
Product Data Sheet

Product Name: Dimetacrine (Dimethacrine)

Cat. No.: GC31182

Chemical Properties

Cas. No. 4757-55-5

SMILES CN(C)CCCN1C2=CC=CC=C2C(C)(C)C3=C1C=CC=C3Formula C₂₀H₂₆N₂ M.Wt 294.43

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:**

Adult male mongrel dogs weighing 8 to 13 kg are used and anesthetized with sodium pentobarbital, 35 mg/kg i.v. Respiratory movement is measured by an accordion-type pneumograph placed around the thoraco-abdominal region and a pressure transducer. For the experiments on single i.v. injections, the increasing doses of Dimetacrine, 0.1, 0.3, 1, 3, 10 and 30 mg/kg i.v., until cardiac arrest occurs, are given into the cannulated left cephalic vein and are flushed with 1 mL of physiological saline. The changes in arterial blood pressure and heart rate caused by each dose are estimated for IMP, AMT and Dimetacrine[1].

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

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References:

[1]. Kato H, et al.
Comparison of
cardiovascular
toxicities induced by
dimetacrine,
imipramine and
amitriptyline in
isolated guinea pig
atria and
anesthetized dogs.
Jpn J Pharmacol.
1974 Dec;24(6):885-
91.

Background

Dimetacrine is a useful antidepressant which can be used for the treatment of various types of depression.

Dimetacrine is a useful antidepressant which can be used for the treatment of various types of depression. Dimetacrine in the highest concentration, 10 μM , decreases the contractile force to $36.5 \pm 9.1\%$. Dimetacrine, 0.3 μM , causes no statistically significant decline in contractile force from the controls. Tachycardia is observed after the administration of Dimetacrine, 1 to 3 mg/kg i.v., and the maximum response is obtained in dose of 3 mg/kg i.v.. The administration of Dimetacrine, 30 mg/kg i.v., causes an abrupt fall in blood pressure with tachycardia or bradycardia followed by cardiac arrest. Respiratory rate increases 40 min after the onset of infusion of Dimetacrine. Arterial blood pressure falls 50 min after the onset of infusion of Dimetacrine[1].

[1]. Kato H, et al. Comparison of cardiovascular toxicities induced by dimetacrine, imipramine and amitriptyline in isolated guinea pig atria and anesthetized dogs. Jpn J Pharmacol. 1974 Dec;24(6):885-91.

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