

## Product datasheet for **DM111-05**

### **S100 beta (S100B) Mouse Monoclonal Antibody [Clone ID: SH-B1]**

#### **Product data:**

<b>Product Type:</b>	Primary Antibodies
<b>Clone Name:</b>	SH-B1
<b>Applications:</b>	ELISA, IHC, WB
<b>Recommended Dilution:</b>	Immunohistochemistry on Paraffin Sections: Dilute 1/50-1/100 in an ABC method (30 minutes at room temperature). Proteolytic digestion of tissue sections is required prior to immunostaining. Recommended Positive Control: Melanoma. Also suitable for ELISA and Blot (denaturing conditions).
<b>Reactivity:</b>	Bovine, Feline, Human, Porcine, Rabbit, Rat
<b>Host:</b>	Mouse
<b>Isotype:</b>	IgG1
<b>Clonality:</b>	Monoclonal
<b>Immunogen:</b>	Purified bovine brain S-100b preparation.
<b>Specificity:</b>	This antibody is specific against an epitope located on the beta chain but not on the alpha chain of S-100 (i.e. in S-100a and S-100ao). This antibody can be used to localize S-100a and S-100b in various tissue sections. Cellular Localization: Cytoplasmic.
<b>Formulation:</b>	State: Ascites State: Diluted ascites containing Sodium Azide as preservative.
<b>Conjugation:</b>	Unconjugated
<b>Storage:</b>	Store the antibody undiluted at 2-8°C.
<b>Stability:</b>	Shelf life: one year from despatch.
<b>Gene Name:</b>	S100 calcium binding protein B
<b>Database Link:</b>	<a href="#">Entrez Gene 6285 Human P04271</a>



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**Background:**

S100 belongs to the family of calcium binding proteins such as calmodulin and troponin C. S100 proteins are localized in the cytoplasm and/or nucleus of a wide range of cells, and involved in the regulation of a number of cellular processes such as cell cycle progression and differentiation. S100 genes include at least 13 members which are located as a cluster on chromosome 1q21. S100A is composed of an alpha and beta chain whereas S100B is composed of two beta chains. S100 protein may function in stimulation of Ca<sup>2+</sup> induced Ca<sup>2+</sup> release, inhibition of microtubule assembly, and inhibition of protein kinase C mediated phosphorylation. Reduced expression of this protein has been implicated in cardiomyopathies. Immunoreactive S100 protein localizes in the cytoplasm and nuclei of astrocytes, Schwann's cells, ependymomas and astroglomas. Ganglion cells do not stain for S100 protein. S100 can be detected in almost all benign naevi and malignant melanocytic tumours of the skin, and in Langerhans cells in the skin.

**Synonyms:**

Protein S100-B, S100 beta, S100 calcium-binding protein B, S-100 protein subunit beta, S-100 protein beta chain, Astrocyte Marker