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DATASHEET

A 769662

Product overview

Name	A 769662
Cat No	HB1351
Description	Potent, reversible AMPK activator. Inhibits MSC proliferation.
Biological action	Activator
Purity	>98%

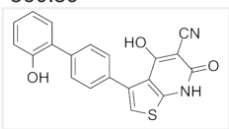
Biological Data

Biological description	Potent reversible AMP-activated protein kinase (AMPK) activator ($EC_{50} = 0.8 \mu\text{M}$). Activates AMPK allosterically and inhibits AMPK dephosphorylation. Also $\text{Na}^+ - \text{K}^+ - \text{ATPase}$ inhibitor (IC_{50} values are 57 and 220 μM for rat and human respectively). Stimulates glucose uptake and decreases fatty acid synthase levels. Additionally shown to inhibit MSC proliferation.
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Solubility & Handling

Storage instructions	+4 °C
Solubility overview	Soluble in DMSO (100 mM)
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	6,7-Dihydro-4-hydroxy-3-(2'-hydroxy[1,1'-biphenyl]-4-yl)-6-oxo-thieno[2,3-b]pyridine-5-carbonitrile
Molecular Weight	360.39
Chemical structure	
Molecular Formula	$\text{C}_{20}\text{H}_{12}\text{N}_2\text{O}_3\text{S}$
CAS Number	844499-71-4
PubChem identifier	54708532
SMILES	<chem>C1=CC=C(C(=C1)C2=CC=C(C=C2)C3=CSC4=C3C(=C(C(=O)N4)C#N)O)O</chem>
InChi	InChI=1S/C20H12N2O3S/c21-9-14-18(24)17-15(10-26-20(17)22-19(14)25)12-7-5-11(6-8-12)13-3-1-2-4-16(13)23/h1-8,10,23H,(H2,22,24,25)
InChiKey	CTESJDQKVOEUOY-UHFFFAOYSA-N

References

Identification and characterization of a small molecule AMPK activator that treats key components of type 2 diabetes and the metabolic syndrome.

Cool B *et al* (2006) Cell Metab 3(6)

PubMedID [16753576](https://pubmed.ncbi.nlm.nih.gov/16753576/)

AMP-activated protein kinase activator A-769662 is an inhibitor of the Na(+)-K(+)-ATPase.

Benziane B *et al* (2009) *Am J Physiol Cell Physiol* 297(6)

PubMedID [19828836](#)

Beyond AICA riboside: in search of new specific AMP-activated protein kinase activators.

Guigas B *et al* (2009) *IUBMB Life* 61(1)

PubMedID [18798311](#)
