

**Product Name:** ISO 1

**Catalog No.:** 4288

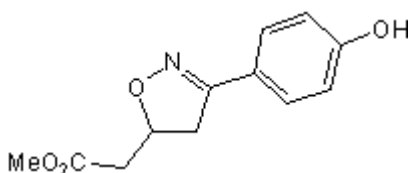
**Batch No.:** 1

**CAS Number:** 478336-92-4

**IUPAC Name:** 4,5-Dihydro-3-(4-hydroxyphenyl)-5-isoxazoleacetic acid methyl ester

**1. PHYSICAL AND CHEMICAL PROPERTIES**

**Batch Molecular Formula:** C<sub>12</sub>H<sub>13</sub>NO<sub>4</sub>  
**Batch Molecular Weight:** 235.24  
**Physical Appearance:** White solid  
**Solubility:** DMSO to 100 mM  
 ethanol to 100 mM  
**Storage:** Store at +4°C  
**Batch Molecular Structure:**



**2. ANALYTICAL DATA**

**HPLC:** Shows 99.3% purity  
**<sup>1</sup>H NMR:** Consistent with structure  
**Mass Spectrum:** Consistent with structure

**Microanalysis:**

	Carbon	Hydrogen	Nitrogen
Theoretical	61.27	5.57	5.95
Found	61.16	5.49	6.02

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

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**Description:**

Macrophage migration inhibitory factor (MIF) inhibitor (IC<sub>50</sub> = 7 μM); inhibits MIF tautomerase activity in vitro and in vivo. Protective against mouse models of streptozotocin-induced diabetes mellitus; blocks anti-inflammatory response following LPS exposure and increases survival. Inhibits airway remodeling in a mouse model of chronic asthma. Cell permeable; orally bioavailable.

**Physical and Chemical Properties:**

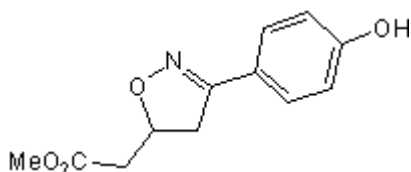
Batch Molecular Formula: C<sub>12</sub>H<sub>13</sub>NO<sub>4</sub>

Batch Molecular Weight: 235.24

Physical Appearance: White solid

**Minimum Purity:** >98%

**Batch Molecular Structure:**



**References:**

**Lubetsky et al** (2002) The tautomerase active site of macrophage migration inhibitory factor is a potential target for discovery of novel anti-inflammatory agents. *J.Biol.Chem.* **277** 24976. PMID: 11997397.

**Al-Abed et al** (2005) ISO-1 binding to the tautomerase active site of MIF inhibits its pro-inflammatory activity and increases survival in severe sepsis. *J.Biol.Chem.* **280** 36541. PMID: 16115897.

**Cvetkovic et al** (2005) Critical role of macrophage migration inhibitory factor activity in experimental autoimmune diabetes. *Endocrinology* **146** 2942. PMID: 15790730.

**Chen et al** (2010) ISO-1, a macrophage migration inhibitory factor antagonist, inhibits airway remodeling in a murine model of chronic asthma. *Mol.Med.* **16** 400. PMID: 20485865.

**Storage:** Store at +4°C

**Solubility & Usage Info:**

DMSO to 100 mM

ethanol to 100 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.

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