TECHNICAL MANUAL

Proteinase K Lyophilized Powder

- **SKU CODE:** AGEL3584
- **SIZE:** 1g
- **RUO:** Research-Use-Only

Revised: 01/2026

1. Kit Components

Products	Size	Storage
Proteinase K Lyophilized Powder	1 g	-20°C

2. Introduction

Proteinase K is a highly active subtilisin protease used to degrade proteins in biological samples. It can digest various proteins and is suitable for use in molecular biology, cell biology, and related experiments, including genomic DNA extraction, enzyme digestion and removal, and cell permeabilization.

Enzyme activity: >30 U/mg. At 37°C, one unit of Proteinase K activity is defined as the amount of enzyme that produces amino acids or polypeptides equivalent to 1 μmol of tyrosine (Folin-positive) per minute using hemoglobin as the substrate.

Proteinase K has an effective pH range of 4.0-12.5, with an optimal pH range of 7.5-8.0.

The optimum reaction temperature is 65°C, though Proteinase K can degrade rapidly at 65°C or higher temperatures. Therefore, the recommended optimum reaction temperature is 50-55°C.

3. Specification Parameters

Parameter	Value
Source	Yeast
Appearance	White loose powder
MW.	29 kDa
CAS NO.	39450-01-6
Purity	≥95% by SDS-PAGE
E.C	3.4.21.64
Activity	≥30U/mg
DNase	Free
Buffer	10mM Tris-HCl (pH 7.5), 5mM $CaCl_2$

Parameter	Value
RNase	Free

4. Usage

Reconstitution: Dissolve the powder with ddH_2O. It is recommended to store the solution at 2-8°C. Use as soon as possible after opening and avoid contamination.

5. Storage

-20°C

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Manufacturers Statement: This final kit system is assembled and quality-released by Assay Genie Limited.