

**Catalog No.:** DB0451-10

**Product Name:** Proteinase K (Solution)

**Size:** 10 ml

**CAS#:** 39450-01-6

**Grade:** Biotech

**Concentration:** 20mg/ml

**Description:** Proteinase K is a nonspecific serine protease. It is not inactivated by metal ions, chelating agents (e.g. EDTA), sulfhydryl reagents or by trypsin or chymotrypsin inhibitors. It is stable over a wide pH (4-12.5), with optimal activity at pH 6.5-9.5. Proteinase K activity can be stimulated by addition of denaturing agents SDS and urea. The optimum temperature for the enzyme is 65°C; it is twelve times more active at 65°C than at 25°C. However, rapid denaturation of the enzyme will occur at temperatures above 65°C. Thus, protein digestion is usually carried out at 55°C.

Autolysis of the enzyme occurs increasingly at alkaline pH. However, proteinase K is not completely inactivated by autolysis, and some enzyme fragments maintain proteolytic activity even after extensive autolysis

**Specifications:**

<i>Molecular weight:</i>	28,900
<i>Optimum pH:</i>	7.5-12
<i>Appearance:</i>	aqueous solution
<i>Activity:</i>	>30units/mg

**Quality Testing:** This Proteinase K is tested for molecular biology applications.

**Unit Definition:** One Manson unit is described as that amount of enzyme that liberates 1µmole of Folin-positive amino acid within one minute at 37°C using hemoglobin as a substrate.

**Storage:** Store at -20°C.

*Note: This Product Is For Research Use Only.*