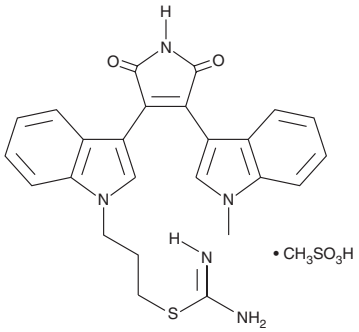
PRODUCT INFORMATION

Bisindolylmaleimide IX (mesylate)

Item No. 13334

CAS Registry No.:	138489-18-6
Formal Name:	carbamimidothioic acid, 3-[3-[2,5-dihydro-4-(1-methyl-1H-indol-3-yl)-2,5-dioxo-1H-pyrrol-3-yl]-1H-indol-1-yl]propyl ester, monomethanesulfonate
Synonyms:	BIM IX, Ro 31-8220
MF:	$C_{25}H_{23}N_5O_2S \bullet CH_3SO_3H$
FW:	553.7
Purity:	≥98%
UV/Vis.:	λ_{max}: 282, 376, 462 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

Bisindolymaleimide IX (BIM IX) (mesylate) is supplied as a crystalline solid. A stock solution may be made by dissolving the BIM IX (mesylate) in the solvent of choice, which should be purged with an inert gas. BIM IX (mesylate) is soluble in organic solvents such as DMSO and dimethyl formamide (DMF). The solubility of BIM IX (mesylate) in these solvents is approximately 20 and 25 mg/ml, respectively.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. BIM IX (mesylate) is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, BIM IX (mesylate) should first be dissolved in DMF and then diluted with the aqueous buffer of choice. BIM IX (mesylate) has a solubility of approximately 0.1 mg/ml in a 1:9 solution of DMF:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

BIM IX is a potent, cell-permeable inhibitor of protein kinase C (PKC) isoforms (IC_{50} = 5, 24, 14, 27, and 24 nM for PKC-α, PKC-βI, PKC-βII, PKC-γ, and PKC-ε, respectively).[1] It is a poor inhibitor of PKA (IC_{50} = 0.9 µM) and calcium/calmodulin kinase II (IC_{50} = 17 µM). BIM IX also inhibits glycogen synthase kinase 3 (IC_{50} = 6.8 nM).[2]

References

1. Wilkinson, S.E., Parker, P.J., and Nixon, J.S. Isoenzyme specificity of bisindolylmaleimides, selective inhibitors of protein kinase C. *Biochem J.* **294(Pt 2)**, 335-337 (1993).
2. Hers, I., Tavaré, J.M., and Denton, R.M. The protein kinase C inhibitors bisindolylmaleimide I (GF 109203x) and IX (Ro 31-8220) are potent inhibitors of glycogen synthase kinase-3 activity. *FEBS Lett.* **460(3)**, 433-436 (1999).

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