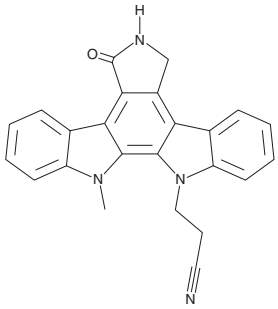
PRODUCT INFORMATION

Gö 6976

Item No. 13310

CAS Registry No.:	136194-77-9
Formal Name:	5,6,7,13-tetrahydro-13-methyl-5-oxo-12H-indolo[2,3-a]pyrrolo[3,4-c]carbazole-12-propanenitrile
Synonym:	PD 406976
MF:	$C_{24}H_{18}N_4O$
FW:	378.4
Purity:	≥98%
UV/Vis.:	λ_{max}: 245, 290, 332, 367 nm
Supplied as:	A crystalline solid
Storage:	-20°C
Stability:	≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

Gö 6976 is supplied as a crystalline solid. A stock solution may be made by dissolving the Gö 6976 in the solvent of choice, which should be purged with an inert gas. Gö 6976 is soluble in organic solvents such as DMSO and dimethyl formamide (DMF). The solubility of Gö 6976 in these solvents is approximately 10 mg/ml.

Gö 6976 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, Gö 6976 should first be dissolved in DMF and then diluted with the aqueous buffer of choice. Gö 6976 has a solubility of approximately 0.1 mg/ml in a 1:10 solution of DMF:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

Gö 6976 is a nonglycosidic indolocarbazole that inhibits protein kinase C (PKC) with IC_{50} values of 2.3 and 6.2 nM for PKCα and PKCβ1, respectively.[1] It does not inhibit the activity of PKCδ, PKCε, or PKCζ (IC_{50}s > 3 µM), indicating a preference for the Ca^{2+}-dependent subtypes, PKCα and PKCβ1.[1] Gö 6976 also inhibits the checkpoint kinases Chk1/2.[2] It was shown to abrogate DNA damage-induced S- and G_2-phase cell cycle arrest, leading to cytotoxicity in p53 mutant tumor cells.[2,3]

References

1. Martiny-Baron, G., Kazanietz, M.G., Mischak, H., *et al.* Selective inhibition of protein kinase C isoenzymes by the indolocarbazole Gö 6976. *J. Biol. Chem.* **268**, 9194-9197 (1993).
2. Kohn, E.A., Yoo, C.J., and Eastman, A. The protein kinase C inhibitor Gö6976 is a potent inhibitor of DNA damage-induced S and G_2 cell cycle checkpoints. *Cancer Res.* **63**, 31-35 (2003).
3. Kawabe, T. G2 checkpoint abrogators as anticancer drugs. *Mol. Cancer Ther.* **3(4)**, 513-519 (2004).

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