

# Certificate of Analysis

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**Product Name:** MNS

**Catalog No.:** 2877

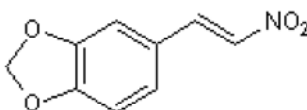
**Batch No.:** 1

CAS Number: 1485-00-3

IUPAC Name: 3,4-Methylenedioxy-β-nitrostyrene

## 1. PHYSICAL AND CHEMICAL PROPERTIES

**Batch Molecular Formula:** C<sub>9</sub>H<sub>7</sub>NO<sub>4</sub>  
**Batch Molecular Weight:** 193.16  
**Physical Appearance:** Yellow solid  
**Solubility:** DMSO to 100 mM  
 ethanol to 5 mM  
**Storage:** Store at +4°C  
**Batch Molecular Structure:**



C<sub>9</sub>H<sub>7</sub>NO<sub>4</sub>  
 Exact Mass: 193.04  
 Mol. Wt.: 193.16

## 2. ANALYTICAL DATA

**Melting Point:** At 161°C  
**HPLC:** Shows >99.6% purity  
**<sup>1</sup>H NMR:** Consistent with structure  
**Mass Spectrum:** Consistent with structure

**Microanalysis:**

	Carbon	Hydrogen	Nitrogen
Theoretical	55.96	3.65	7.25
Found	55.98	3.61	7.19

Caution - Not Fully Tested • Research Use Only • Not For Human or Veterinary Use

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**Catalog No.:** 2877

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CAS Number: 1485-00-3

IUPAC Name: 3,4-Methylenedioxy-β-nitrostyrene

**Description:**

Selective inhibitor of Src and Syk tyrosine kinases. Inhibits thrombin-induced platelet aggregation via inhibition of GPIIb/IIIa activation (IC<sub>50</sub> = 12.7 μM). Exhibits no effects on Ca<sup>2+</sup>-dependent enzymes, PKC or arachidonic acid metabolism. Also inhibits inflammasome activation.

**Physical and Chemical Properties:**

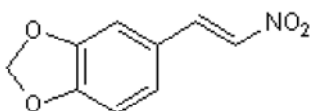
Batch Molecular Formula: C<sub>9</sub>H<sub>7</sub>NO<sub>4</sub>

Batch Molecular Weight: 193.16

Physical Appearance: Yellow solid

**Minimum Purity:** >99%

**Batch Molecular Structure:**



C<sub>9</sub>H<sub>7</sub>NO<sub>4</sub>

Exact Mass: 193.04

Mol. Wt.: 193.16

**Storage:** Store at +4°C

CAUTION - This product is light sensitive and we recommend that the solid material and any solutions obtained are protected from exposure to light.

**Solubility & Usage Info:**

DMSO to 100 mM

ethanol to 5 mM

**Stability and Solubility Advice:**

Some solutions can be difficult to obtain and can be encouraged by rapid stirring, sonication or gentle warming (in a 45-60°C water bath).

Information concerning product stability, particularly in solution, has rarely been reported and in most cases we can only offer a general guide. Our standard recommendations are:

**SOLIDS:** Provided storage is as stated on the product label and the vial is kept tightly sealed, the product can be stored for up to 6 months from date of receipt.

**SOLUTIONS:** We recommend that stock solutions, once prepared, are stored aliquoted in tightly sealed vials at -20°C or below and used within 1 month. Wherever possible solutions should be made up and used on the same day.

**References:**

**He et al** (2014) 3,4-methylenedioxy-β-nitrostyrene inhibits NLRP3 inflammasome activation by blocking assembly of the inflammasome. *J.Biol.Chem.* **289** 1142. PMID: 24265316.

**Wang et al** (2007) Synthesis and pharmacological evaluation of novel γ-nitrostyrene derivatives as tyrosine kinase inhibitors with potent antiplatelet activity. *Biochem.Pharmacol.* **74** 601. PMID: 17601492.

**Wang et al** (2006) Prevention of platelet glycoprotein IIb/IIIa activation by 3,4-methylenedioxy-β-nitrostyrene, a novel tyrosine kinase inhibitor. *Mol.Pharmacol.* **70** 1380. PMID: 16837624.

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