Hello Bio, Inc.
304 Wall St., Princeton, NJ 08540 USA

T. 609-683-7500
F. 609-228-4994

customercare-usa@hellobio.com

DATASHEET

ZD 7288

Product overview

Name	ZD 7288
Cat No	HB1152
Alternative names	ICI D7288
Biological action	Blocker
Purity	>98%
Customer comments	*Works great. I used this compound for some time. It works great!* **Verified customer, Karolinska Institutet**
Description	HCN channel blocker. Modulates sino-atrial node function.

Images

Biological Data

Biological description

Hyperpolarization-activated, cyclic nucleotide-gated cation (HCN) channel blocker (IC_{50} = 15.0 µM).

Modulates sino-atrial node function; blocks the hyperpolarization-activated inward current I_f and inhibits I_h in central neurons.

Also inhibits Na^+ currents in dorsal root ganglion neurons (IC_{50} = 1.17 µM).

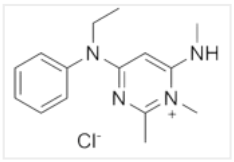
Blocks long term potentiation (LTP) induction and displays anxiolytic properties.

Also increases doubling time of embryonic stem cells (ESCs) and modulates differentiation outcomes. Active *in vivo*.

Solubility & Handling

Storage instructions	+4°C (desiccate)
Solubility overview	Soluble in water (100mM) or DMSO (100mM)
Important	This product is for RESEARCH USE ONLY and is not intended for therapeutic or diagnostic use. Not for human or veterinary use.

Chemical Data

Chemical name	4-Ethylphenylamino-1,2-dimethyl-6-methylaminopyrimidinium chloride
Molecular Weight	292.81
Chemical structure	
Molecular Formula	$C_{15}H_{21}ClN_4$
CAS Number	133059-99-1
PubChem identifier	123983
SMILES	CCN(C1=CC=CC=C1)C2=CC(=NC)N(C(=N2)C)C.Cl
Source	Synthetic
InChi	InChI=1S/C15H20N4.ClH/c1-5-19(13-9-7-6-8-10-13)15-11-14(16-3)18(4)12(2)17-15;/h6-11H,5H2,1-4H3;1H
InChiKey	DUWKUHWHTPRMAP-UHFFFAOYSA-N
MDL number	MFCD16879001
Appearance	White solid

References

Is ZD7288 a selective blocker of hyperpolarization-activated cyclic nucleotide-gated channel currents?

Wu X *et al* (2012) Channels (Austin) 6(6)
PubMedID 22989944

Intrahippocampal infusion of the Ih blocker ZD7288 slows evoked theta rhythm and produces anxiolytic-like effects in the elevated plus maze.

Yeung M *et al* (2013) Hippocampus 23(4)
PubMedID 23280856

Inhibitory actions of ZENECA ZD7288 on whole-cell hyperpolarization activated inward current (If) in guinea-pig dissociated sinoatrial node cells.

BoSmith RE *et al* (1993) Br J Pharmacol 110(1)
PubMedID 7693281

ZD7288, a blocker of the HCN channel family, increases doubling time of mouse embryonic stem cells and modulates differentiation outcomes in a context-dependent manner.

Omelyanenko et al (2016) Springerplus 16
PubMedID 26835223