



387PR-03

G-Biosciences ♦ 1-800-628-7730 ♦ 1-314-991-6034 ♦ technical@GBiosciences.com

A Geno Technology, Inc. (USA) brand name

ProteaseArrest™

For Complete Inhibition of Protease Activities

(Cat. # 786-108, 786-437, 786-711, 786-712)



think proteins! think G-Biosciences www.GBiosciences.com

INTRODUCTION 3
ITEM(S) SUPPLIED 3
STORAGE CONDITIONS 3
PROTOCOL 4
CITED REFERENCES 5
RELATED PRODUCTS 6

INTRODUCTION

Due to the optimized concentration of the various inhibitors, the Protease Arrest™ shows excellent inhibition of protease activities and is therefore suitable for the protection of proteins during purification from animal tissues, plant tissues, yeast and bacteria. Protease Arrest™ contains both irreversible and reversible protease inhibitors to inhibit serine, cysteine and other proteases. An optional EDTA is provided to inhibit metalloproteases.

Since some proteins require divalent cations like Ca^{2+} , Mg^{2+} or 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. The Protease Arrest™ is therefore supplied with an optional EDTA solution and may be added in the extraction buffer or lysate as needed.

Protease Arrest™ at 1X concentration in extraction buffer at pH 7-8 inhibits over 90% of protease activities (e.g. Mouse Pancreas Extract, 0.5mg/ml protein).

ITEM(S) SUPPLIED

Description	786-108	786-437	786-711	786-712
ProteaseArrest™ [100X]	2ml	5ml	10ml	5 x 10ml
0.5M EDTA [100X]	2ml	5ml	10ml	5 x 10ml

STORAGE CONDITIONS

It is shipped at ambient temperature. Upon arrival, store it refrigerated at 4°C, and is stable for 1 year*. Avoid freeze/thawing of the ProteaseArrest™.

PROTOCOL

Allow the Protease Arrest solution to warm to room temperature and briefly vortex or tap the vial to mix it completely before removing the solution for use.

Add Protease Arrest™ 10µl/ml directly in an appropriate volume of extraction buffer or extract to 1X final concentration.

NOTE: **In buffer solution, Protease Arrest™ is stable for up to one week at 4°C and for 4-6 weeks at -20°C.*

For higher potency of protease inhibition, add Protease Arrest™ 20-30µl/ml to get 2-3X final concentration.

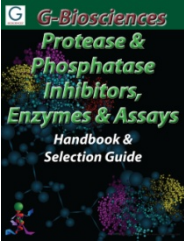
OPTIONAL: *For inhibition of metalloproteases (if the buffer does not contain EDTA), add 0.5M EDTA 10µl/ml directly in an appropriate volume of extraction buffer or extract to 1X final concentration.*

CITED REFERENCES

1. Landsverk, O.J.B. et al (2012) *J Leukoc Biol* 91:729
2. Azoitei, N. et al (2012) *J. Exp. Med.* 209:697
3. Ma, L. et al (2012) *PNAS* 109:2090
4. Brittain, J. M. et al (2011) *J. Biol. Chem.* 286:37778
5. Cawley, N. et al (2011) *J. Endocrinol.* 210:181-187
6. Guerriero, J. et al (2011) *J. Immuno.* 186:3517 - 3526
7. Mutharasan, R. K. et al (2011) *Am J Physiol Heart Circ Physiol.* 301:H1519
8. Nageshan, R. et al (2011) *J. Biol. Chem.* 286:7116
9. Rude, M. et al (2011) *Appl. Envir. Microbiol.* 77:1718
10. Kellner, S. et al (2011) *Nuc. Acids Res.* 39:7348
11. Orkwis, B.R. et al (2010) *Genetics.* 186:885
12. Sekar, Y et al (2010) *J. Immunol.* 185:578
13. Niamh, Cawley X. et al (2010) *Am J Physiol Endocrinol Metab.* 299:E189
14. Roth, K. et al (2009) *Int. Immunol.* 21:19
15. McMahan, H. et al (2008) *Endocrinology.* 149:812
16. Ram, E. V. S. et al (2008) *Nucleic Acids Res.* 36:5061
17. Kitareewan, S. et al (2007) *JNCL.* 99:41
18. Gennidakis, S. et al (2007) *Plant J.* 52:839
19. Gu, T. et al (2006) *Blood.* 108:4202
20. Timney, B. et al (2006) *J. Cell Biol.* 175:579
21. Rocnik, J. et al (2006) *Blood.* 108:1339
22. Ray, S. et al (2006) *Molecular Endocrinology* 20:1825
23. Yoshino, O. et al (2006) *PNAS.* 103:10678
24. Xie, H. et al (2006) *Antimicrob. Agents Chemother.* 50:3070
25. Zanello, S.B. et al (2006) *Curr. Eye Research.* 21:825
26. Baber, S. et al (2005) *Am. J. Physiol. Heart Circ. Physiol.* 289:H1476
27. Benou, C. et al (2005) *J. Immunology.* 174:5407
28. Lindemann, S. et al (2004) *PNAS.* 101:7076
29. Gu, T. et al (2004) *Blood.* 103:4622
30. Yost, C. et al (2004) *J. Exp. Med.* 200:671
31. James, C. et al (2004) *J. Virology.* 78:3099
32. Liao, W. et al (2003) *J. Biol. Chem.* 278:3713
33. Leungwattanakij, S. et al (2003) *J Androl.* 24:239
34. Moore, R. et al (2003) *J. Biol. Chem.* 278:304
35. Grimaldi, M. et al (2003) *J. Neurosci.* 23:4737
36. Murray-Kolb, L. et al (2003) *Am. J. Clinical Nutrition.* 77:180
37. Wu, X. et al (2002) *J. Biol. Chem.* 277:13597
38. Sun, X. et al (2002) *Cancer Res.* 62:6026
39. Liao, D. et al (2002) *J Neurosci.* 22:9015

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 or contact us.

Last saved: 3/28/2014 IA

This page is intentionally left blank



www.GBiosciences.com