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Proteinase K

From Tritirachium album

Tissue fixation in formalin or other aldehyde solutions forms protein cross-links that may mask the antigenic sites. This causes weak or false negative staining with the immunohistochemical detection of certain proteins. The proteinase K based solution is used to break the interfering cross-links, thereby unmask the relevant epitopes in formalin-fixed and paraffin embedded tissue sections and thus enable or enhance the staining with 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. Check also our newsletter archive about formalin on www.bma.ch.

Product number: T-3401

Lot: 03PO1203

TECHNICAL AND ANALYTICAL CHARACTERISTICS:

Quantity: 40mg enzyme in 2ml solution

Concentration: 20mg/ml

Supplied as liquid solution in 20mM Tris/HCl (pH 7.4), 1mM

CaCl₂, 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. Overdigestion 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.

T-3401 Proteinase K 2.2.2015