

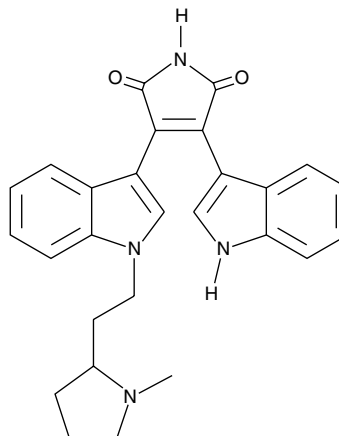
# Product Information



## Bisindolylmaleimide 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:** C<sub>27</sub>H<sub>26</sub>N<sub>4</sub>O<sub>2</sub>  
**FW:** 438.5  
**Purity:** ≥97% (isomer mixture)  
**Stability:** ≥2 years at -20°C  
**Supplied as:** A crystalline solid



### Laboratory Procedures

For long term storage, we suggest that bisindolylmaleimide II (BIM II) be stored as supplied at -20°C. It should be stable for at least two years.

BIM II is supplied as a crystalline solid. It is soluble in organic solvents such as ethanol and DMSO.

To enhance aqueous solubility, dilute the organic solvent solution into aqueous buffers or isotonic saline. If performing biological experiments, ensure the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. We do not recommend storing the aqueous solution for more than one day.

BIM II is a general inhibitor of all protein kinase C (PKC) subtypes with structural similarity to the nonspecific PKC inhibitor staurosporine.<sup>1,2</sup> At 10 μM, BIM II inhibits 98% of PKCα kinase activity.<sup>3</sup> Additionally, it inhibits PDK1 (IC<sub>50</sub> = 14 μM), an important kinase in the insulin signaling pathway, and PKA (IC<sub>50</sub> = 2.94 μM).<sup>3,4</sup> 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.<sup>3,4</sup>

### 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 bisindolylmaleimide 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).

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For a list of related products please visit: [www.caymanchem.com/catalog/11020](http://www.caymanchem.com/catalog/11020)

### Cayman Chemical

#### Mailing address

1180 E. Ellsworth Road  
Ann Arbor, MI  
48108 USA

#### Phone

(800) 364-9897  
(734) 971-3335

#### Fax

(734) 971-3640

#### E-Mail

[custserv@caymanchem.com](mailto:custserv@caymanchem.com)

#### Web

[www.caymanchem.com](http://www.caymanchem.com)

**WARNING: THIS PRODUCT IS FOR LABORATORY RESEARCH ONLY: NOT FOR ADMINISTRATION TO HUMANS. NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.**

#### MATERIAL SAFETY DATA

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