



Proteinase K
For Research Use Only

Cat. No.: MO5421

Store at: -20 °C

Concentration: 20mg/ml

Quantity: 1ml

Description:

Proteinase K is a serine protease that is used to digest proteins and remove contamination from nucleic acid preparations. In molecular biology research, adding Proteinase K to nucleic acid preparations inactivates nucleases that could degrade DNA or RNA during isolation and purification applications.

Applications:

Genomic DNA, RNA Purification, Gene diagnostic kit
IHC, ISH and other possible application.

Source:

Tritirachium album Limber

Storage Buffer:

20 mM Tris-HCl, pH = 8.5, 200 mM NaCl , 50% glycerol for long-term storage at -20 °C.

Inhibition and Inactivation:

Inhibitors: Proteinase K is not inactivated by metal chelators, by thiol-reactive reagents or by specific trypsin and chymotrypsin inhibitors. Phenylmethylsulfonyl fluoride and Diisopropyl phosphorofluoridate completely inhibit the enzyme.
Inactivated by heating at 65°C for 20 min.

Activity:

≥30 U/mg lyophilizate

≥40 U/mg protein

One unit is defined as the amount of enzyme that catalyzes the formation of 1 umol of tyrosine per minute at pH 7.5 at 37°C.

Quality Control Assay Data

Endodeoxyribonuclease Assay:

No conversion of covalently closed circular DNA to nicked DNA was detected after incubation of 40 µg of Proteinase K with 1µg of pUC19 DNA for 4 hours at 37°C.

Ribonuclease Assay:

No detectable RNA degradation after incubation of 80ng of 2kb RNA transcript with 40µg of Proteinase K for 4 hours at 37°C.

Labeled Oligonucleotide (LO) Assay:

No degradation of single-stranded and double-stranded labeled oligonucleotide was observed after incubation with 40µg of Proteinase K for 4 hours at 37°C.