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DATASHEET

Dorsomorphin dihydrochloride

Product overview

Name Dorsomorphin dihydrochloride

Cat No HB2800

Alternative names Compound C | BML-275

Biological action Inhibitor **Purity** >98%

Description Potent, selective AMPK inhibitor. Promotes neural hPSCs differentiation and promotes cardiomyocyte

differentiation in mESCs.

Biological Data

Potent, selective and reversible AMPK inhibitor (K_i = 109 nM). Inhibits AICAR and metformin induced **Biological description**

AMPK activation. Additionally shows activity at ALK2, ALK3 and ALK6. Also promotes cardiomyocyte

differentiation in mouse embroynic stem cells (mESCs).

Solubility & Handling

Solubility overview Soluble in water (100mM), and in DMSO (20mM)

Storage instructions Room temperature (desiccate)

Storage of solutions Prepare and use solutions on the same day if possible. Store solutions at -20 °C for up to one month if

storage is required. Equilibrate to RT and ensure the solution is precipitate free before use.

Shipping Conditions Stable for ambient temperature shipping. Follow storage instructions on receipt.

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 6-[4-[2-(1-Piperidinyl)ethoxy]pheny I]-3-(4-pyridinyl)-pyrazolo[1,5-a]pyrimidine dihydrochloride Molecular Weight 472.41

Chemical structure

Molecular Formula C24H25N5O.2HCI **CAS Number** 1219168-18-9 **PubChem identifier** 49761481

C1CCN(CC1)CCOC2=CC=C(C=C2)C3=CN4C(=C(C=N4)C5=CC=NC=C5)N=C3.Cl.Cl **SMILES**

Source Synthetic

InChi InChI=1S/C24H25N5O.2CIH/c1-2-12-28(13-3-1)14-15-30-22-6-4-19(5-7-22)21-16-26-24-23(17-27-2

9(24)18-21)20-8-10-25-11-9-20;;/h4-11,16-18H,1-3,12-15H2;2*1H

InChiKey RJDVIJJQKMGPMV-UHFFFAOYSA-N

MFCD11112197 MDL number Yellow solid **Appearance**

Role of AMP-activated protein kinase in mechanism of metformin action.

Zhou et al (2001) J Clin Invest 108(8)

PubMedID 11602624

Compound C induces protective autophagy in cancer cells through AMPK inhibition-independent blockade of Akt/mTOR pathway.

Vucicevic et al (2011) Autophagy 7(1)

PubMedID 20980833

Dorsomorphin, a selective small molecule inhibitor of BMP signaling, promotes cardiomyogenesis in embryonic stem cells.

Hao et al (18682835) PLoS One 3(8)