

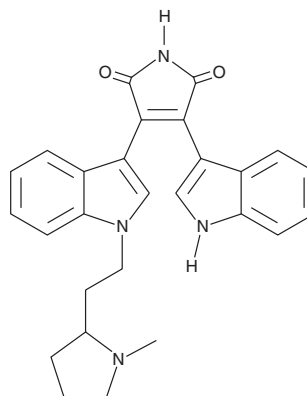
PRODUCT INFORMATION



Bisindolymaleimide II

Item No. 11020

CAS Registry No.: 137592-45-1
Formal Name: 3-(1H-indol-3-yl)-4-[1-[2-(1-methyl-2-pyrrolidinyl)ethyl]-1H-indol-3-yl]-1H-pyrrole-2,5-dione
Synonym: BIM II
MF: C₂₇H₂₆N₄O₂
FW: 438.5
Purity: ≥97% (mixture of isomers)
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 II (BIM II) is supplied as a crystalline solid. A stock solution may be made by dissolving the BIM II in the solvent of choice, which should be purged with an inert gas. BIM II is soluble in ethanol and DMSO.

Description

BIM II is a general inhibitor of all protein kinase C (PKC) subtypes with structural similarity to the nonspecific PKC inhibitor staurosporine.^{1,2} At 10 μM, BIM II inhibits 98% of PKCα kinase activity.³ Additionally, it inhibits PDK1 (IC₅₀ = 14 μM), an important kinase in the insulin signaling pathway, and PKA (IC₅₀ = 2.94 μM).^{3,4} Studies of structure-activity relationships of BIM II in complex with PDK1 and PKA kinase binding domains has led to useful insights into kinase/ligand binding for the rational design of inhibitors as potential therapeutic agents.^{3,4}

References

1. Davis, P.D., Hill, C.H., Lawton, G., *et al.* Inhibitors of protein kinase C. 1.1 2,3-bisarylmaleimides. *J. Med. Chem.* **35**, 177-184 (1992).
2. Toullec, D., Pianetti, P., Coste, H., *et al.* The bisindolymaleimide GF 109203X is a potent and selective inhibitor of protein kinase C. *J. Biol. Chem.* **266**(24), 15771-15781 (1991).
3. Komander, D., Kular, G.S., Schüttelkopf, A.W., *et al.* Interactions of LY333531 and other bisindolyl maleimide inhibitors with PDK1. *Structure* **12**, 215-226 (2004).
4. Gassel, M., Breitenlechner, C.B., König, N., *et al.* The protein kinase C inhibitor bisindolyl maleimide 2 binds with reversed orientations to different conformations of protein kinase A. *J. Biol. Chem.* **279**(22), 23679-23690 (2004).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

WARRANTY AND LIMITATION OF REMEDY

Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

Copyright Cayman Chemical Company, 11/08/2022

CAYMAN CHEMICAL

1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA

PHONE: [800] 364-9897

[734] 971-3335

FAX: [734] 971-3640

CUSTSERV@CAYMANCHEM.COM
WWW.CAYMANCHEM.COM