

# Novocastra™ Ready-to-Use Rabbit Polyclonal Antibody S-100 Protein

## Product Code: RTU-S100p

<b>Intended Use</b>	FOR RESEARCH USE ONLY.
<b>Specificity</b>	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 and rat S-100.
<b>Antigen Used for Immunizations</b>	S-100 isolated from cow brain.
<b>Preparation</b>	Immunoglobulin fraction purified from rabbit serum diluted in 5% horse serum in PBS containing 12 mM sodium azide. Traces of crossreactive antibodies have been removed by solid-phase absorption with human plasma and cow serum. Volume as indicated on vial label.
<b>Effective on Frozen Tissue</b>	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).
<b>Effective on Paraffin Wax Embedded Tissue</b>	Yes, trypsin digestion of paraffin sections may be required.
<b>Recommendations on Use</b>	Immunohistochemistry: Typical working dilution: neat. 15 minutes primary antibody incubation at 25 °C when used in conjunction with the Novostain Universal Detection Kit (Ready to Use), code NCL-RTU-D. Recommendations on use will differ if other detection systems are used eg Standard ABC technique. Western Blotting: Not recommended. Not recommended for use on Ventana automated staining systems (Ventana Medical Systems Inc., USA).
<b>Positive Controls</b>	Immunohistochemistry: Bowel (peripheral nerve).
<b>Staining Pattern</b>	Cytoplasmic and nuclear.
<b>Storage and Stability</b>	Store ready-to-use prediluted liquid antibody at 4 °C. Return to 4 °C immediately after use. Under these conditions, there is no significant loss in product performance up to the expiry date indicated on the vial label.
<b>General Overview</b>	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.
<b>General References</b>	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.*