

Proteinase K



BioVision offers Standard Grade, NGS Grade & Molecular Biology Grade recombinant Proteinase K. Proteinase K is a highly pure, highly reactive serine protease that displays the ability to digest native proteins, thereby inactivating enzymes such as DNase and RNase without recourse to a denaturation process. It cleaves at the peptide bond adjacent to the carboxylic acid group of aliphatic, aromatic or hydrophobic amino acids. Proteinase K has a higher specific activity and is more stable at room temperature as compared to native Proteinase K. It can be used on any situation to digest native and denatured proteins. Proteinase K is the most active at 65°C.

Key Features:

- **Enhanced Purity & Enzyme Activity**
- **RNase/DNase Free**
- **Stable and Active** Over a Wide pH Range
- **Cost Effective**
- **Bulk Sizes Available**

Proteinase K activity comparison using Protease Activity Assay Kit (K781-100) at 37 °C pH 8 in a white plate

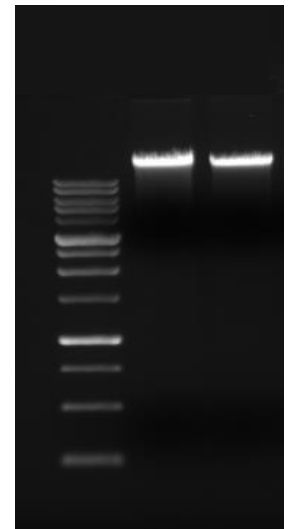
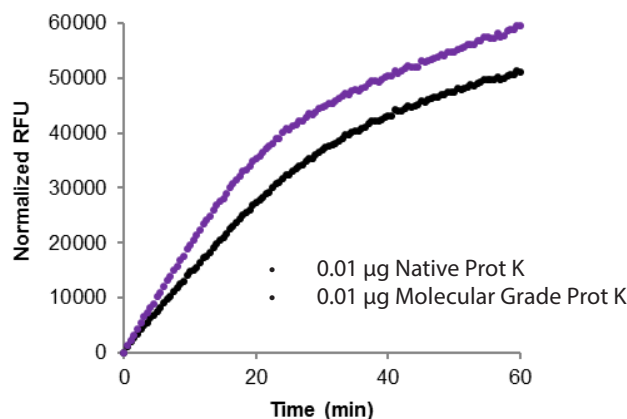


Figure 1: Calculated Activity at 37°C, pH 8.0: Native Prot K: 802 nmol/min/mg (802 U/mg) or 16 kU/mL for 20 mg/mL solution; Molecular Grade Prot K (Cat. No. 9211): 1072 nmol/min/mg (1.07 kU/mg) or 21 kU/mL for 20 mg/mL solution. *One unit is defined as the amount of protease that cleaves the FITC-labeled casein substrate to yield an amount of fluorescence equivalent to 1.0 nmol of unquenched FITC per minute at 37°C, pH 8.0. **Figure 2: 1% Agarose-TBE gel lane description:** Lane 1: 1 kb DNA Ladder; Lane 2: Whole Blood DNA isolated using Molecular Grade Pro K (Cat. No. 9211) (total DNA yield from 500 µL blood sample = 3.6 µg; $A_{260/280}=1.90$); Lane 3: Whole Blood DNA isolated using (Native Prot K) (total DNA yield from 500 µL blood sample = 2.9 µg; $A_{260/280}=1.89$).

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BioVision
BioVision Incorporated



Applications:

- Removal of DNases and RNases when isolating DNA and RNA from tissues or cell lines for amplification reactions
- Isolation of mRNA or genomic DNA from different tissues including mouse tail or from cultured cells
- For modifying glycoprotein for structural studies
- To treat tissue sections for *in situ* hybridization
- Improving cloning efficiency of PCR products
- For isolating bio-product to remove protein contaminants in industries such as leather, food, medicineintermediates, etc

Grade	Product Name	Cat. No.	Size
Molecular Biology Grade	Proteinase K, Recombinant, 20 mg/ml Solution, Molecular Grade	9211	5 ml, 25 ml, 100 ml
	Proteinase K, Recombinant, Molecular Grade	9210	100 mg, 500 mg, 1 g, 10 g
NGS Grade	Proteinase K, Recombinant, NGS Grade	9247	100 mg, 500 mg, 1 g, 10 g
Standard Grade	Proteinase K, Recombinant (20 mg/ml Solution), Standard Grade	9251	5 ml, 25 ml, 100 ml
	Proteinase K, Recombinant, Standard Grade	9250	100 mg, 500 mg, 1 g, 10 g

BioVision's Proteinase K!

- Enhanced Enzyme Activity
- Enhanced Enzyme Purity
- RNase/DNase Free
- Standard Grade, Molecular Biology Grade & NGS Grade Proteinase K Available
- Cost Effective
- Available in Solid & in Solution Forms
- Bulk Sizes & OEM Available



Please visit www.BioVision.com for a comprehensive overview on our products!