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## **DATASHEET**

Protease & Phosphatase Inhibitor Cocktail solution (EDTA free)

#### **Product overview**

Name Protease & Phosphatase Inhibitor Cocktail solution (EDTA free)

Cat No HB9105 Biological action Inhibitor

**Description** Protease & Phosphatase Inhibitor Cocktail solution (EDTA free)

### **Biological Data**

#### **Biological description**

#### **Overview**

This protease and phosphatase inhibitor cocktail contains a mixture of both protease and phosphatase inhibitors.

This cocktail is EDTA free.

Protease and phosphatase inhibitor cocktails protect proteins from degradation by endogenous proteases and phosphatases released during protein extraction and purification.

#### Components and action

The following components are included in this cocktail. The protease inhibitors target aminopeptidases, cysteine and serine proteases and the phosphatase inhibitors target serine/threonine and protein tyrosine phosphatases:

Protease inhibitors:

- Aprotinin (Aprotinin (bovine, recombinant, Nicotiana sp.,): serine protease inhibitor (80μΜ)
- Bestatin: aminopeptidase B and leucine aminopeptidase inhibitor (5mM)
- E-64: cysteine protease inhibitor (1.5mM)
- Peosephilasermsibilitates:serine/cysteine protease inhibitor (2mM)
- β-Glycerophosphate: serine/threonine phosphatase inhibitor (10mM)
- Sodium fluoride: acid phosphatase and serine/threonine phosphatase inhibitor (50mM)
- Sodium orthovanadate: protein tyrosine phosphatase/ alkaline phosphatase inhibitor (1mM)
- Sodium pyrophosphate decahydrate: serine/threonine phosphatase inhibitor (10mM)

#### Formulation & usage recommendation

The cocktail is supplied as 1 vial of cocktail in water (1 ml)

This should be sufficient for 100ml of sample. It is generally effective at a 1X final concentration but may require optimization if a sample contains particularly high levels of proteases.

This cocktail interferes with immobilized metal-chelate affinity chromatography (IMAC) and 2D gel electrophoresis. Either dialyze or desalt sample to effectively remove inhibitors from sample extracts before performing such procedures.

- 1. Equilibrate the bottle to room temperature.
- 2. Vortex the bottle to ensure a homogeneous suspension.
- 3. Immediately before use, add  $10\mu L$  of the Protease Inhibitor Cocktail per milliliter of sample directly to the lysis buffer or extract to produce a 1X final concentration.

#### **Application notes**

# **Solubility & Handling**

Storage instructions Solubility overview Shipping conditions Important -20°C

Soluble in Water, DMSO (supplied in 1ml DMSO)

ambient

This product is for RESEARCH USE ONLY and is not intended for therapeutic or diagnostic use. Not

for human or veterinary use.

### **Chemical Data**

Appearance

Clear liquid