
Product Data Sheet

Product Name: MNS
Cat. No.: GC10048

Chemical Properties

Cas. No. 1485-00-3

Chemical Name 5-[(E)-2-nitroethenyl]-1,3-benzodioxole

SMILES C1OC2=C(O1)C=C(C=C2)C=C[N+](=O)[O-]

Formula $C_9H_7NO_4$ M.Wt 193.16

Solubility $\geq 8\text{mg/mL}$ in DMSO Storage Store at -20°C

General tips For obtaining a higher solubility, please warm the tube at 37°C and shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

Shipping Condition Evaluation sample solution: ship with blue ice All other available size: ship with RT, or blue ice upon request.

Structure

Background

MNS is a potent and selective inhibitor of Src and Syk tyrosine kinases. target: src, syk. [1]IC₅₀:29.3 (src), 2.5 μM (syk); [1]In vitro: no direct effects on protein kinase C, Ca²⁺ mobilization, Ca²⁺-dependent enzymes, PKC activation. MNS potently prevents GPIIb/IIIa activation and platelet aggregation without directly affecting other signaling pathways required for platelet activation. [1] [2] MNS is much more potent than genistein in inhibiting platelet aggregation and protein tyrosine phosphorylation. [2]

References:

[1]. Wang WY et al. Prevention of platelet glycoprotein IIb/IIIa activation by 3,4-methylenedioxy-beta-nitrostyrene, a novel tyrosinekinase inhibitor. Mol Pharmacol. 2006 Oct;70(4):1380-9.

[2]. Wang WY et al. Synthesis and pharmacological evaluation of novel beta-nitrostyrene derivatives as tyrosine kinase inhibitors with potent antiplatelet activity. Biochem Pharmacol. 2007 Aug 15;74(4):601-11.

Caution: Product has not been fully validated for medical applications. For research use only.

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