Store at –20°C

#9841

Bisindolylmaleimide I, Hydrochloride

500 µg

Orders ■ 877-616-CELL (2355)
orders@cellsignal.com
Support ■ 877-678-TECH (8324)
info@cellsignal.com
Web ■ www.cellsignal.com

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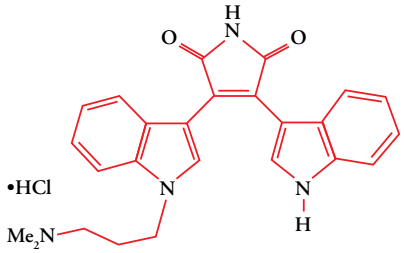
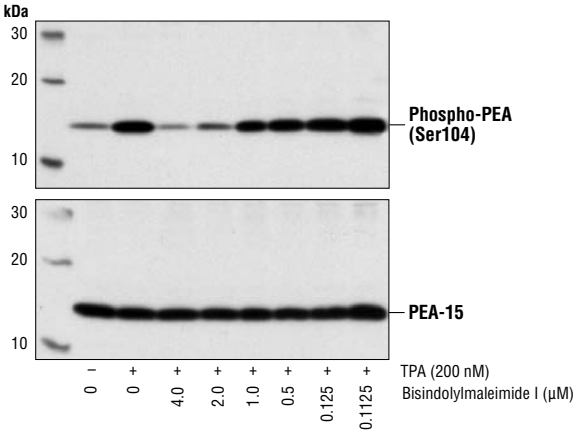
For Research Use Only. Not For Use In Diagnostic Procedures.

Background: Bisindolylmaleimide I (BIS) is a potent inhibitor of PKC (1,2). *In vitro* the IC_{50} of BIS is 10-20 nM for PKCα/β/γ and 100-200 nM for PKCδ/ε isoforms. The *in vitro* IC_{50} for PKCζ is about 6 µM, indicating that BIS is a very weak inhibitor for this isoform. In *in vivo* cellular assays the IC_{50} of BIS for PKC is between 0.2-2 µM (1,3).

Molecular Formula: $C_{25}H_{24}N_4O_2 \cdot HCl$



Molecular Weight: 448.95 g/mol



Western blot analysis of extracts from A172 cells, untreated or treated with indicated concentrations of Bisindolylmaleimide I for 30 minutes, followed by stimulation with 200 nM TPA for 10 minutes. The phosphorylation of PEA-15 was detected by using Phospho-PEA-15 (Ser104) Antibody #2776 (upper). PEA-15 Antibody #2780 was used as a loading control (lower). Bisindolylmaleimide I-mediated inhibition of TPA-induced PKC phosphorylation of PEA-15 at Ser104 is shown.

Directions For Use: Bisindolylmaleimide I is supplied as 500 µg powder. Store at or below -20ºC. Before use, dissolve powder in 0.28 ml DMSO to make a 4 mM bisindolylmaleimide I stock solution. For working concentrations of 2 µM–4 µM, dilute DMSO stock 1:2000 to 1:1000. Treat cells with the desired concentration for 30 minutes.

Storage: Store lyophilized or in solution at -20°C, desiccated. Protect from light. In lyophilized form, the chemical is stable for 24 months. Once in solution, use within 3 months to prevent loss of potency. Aliquot to avoid multiple freeze/thaw cycles.

Background References:

(1) Toullec, D. et al. (1991) *J. Biol. Chem.* 266, 15771–15781.

(2) Martiny-Baron, G. et al. (1993) *J. Biol. Chem.* 268, 9194–9197.

(3) Heikkilä, J. et al. (1993) *Biochem. Biophys. Res. Commun.* 197, 1185–1193.

Applications Key: **W**—Western **IP**—Immunoprecipitation **IHC**—Immunohistochemistry **ChIP**—Chromatin Immunoprecipitation **IF**—Immunofluorescence **F**—Flow cytometry **E-P**—ELISA-Peptide

Species Cross-Reactivity Key: **H**—human **M**—mouse **R**—rat **Hm**—hamster **Mk**—monkey **Mi**—mink **C**—chicken **Dm**—D. melanogaster **X**—Xenopus **Z**—zebrafish **B**—bovine **Dg**—dog **Pg**—pig **Sc**—S. cerevisiae **Ce**—C. elegans **Hr**—horse **All**—all species expected Species enclosed in parentheses are predicted to react based on 100% homology.