Gö6976

#12060 Store at -20°C

☑ 500 µg

Cell Signaling TECHNOLOGY®

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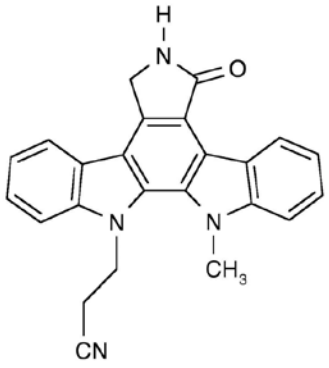
For Research Use Only. Not For Use In Diagnostic Procedures.

Background: Gö6976 is an ATP-competitive PKC inhibitor specific for Ca^{2+}-dependent PKCα (IC_{50} = 2.3 nM) and PKCβ1 (IC_{50} = 6.2 nM) isozymes (1). It is also a potent inhibitor of PKD (IC_{50} = 20 nM) (2). Researchers have demonstrated that Gö6976 blocks JNK activation (3-5) and inhibits PKCα-mediated, TPA-stimulated phosphorylation of CREB at Ser133 (6,7). Gö6976 is also an effective inhibitor of the tyrosine kinases Jak2 and FLT3 (8), as well as TrkA and TrkB (9).

Molecular Formula: $C_{24}H_{18}N_4O$

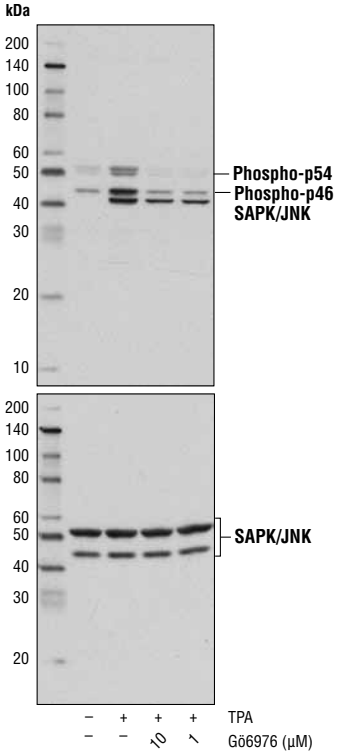


Molecular Weight: 378.43 g/mol

Solubility: Soluble in DMSO at 25 mg/ml; very poorly soluble in ethanol and water with maximum solubility in water at ~1-5 µM.

Purity: >99%

Directions for Use: Gö6976 is supplied as a lyophilized powder. For a 1 mM stock, reconstitute the 500 µg in 1.32 ml DMSO. Working concentrations and length of treatment can vary depending on the desired effect, but it is typically used as a pretreatment at 0.1-10 µM for 0.5-1 hr prior to treating with a stimulator or is used alone with varying treatment times lasting up to 24 hr.



Western blot analysis of extracts from Jurkat cells, serum-starved overnight and untreated or treated with TPA #4174 (100 nM, 15 min) either with or without Gö6976 pretreatment (1 hr) at the indicated concentrations, using Phospho-SAPK/JNK (Thr183/Tyr185) (81E11) Rabbit mAb #4668 (upper) or SAPK/JNK (56G8) Rabbit mAb #9258 (lower).

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) Martiny-Baron, G. et al. (1993) *J Biol Chem* 268, 9194-7.
(2) Gschwendt, M. et al. (1996) *FEBS Lett* 392, 77-80.
(3) López-Bergami, P. et al. (2005) *Mol Cell* 19, 309-20.
(4) Wen, J. et al. (2011) *J Neuroinflammation* 8, 38.
(5) Lemonnier, J. et al. (2004) *J Biol Chem* 279, 259-64.
(6) Chung, Y.W. et al. (2011) *J Biol Chem* 286, 29681-90.
(7) Paruchuri, S. and Sjölander, A. (2003) *J Biol Chem* 278, 45577-85.
(8) Grandage, V.L. et al. (2006) *Br J Haematol* 135, 303-16.
(9) Behrens, M.M. et al. (1999) *J Neurochem* 72, 919-24.

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 **All**—all species expected Species enclosed in parentheses are predicted to react based on 100% homology.