

PRODUCT INFORMATION

Neutral Protease AF GMP Grade

Cat.No. N0003553

General Neutral protease from *Clostridium histolyticum* is a proteolytic enzyme that can cleave peptide bonds in proteins such as collagen, proteoglycan, fibronectin, elastin etc.

Due to these properties, it is suitable for the isolation of a broad range of cell types by tissue dissociation.

Description Neutral Protease AF GMP Grade is manufactured according to GMP guidelines using a production process completely free of animal-based components. In this way the introduction of any potential animal-derived pathogen is excluded.

Neutral Protease AF GMP Grade is chromatographically purified and largely free from collagenolytic activity (PZ U) as well as endotoxins.

The absence of any animal-derived ingredients and thorough microbial analysis provide the highest possible safety.

Specification

Neutral protease activity	≥ 0.50 U/mg (DMC)
	≥ 100 U/vial (DMC)
TAMC	≤ 10/vial
TYMC	≤ 10/vial
Bacterial endotoxins	≤ 100.0 EU/mg

Application Neutral Protease AF GMP Grade is suitable for cell isolation from several tissue types for clinical applications.

It is often used in combination with Collagenase AF-1 GMP Grade (Cat. No. N0003554).

Storage conditions Neutral Protease AF GMP Grade is provided as a lyophilized powder. It should be stored at +2 to +8 °C in a dry environment.

Under these conditions the product is stable until the date stated on the certificate of analysis if repeated opening and closing of the vial is avoided.

AMSBIO | www.amsbio.com | info@amsbio.com



UK & Rest of the World
 184 Park Drive, Milton Park
 Abingdon OX14 4SE, U.K.
 T: +44 (0) 1235 828 200
 F: +44 (0) 1235 820 482



North America
 1035 Cambridge Street,
 Cambridge, MA 02141.
 T: +1 (617) 945-5033 or
 T: +1 (800) 987-0985
 F: +1 (617) 945-8218



Germany
 Bockenheimer Landstr. 17/19
 60325 Frankfurt/Main
 T: +49 (0) 69 779099
 F: +49 (0) 69 13376880



Switzerland
 Via Lisano 3
 (CP.683)
 6900 Massagno
 T: +41 (0) 91 604 55 22
 F: +41 (0) 91 605 17 85

PRODUCT INFORMATION

Neutral Protease AF GMP Grade

Cat.No. N0003553

Instructions for use:

General Neutral Protease AF GMP Grade, often in combination with Collagenase AF-1 GMP Grade (Cat. No. N0003554), is suitable for the dissociation of sensitive cells from several tissues, such as pancreas, liver and dental pulp. It has been shown to be highly effective for the isolation of islets of Langerhans from human pancreas intended for transplantation.

Tissue dissociation Recommended starting concentrations for isolation of islets of Langerhans from human pancreas:
 Collagenase AF-1 GMP Grade: 15 – 20 PZ U/g tissue
 Neutral Protease AF GMP Grade: 0.8 – 1.5 DMC U/g tissue
 Neutral Protease AF GMP Grade is provided in vials with ≥ 100 DMC U.
 The appropriate neutral protease concentration depends on the tissue type and origin as well as on the applied isolation procedure.

Stock solution A stock solution of Neutral Protease AF GMP Grade can be prepared by dissolving the enzyme in buffer or water. The enzyme solution should be constantly stored on ice.

Since neutral protease depends on calcium, absolutely no calcium chelating agents (e.g. EDTA) should be present at all. If desired, a buffer with ≥ 2 mM Ca^{2+} can be used.

Reconstituted Neutral Protease AF GMP Grade can be filtered, aliquoted and stored at -20 °C. Repeated freezing and thawing should be avoided. For $0.22 \mu\text{m}$ filtration filters with low protein binding properties (e.g. cellulose acetate, PVDF, or PES) are recommended.

Working solution To prepare a working solution, the stock solution is diluted to achieve the desired neutral protease concentration.
 The working solution should be constantly stored on ice until use.
 If Neutral Protease AF GMP Grade solution is mixed with collagenase solution, the blend should be used immediately.

Inactivation and inhibitors The dissociation process can be reduced, e.g. by cooling down or dilution the enzyme solution.

Inhibitors of neutral protease include chelating agents like EDTA.

Important Neutral Protease AF GMP Grade is not intended for direct application in humans.

AMSBIO | www.amsbio.com | info@amsbio.com

N0056802 001



UK & Rest of the World
 184 Park Drive, Milton Park
 Abingdon OX14 4SE, U.K.
 T: +44 (0) 1235 828 200
 F: +44 (0) 1235 820 482



North America
 1035 Cambridge Street,
 Cambridge, MA 02141.
 T: +1 (617) 945-5033 or
 T: +1 (800) 987-0985
 F: +1 (617) 945-8218



Germany
 Bockenheimer Landstr. 17/19
 60325 Frankfurt/Main
 T: +49 (0) 69 779099
 F: +49 (0) 69 13376880



Switzerland
 Via Lisano 3
 (CP.683)
 6900 Massagno
 T: +41 (0) 91 604 55 22
 F: +41 (0) 91 605 17 85