
Proteinase K

From *Tritirachium album*

Tissue fixation in formalin or other aldehyde solutions forms protein cross-links that mask the antigenic sites. This causes weak or false negative staining for immunohistochemical detection of certain proteins. The proteinase K based solution is designed to break the protein cross-links, therefore unmask the antigens and epitopes in formalin-fixed and paraffin embedded tissue sections, thus enhancing staining intensity of antibodies.

Proteinase K is a non-specific serine protease with a very high specific activity. It is therefore ideally suited for proteolytic digestion of formalin-fixed tissues. Proteinase K is active in the presence or absence of SDS, EDTA or urea.

Product Number:	T-3401 (Lot 02PO1001)
Quantity:	40mg enzyme in 2ml solution
Concentration:	20mg/ml
	Supplied as liquid solution in 20mM Tris/HCl (pH 7.4), 1mM CaCl ₂ , 50% glycerol.
Specific Activity:	30 units/mg.
Stability:	Original vial: 1 year at -20°C Can be stored at -20°C with the enzyme in liquid form.
Applications:	Tested for immunohistochemistry (IHC); has been described to work with ISH techniques. Approximate working dilution for IHC: 1:50 diluted in 20mM Tris/HCl pH 8.0. The time required for optimal digestion of formalin-fixed tissues usually varies with the extent of fixation. Generally, three to six minutes (up to fifteen minutes) at room temperature is sufficient. Over- digestion may result in loss of tissue morphology or cause sections to detach from slides. Optimal dilutions and incubation times should be determined by the end user. Please see www.bma.ch for protocols and general information.
Source:	Tritirachium album.

Selected reference

Anson, M.L.: J. Gen. Physiol. **22**, 79 (1939).

For *in vitro* research only.