

# **Certificate of Analysis**

Print Date: Jun 16<sup>th</sup> 2016 **WWW.tocris.com** 

Product Name: Cyproheptadine hydrochloride Catalog No.: 0996 Batch No.: 2

CAS Number: 969-33-5 EC Number: 213-535-1

IUPAC Name: 4-(5*H*-Dibenzo[*a*,*d*]cyclohepten-5-ylidine)-methylpiperidine hydrochloride

#### 1. PHYSICAL AND CHEMICAL PROPERTIES

**Batch Molecular Formula:** C<sub>21</sub>H<sub>21</sub>N.HCl.1½H<sub>2</sub>O

Batch Molecular Weight: 350.88

Physical Appearance: White solid

**Solubility:** DMSO to 100 mM

Storage: Store at RT

**Batch Molecular Structure:** 

#### 2. ANALYTICAL DATA

Microanalysis:

HPLC: Shows 99.8% purity

1H NMR: Consistent with structure

Mass Spectrum: Consistent with structure

Carbon Hydrogen Nitrogen

Theoretical 71.89 7.18 3.99 Found 71.93 7.24 4.02



## **Product Information**

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### **Description:**

Non-selective 5HT $_2$  antagonist, migraine prophylactic. Also SETD7/9 inhibitor (IC $_{50}$  = 1 $\mu$ M). Decreases expression and increases degradation of estrogen receptor (ER)  $\alpha$  in breast tumor MCF7 cells. Inhibits growth of MCF7 xenografts in mice.

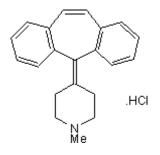
#### **Physical and Chemical Properties:**

Batch Molecular Formula: C<sub>21</sub>H<sub>21</sub>N.HCl.1½H<sub>2</sub>O

Batch Molecular Weight: 350.88 Physical Appearance: White solid

Minimum Purity: >98%

#### **Batch Molecular Structure:**



Storage: Store at RT

#### Solubility & Usage Info:

DMSO to 100 mM

#### Stability and Solubility Advice:

Some solutions can be difficult to obtain and can be encouraged by rapid stirring, sonication or gentle warming (in a 45-60°C water bath).

Information concerning product stability, particularly in solution, has rarely been reported and in most cases we can only offer a general guide. Our standard recommendations are:

SOLIDS: Provided storage is as stated on the product label and the vial is kept tightly sealed, the product can be stored for up to 6 months from date of receipt.

SOLUTIONS: We recommend that stock solutions, once prepared, are stored aliquoted in tightly sealed vials at -20°C or below and used within 1 month. Wherever possible solutions should be made up and used on the same day.

#### References:

**Takemoto** *et al* (2016) Identification of cyproheptadine as an inhibitor of SET domain containing lysine methyltransferase 7/9 (Set7/9) that regulates estrogen-dependent transcription. J.Med.Chem. **59** 3650. PMID: 27088648.

**Hoyer** *et al* (1994) VII. International Union of Pharmacology classification of receptors for 5-hydroxytryptamine (serotonin). Pharmacol.Rev. *46* 157. PMID: 7938165.

Moran et al (1994) Inhibitory 5-hydroxytryptamine receptors involved in pressor effects obtained by stimulation of sympathetic outflow from spinal cord in pithed rats. Br.J.Pharmacol. 113 1358. PMID: 7889292.