

Product Description

Samples such as cell or tissue extracts contain numerous endogenous proteases and phosphatases, which can readily lead to protein degradation or demodification in the extracts, thereby affecting subsequent protein detection. Therefore, adding appropriate protease and phosphatase inhibitors to extracts and similar samples is an effective method to prevent protein degradation and demodification. This product, Protease Inhibitor Cocktail, EDTA-Free (100×) Proteinase Inhibitor Mixed Solution, contains components with broad specificity for aspartic protease, cysteine protease, serine protease, acidic protease, and aminopeptidase, including AEBSF, Aprotinin, Bestatin, E-64 (trans-Epoxy succinyl-L-leucylamido-(4-guanidino)butane), Leupeptin, and Pepstatin A. AEBSF is a water-soluble irreversible inhibitor of serine proteases, with inhibition constants similar to those of PMSF and DFP. It effectively inhibits proteases such as trypsin, chymotrypsin, plasmin, kallikrein, and thrombin, serving as a substitute for PMSF and DFP. AEBSF exhibits lower toxicity, better water solubility, and superior stability in aqueous solutions. Aprotinin is a competitive reversible inhibitor of serine proteases; Bestatin is a reversible inhibitor of aminopeptidases; E-64 is an irreversible inhibitor of cysteine proteases; Leupeptin is a reversible inhibitor of serine and cysteine proteases; and Pepstatin A is a reversible inhibitor of aspartic proteases.

Components

Components	BR4C121-01
Protease Inhibitor Cocktail, EDTA-Free (100×)	1 mL

Storage

Store at $-20\pm 5^{\circ}\text{C}$.

Notes

1. This product is only for scientific research purposes, not for clinical diagnosis.
2. The product should be mixed thoroughly before use and avoid repeated freeze-thaw cycles.
3. The protease inhibitor mixture of this product is a 100× stock solution. When using, add it to the lysis buffer at a ratio of 1:100, mix well, and it is ready for use.
4. Lysis buffer containing a mixture of protease inhibitors should be prepared and used immediately, rather than being frozen for later use. After the required inhibitors have been added and thoroughly mixed, routine cell or tissue lysis and protein extraction can commence.
5. This product may be appropriately aliquoted for storage and should be added to suitable solutions such as lysis buffer before use.
6. For your safety and health, wear laboratory coats and disposable gloves during operation.