



Protease Inhibitor
Cocktail (EDTA-Free,
100× in DMSO)

NB-64-00001-1ml
NB-64-00001-1mlx10
NB-64-00001-1mlx50
NB-64-00001-1mlx100

Protease Inhibitor Cocktail (EDTA-Free, 100× in DMSO)

#Cat: NB-64-00001-1mL	Size: 1ml
#Cat: NB-64-00001-1mLx10	Size: 1ml x 10
#Cat: NB-64-00001-1mLx50	Size: 1ml x 50
#Cat: NB-64-00001-1mLx100	Size: 1ml x 100

Description:

The Neo Biotech Protease Inhibitor Cocktail provides complete protection for proteins from degradation by endogenous proteases that may be released during the extraction and purification of proteins from animal and plant tissues, cultured cells, yeast or bacteria. The Protease Inhibitor Cocktail contains six protease inhibitors with broad specificity, aimed at facilitating the inhibition of aspartyl, cysteine, serine, as well as several aminopeptidases.

Contents:

Ingredient	Conc(100X)	Target	Inhibitor Type	CAS
AEBSF	104 mM	Serine proteases	Irreversible	30827-99-7
Aprotinin	80 µM	Serine proteases	Reversible	9087-70-1
Bestatin	5 mM	Aminopeptidases	Reversible	58970-76-6
E-64	1.5 mM	Cysteine Proteases	Irreversible	66701-25-5
Leupeptin	2 mM	Cysteine and Serine Proteases	Reversible	55123-66-5
Pepstatin A	1.5 mM	Aspartic Proteases	Reversible	26305-03-3

Experiment Protocol:

1. Compatible with Western Blot Analysis, IP, Co-IP, Pull-down, IF, IHC, Kinase Assay etc.
2. Thaw in room temperature, briefly vortex the vial immediately before use to ensure a homogeneous suspension of the cocktail components.
3. Add Protease Inhibitor Cocktail at 10µL/mL directly to the solution sample (such as cell lysates or tissue extracts) to produce a 1X final concentration.
4. Briefly vortex cocktails to aid in the dissolution.

Properties:

Form	Liquid
Formulation	In 1 mL DMSO
Storage	-20°C for 12 months
Toxicity	Irritant

Troubleshooting

Problem	Possible Cause	Solution
Poor Inhibition of protease activity	Sample contains high level of endogenous protease	Add sufficient cocktail to produce a 2X or 3X final concentration
	Improper solubilization and suspension of cocktail stock before dispensing	Equilibrate cocktail to room temperature and vortex immediately before use
	Protein precipitation in sample	Decrease sample protein concentration and avoid repeated freeze-thaw cycles and improper storage conditions
	Product very old or was not stored properly	Purchase new protease inhibitor cocktail Kit

Notice

- Freeze at -20°C. Avoid repeated freeze-thaw cycles.
- Some DUB proteases (one example is ATAXIN-3) cannot be suppressed by traditional protease inhibitors such as E-64, AEBSF, bestatin, leupeptin and aprotinin.
(Reference: Neil D. Rawlings, Guy Salvesen et al. Handbook of Proteolytic Enzymes, Vol.1.2012).
- 1 mL of the cocktail solution is recommended for the inhibition of protease activity found in 100 mL of cell lysate from up to 20 g (wet weight) tissues.
- Since not all organisms contain the same level of endogenous proteases, sometimes it may be necessary to increase the concentration of inhibitors.

Precautions and Disclaimer

This product is for scientific research only, not for drug, household, or other uses. View our Safety Data Sheet (SDS) for information regarding potential hazards and safe handling practices.