

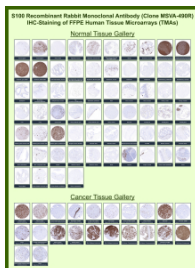
## S100 Antibody for IHC / S100 Immunohistochemistry Antibody [clone MSVA-490R] (V5988)

| Catalog No. | Formulation   | Size   |
|-------------|---|--------|
| V5988-100UG | Antibody in 1X PBS with 0.05% BSA, 0.05% sodium azide | 100 ug |
| V5988-20UG  | Antibody in 1X PBS with 0.05% BSA, 0.05% sodium azide | 20 ug  |

Recombinant **RABBIT MONOCLONAL**

[Bulk quote request](#)

|                           |   |
|---------------------------|---|
| <b>Species Reactivity</b> | Human   |
| <b>Format</b>             | Purified  |
| <b>Host</b>               | Rabbit  |
| <b>Clonality</b>          | Recombinant Rabbit Monoclonal   |
| <b>Isotype</b>            | Rabbit IgG, kappa   |
| <b>Clone Name</b>         | MSVA-490R   |
| <b>UniProt</b>            | P04271  |
| <b>Localization</b>       | Cytoplasm, Nucleus  |
| <b>Applications</b>       | Immunohistochemistry (FFPE) : 1:100-1:200   |
| <b>Limitations</b>        | This S100 Antibody for IHC / S100 Immunohistochemistry Antibody is available for research use only. |



S100 Antibody for IHC Tissue Microarray (TMA). Immunohistochemistry analysis of S100 calcium binding protein B S100B in formalin-fixed paraffin-embedded human normal and cancer tissue microarrays using recombinant rabbit monoclonal S100 antibody clone MSVA-490R. Tissue microarray (TMA) staining with HRP-DAB brown chromogen demonstrates strong nuclear and cytoplasmic localization in neural and melanocytic cell populations, including astrocytes in central nervous system tissues and melanocytes in peripheral tissues, while most epithelial tissues remain largely negative. Within tumor tissue microarrays, intense and diffuse staining is observed in melanoma and selected neural and soft tissue tumors, supporting its role as a marker of neural crest-derived lineages, whereas most epithelial malignancies show minimal to absent staining aside from occasional stromal or infiltrating S100-positive cells. Evaluation across large TMA panels enables direct comparison of S100B expression across diverse tissue types under standardized conditions. The observed staining patterns align with reported S100B expression profiles in publicly available datasets including the Human Protein Atlas.

## Description

S100 Calcium Binding Protein family members, including S100B, are low molecular weight calcium-binding proteins highly expressed in neural crest-derived cells such as melanocytes, Schwann cells, and glial cells, where they regulate intracellular signaling, cytoskeletal organization, and cellular differentiation. S100 Antibody for IHC is widely used in immunohistochemistry to detect these cell populations in formalin-fixed, paraffin-embedded tissues, supporting identification of neural, melanocytic, and certain stromal lineages in histological sections.

S100 antibody, also referred to as S100 protein antibody or S100B antibody, is a highly sensitive marker in immunohistochemistry that produces strong nuclear and cytoplasmic HRP-DAB brown staining in S100-expressing cells. S100 Antibody for IHC is commonly used as an S100B antibody in the literature, enabling detection of S100B-enriched cell populations, particularly in melanocytes and glial cells. This staining pattern allows clear visualization of neural crest-derived cells while most epithelial and non-neural tissues remain largely negative, supporting its specificity in tissue-based IHC analysis.

Clone MSVA-490R is a recombinant rabbit monoclonal antibody optimized for robust and reproducible detection of S100 proteins in FFPE samples. The antibody provides strong signal intensity with minimal non-specific background, enabling consistent interpretation across a wide range of tissue types. In Tissue Microarray (TMA) immunohistochemistry, S100 Antibody for IHC demonstrates highly reproducible staining across large panels of normal and cancer tissues, allowing direct comparison of expression patterns across hundreds of tissue cores within a single experiment and supporting high-throughput tissue profiling.

In normal tissue microarrays, strong nuclear and cytoplasmic staining is observed in melanocyte-containing tissues, peripheral nerve structures, and central nervous system regions including cerebellum and cerebral cortex, reflecting established S100 and S100B expression patterns. Additional staining is observed in dendritic cell populations and adipocytes, consistent with known biology. Most epithelial tissues demonstrate minimal to absent staining, reinforcing the specificity of S100 Antibody for IHC in identifying neural crest-associated cell types in histological specimens.

In cancer tissue microarrays, S100 Antibody for IHC shows strong and diffuse staining in melanomas, reflecting high S100B expression and supporting its role as a sensitive marker for melanocytic differentiation. Positive staining is also observed in neural and certain soft tissue tumors such as schwannomas and chondroid neoplasms, while the majority of epithelial carcinomas remain negative aside from infiltrating S100-positive immune or stromal cells. This contrast enhances its utility in distinguishing melanoma and neural tumors from morphologically similar malignancies in TMA-based immunohistochemistry studies.

The consistent performance of clone MSVA-490R in IHC and tissue microarray analysis supports its application in tumor classification, neural and melanocytic lineage identification, and evaluation of complex tissue microenvironments. S100 Antibody for IHC is well suited for detecting S100 protein expression in FFPE tissues and provides a reliable tool for high-throughput immunohistochemistry studies across diverse normal and pathological tissue panels.

This antibody is also part of a broader collection of [IHC antibodies validated by tissue microarray analysis](#), supporting consistent staining across normal and cancer tissues.

## Application Notes

1. Optimal dilution of the S100 Antibody for IHC / S100 Immunohistochemistry Antibody should be determined by the researcher.
2. This S100 antibody is recombinantly produced by expression in human HEK293 cells.
3. Manual Protocol: Freshly cut sections should be used (less than 10 days between cutting and staining). Heat-induced antigen retrieval for 5 minutes in an autoclave at 121°C in pH 7.8 Target Retrieval Solution buffer. Apply the antibody at a dilution of 1:150 at 37°C for 60 minutes. Visualization of bound antibody by the EnVision Kit (Dako, Agilent) according to

the manufacturer's directions.

## **Immunogen**

Recombinant full-length human S100 protein was used as the immunogen for the S100 antibody.

## **Storage**

S100 antibody with sodium azide store at 2 to 8oC; antibody without sodium azide store at -20 to -80oC.

## **Alternate Names**

S100 protein antibody, S100B antibody, S100 immunohistochemistry antibody, S100 IHC antibody, S100 calcium binding protein antibody