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A Geno Technology, Inc. (USA) brand name

# Protease-Phosphatase Arrest™

For Complete Inhibition of  
Protease & Phosphatase Activities

(Cat. # 786-870, 786-871, 786-872, and 786-889)



think proteins! think G-Biosciences [www.GBiosciences.com](http://www.GBiosciences.com)

## INTRODUCTION

Due to the optimized concentration of the various inhibitors, the Protease-Phosphatase Arrest™ shows excellent inhibition of protease and phosphatase activities and is therefore suitable for the protection of proteins during purification from animal tissues, plant tissues, yeast and bacteria. Protease-Phosphatase Arrest™ contains both irreversible and reversible protease inhibitors to inhibit serine, cysteine and other proteases along with 5 phosphatase inhibitors that target all the phosphatase categories: serine/threonine (Ser/Thr) specific, tyrosine specific and dual specificity phosphatases.

Since some proteins require divalent cations like  $\text{Ca}^{2+}$ ,  $\text{Mg}^{2+}$  or  $\text{Mn}^{2+}$  for their biological activity, the presence of EDTA may be detrimental to the protein activity. Furthermore, if the protein of interest is purified using immobilized metal chelate affinity chromatography; EDTA must be removed from the buffer before the chromatography. Therefore, we supply an optional EDTA solution and may be added in the extraction buffer or lysate if needed.

## ITEM(S) SUPPLIED

Description	786-870	786-871	786-872	786-889
ProteaseArrest™ [100X]	1ml	2ml	5ml	24 x 100µl
0.5M EDTA [100X]	2ml	2ml	5ml	2ml
PhosphataseArrest™ [100X]	1ml	2ml	5ml	24 x 100µl

## STORAGE CONDITIONS

Shipped at ambient temperature, upon arrival, store it refrigerated at 4°C, and is stable for 1 year. Avoid freeze/thawing of the product vials.

## PROTOCOL

Allow the ProteaseArrest™ and PhosphataseArrest™ vials to warm to room temperature and briefly vortex or tap the vial to mix it completely before removing it for use.

Add 10µl of ProteaseArrest™ [100X] and 10µl PhosphataseArrest™ [100X] per ml directly in an appropriate volume of extraction buffer or extract to achieve 1X final concentration.

**NOTE:** For higher potency of proteases and phosphatases inhibition, add ProteaseArrest™ [100X] and PhosphataseArrest™ [100X] 20-30µl/ml of

extraction buffer or extract to give 2-3X final concentration.

**OPTIONAL:**

1. For the inhibition of metalloproteases (if the buffer does not contain EDTA), add 0.5M EDTA, 10µl/ml directly in an appropriate volume of extraction buffer or extract to achieve 1X final concentration.

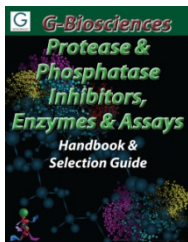
2. A Nuclease cocktail [G-Biosciences FOCUS Nuclease™ (Cat. # 786-039F)] may also be added in the same reaction mixture.

**TROUBLESHOOTING**

Issue	Possible Cause	Recommended Solution
Poor inhibition of protease and/or phosphatase activity	The sample contains higher level of protease and/or phosphatase activities	As mentioned in the NOTE section, add more volume of Protease & PhosphataseArrest™ to achieve 2-3X final concentration of inhibitors

**RELATED PRODUCTS**

Download our Protease & Phosphatase Inhibitors, Enzyme & Assays Handbook.



<http://info.gbiosciences.com/protease-phosphatase-inhibitors-enzymes-assay-handbook>

For other related products, visit our website at [www.GBiosciences.com](http://www.GBiosciences.com) or contact us.

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