



# DataSheet

**CATALOGUE #:** 8S9h

**PRODUCT NAME:** S-100 protein,  $\beta\beta$  homodimer and  $\alpha\beta$  heterodimer, human

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**Source:** Human brain tissue.

Blood samples from tissue donors were tested and found to be negative for HBsAg, HIV-1 and HIV-2 antibodies, HCV, and syphilis.

**Applications:**

S-100 protein derived from brain tissue is an acidic calcium-binding protein with molecular weight of about 21kDa. In human brain tissue S-100 protein is mainly presented by two isoforms -  $\beta\beta$  homodimer (S-100b) and  $\alpha\beta$  heterodimer (S-100a). Because of its predominant location in astroglial cells S-100 protein can be used as a sensitive and reliable marker for central nervous system injury. Structural damage of glial cells causes leakage of S-100 protein into the extracellular matrix and into cerebrospinal fluid, further releasing into the bloodstream. Measurements of S-100 protein in patient serum samples are useful in monitoring of traumatic brain injury, ischemic brain damage after circulatory arrests, in diagnosis and prognosis of clinical outcome in acute stroke.

S-100 protein is suitable for use as a standard in immunoassay, as an immunogen for antiserum production and tracer for iodination.

**Analysis:**

Purity > 95 %. After native gel electrophoresis by Ornstein-Davis S-100 protein is presented by two bands corresponding to  $\alpha\beta$ - and  $\beta\beta$ -forms.

S-100 protein concentration was determined by Lowry method using BSA as a standard.

**Presentation:**

Lyophilized from 5 mM Tris-HCl, pH 7.5 with 5 mM 2-mercaptoethanol and 5 mM EDTA.

Product is recommended to reconstitute with 5 mM 2-mercaptoethanol.

**Storage:**

-20 °C (-15 ... -30 °C allowed)

**Material safety note:**

This product is sold **for research use only**. Standard Laboratory Practices should be followed when handling this material.

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