

Biochemicals
Electrophoresis
Bioseparation
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Specials

Protease Inhibitor Mixes For Protein Research

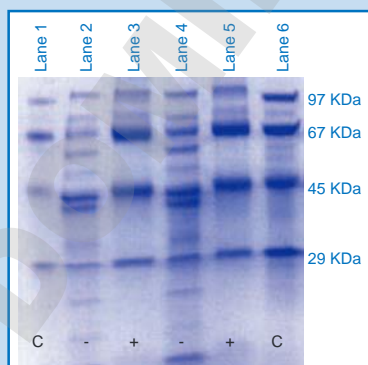
The degradation of proteins is a common problem frequently associated with extraction processes. Often, the use of single protease inhibitors like AEBSF-HCl, aprotinin, phenylmethylsulfonylfluoride (PMSF) or PEFABLOC™ SC is not sufficient to simultaneously protect the proteins against different types of proteases in one reaction.

To overcome this obstacle SERVA offers a range of protease inhibitor mixes. The protease inhibitor mix components are effective against the most common proteases like:

- aspartate proteases
- metallo proteases
- cysteine proteases
- serine proteases

The mixes contain different protease inhibitors (for detailed information please refer to reverse side) at concentrations suited to protect proteins during isolation processes from bacteria, fungi, yeast, plant and mammalian cells. For general applications Mix G is best used. When using the His-tag technology, Mix HP is recommended to protect your recombinant protein against proteolytic degradation.

Efficient protection of marker proteins against proteolytic degradation by Neutral Protease!



To demonstrate the efficiency of the SERVA Protease Inhibitor Mixes marker proteins have been incubated in the presence of Neutral Protease (Cat. No. 30301) and in the presence of Neutral Protease plus Protease Inhibitor Mix G. Samples in lane 2-5 have been incubated at room temperature for approx. 60 hrs. After SDS PAGE the protein gel has been stained using the SERVA Blue R Tablet Staining Kit (Cat. No. 35079).

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Protease Inhibitor Mix G

Protease Inhibitor Mix G is a mixture of 5 different, water soluble protease inhibitors. It has been developed for general applications like protection of protein crude extracts (Cat. No. 39101).

Protease Inhibitor Mix M

Proteins in cell extracts from mammalian cells are protected efficiently when using Protease Inhibitor Mix M. Six different protease inhibitors are working together to prevent proteases from degrading mammalian proteins (Cat. No. 39102).

Protease Inhibitor Mix P

Are you working with plant material? Proteins isolated from plants keep intact as long as you use Protease Inhibitor Mix P during your protein isolation procedure. This mix contains 6 different protease inhibitors and can be dissolved in DMSO (Cat. No. 39103).

Protease Inhibitor Mix FY

For fungi and yeast extracts the Protease Inhibitor Mix FY is the right choice to protect the proteins against proteolytic degradation. The lyophilized mix is made of four different protease inhibitors (Cat. No. 39104).

Protease Inhibitor Mix B

To stabilize released proteins from prokaryotic cell extracts choose Protease Inhibitor Mix B. This protease inhibitor mixture is composed of 5 different protease inhibitors of bacterial proteases (Cat. No. 39105).

Protease Inhibitor Mix HP & HP PLUS

Do you express your recombinant protein in E. coli including subsequent purification using His-tags? The Protease Inhibitor Mix HP and HP PLUS will protect your valuable protein against degradation (Cat. No. 39106, Cat. No. 39107).

Technical Notes

Biochemicals

Protease Inhibitor Mixes For Protein Research

All protease inhibitor mixes are lyophilized for improved stability and ease of handling, the powder form ensures complete solution. A 100-fold concentrate is achieved after reconstituting in 1 ml water or 1 ml 90% DMSO, sufficient to protect 100 ml of your cell lysate or protein solution. The dissolved protease inhibitor mixes can be aliquoted and stored at -20 °C for at least 4 weeks.

The table below displays all six different protease inhibitor mixes available from SERVA Electrophoresis GmbH. The composition of inhibitors provided in each mixture is optimized for the given applications and, therefore, may vary from mix to mix. If you need any further information please do not hesitate to contact our Technical Services at tech.service@serva.de.

Ordering Information

Product	Protease Inhibitors	Acting against	Quantity	Cat. No.
Protease Inhibitor Mix G (General applications; soluble in water)	AEBSF-HCl Aprotinin from bovine lung E-64 EDTA-Disodium Leupeptin	Serine Proteases Serine Proteases Cysteine Proteases Metallo Proteases Cystein Proteases & Trypsin-like Serine Proteases	1 x 1 vial 5 x 1 vial 10 x 1 vial	39101.01 39101.02 39101.03
Protease Inhibitor Mix M (Mammalian cells; soluble in 90% DMSO, 1 ml 90% DMSO per vial is included)	AEBSF-HCl Aprotinin from bovine lung Bestatin E-64 Leupeptin Pepstatin A	Serine Proteases Serine Proteases Aminopeptidase B & Leucine Aminopeptidase Cysteine Proteases Cystein Proteases & Trypsin-like Serine Proteases Aspartic Protease	1 x 1 vial 5 x 1 vial 10 x 1 vial	39102.01 39102.02 39102.03
Protease Inhibitor Mix P (Plant cells; soluble in 90% DMSO, 1 ml 90% DMSO per vial is included)	AEBSF-HCl E-64 Bestatin 1,10-Phenanthroline Pepstatin A Leupeptin	Serine Proteases Cysteine Proteases Aminopeptidase B & Leucine Aminopeptidase Metallo Proteases Aspartic Proteases Cystein Proteases & Trypsin-like Serine Proteases	1 x 1 vial 5 x 1 vial 10 x 1 vial	39103.01 39103.02 39103.03
Protease Inhibitor Mix FY (Fungi and yeast cells; soluble in 90% DMSO, 1 ml 90% DMSO per vial is included)	AEBSF-HCl E-64 Pepstatin A 1,10-Phenanthroline	Serine Proteases Cysteine Proteases Aspartic Protease Metallo Proteases	1 x 1 vial 5 x 1 vial 10 x 1 vial	39104.01 39104.02 39104.03
Protease Inhibitor Mix B (Bacterial cells; soluble in 90% DMSO, 1 ml 90% DMSO per vial is included)	AEBSF-HCl E-64 Pepstatin A EDTA-disodium Bestatin	Serine Proteases Cysteine Proteases Aspartic Protease Metallo Proteases Aminopeptidase B & Leucine Aminopeptidase	1 x 1 vial 5 x 1 vial 10 x 1 vial	39105.01 39105.02 39105.03
Protease Inhibitor Mix HP (Recombinant proteins; soluble in water)	AEBSF-HCl Aprotinin from bovine lung E-64 Leupeptin	Serine Proteases Serine Proteases Cysteine Proteases Cystein Proteases & Trypsin-like Serine Proteases	1 x 1 vial 5 x 1 vial 10 x 1 vial	39106.01 39106.02 39106.03
Protease Inhibitor Mix HP PLUS (Recombinant proteins; soluble in 90% DMSO, 1 ml 90% DMSO per vial is included)	AEBSF-HCl Bestatin E-64 Leupeptin Pepstatin A Phosphoramidon	Serine Proteases Aminopeptidase B & Leucine Aminopeptidase Cystein Proteases Cystein Proteases & Trypsin-like Serine Proteases Aspartic Proteases Metallo Proteases	1 x 1 vial 5 x 1 vial 10 x 1 vial	39107.01 39107.02 39107.03

SERVA Protease Inhibitors

SERVA offers not only protease inhibitor mixes but also a **broad range of single protease inhibitors**. If you are interested in these inhibitors please contact SERVA at info@serva.de and ask for our recent protease inhibitor brochure. The brochure contains all relevant information regarding the application of frequently used protease inhibitors in biochemistry and cell biology.

It summarizes information on the target protease and the mechanisms of action. This brochure displays all 45 individual inhibitors available from SERVA including features like molecular weight, description and specificity, solubility and stability as well as recommended concentration ranges for each inhibitor. A list of more than 100 literature references completes the brochure.

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