

Product Information

Description:

LysA™ Protease Inhibitor Cocktail Kit includes a 100x cocktail of 6 known pan-protease small molecule inhibitors designed to maintain protein integrity during cell lysis and a separate vial of 0.5 M EDTA for optional metalloprotease inhibition. This cocktail contains AEBSF, Aprotinin, Bestatin, E-64, Leupeptin and Pepstatin A. AEBSF and Aprotinin are serine proteases inhibitors. Bestatin is an aminopeptidase inhibitor, Pepstatin A inhibits aspartic acid proteases and E-64 acts against cysteine proteases. Leupeptin acts on both serine and cysteine proteases. This product is designed to supplement a cell lysis buffer of choice to prevent post-lysis protein degradation by proteases present in the cell lysate.

Background:

Proteases are a large group of enzymes, which catalyze the hydrolytic breakdown of proteins into amino acids or peptides. In living cells proteases are highly regulated and compartmentalized, but upon cell lysis they are released and mixed with other extracted proteins which now became subjected to proteolytic degradation. Inhibition of proteases in cell lysates is important in preserving intact proteins for analysis.

Size:

Component A: 200 µl Protease Cocktail
Component B: 200 µl 0.5 M EDTA

Formulation:

Component A: 104 mM AEBSF, 80 µM Aprotinin, 4 mM Bestatin, 1.4 mM E-64, 2 mM Leupeptin, and 1.5 mM Pepstatin A in DMSO.
Component B: 0.5 M EDTA in aqueous solution.

Storage/Stability:

Upon receipt, store at -80°C. Stable for 6 months from date of receipt, when stored as directed.

Instructions for Use:

Thaw at room temperature before use. Dilute 100-fold with the cell lysis buffer of your choice.

Note: This inhibitor cocktail does not contain other inhibitors, such as phosphatase inhibitors and ADP-ribosylation inhibitors. The addition of additional inhibitors targeting relevant pathways may be necessary. Cell lysates may differ in the level of proteases present, optimization of the amount of Protease Cocktail to use may be required.

Shipping Temperature:

-80°C.