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DATASHEET

NS 11021

Product overview

Name	NS 11021
Cat No	HB1047
Biological action	Activator
Purity	>95%
Description	Potent, selective $K_{Ca}1.1$ channel activator

Images

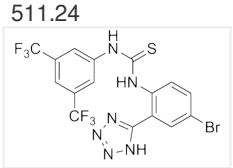
Biological Data

Biological description	Potent and selective $K_{Ca}1.1$ channel activator. Alters gating kinetics of K_{Ca} channels, increasing the open channel probability without affecting single channel conductance. Exhibits approx 10 times higher potency than NS 1619. Displays cytoprotective properties.

Solubility & Handling

Storage instructions	-20°C
Solubility overview	Soluble in ethanol (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	*N*'-[3,5-Bis(trifluoromethyl)phenyl]-*N*-[4-bromo-2-(2*H*-tetrazol-5-yl-phenyl]thiourea
Molecular Weight	511.24
Chemical structure	
Molecular Formula	$C_{16}H_9BrF_6N_6S$
CAS Number	956014-19-0
PubChem identifier	24825677

SMILES	BrC1=CC(C2=NN=NN2)=C(NC(NC3=CC(C(F)(F)F)=CC(C(F)(F)F)=C3)=S)C=C1
InChi	InChI=1S/C16H9BrF6N6S/c17-9-1-2-12(11(6-9)13-26-28-29-27-13)25-14(30)24-10-4-7(15(18,19)20)3-8(5-10)16(21,22)23/h1-6H,(H2,24,25,30)(H,26,27,28,29)
InChiKey	MDKAFDIKYQMOMF-UHFFFAOYSA-N
MDL number	MFCD25563257

References

The small molecule NS11021 is a potent and specific activator of Ca2+-activated big-conductance K+ channels.

Bentzen BH *et al* (2007) Mol Pharmacol 72(4)
PubMedID 17636045

Activation of big conductance Ca(2+)-activated K (+) channels (BK) protects the heart against ischemia-reperfusion injury.

Bentzen BH *et al* (2009) Pflugers Arch 457(5)
PubMedID 18762970

Pharmacological activation of mitochondrial BK(Ca) channels protects isolated cardiomyocytes against simulated reperfusion-induced injury.

Borchert GH *et al* (2013) Exp Biol Med (Maywood) 238(2)
PubMedID 23576804