Protease Inhibitor Cocktail for use with mammalian cell and tissue extracts

Catalog Number P8340
Storage Temperature –20 °C

Product Description
Crude cell extracts contain a number of endogenous enzymes, such as proteases and phosphatases, which are capable of degrading proteins in the extracts. The best way to increase the yield of intact proteins is to add inhibitors of those enzymes known to be present.

This protease inhibitor cocktail has been optimized and tested for mammalian cell and tissue extracts. It contains inhibitors with a broad specificity for serine, cysteine, and acid proteases, and aminopeptidases. This cocktail is supplied as a ready-to-use solution in DMSO.

Specific inhibitory properties of the components are:
- **AEBSF** – [4-(2-Aminoethyl)benzenesulfonyl fluoride hydrochloride] – serine proteases, e.g., trypsin, chymotrypsin, plasmin, kallikrein and thrombin
- **Aprotinin** – serine proteases, e.g., trypsin, chymotrypsin, plasmin, and kallikrein; human leukocyte elastase, but not pancreatic elastase.
- **Bestatin hydrochloride** – aminopeptidases, e.g., leucine aminopeptidase and alanyl aminopeptidase.
- **E-64** – [N-(trans-Epoxysuccinyl)-L-leucine 4-guanidinobutylamide] – cysteine proteases, e.g., calpain, papain, cathepsin B, and cathepsin L.
- **Leupeptin hemisulfate salt** – both serine and cysteine proteases, e.g., plasmin, trypsin, papain, and cathepsin B.
- **Pepstatin A** – acid proteases, e.g., pepsin, renin and cathepsin D, and many microbial aspartic proteases

Recommended Usage
One ml of the cocktail solution is recommended for the inhibition of endogenous enzymes found in 100 ml of lysate from 20 g (wet weight) of bovine liver or 10 ml of cell lysate obtained from CHO cells at a cell density of 10^8 cells per ml. CHO cells were grown on DMEM with 10% FCS (heat inactivated).

Note: Not all lysates contain the same levels of endogenous enzymes, and it may be necessary to adjust the volume of cocktail required.

Precautions and Disclaimer
This product is for R&D use only, not for drug, household, or other uses. Please consult the Material Safety Data Sheet for information regarding hazards and safe handling practices.

Storage/Stability
Store the cocktail at –20 °C.

References

Sigma brand products are sold through Sigma-Aldrich, Inc. Sigma-Aldrich, Inc. warrants that its products conform to the information contained in this and other Sigma-Aldrich publications. Purchaser must determine the suitability of the product(s) for their particular use. Additional terms and conditions may apply. Please see reverse side of the invoice or packing slip.