Anti-S-100 monoclonal antibody, clone 5D5.0 (DMAB5483MB)

This product is for research use only and is not intended for diagnostic use.

PRODUCT INFORMATION

**Product Overview**
Mouse anti-bovine S-100 monoclonal antibody is intended for qualitative immunohistochemistry with normal and neoplastic formalin-fixed, paraffin-embedded tissue sections, to be viewed by light microscopy. Clinical interpretation of staining results should be accompanied by histological studies with proper controls. Patients' clinical histories and other relevant diagnostic tests should be utilized by a qualified person(s) when evaluating and interpreting results.

**Antigen Description**
S-100 protein is a family of low molecular weight protein found in vertebrates characterized by two calcium binding sites of the helix-loop-helix ("EF-hand type") conformation. There are at least 21 different types of S100 proteins. The name is derived from the fact that the protein is 100% Soluble in ammonium sulfate at neutral pH.

**Specificity**
This antibody reacts with the S-100 protein. S-100 belongs to the family of calcium binding proteins such as calmodulin and troponin C. S-100A and S-100B proteins are two members of the S-100 family. S-100A is composed of an alpha and beta chain whereas S-100B is composed of two beta chains. This antibody stains Schwannomas, ependymomas, astroglomas; almost all benign and malignant melanomas, and their metastases. This antibody crossreacts with human, cow, mouse, and rat.

**Immunogen**
BALB/C mice were immunized with purified bovine brain S-100 protein.

**Isotype**
IgG2a

**Source/Host**
Mouse

**Species Reactivity**
Bovine

**Clone**
5D5.0

**Conjugate**
Unconjugated

**Applications**
IHC

**Cellular Localization**
Cytoplasmic

**Positive Control**
Melanoma

**Format**
This antibody is supplied as purified ascites containing sodium azide as a preservative.
<table>
<thead>
<tr>
<th><strong>Preservative</strong></th>
<th>See individual product datasheet</th>
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<tbody>
<tr>
<td><strong>Storage</strong></td>
<td>Store at 2-8°C. Do not use beyond the expiration date stated on the label.</td>
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</table>

## GENE INFORMATION

<table>
<thead>
<tr>
<th><strong>Gene Name</strong></th>
<th>S100B S100 calcium binding protein B [ Bos taurus ]</th>
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</thead>
<tbody>
<tr>
<td><strong>Synonyms</strong></td>
<td>S100B; S100 calcium binding protein B; protein S100-B; S-100 protein beta chain; S-100 protein subunit beta; S100-B; NEF; S100 calcium-binding protein B; S100 protein, beta polypeptide; S100; S100beta; S-100 calcium-binding protein, beta chain; S100 calcium-binding protein, beta (neural); S100 calcium binding protein, beta (neural); OTTHUMP00000115888; Protein S-100 protein beta chain</td>
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<tr>
<td><strong>Entrez Gene ID</strong></td>
<td>525716</td>
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<tr>
<td><strong>Protein Refseq</strong></td>
<td>NP_001029727</td>
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<tr>
<td><strong>UniProt ID</strong></td>
<td>P02638</td>
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<td><strong>Pathway</strong></td>
<td>Activated TLR4 signalling; Immune System; Innate Immune System; MyD88 cascade initiated on plasma membrane; MyD88 dependent cascade initiated on endosome; MyD88-independent cascade initiated on plasma membrane; MyD88:Mal cascade initiated on plasma membra.</td>
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<td><strong>Function</strong></td>
<td>RAGE receptor binding; S100 beta binding; calcium ion binding; calcium-dependent protein binding; kinase inhibitor activity; protein binding; protein homodimerization activity; tau protein binding; zinc ion binding</td>
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