

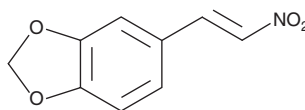
# PRODUCT INFORMATION



## MNS

Item No. 15206

CAS Registry No.: 1485-00-3  
Formal Name: 5-(2-nitroethenyl)-1,3-benzodioxole  
Synonyms: 3,4-Methylenedioxy- $\beta$ -nitrostyrene,  
NSC 10120, NSC 105303, NSC 170724,  
Syk Inhibitor III  
MF:  $C_9H_7NO_4$   
FW: 193.2  
Purity:  $\geq 95\%$   
UV/Vis.:  $\lambda_{max}$ : 204, 259, 364 nm  
Supplied as: A crystalline solid  
Storage:  $-20^\circ\text{C}$   
Stability:  $\geq 4$  years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

### Laboratory Procedures

MNS is supplied as a crystalline solid. A stock solution may be made by dissolving the MNS in the solvent of choice, which should be purged with an inert gas. MNS is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of MNS in ethanol is approximately 0.125 mg/ml and approximately 33 mg/ml in DMSO and DMF.

MNS is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, MNS should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. MNS has a solubility of approximately 0.33 mg/ml in a 1:2 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

### Description

MNS is a  $\beta$ -nitrostyrene that blocks and reverses platelet aggregation induced by such triggers as collagen, U-46619 (Item No. 16450), and ADP ( $IC_{50}$  = 1.1, 2.1, and 4.1  $\mu\text{M}$ , respectively).<sup>1,2</sup> It reduces tyrosine phosphorylation in stimulated platelets and inhibits recombinant human Syk and Src ( $IC_{50}$  = 2.8 and 27.3  $\mu\text{M}$ , respectively) *in vitro*.<sup>1,3</sup>

### References

1. Wang, W.-Y., Wu, Y.-C., and Wu, C.-C. Prevention of platelet glycoprotein IIb/IIIa activation by 3,4-methylenedioxy- $\beta$ -nitrostyrene, a novel tyrosine kinase inhibitor. *Mol. Pharmacol.* **70**(4), 1380-1389 (2006).
2. Hsieh, P.-W., Chang, Y.-T., Chuang, W.Y., et al. The synthesis and biologic evaluation of anti-platelet and cytotoxic  $\beta$ -nitrostyrenes. *Bioorg. Med. Chem.* **18**(21), 7621-7627 (2010).
3. Wang, W.-Y., Hsieh, P.-W., Wu, Y.-C., et al. Synthesis and pharmacological evaluation of novel  $\beta$ -nitrostyrene derivatives as tyrosine kinase inhibitors with potent antiplatelet activity. *Biochem. Pharmacol.* **74**(4), 601-611 (2007).

#### 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, 11/28/2022

#### 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