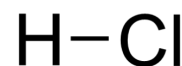
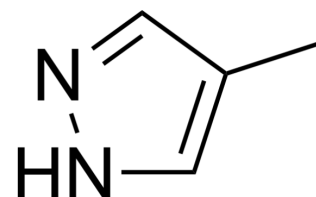


## Fomepizole hydrochloride

Cat. No.:	HY-B0876A
CAS No.:	56010-88-9
Molecular Formula:	C <sub>4</sub> H <sub>7</sub> ClN <sub>2</sub>
Molecular Weight:	118.56
Target:	Cytochrome P450
Pathway:	Metabolic Enzyme/Protease
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



### BIOLOGICAL ACTIVITY

<b>Description</b>	Fomepizole (4-Methylpyrazole) hydrochloride is a potent and orally active cytochrome P450 (CYP2E1) inhibitor. Fomepizole hydrochloride is a competitive inhibitor of the enzyme alcohol dehydrogenase. Fomepizole hydrochloride blocks further conversion of methanol and ethylene glycol to toxic metabolites. Fomepizole hydrochloride has the potential for an antidote for ethylene glycol or methanol poisoning <sup>[1][2][3]</sup> .								
<b>IC<sub>50</sub> &amp; Target</b>	CYP2E1								
<b>In Vivo</b>	<p>Pretreatment with Fomepizole (4-Methylpyrazole; 25 mg/kg; IP) prolongs ethanol neurobehavioral toxicity in CD-1 mice<sup>[4]</sup>. MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p> <table> <tr> <td>Animal Model:</td> <td>Male CD-1 mice weighing 18-25 g<sup>[4]</sup></td> </tr> <tr> <td>Dosage:</td> <td>25 mg/kg</td> </tr> <tr> <td>Administration:</td> <td>IP; single dose</td> </tr> <tr> <td>Result:</td> <td>Decreased the dose of ethanol (1-5 g/kg; IP) at which 50% of the animals failed a particular outcome test (toxic dose 50; TD50).</td> </tr> </table>	Animal Model:	Male CD-1 mice weighing 18-25 g <sup>[4]</sup>	Dosage:	25 mg/kg	Administration:	IP; single dose	Result:	Decreased the dose of ethanol (1-5 g/kg; IP) at which 50% of the animals failed a particular outcome test (toxic dose 50; TD50).
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### CUSTOMER VALIDATION

- Chemosphere. 2021, 131347.
- Plant Physiol. 2023 Mar 29;kiad198.
- Food Chem Toxicol. 2022 Sep 15;113431.

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

### REFERENCES

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[1]. Casavant MJ. Fomepizole in the treatment of poisoning. Pediatrics. 2001 Jan;107(1):170.

[2]. Lepik KJ, et al. Adverse drug events associated with the antidotes for methanol and ethylene glycol poisoning: a comparison of ethanol and fomepizole. Ann Emerg Med. 2009 Apr;53(4):439-450.e10.

[3]. Garrett Rampon, et al. Use of fomepizole as an adjunct in the treatment of acetaminophen overdose: a case series. Toxicology Communications. Volume 4, 2020 - Issue 1.

[4]. Páez AM, et al. Effects of 4-methylpyrazole on ethanol neurobehavioral toxicity in CD-1 mice. Acad Emerg Med. 2004 Aug;11(8):820-6.

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

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