S100 Protein (P)
Concentrated and Prediluted Polyclonal Antibody
Control Number: 901-021-090917

Intended Use:
For In Vitro Diagnostics Use

S100 Protein (P) is a rabbit polyclonal antibody that is intended for laboratory use in the qualitative identification of S100 protein by immunohistochemistry (IHC) in formalin-fixed paraffin-embedded (FFPE) human tissues. The clinical interpretation of any staining or its absence should be complemented by morphological studies using proper controls and should be evaluated within the context of the patient’s clinical history and other diagnostic tests by a qualified pathologist.

Summary and Explanation:
S100 recognizes proteins of 21-24 kDa, identified as the A and B subunits of S100 protein. S100 belongs to the family of calcium binding proteins such as calmodulin and troponin C. S100A is composed of an alpha and beta chain whereas S100B is composed of two beta chains. Antibody S100 stains Schwannomas, ependymomas, astroglomas, and almost all benign and malignant melanomas and their metastases (1-6). Studies have shown S100 protein is also expressed in the antigen presenting cells such as the Langerhan's cells in skin and interdigitating reticulum cells in the paracortex of lymph nodes. Histocytosis X can also be confirmed by S100 staining. S100 protein antibody is excellent for immunohistochemical staining of formalin-fixed, paraffin-embedded tissues. S100 protein is highly soluble and may be eluted from frozen tissue during staining.

Principle of Procedure:
Antigen detection in tissues and cells is a multi-step immunohistochemical process. The initial step binds the primary antibody to its specific epitope. After labeling the antigen with a primary antibody, an enzyme labeled polymer is added to bind to the primary antibody. This detection of the bound antibody is evidenced by a colorimetric reaction.

Source: Rabbit polyclonal
Species Reactivity: Human, mouse and rat
Clone: N/A
Isotype: N/A
Total Protein Concentration: ~10 mg/ml. Call for lot specific Ig concentration.
Epitope/Antigen: S100 Protein
Cellular Localization: Cytoplasmic and nuclear
Positive Control: Melanoma or Schwannoma

Known Applications:
Immunohistochemistry (formalin-fixed paraffin-embedded tissues)
Known Applications:

S100 recognizes proteins of 21-24 kDa, identified as the A and B subunits of S100 protein. S100 belongs to the family of calcium binding proteins such as calmodulin and troponin C. S100A is composed of an alpha and beta chain whereas S100B is composed of two beta chains. Antibody S100 stains Schwannomas, ependymomas, astroglomas, and almost all benign and malignant melanomas and their metastases (1-6). Studies have shown S100 protein is also expressed in the antigen presenting cells such as the Langerhan's cells in skin and interdigitating reticulum cells in the paracortex of lymph nodes. Histocytosis X can also be confirmed by S100 staining. S100 protein antibody is excellent for immunohistochemical staining of formalin-fixed, paraffin-embedded tissues. S100 protein is highly soluble and may be eluted from frozen tissue during staining.

Principle of Procedure:
Antigen detection in tissues and cells is a multi-step immunohistochemical process. The initial step binds the primary antibody to its specific epitope. After labeling the antigen with a primary antibody, an enzyme labeled polymer is added to bind to the primary antibody. This detection of the bound antibody is evidenced by a colorimetric reaction.

Source: Rabbit polyclonal
Species Reactivity: Human, mouse and rat
Clone: N/A
Isotype: N/A
Total Protein Concentration: ~10 mg/ml. Call for lot specific Ig concentration.
Epitope/Antigen: S100 Protein
Cellular Localization: Cytoplasmic and nuclear
Positive Control: Melanoma or Schwannoma

Known Applications:
Immunohistochemistry (formalin-fixed paraffin-embedded tissues)

Limitations:
The optimum antibody dilution and protocols for a specific application can vary. These include, but are not limited to: fixation, heat-retrieval method, incubation times, tissue section thickness and detection kit used. Due to the superior sensitivity of these unique reagents, the recommended incubation times and titers listed are not applicable to other detection systems, as results may vary. The data sheet recommendations and protocols are based on exclusive use of Biocare products. Other Biocare polymer detection kits may be used; however, users must validate incubation times and protocols for their specific application. Use TBS for washing steps.

Quality Control:

Technical Note:
This antibody has been standardized with Biocare's MACH 4 Universal HRP-Polymer detection and ONCORE HRP and AP Detections. Other Biocare polymer detection kits may be used; however, users must validate incubation times and protocols for their specific application. Use TBS for washing steps.

Troubleshooting:
Follow the antibody specific protocol recommendations according to data sheet provided. If atypical results occur, contact Biocare's Technical Support at 1-800-542-2002.
Precautions:
1. This antibody contains less than 0.1% sodium azide. Concentrations less than 0.1% are not reportable hazardous materials according to U.S. 29 CFR 1910.1200, OSHA Hazard communication and EC Directive 91/155/EC. Sodium azide (NaN₃) used as a preservative is toxic if ingested. Sodium azide may react with lead and copper plumbing to form highly explosive metal azides. Upon disposal, flush with large volumes of water to prevent azide build-up in plumbing. (Center for Disease Control, 1976, National Institute of Occupational Safety and Health, 1976) (7)
2. Specimens, before and after fixation, and all materials exposed to them should be handled as if capable of transmitting infection and disposed of with proper precautions. Never pipette reagents by mouth and avoid contacting the skin and mucous membranes with reagents and specimens. If reagents or specimens come in contact with sensitive areas, wash with copious amounts of water. (8)
3. Microbial contamination of reagents may result in an increase in nonspecific staining.
4. Incubation times or temperatures other than those specified may give erroneous results. The user must validate any such change.
5. Do not use reagent after the expiration date printed on the vial.
6. The SDS is available upon request and is located at http://biocare.net/.

References: