

Certificate of Analysis

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Product Name: ZD 7288

Catalog No.: 1000

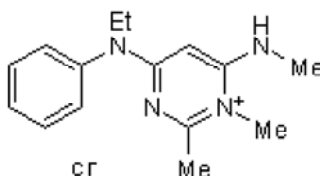
Batch No.: 6

CAS Number: 133059-99-1

IUPAC Name: 4-Ethylphenylamino-1,2-dimethyl-6-methylaminopyrimidinium chloride

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₁₅H₂₁ClN₄·½H₂O
Batch Molecular Weight: 301.82
Physical Appearance: White crystalline solid
Solubility: water to 100 mM
 DMSO to 100 mM
Storage: Desiccate at +4°C
Batch Molecular Structure:



2. ANALYTICAL DATA

TLC: R_f = 0.37 (Dichloromethane:Methanol [9:1])
Melting Point: Between 202 - 205°C
HPLC: Shows 99.9% purity
¹H NMR: Consistent with structure

Microanalysis:

	Carbon	Hydrogen	Nitrogen	Chlorine
Theoretical	59.69	7.35	18.56	11.75
Found	59.91	7.27	18.45	12.04

Caution - Not Fully Tested • Research Use Only • Not For Human or Veterinary Use

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Description:

ZD 7288 is a sino-atrial node function modulator; blocks the hyperpolarization activated cation current I_f (HCN channel). Blocks I_h in central neurons. Increases NMDA-evoked noradrenaline release in rat brain *in vitro*.

Physical and Chemical Properties:

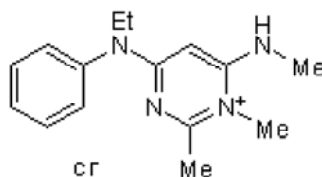
Batch Molecular Formula: $C_{15}H_{21}ClN_4 \cdot \frac{1}{2}H_2O$

Batch Molecular Weight: 301.82

Physical Appearance: White crystalline solid

Minimum Purity: $\geq 99\%$

Batch Molecular Structure:



Storage: Desiccate at +4°C

Solubility & Usage Info:

water to 100 mM

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.

Licensing Information:

Sold with the permission of AstraZeneca UK Ltd.

References:

Klar *et al* (2003) I_h channels as modulators of presynaptic terminal function: ZD7288 increases NMDA-evoked [³H]-noradrenaline release in rat neocortex slices. *Naunyn Schmiedebergs Arch.Pharmacol.* **367** 422. PMID: 12690435.

Green *et al* (1996) Pharmacological characterization of the inwardly rectifying current in the smooth muscle cells of the rat bladder. *Br.J.Pharmacol.* **119** 1509. PMID: 8982495.

Harris and Constanti (1995) Mechanism of block by ZD7288 of the hyperpolarization-activated inward rectifying current in guinea-pig substantia nigra neurons *in vitro*. *J.Neurophysiol.* **74** 2366. PMID: 8747199.

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