

MSD[®] Inhibitor Pack



Ordering Information

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Catalog No.	R70AA-1
Contents	Phosphatase Inhibitor I (100X), 0.5 mL vial Phosphatase Inhibitor II (100X), 0.5 mL vial Protease Inhibitor Solution (100X), 0.5 mL vial
Storage	2–8°C

Summary and Intended Use

The Inhibitor Pack contains ready-to-use concentrated stock solutions of phosphatase and protease inhibitor cocktails. The phosphatase inhibitor solutions are for protection of phosphorylated residues of intercellular proteins against endogenous serine/threonine and tyrosine phosphatases during cell or tissue lysis. The protease inhibitor solution protects proteins against proteolytic degradation during lysate preparation. The solutions in the Inhibitor Pack are intended for use with MSD Tris Lysis Buffer for preparation of lysates or with MSD Diluent 39 for preparation of additional assay diluent.

Reagent

Phosphatase Inhibitor I is a cocktail of serine/threonine protein phosphatase inhibitors in a clear solution of dimethyl sulfoxide (DMSO).

Phosphatase Inhibitor II is a cocktail of tyrosine protein phosphatase inhibitors in a clear or dark aqueous solution.

Protease Inhibitor Solution is a cocktail of protein protease inhibitors in a clear solution of DMSO.

Safety

Use safe laboratory practices and wear gloves, safety glasses, and lab coats when handling inhibitor solutions. Avoid skin contact with DMSO solutions. Handle and dispose of all hazardous samples properly in accordance with local, state, and federal guidelines. Refer to the product-specific material safety data sheet (MSDS) for additional safety and product handling information.

Reagent Preparation

Complete Lysis Buffer. The Inhibitor Pack can be used with MSD Tris Lysis Buffer (catalog #R60TX-3) for preparation of complete lysis buffer.

For 10 mL of complete lysis buffer, combine:

- 100 µL Phosphatase Inhibitor I (100X)
- 100 µL Phosphatase Inhibitor II (100X)
- 100 µL Protease Inhibitor Solution (100X)
- 9.7 mL Tris Lysis Buffer (150 mM NaCl; 20 mM Tris, pH 7.5; 1 mM EDTA; 1 mM EGTA; and 1% Triton X 100)

Assay Diluent. The Inhibitor Pack can be used with MSD Diluent 39 (catalog #R5ABB-3) for preparation of additional assay diluent for sample dilutions in the MSD Phospho-Akt (Ser473) (Catalog #K150MND) and Total Akt (Catalog #K150MOD) Kits.

For 10 mL of assay diluent, combine:

- 100 µL Phosphatase Inhibitor I (100X)
- 100 µL Phosphatase Inhibitor II (100X)
- 100 µL Protease Inhibitor Solution (100X)
- 9.7 mL Diluent 39 (Tris Lysis Buffer supplemented with carrier protein)

Good Practice

- Complete lysis buffer and assay diluent should be kept on ice during experiment manipulations.
- When required, optimize the effective concentration of phosphatase and protease inhibitor solutions. For example, if a sample contains particularly high levels of phosphatases or proteases, try a 2X final concentration of the inhibitor solutions or use alternate inhibitors, such as 2mM PMSF, in the lysis buffer.

For Research Use Only.
Not for use in
diagnostic procedures.

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