


# Proteinase K Solution

Catalog Number AM2546, AM2548

Pub. No. 4393871 Rev. C

Contents	Quantity	Storage conditions
Proteinase K, 20 mg/mL	AM2546: 1.25 mL AM2548: 5 × 1.25 mL	Store at -20°C. <i>Do not store in a frost-free freezer.</i> This product is guaranteed for 6 months from the date of receipt, if properly stored.

 **WARNING!** Read the Safety Data Sheets (SDSs) and follow the handling instructions. Wear appropriate protective eyewear, clothing, and gloves. Safety Data Sheets (SDSs) are available from [www.lifetechnologies.com/support](http://www.lifetechnologies.com/support).

## Product description

Proteinase K is a nonspecific serine protease that is active in the presence of SDS or urea and over a wide range of pH, salt concentrations, and temperatures. For maximum convenience this product is supplied in 50% glycerol, in which it is stable for 6 months from date of receipt when stored at -20°C. This eliminates the nuisance of having to weigh out small amounts of lyophilized powder.

**Source:** Isolated from *Tritirachium album*.

**Unit definition:** One unit liberates 1 μmol of Folin-positive amino acids, measured as tyrosine, at 37°C, pH 7.5, using denatured bovine hemoglobin as the substrate.

**Storage buffer (not included):** 50 mM Tris, pH 8, 3 mM CaCl<sub>2</sub>, 50% Glycerol.

## Using Proteinase K

Proteinase K is used in the preparation of RNA and high molecular weight DNA suitable for pulsed field gel electrophoresis. It is also used to terminate reactions such as phosphatase or nuclease treatments, to degrade the enzyme and ensure its inactivity. Proteinase K treatment of samples with high protein concentrations facilitates subsequent phenol extractions.

Working concentrations of the enzyme range from 50 to 250 μg/mL. Typical extraction conditions for RNA are:

- 0.1 M NaCl
- 10 mM Tris pH 8.0
- 1 mM EDTA
- 0.5% SDS
- 200 μg/mL Proteinase K

Incubate at 50°C for 30–60 minutes.

The exact time of incubation and Proteinase K concentration depends on the amount of protein in the sample. For samples particularly high in nucleases, more Proteinase K should be added.

## Limited product warranty

Life Technologies Corporation and/or its affiliate(s) warrant their products as set forth in the Life Technologies' General Terms and Conditions of Sale found on Life Technologies' website at [www.lifetechnologies.com/termsandconditions](http://www.lifetechnologies.com/termsandconditions). If you have any questions, please contact Life Technologies at [www.lifetechnologies.com/support](http://www.lifetechnologies.com/support).

**For Research Use Only. Not for use in diagnostic procedures.**

The information in this guide is subject to change without notice.

DISCLAIMER: LIFE TECHNOLOGIES CORPORATION AND/OR ITS AFFILIATE(S) DISCLAIM ALL WARRANTIES WITH RESPECT TO THIS DOCUMENT, EXPRESSED OR IMPLIED, INCLUDING BUT NOT LIMITED TO THOSE OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, OR NON-INFRINGEMENT. TO THE EXTENT ALLOWED BY LAW, IN NO EVENT SHALL LIFE TECHNOLOGIES AND/OR ITS AFFILIATE(S) BE LIABLE, WHETHER IN CONTRACT, TORT, WARRANTY, OR UNDER ANY STATUTE OR ON ANY OTHER BASIS FOR SPECIAL, INCIDENTAL, INDIRECT, PUNITIVE, MULTIPLE OR CONSEQUENTIAL DAMAGES IN CONNECTION WITH OR ARISING FROM THIS DOCUMENT, INCLUDING BUT NOT LIMITED TO THE USE THEREOF.

NOTICE TO PURCHASER: LIMITED USE LABEL LICENSE: Research Use Only : The purchase of this product conveys to the purchaser the limited, non-transferable right to use the purchased amount of the product only to perform internal research for the sole benefit of the purchaser. No right to resell this product or any of its components is conveyed expressly, by implication, or by estoppel. This product is for internal research purposes only and is not for use in commercial applications of any kind, including, without limitation, quality control and commercial services such as reporting the results of purchaser's activities for a fee or other form of consideration. For information on obtaining additional rights, please contact [outlicensing@lifetech.com](mailto:outlicensing@lifetech.com) or Out Licensing, Life Technologies, 5791 Van Allen Way, Carlsbad, California 92008.

© 2012 Life Technologies Corporation. All rights reserved. The trademarks mentioned herein are the property of Life Technologies Corporation or their respective owners.

For support visit [lifetechnologies.com/support](http://lifetechnologies.com/support) or email [techsupport@lifetech.com](mailto:techsupport@lifetech.com)

[lifetechnologies.com](http://lifetechnologies.com)

2 November 2012

