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DATASHEET

IBMX

Product overview

Name IBMX
Cat No HB3000
Biological action Inhibitor
Purity >98%

DescriptionNon-selective, competitive cAMP and cGMP PDE inhibitor. Facilitates neural progenitor cell

differentiation.

Biological Data

Biological description Non-selective, competitive, cell permeable cAMP and cGMP PDE inhibitor, competitive, non-specific

cAMP and cGMP phosphodiesterase inhibitor which increases cAMP levels. IBMX also enhances

3T3-L1 cell differentiation and promotes neural progenitor cell differentiation.

Solubility & Handling

Storage instructions Solubility overview

Important

+4°C

Soluble in DMSO (75 mM), and in ethanol (50 mM)

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 Molecular Weight Chemical structure 3,7-Dihydro-1-methyl-3-(2-methylpropyl)-1H-purine-2,6-dione

222.3

H₃C N N CH₃

 $InChi \\ InChl=1S/C10H14N4O2/c1-6(2)4-14-8-7(11-5-12-8)9(15)13(3)10(14)16/h5-6H, \\ 4H2,1-3H3, (H,11,12) \\ 1H3, (H,11,12) \\ 1$

InChiKev APIXJSLKIYYUKG-UHFFFAOYSA-N

MDL numberMFCD00005584AppearanceWhite to off-white solid

References

cAMP promotes the differentiation of neural progenitor cells in vitro via modulation of voltage-gated calcium channels.

Lepski et al (2013) Front Cell Neurosci. 19

PubMedID 24065885

Phosphodiesterase inhibitors suppress alpha2-adrenoceptor-mediated 5-hydroxytryptamine release from tracheae of newborn rabbits.

Freitag et al (1998) Eur J Pharmacol 354(1) **PubMedID**9726632

Phosphodiesterase inhibitor 3-isobutyl-methyl-xanthine affects rabbit ovaries and oviduct.

Sirotkin et al (2010) Eur J Pharmacol 643(1) **PubMedID**20599929