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DATASHEET

EHNA hydrochloride

Product overview

Name	EHNA hydrochloride
Cat No	HB3540
Biological action	Inhibitor
Purity	>98%
Description	Potent adenosine deaminase and PDE2 inhibitor. Suppresses spontaneous hESC differentiation. Also maintains pluripotency of hESCs in the absence of exogenous cytokines.

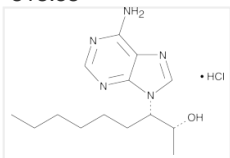
Biological Data

Biological description	Potent adenosine deaminase (ADA) and PDE2 inhibitor ($K_i = 1.6$ nM at ADA and IC_{50} values are 0.8 and 4 mM at human and porcine PDE2 respectively. Reversibly suppresses spontaneous hESCs differentiation. Also acts as a strong blocker of directed neuronal differentiation. Also maintains pluripotency of hESCs in the absence of exogenous cytokines.
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Solubility & Handling

Storage instructions	Room temperature
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	<i>erythro</i> -9-(2-Hydroxy-3-nonyl)adenine hydrochloride
Molecular Weight	313.83
Chemical structure	 The chemical structure shows the adenine base with a 9-(2-hydroxy-3-nonyl) substituent. The nonyl chain is attached to the 3-position of the 2-hydroxyethyl group. A hydrochloride salt is indicated by "• HCl".
Molecular Formula	$C_{14}H_{23}N_5O \cdot HCl$
CAS Number	58337-38-5
PubChem identifier	11056106
SMILES	<chem>NC1=NC=NC2=C1N=CN2[C@@H](CCCCC)[C@H](O)C.Cl</chem>
InChiKey	VVDXNJRUNJMYOZ-DHXVBOOMSA-N

References

Probing the active site of adenosine deaminase by a pH responsive fluorescent competitive inhibitor.

Caiolfa et al (1998) Biophys Chem 70(1)

PubMedID [9474762](#)

Erythro-9-(2-hydroxy-3-nonyl)adenine (EHNA) blocks differentiation and maintains the expression of pluripotency markers in

human embryonic stem cells.

Burton et al (2010) Biochem J 432(3)

PubMedID [20923411](#)

Inhibition of adenosine deaminase by erythro-9-(2-hydroxy-3-nonyl)adenine (EHNA) mimics the effect of inescapable shock on escape learning in rats.

Woodson et al (1998) Behav Neurosci 112(2)

PubMedID [9588486](#)
