: rmi@rm-bio.com