

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

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

customercare-usa@hellobio.com



DATASHEET

Dorsomorphin dihydrochloride

Product overview

Name	Dorsomorphin dihydrochloride
Cat No	HB2800
Description	Potent, selective AMPK inhibitor. Promotes neural hPSCs differentiation and promotes cardiomyocyte differentiation in mESCs.
Alternative names	Compound C BML-275
Biological action	Inhibitor
Purity	>98%

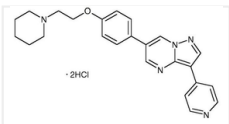
Biological Data

Biological description	Potent, selective and reversible AMPK inhibitor ($K_i = 109$ nM). Inhibits AICAR and metformin induced AMPK activation. Additionally shows activity at ALK2, ALK3 and ALK6. Also promotes cardiomyocyte differentiation in mouse embryonic stem cells (mESCs).
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Solubility & Handling

Storage instructions	Room temperature (desiccate)
Solubility overview	Soluble in water (100mM), and in DMSO (20mM)
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]phenyl]-3-(4-pyridinyl)-pyrazolo[1,5-a]pyrimidine dihydrochloride
Molecular Weight	472.41
Chemical structure	
Molecular Formula	$C_{24}H_{25}N_5O \cdot 2HCl$
CAS Number	1219168-18-9
PubChem identifier	49761481
SMILES	<chem>C1CCN(CC1)CCOC2=CC=C(C=C2)C3=CN4C(=C(C=N4)C5=CC=NC=C5)N=C3.Cl.Cl</chem>
Source	Synthetic
InChi	InChI=1S/C24H25N5O.2ClH/c1-2-12-28(13-3-1)14-15-30-22-6-4-19(5-7-22)21-16-26-24-23(17-27-29(24)18-21)20-8-10-25-11-9-20;/h4-11,16-18H,1-3,12-15H2;2*1H
InChiKey	RJDVIJJQKMGPMV-UHFFFAOYSA-N
MDL number	MFCDD11112197
Appearance	Yellow solid

References

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)
