

# Protease and Phosphatase Inhibitor Cocktail (EDTA plus, 100X in ddH2O)

## **Product Description**

This product is a protease and phosphatase inhibitor cocktail (EDTA plus, 100X in ddH<sub>2</sub>O) that can be used to protect proteins during the extraction or lysis of primary cells, mammalian cultured cells, animal tissues, plant tissues, yeast, or bacterial cells. Protease inhibitors target aminopeptidase, cysteine, and serine proteases, while phosphatase inhibitors target serine/threonine and protein tyrosine phosphatases.

This product is a ready-to-use mixed stock solution containing a separate 0.5 M EDTA solution package that can be optionally added.

## Composition and storage conditions

Tube	Catalo	Product	Summary	Targets	CAS	Smiles
	g No.	Name			Number	
A (100X in ddH2O)	A2570	Leupeptin	Serine and	Proteases   Serine	103476-89-7	O=C([C@@H](NC(C)=O)CC(C)C
			cysteine			)N[C@@H](CC(C)C)C(N[C@H](
			protease			C=O)CCCNC(N)=N)=O.OS(O)(=
			inhibitors			O)=O
	A2574	Aprotinin	Bovine trypsin inhibitors	Proteases   Serine Protease	9087-70-1	CC(O)=O.CC.CC.CCccC.[R]. [P].
						[2H]. [L]. [E]. [P]. [P]. [Y]. [3H].
						[G]. [KH]. [R]. [R]. [Y].F.[Y]. [*].
						[L].F.[V]. [Y]. [G]. [G]. [R]. [KH].
						[R]. N.N.F.[KH].S.[*]. [2H]. [R].
						[G]. [G]. [*]. [KH]. [*].
						[3H].C.[*].F.[P]. [*]. I.I.N.[Q].
						[3H]. [M]
	A2576	E-64	Cysteine	Proteases   Cathepsin	66701-25-5	CC(C)CC(C(=0)NCCCCN=C(N)
			protease			le peri
			inhibitors			N)NC(=O)C1C(O1)C(=O)O
	A8621	Bestatin hydrochloride	Aminope	Proteases   6 Aminopeptidase	65391-42-6	CC(C)CC(C(-0)0)NC(-0)C(C(C
			ptidase			CC(C)CC(C(=0)0)NC(=0)C(C(C
			inhibitors			C1=CC=CC=C1)N)O.Cl
	A8524	Sodium	PTP	Phosphatase	13721-39-6	[O-] [V] (=O) ([O-]) [O-]. [Na+].

fluoride e inhibitors   Phosphatases    Reversible inhibitors   Phosphatase   Serine and   Threonine   Phosphatase   Serine and   Threonine   Phosphatase   Phosphatase   Serine and   Threonine   Serine and   Threonine   Phosphatase   Serine and   Threonine   Serine and   Threonine   Phosphatase   Serine and   Threonine   Serine and   Threonine   Serine and   Threonine   Phosphatase   Serine and   Threonine   Serine and   Threonine   Serine and   Threonine   Phosphatase   Serine and   Threonine   Serine and   Serine and   Threonine   Serine and   Threonine   Serine and   Threonine   Serine and   Threonine   Serine and   Serine and			Orthovanadat	inhibitors	Tyrosine		[Na+]. [Na+]
B7846  B7847  B7848  B7846  B7848  B7846  B7848  B7846  B7849  B7841  B7849  B784149  B78419  B7849  B78419  B7849  B78419  B7849  B7849  B7849  B7849  B7849  B7849  B7849  B7849  B78419  B7849  B7			е		Phosphatases		
B7846  fluoride  fluoride  c  threonine inhibitors  Reversible inhibitors  β- GC4347  glycerophosp hate  Irreversibl c inhibitor  phosphatase  c  Irreversibl c inhibitor  of Serine and Threonine Phosphatases  Phosphatases  Phosphatase  Phosphatases  Phosphatase  Irreversibl c inhibitor  of Serine and Threonine Phosphatase  Phosphatase  Phosphatase  Serine and Threonine Phosphatase  Serine and Threonine Phosphatase  Serine and Threonine Phosphatase  Serine and Threonine Online Phosphatases  Proteases Phosphatases  Reversible  Inhibitors  Phosphatase  Reversible Inhibitors  Phosphatase  Implementation of Sodium  Phosphatase  Reversible Inhibitors  Phosphatase  Reversible Inhibitors  Phosphatases  Inhibitors  Reversible Inhibitors  Phosphatases  Inhibitors  Reversible Inhibitors  Phosphatase  Inhibitors  Reversible Inhibitors  Inhibitors  Reversible Inhibitors  In				Acid	Phosphatase	7681-49-4	
fluoride e inhibitors   Phosphatases   [O-]   Serine and   Threonine   Phosphatases   [O-]   Serine and   Threonine   Phosphatase   Serine and   Threonine   Phosphatase   [O-]   Serine and   Threonine   Phosphatase   [Na+]. O.C.    Sodium   Phosphatase   Serine and   Phosphatase   Serine and   Threonine   Threonine   Serine and   Threonine   Thr		B7846	sodium	phosphatas	Threonine		[F-]. [Na+]
Reversible inhibitors of serine/thre hate onine phosphatas e    C4347   glycerophosp hate   Serine and   Serine and   Threonine   Phosphatases   Threonine   Phosphatases   Phosphatases   Serine and   Threonine   Phosphatases   Proteases   Threonine   Phosphatases   Proteases   Threonine   Phosphatases   Serine and   Threonine   Phosphatases   Serine and   Threonine   Phosphatases   Threonine   Phosphatases   Threonine   Phosphatases   Threonine   Phosphatases   Threonine   Phosphatases   Threonine   Threonine   Threonine   Phosphatases   Threonine   T		<b>D</b> 7040	fluoride	e			
C4347   glycerophosp   serine/thre   hate   Serine and   Threonine   Phosphatase   Serine and   Threonine   Phosphatases   Serine and   Threonine   Phosphatases   Serine and   Phosphatases   Serine and   Phosphatases   Serine and   Threonine   Phosphatases   Serine and   Threonine   Phosphatases   Serine and   Threonine   Phosphatase   Serine and   Threonine   Phosphatase   Serine and   Threonine   Phosphatase   Threonine   Phosphatases   Threonine   Phosphatases   Threonine   Phosphatases   Threonine   Phosphatases   Threonine   Phosphatases   Threonine   Phosphatases   Threonine   T			e the Unit	inhibitors			the Unitropul
B (100X in disodium salt, dihydrate inhibitors of serine/thre inhibitor of serine/thre e inhibitor of serine/thre onine phosphatas e inhibitors of serine/thre onine phosphatas e inhibitors of serine/thre onine phosphatas e inhibitors of serine/thre onine phosphatases inhibitors of serine and Threonine inhibitors of serine and Threonine inhibitors of serine and inhibitors inhibitors of serine and inhibitors of serine and inhibitors in		C4347	glycerophosp	inhibitors of serine/thre onine phosphatas	Serine and Threonine	13408-09-8	[O-] P(OC(CO)CO)([O-])=O.[Na+]. [Na+]. O.O.O.O.O
in EDTA, Metallopro Proteases   C(CN(CC) disodium salt, dihydrate inhibitors   Metalloproteinase   6381-92-6   C(CN(CC) = O)O)CC(			pyrophosphat	e inhibitor of serine/thre onine phosphatas	Serine and Threonine	7722-88-5	[O-] P(=O)([O-])OP(=O)([O-])[O-]. [Na+]. [Na+]. [Na+]
ddH <sub>2</sub> O)  Store at -20°C for 1 year.	(100X in ddH <sub>2</sub> O)	MOOG C . 1	disodium salt,	teinase	·	6381-92-6	C(CN(CC(=O)O)CC(=O)O)N(CC( =O)O)CC(=O)O

#### Protocol

Thaw at room temperature, and then add Protease and Phosphatase Inhibitor Cocktail (EDTA plus, 100X in ddH<sub>2</sub>O) to solution samples (e.g., cell lysates or tissue extracts) at 1:100 (v/v) prior to the experiment.

#### Notes

- 1. Pepstatin A is not included in the product, if you need to inhibit acid protease, buy Pepstatin A (A2571) and add it to the Cocktail.
- 2. Products are typically configured as 1X to obtain valid results, while samples containing high levels of protease or phosphatase may require more concentrated processing (e.g., 2-3X, etc.).
- 3. EDTA inhibits metalloproteinases by chelating divalent cations necessary for metalloproteinase activity.

By the same mechanism, EDTA may affect the activity of other proteins, so it is necessary to determine whether EDTA has an effect on the experiment before adding EDTA.

- 4. This product interferes with immobilized metal chelating affinity chromatography (IMAC) and 2D gel electrophoresis, so inhibitors can be removed from sample extracts prior to these experiments, such as by dialysis or desalting.
- 5. After receiving this product, it can be properly stored at -20 °C to avoid repeated freezing and thawing, and it can be taken out and added to the lysate when it is ready for use.
- 6. This product is intended for scientific research purposes only.

