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## Product Data Sheet

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Product Name: MK-447  
Cat. No.: GC31966

### Chemical Properties

Cas. No. 58456-91-0

SMILES OC1=C(I)C=C(C(C)(C)C)C=C1CN

Formula  $C_{11}H_{16}INO$  M.Wt 305.16

Solubility Soluble 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

### Protocol

#### Animal experiment:

Male Charles River CD rats weighing 140 and 200 g are fasted overnight with water ad lib. The rats are pretreated orally with compound (MK-447) or buffered glycol vehicle in a dosage volume of 1.0 mL/kg one hour before challenge with the necrotizing agents. The necrotizing agents [acetylsalicylic acid at 40 suspended in 0.5% methylcellulose (1500 cps) or 37.5% ethanol] are administered p.o. in a dose volume of 0.1 mL/100 g body weight or 1 mL/rat, respectively. Rats are killed with CO<sub>2</sub> one hour after acetylsalicylic acid or ethanol, the stomach removed, inflated with water, and opened ture. The presence of mucosal bleeding is noted and the mucosa is wiped off[1].

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

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### References:

- [1]. Shriver DA, et al. The gastric antisecretory and antiulcer activity of MK-447, an enhancer of prostaglandin synthesis. Life Sci. 1980 Dec 22-29;27(25-26):2483-7.
- [2]. Harada Y, et al. Acceleration of endogeneous PGI<sub>2</sub> generation from isolated rat aortae by MK-447. Jpn J Pharmacol. 1981 Oct;31(5):845-8.

### Background

MK-447 is a free radical scavenger, also a nonsteroidal antiinflammatory agent, and enhances the formation of the endoperoxide, PGH<sub>2</sub>, and other prostaglandins.

MK-447 is a free radical scavenger, reduces the accumulation of the endoperoxide, PGG<sub>2</sub> and also enhances the formation of the endoperoxide, PGH<sub>2</sub>, and other prostaglandins[1]. MK-447 (100 μM) increases the amounts of prostaglandin I<sub>2</sub> (PGI<sub>2</sub>). MK-447 also accelerates endogenous PGI<sub>2</sub> generation in the isolated rat aorta[2].

MK-447 (20 and 50 mg/kg, p.o.) blocks gastric acid secretion in the 4 hour pylorus

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ligated rats, but shows no effect on gastric secretion of pepsin. MK-447 (5, 10, 20 and 40 mg/kg, p.o.) dose-dependently decreases acid output in dogs[1].

[1]. Shriver DA, et al. The gastric antisecretory and antiulcer activity of MK-447, an enhancer of prostaglandin synthesis. *Life Sci.* 1980 Dec 22-29;27(25-26):2483-7. [2]. Harada Y, et al. Acceleration of endogeneous PGI<sub>2</sub> generation from isolated rat aortae by MK-447. *Jpn J Pharmacol.* 1981 Oct;31(5):845-8.

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