

## For Research Use Only. Not For Use In Diagnostic Procedures.

**Description:** This Phosphatase Inhibitor Cocktail is used to prevent dephosphorylation of phosphorylated proteins from active serine/threonine and tyrosine phosphatases present in whole cell extract. The 100X cocktail is a colorless to light yellow liquid.

**Background:** Dynamic protein phosphorylation is a key cellular signaling mechanism by which a broad spectrum of cellular processes is regulated. In order to study the phosphorylated residue of interest must remain intact. When cells are lysed to make whole cell extracts, a loss of normal cellular signaling regulation occurs, and phosphatases within the cell extract are free to dephosphorylate proteins in an uncontrolled manner. The addition of phosphatase inhibitors to the cell lysis buffer aids in the preservation of phosphorylated residues at the time of cell disruption.

**Directions for Use:** Briefly vortex the Phosphatase Inhibitor Cocktail (100X). Then just prior to use:

*For Western Blot or Immunoprecipitation Cell Lysis:* Dilute the cocktail 1:100 in desired lysis buffer to obtain a 1X working concentration.

For PTM Scan<sup>®</sup> Cell Lysis: Dilute the cocktail 1:50 in urea lysis buffer to obtain a 2X working concentration. This higher concentration is required due to the concentrated nature of the lysate.

Solutions and Reagents: The Phosphatase Inhibitor Cocktail (100X) is composed of a proprietary mix of sodium fluoride, sodium pyrophosphate,  $\beta$ -glycerophosphate, and sodium orthovanadate to promote broad spectrum protection against endogenous serine/threonine and tyrosine phosphatases. Storage: Store the undiluted 100X cocktail at 4°C. Do not freeze.

For application specific protocols please see the web page for this product at www.cellsignal.com.

Please visit www.cellsignal.com for a complete listing of recommended companion products.