



# **Data Sheet**

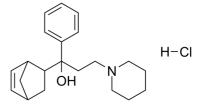
Product Name: Biperiden (Hydrochloride)

Cat. No.: CS-0442
CAS No.: 1235-82-1
Molecular Formula: C21H30CINO

Molecular Weight: 347.92 Target: mAChR

Pathway: GPCR/G Protein; Neuronal Signaling

Solubility: H2O: 5 mg/mL (14.37 mM; Need ultrasonic)



## **BIOLOGICAL ACTIVITY:**

Biperiden Hydrochloride (KL 373 Hydrochloride) is an antiparkinsonian agent, which is the selective central M1 cholinoreceptors blocker. Target: M1 receptors Biperiden is an antiparkinsonian agent of the anticholinergic type. It is used for the adjunctive treatment of all forms of Parkinson's disease (postencephalitic, idiopathic, and arteriosclerotic)[1]. Biperiden has an atropine-like blocking effect on all peripheral structures which are parasympathetic-innervate. It also has a prominent central blocking effect on M1 receptors [2]. Biperiden (0.11 mg/kg), benactyzine (0.3 mg/kg),caramiphen (10 mg/kg), procyclidine (3 mg/kg), and trihexyphenidyl (0.12 mg/kg) separately and each in combination with physostigmine (0.1 mg/kg) is to make a comparative assessment of potential cognitive effects. The results showed that benactyzine, caramiphen, and trihexyphenidyl reduced rats' innate preference for novelty, whereas biperiden and procyclidine did not [3]. Clinical indications: parkinsonism FDA Approved Date: Toxicity: Drowsiness; vertigo; headache; dizziness

#### References:

- [1]. Pehl C, et al. Effects of two anticholinergic drugs, trospium chloride and biperiden, on motility and evoked potentials of the oesophagus. Aliment Pharmacol Ther. 1998 Oct;12(10)
- [2]. Kornhuber J, et al. Identification of novel functional inhibitors of acid sphingomyelinase. PLoS One. 2011;6(8)
- [3]. Myhrer T, et al. Antiparkinson drugs used as prophylactics for nerve agents: studies of cognitive side effects in rats. Pharmacol Biochem Behav. 2008 Jun;89(4):633-8.

### **CAIndexNames:**

1-Piperidinepropanol, .alpha.-bicyclo[2.2.1]hept-5-en-2-yl-.alpha.-phenyl-, hydrochloride (1:1)

#### **SMILES:**

OC(C1CC2C=CC1C2)(CCN3CCCCC3)C4=CC=CC=C4.[H]Cl

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

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