

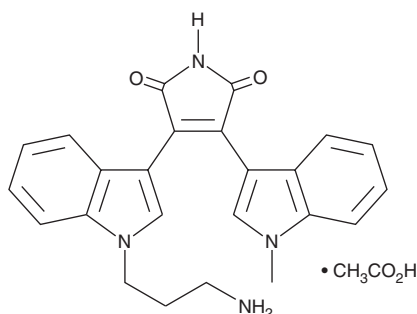
PRODUCT INFORMATION



Bisindolymaleimide VIII (acetate)

Item No. 13333

CAS Registry No.: 138516-31-1
Formal Name: 3-[1-(3-aminopropyl)-1H-indol-3-yl]-4-(1-methyl-1H-indol-3-yl)-1H-pyrrole-2,5-dione, acetate
Synonyms: BIM VIII, Ro 31-7549
MF: C₂₄H₂₂N₄O₂ • C₂H₄O₂
FW: 458.5
Purity: ≥98%
UV/Vis.: λ_{max}: 284, 373, 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 VIII (acetate) is supplied as a crystalline solid. A stock solution may be made by dissolving the bisindolymaleimide VIII (acetate) in the solvent of choice, which should be purged with an inert gas. Bisindolymaleimide VIII (acetate) is soluble in organic solvents such as DMSO and dimethyl formamide. The solubility of bisindolymaleimide VIII (acetate) in these solvents is approximately 5 mg/ml.

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

Description

Bisindolymaleimide VIII (BIM VIII) is a selective protein kinase C (PKC) inhibitor (IC₅₀ = 158 nM for rat brain PKC) that acts at the ATP binding site of PKC.^{1,2} This compound exhibits some degree of PKC isozyme specificity with preference for PKCα over PKCβI, PKCβII, PKCγ, or PKCε (IC₅₀s = 53, 195, 163, 213, and 175 nM, respectively).¹ At 10 μM BIM VIII does not inhibit the tyrosine phosphorylation or the activation of phospholipase C γ1.³ BIM VIII inhibits carbachol-evoked noradrenaline release from human SH-SY5Y neuroblastoma cells with an IC₅₀ value of 600 nM.⁴

References

1. Wilkinson, S.E., Parker, P.J., and Nixon, J.S. Isoenzyme specificity of bisindolymaleimides, selective inhibitors of protein kinase C. *Biochem. J.* **294**(Pt 2), 335-337 (1993).
2. Zhang, C., Hirasawa, N., and Beaven, M.A. Antigen activation of mitogen-activated protein kinase in mast cells through protein kinase C-dependent and independent pathways. *J. Immunol.* **158**(10), 4968-4975 (1997).
3. Ozawa, K., Yamada, K., Kazanietz, M.G., et al. Different isozymes of protein kinase C mediate feedback inhibition of phospholipase C and stimulatory signals for exocytosis in rat RBL-2H3 cells. *J. Biol. Chem.* **268**(4), 2280-2283 (1993).
4. Turner, N.A., Walker, J.H., Ball, S.G., et al. Phorbol ester-enhanced noradrenaline secretion correlates with the presence and activity of protein kinase C-α in human SH-SY5Y neuroblastoma cells. *J. Neurochem.* **66**(6), 2381-2389 (1996).

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.

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