

S100 (alpha/beta) control peptide

Alternate names:	100 Calcium-binding protein B, S-100 protein beta, S-100B, S100-B, S100B
Catalog No.:	AP10301CP-N
Quantity:	0.25 mg
Background:	<p>Despite the abundance of calcium in the body, only a fraction of (1%) is present in the ionic form in biological fluids and rest is bound to various calcium binding proteins such as calmodulin, S100, calretinin, calbindin, parvalbumins etc. The ionic concentration of calcium is regulated by calcium sensing receptors. These receptors activate trans-cellular transport of calcium across the apical membranes facilitated by a group of low molecular weight calcium binding proteins. The active transport of calcium is achieved by Sodium calcium exchanges and by calcium transport proteins. S100 protein is a member of low MW calcium binding protein family, has two subunits (alfa and beta) and is expressed in S100ab or S100 bb confirmations. Human S100b subunit is a 94 amino acid protein expressed in brain. There are 9 genes (S100A1 through S100A9) that are mapped on chromosome 21q22.2-q22.3. S100 proteins improve contractility of the heart muscle by various mechanisms involving handling of sarcoplasmic reticulum calcium by myofibrillar calcium ion responsiveness. Because of the predominant location of S100 proteins in the glial cells, the S100 protein is leaked in to extracellular matrix and in to the cerebrospinal fluid (CSF) upon CNS injury. The S100 protein is a reliable marker for measuring the extent of CNS and neuronal damage (1, 2). Measurement of S100 protein is also a useful tool in diagnosis of acute stroke (3) and in various brain haemorrhages due to ruptured aneurysm (4).</p>
Format:	State: Liquid synthetic peptide
Description:	Antigenic blocking peptide for AP10301PU-N
Storage:	Store (in aliquots) at -20 °C. Avoid repeated freezing and thawing. Shelf life: one year from despatch.
General Readings:	<ol style="list-style-type: none">1. Rothoerl R., et. Al., J. Trauma 1998; 45 (4) 765-7672. Raabe A. et. Al., Acta Neurochir. 1998; 140(8), 787-791.3. Abraha H. et. Al., Ann. Clin. Biochem. 1997; 34(Pt4) 366-374.