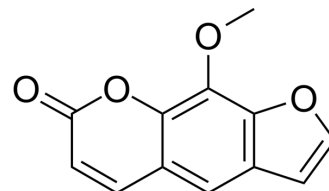


## Methoxsalen

Cat. No.:	HY-30151
CAS No.:	298-81-7
Molecular Formula:	C <sub>12</sub> H <sub>8</sub> O <sub>4</sub>
Molecular Weight:	216.19
Target:	Cytochrome P450
Pathway:	Metabolic Enzyme/Protease
Storage:	Powder    -20°C    3 years 4°C    2 years In solvent   -80°C    2 years -20°C    1 year



### SOLVENT & SOLUBILITY

#### In Vitro

DMSO : 50 mg/mL (231.28 mM; ultrasonic and warming and heat to 60°C)  
 H<sub>2</sub>O : < 0.1 mg/mL (insoluble)

	Solvent Concentration	Mass	1 mg	5 mg	10 mg
Preparing Stock Solutions	1 mM		4.6256 mL	23.1278 mL	46.2556 mL
	5 mM		0.9251 mL	4.6256 mL	9.2511 mL
	10 mM		0.4626 mL	2.3128 mL	4.6256 mL

Please refer to the solubility information to select the appropriate solvent.

#### In Vivo

- Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline  
 Solubility: ≥ 2.5 mg/mL (11.56 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% corn oil  
 Solubility: ≥ 2.5 mg/mL (11.56 mM); Clear solution

### BIOLOGICAL ACTIVITY

#### Description

Methoxsalen (8-Methoxypsoralen) is a furanocoumarin compound used in psoralen, used in studies of psoriasis, eczema, vitiligo and some sun-exposed cutaneous lymphomas, and is a P450 inhibitor.

#### In Vivo

Methoxsalen (15mg/kg, i.p, single dose) increases nicotine's C<sub>max</sub> prolongs the plasma nicotine half-life (fourfold increase), decreases its clearance (sixfold decrease), and increases its AUC<sup>[1]</sup>.  
 Methoxsalen (15mg/kg, i.p, single dose) enhances the potency of pharmacological effects of oral nicotine (i.e., body temperature and analgesia)<sup>[1]</sup>.  
 MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Animal Model:	Male adult ICR mice <sup>[1]</sup>
Dosage:	15 mg/kg
Administration:	Intraperitoneal injection (i.p.), single dose
Result:	Increased nicotine plasma levels were still above 10ng/ml at 6hr. Induced nicotine's antinociceptive and hypothermic lasted close to 6 and 24 hr.

## CUSTOMER VALIDATION

- Nat Commun. 2018 Nov 16;9(1):4820.
- Proc Natl Acad Sci U S A. 2023 Sep 12;120(37):e2308685120.
- Clin Chem. 2019 Dec;65(12):1522-1531.
- Chemosphere. 2021, 131347.
- Br J Pharmacol. 2021 Aug 6.

See more customer validations on [www.MedChemExpress.com](http://www.MedChemExpress.com)

## REFERENCES

[1]. Alsharari SD, et al. Pharmacokinetic and Pharmacodynamics Studies of Nicotine After Oral Administration in Mice: Effects of Methoxsalen, a CYP2A5/6 Inhibitor. Nicotine Tob Res. 2014 Jan;16(1):18-25.

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

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