

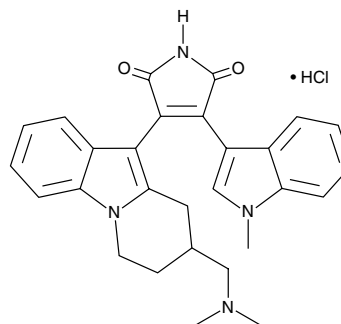
Product Information



Bisindolylmaleimide XI (hydrochloride)

Item No. 11073

CAS Registry No.: 145333-02-4
Formal Name: 3-[8-[(dimethylamino)methyl]-6,7,8,9-tetrahydropyrido[1,2-a]indol-10-yl]-4-(1-methyl-1H-indol-3-yl)-1H-pyrrole-2,5-dione, monohydrochloride
Synonyms: BIM XI, Ro 31-0432
MF: $C_{28}H_{28}N_4O_2 \cdot HCl$
FW: 489.0
Purity: $\geq 98\%$
Stability: ≥ 2 years at $-20^\circ C$
Supplied as: A crystalline solid



Laboratory Procedures

For long term storage, we suggest that bisindolylmaleimide XI (BIM XI) (hydrochloride) be stored as supplied at $-20^\circ C$. It should be stable for at least two years.

BIM XI (hydrochloride) is supplied as a crystalline solid. It is soluble in organic solvents such as methanol 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 XI is a selective, cell-permeable protein kinase C (PKC) inhibitor that displays 10-fold greater selectivity for PKC α ($IC_{50} = 9$ nM) and 4-fold greater selectivity for PKC β I ($IC_{50} = 28$ nM) over Ca^{2+} -independent PKC ϵ ($IC_{50} = 108$ nM).¹ Inhibition of PKC α by BIM XI and other similar PKC inhibitors has been associated with enhanced cardiac contractility and protection from heart failure.² BIM XI prevents T-cell activation and proliferation (with IC_{50} s ranging from 30-150 nM) associated with chronic inflammatory responses *in vivo*.³

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**, 335-337 (1993).
2. Liu, Q., Chen, X., MacDonnell, S.M., *et al.* PKC α , but not PKC β or PKC ϵ , regulates contractility and heart failure susceptibility: Implications for ruboxistaurin as a novel therapeutic approach. *Circ. Res.* **105**(2), 194-200 (2009).
3. Birchall, A.M., Bishop, J., Bradshaw, D., *et al.* Ro 32-0432, a selective and orally active inhibitor of protein kinase C prevents T-cell activation. *J. Pharmacol. Exp. Ther.* **268**(2), 922-929 (1994).

Related Products

For a list of related products please visit: www.caymanchem.com/catalog/11073

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

SAFETY DATA

This material should be considered hazardous until information to the contrary becomes available. Do not ingest, swallow, or inhale. Do not get in eyes, on skin, or on clothing. Wash thoroughly after handling. This information contains some, but not all, of the information required for the safe and proper use of this material. 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

Cayman Chemical Company makes **no warranty or guarantee** of any kind, whether written or oral, expressed or implied, including without limitation, any warranty of fitness for a particular purpose, suitability and merchantability, which extends beyond the description of the chemicals hereof. Cayman warrants only to the original customer that the material will meet our specifications at the time of delivery.

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Buyer's exclusive remedy and Cayman's sole liability hereunder shall be limited to a refund of the purchase price, or at Cayman's option, the replacement, at no cost to Buyer, of all material that does not meet our specifications.

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