

Novocastra™ Lyophilized Rabbit Polyclonal Antibody S-100 Protein

Product Code: NCL-S100p

Intended Use	FOR RESEARCH USE ONLY.
Specificity	The antibody reacts with cow S-100A and B, and crossreacts strongly with human S-100A and B. The antibody also crossreacts with chicken, pig, kangaroo, dog, cat, monkey, mouse and rat S-100.
Antigen Used for Immunizations	S-100 isolated from cow brain.
Preparation	Lyophilized immunoglobulin fraction purified from rabbit serum diluted in PBS with 1% BSA, containing 15 mM sodium azide. Traces of crossreactive antibodies have been removed by solid-phase absorption with human plasma and cow serum. Reconstitute with the volume of sterile distilled water indicated on the vial label.
Effective on Frozen Tissue	Yes (although, on frozen sections, S-100 tends to be eluted from the tissue during the staining procedure as it is a highly soluble protein).
Effective on Paraffin Wax Embedded Tissue	Yes
Recommendations on Use	Immunohistochemistry: Typical working dilution 1:200–1:400. Trypsin digestion of paraffin sections may be required. 60 minutes primary antibody incubation at 25 °C. Standard ABC technique. Western Blotting: Not evaluated.
Positive Controls	Immunohistochemistry: Bowel (peripheral nerve).
Staining Pattern	Cytoplasmic and nuclear.
Storage and Stability	Store unopened lyophilized antibody at 4 °C. Under these conditions, there is no significant loss in product performance up to the expiry date indicated on the vial label. The reconstituted antibody is stable for at least two months when stored at 4 °C. For long term storage, it is recommended that aliquots of the antibody are frozen at -20 °C (frost-free freezers are not recommended). Repeated freezing and thawing must be avoided. Prepare working dilutions on the day of use.
General Overview	S-100A and S-100B proteins are two members of the S-100 family of proteins. S-100A is composed of an alpha and beta chain whereas S-100B is composed of two beta chains. S-100 protein is expressed in neuroectodermal tissue, including nerves and melanocytes. Langerhans cells in skin and interdigitating reticulum cells in the paracortex of lymph nodes also express S-100 protein.
General References	Winek R R, Scheithauer B W, Wick M R. American Journal of Surgical Pathology. 13 (4): 251–261 (1989). Juhl B R, Norgaard T, Bjerrum O J. Journal of Histochemistry and Cytochemistry. 32: 935–941 (1984). Kindblom L G, Lodding P, Rosengren L, et al.. Acta Path. Microbiol. Immunol. Scand. Sect. A. 92: 219–230 (1984). Lauriola L, Michetti F, Sentinelli A, et al.. Journal of Clinical Pathology. 37: 1235–1238 (1984). Moore B W. Biochemical and Biophysical Research Communications. 19: 739–744 (1965).



Instructions for Use

Trypsin Digestion for Immunohistochemical Demonstration on Paraffin Sections

1. Preheat the following to 37 °C using a water bath:
 - (i) 200 mL of TBS
 - (ii) 200 mL of distilled water.
2. Dissolve 0.2 g Trypsin 250 and 0.2 g Calcium chloride in the 200 mL of TBS.
3. Once the Trypsin solution is at 37 °C, pH to 7.8 with 1 M sodium hydroxide.
4. Place rehydrated paraffin sections in the distilled water to preheat the sections to 37 °C for a minimum of 5 minutes.
5. Incubate sections in Trypsin solution at 37 °C. The time required will depend on the antibody and tissue, however, 30 minutes is usually sufficient.
6. Rinse sections in running tap water.
7. Proceed with immunohistochemistry protocol.

Reagents Required but not Supplied

50 mM Tris-buffered saline

Trypsin 250: Difco order code 0152-13 (available from Becton Dickinson).

Calcium chloride

1 M Sodium Hydroxide

** Trypsin containing chymotrypsin should always be used. The enzyme activities can vary from a supplier and between batches. Such variations may affect the incubation time required.*