

# Fabulously Active, FabAct™ Proteinase K

BioVision proudly announces the launch of the Molecular Biology Grade, Fabulously Active (FabAct™) Proteinase K (recombinant), which is the most powerful proteinase among all proteinases characterized so far. FabAct™ 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. FabAct™ Proteinase K has a higher specific activity and is more stable at room temperature as compared to native Proteinase K. It is also stable and active over a wide pH range of 4-12. It can be used on any situation to digest native and denatured proteins. FabAct™ Proteinase K is also active with SDS, urea and EDTA and the most active temperature is 65°C.

**Introducing BioVision's  
New FabAct™ Proteinase K!**

- Enhanced Enzyme Activity
- Enhanced Enzyme Purity
- RNase/DNase Free
- Cost Effective
- Stable and Active Over a Wide pH Range
- Active with SDS, Urea and EDTA

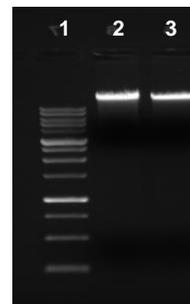
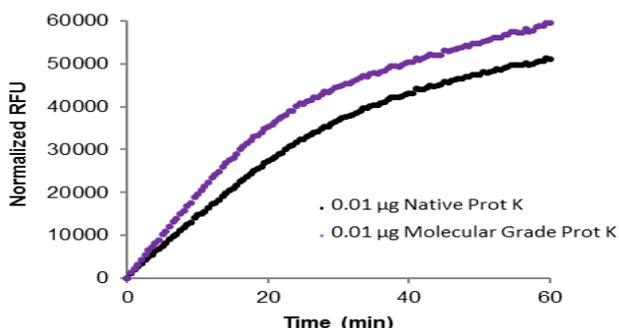
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## Applications:

- 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, medicine intermediates, etc

**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: 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 (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;  $A_{260/280}=1.89$ ).

Product Name	Cat. No.	Size
FabAct™ Proteinase K (recombinant), Molecular Grade (Solid)	9212-100	100 mg
FabAct™ Proteinase K (recombinant), Molecular Grade (Solid)	9212-500	500 mg
FabAct™ Proteinase K (recombinant), Molecular Grade (Solid)	9212-1G	1 g
FabAct™ Proteinase K (recombinant), Molecular Grade (Solid)	9212-10G	10 g
FabAct™ Proteinase K (recombinant), Molecular Grade (Liquid), 20mg/mL	9213-5	5 ml
FabAct™ Proteinase K (recombinant), Molecular Grade (Liquid), 20mg/mL	9213-25	25 ml