



## **BERUS Proteinase K (WF10401201)**

### **Overview**

The *BERUS* Proteinase K is a serine protease cleaves the peptide bonds of aromatic, aliphatic and hydrophobic amino acids. The endolytic enzyme (18.5kDa) is sourced from *Pichia pastoris* and stimulated by SDS (0.5-1%) or urea (2-4M). The *BERUS* Proteinase K is an excellent addition for the degradation of tough tissue samples, or to increase digestion timings.

### **Applications**

- Isolation of DNA from cultured cells
- Isolation of DNA from mouse tail
- Improving efficiency of cloning of PCR products
- Removal of endonucleases during tissue digestion

### **Features of *BERUS* Proteinase K**

- Versatile** – Can be used over a wide range of pH (6.5-9.5)
- Adaptable** – Can be used in a variety of different extraction conditions

### **Product information**

When placing an order with us, please quote the Catalog No.

Catalog number	Product size
WF10401201	100mg

### **Required materials**

- Tissue material
- Lysis solution
- Heat block
- DNase free Eppendorfs
- Pipettes and tips
- Centrifuge

### **Storage conditions**

The reagents provided in the *BERUS* Proteinase K should be stored at -20°C. Where possible store reagents in conditions of non-frost-free. Avoid freeze-thaw cycles.

### **Warning!**

Please be advised to wear appropriate eyewear, clothing and gloves. Read the Safety Data Sheets (SDS) for any further safety information.

### **Any further information**

For further information and protocols, visit our website <https://willowfort.co.uk/>. For any additional support, please contact us through <https://willowfort.co.uk/contact-us>

**For research use only. These products should not be used for**



### Chemicals inhibiting of the *BERUS* Proteinase K:

- Phenylmethylsulfonyl fluoride
- Diisopropyl phosphorofluoridate

Metal chelators and specific trypsin/chymotrypsin inhibitors do not inactivate the *BERUS* Proteinase K.

This Proteinase K enzyme will denature at temperatures above 65°C

### NOTE:

We recommend using concentrations between 0.1-1mg/mL when adding to your lysis buffer.

The optimum temperature for the *BERUS* Proteinase K is 50-55°C. Please adjust your protocol to allow for optimum activity.

This enzyme requires the addition of calcium to prevent autolysis and to increase thermal stability.

### Preparations of *BERUS* Proteinase K:

1. Ensure *BERUS* Proteinase K as equilibrated at room temperature.
2. Resuspend the powder with DNase, RNase free water to the concentration you require.

The *BERUS* Proteinase K has been thoroughly tested for the presence of endonucleases, exonucleases and RNases.

### Suggested Protocol for DNA purification from Mouse Tail:

1. Allow all reagents to thaw to room temperature.
2. Cut Mouse Tail into 1cm pieces and place in the eppendorfs.
3. Add 500µL of the lysis buffer and mix briefly.
4. Add 2.5µL of the *BERUS* Proteinase K and briefly mix again.
5. Add the sample to a heat block and set the temperature to 55°C. Leave the samples for 30 minutes.
6. Vortex the sample to break the tissue.
7. Centrifuge the sample briefly at 14,000g.
8. Remove the top part of the supernatant and store in a fresh eppendorf at -20°C. Use this supernatant sample for downstream applications.

**Troubleshooting** – For any troubleshooting queries, please visit our website <http://willowfort.co.uk/molecular-biology-reagents/berus-proteinase-k>.

**For samples with high concentration of nuclease, we advise to add more *BERUS* Proteinase K.**

Any further information, please contact us, via <https://willowfort.co.uk/contact-us>.