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**PRODUCT INFORMATION**

**PROTEASE INHIBITOR COCKTAIL**

***Product Information for the following:***

PROTEASE INHIBITOR COCKTAIL (For Bacteria Cell, EDTA Free, 1ml): BS380  
PROTEASE INHIBITOR COCKTAIL (For Bacteria Cell, with EDTA, 1ml): BS381  
PROTEASE INHIBITOR COCKTAIL (For Fungal/Yeast Cell, 1ml): BS382  
PROTEASE INHIBITOR COCKTAIL (For Plant Cell, 1ml): BS384  
PROTEASE INHIBITOR COCKTAIL (For Mammalian Cell, 1ml): BS386

Component	BS380	BS381	BS382	BS384	BS386
PMSF	100mM	100 mM	100 mM	200 mM	100 mM
EDTA		100 mM			
Bestatin	2 mM	2 mM		2 mM	1 mM
Pepstatin A	0.3 mM	0.3 mM	2.2 mM	1 mM	1.5 mM
E-64	0.3 mM	0.3 mM	1.4 mM	1 mM	1.4 mM
1,10-PNTL			500 mM	500 mM	
Aprotinin				0.08 mM	0.08 mM
Leupeptin				1 mM	1 mM

Note: PNTL is abbreviation of Phenanthroline.

**Procedure:**

- a) For BS380 and BS381, add 4ml deionized water before use; and 1ml of this solution is recommended for the inhibition of the protease exiting in 20 ml of cell lysate from 4 g (wet weight) of *E. coli* cells. It may be necessary to increase the concentration of inhibitor.
- b) 1ml of the cocktail solution of BS382 is recommended for the
- c) Inhibition of protease activity exiting in 100 ml of cell lysate from 20 g (wet weight) of *Saccharomyces cerevisiae* cells.



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- d) 1ml of the cocktail solution of BS384 is recommended for the inhibition of protease activity found in 100 ml of cell lysate from 30 g (wet weight) of various plant tissues.
  - e) 1ml of the cocktail solution of BS386 is recommended for the inhibition of protease exiting of 100 ml of cell lysate from 20g (wet weight) of bovine liver or 10 ml of cell lysate obtained from CHO cells (grown on DMEM with 10% FCS) at a cell density of  $10^8$  cells per ml.

**Note:**

- 1. The protease inhibitor may become separated out when stored at  $-20^{\circ}\text{C}$ .
- 2. Since not all organisms contain the same levels of endogenous proteases, it may be necessary to increase the concentration of inhibitors in some occasions.

**Caution:**

PMSF is harmful; it is extremely toxic and irritating to eyes and skin. Wear eye & hand protection to keep the solution containing PMSF away from skin and eyes. This product is for laboratory research use only.

**Storage:**

Store cocktail at  $-20^{\circ}\text{C}$ . Cocktail is dissolved in DMSO containing little deionized water. The cocktail may form crystals. If there are crystals, place it at RT for 5 minutes.



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**References:**

- 1. Umezawa H., Ann. Rev. Microbiol., 36, 75-99(1982).
- 2. Aoyagi, T. et al, Biochem. Int., 9, 405-411 (1984).
- 3. Aoyagi, T. et al, H., Acta Biol. Med. Ger., 40, 1523-1529 (1981).
- 4. Mumford, R. A., et al, Biochem. Biophys. Res. Comm., 103, 565-572 (1981).