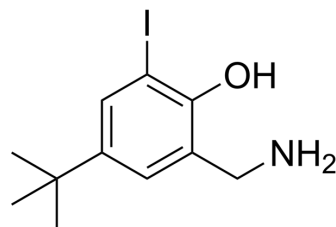


## MK-447

<b>Cat. No.:</b>	HY-100297
<b>CAS No.:</b>	58456-91-0
<b>Molecular Formula:</b>	C <sub>11</sub> H <sub>16</sub> INO
<b>Molecular Weight:</b>	305.16
<b>Target:</b>	Prostaglandin Receptor
<b>Pathway:</b>	GPCR/G Protein
<b>Storage:</b>	Please store the product under the recommended conditions in the Certificate of Analysis.



### BIOLOGICAL ACTIVITY

<b>Description</b>	MK-447 is a free radical scavenger, also a nonsteroidal antiinflammatory agent, and enhances the formation of the endoperoxide, PGG <sub>2</sub> , and other prostaglandins.
<b>IC<sub>50</sub> &amp; Target</b>	PGI <sub>2</sub>
<b>In Vitro</b>	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, PGG <sub>2</sub> , and other prostaglandins <sup>[1]</sup> . 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 <sup>[2]</sup> . MCE has not independently confirmed the accuracy of these methods. They are for reference only.
<b>In Vivo</b>	MK-447 (20 and 50 mg/kg, p.o.) blocks gastric acid secretion in the 4 hour pylorus 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 <sup>[1]</sup> . MCE has not independently confirmed the accuracy of these methods. They are for reference only.

### PROTOCOL

<b>Animal Administration</b> <sup>[1]</sup>	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 <sup>[1]</sup> . MCE has not independently confirmed the accuracy of these methods. They are for reference 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.

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

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