Protease Inhibitor Cocktail

Catalog No. TFU-T25
Size: 25 Tablets (EDTA-Free)
Storage: -20℃ for 1 years

Introduction

Crude cell extracts contain numerous endogenous enzymes, such as proteases and phosphatases, which can digest the proteins in the extract. An optimized method to improve the yield of native proteins is to add inhibitors of the enzymes known to be present in the source material. Endogenous proteins are produced and removed in a balanced state; therefore, their cellular levels are generally stable under stable environmental conditions. However, in vitro, protein production decreases substantially and degradation increases in these cells. To prevent protein degradation under such conditions, a cocktail of small molecule inhibitors can be used to block the action of proteases. This cocktail inhibits proteases that would degrade either phosphorylated or nonphosphorylated protein substrates. TOOLS Protease Inhibitor is a blend of five pan-protease inhibitors for protection of protein integrity. Each component has specific inhibitory properties. AEBSF and aprotinin inhibit serine proteases, including trypsin, chymotrypsin, and plasmin. Bestatin inhibits aminpeptidases. E-64 inhibits cystein proteases.
Leupeptin inhibits both serine and cystein proteases.

Component	Target	Inhibitor Type
AEBSF	Serine proteases	Irreversible
Aprotinin	Serine proteases	Reversible
Bestatin	Aminopeptidases	Reversible
E-64	Cysteine proteases	Irreversible
Leupeptin	Serine and cysteine proteases	Reversible

Usage

(1) This product can be applied in techniques such as Western blotting, Co-IP, pull-down, IF, IHC, and kinase assay.

(2) One tablet can be directly added to 10 mL of extraction medium. Alternatively, prepare a stock solution (one 10× minitablet in 1 mL of ddH_2O). Vortex briefly to dissolve the tablet. The stock solution is stable for 1 week when stored at 4 °C, and for at least 4 weeks at −20 °C.

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