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DATASHEET

(±)-Bay K 8644

Product overview

Name	(±)-Bay K 8644
Cat No	HB1209
Biological action	Agonist
Purity	>99%
Description	L-type Ca^{2+} channel agonist. Aids iPSCs generation from Mouse embryonic fibroblasts.

Images



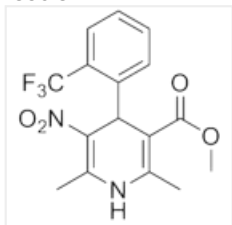
Biological Data

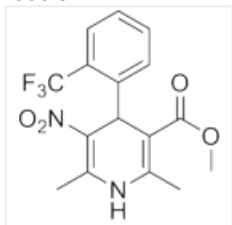
Biological description	L-type Ca^{2+} channel agonist. Causes reduced inotropy in the myocardium. Also aids induced pluripotent stem cell generation from mouse embryonic fibroblasts (MEFs). Shows convulsive and vasoconstrictive actions.
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Solubility & Handling

Storage instructions	+4 °C
Solubility overview	Soluble in ethanol (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	1,4-Dihydro-2,6-dimethyl-5-nitro-4-[2-(trifluoromethyl)phenyl]-3-pyridinecarboxylic acid, methyl ester
Molecular Weight	356.3
Chemical structure	



Chemical name	1,4-Dihydro-2,6-dimethyl-5-nitro-4-[2-(trifluoromethyl)phenyl]-3-pyridinecarboxylic acid, methyl ester
Molecular Formula	C ₁₆ H ₁₅ F ₃ N ₂ O ₄
CAS Number	71145-03-4
PubChem identifier	2303
SMILES	COC(=O)C1=C(C)NC(C)=C(C1C1=CC=CC=C1C(F)(F)F)[N+][O-]=O
InChi	InChI=1S/C16H15F3N2O4/c1-8-12(15(22)25-3)13(14(21(23)24)9(2)20-8)10-6-4-5-7-11(10)16(17,18)19/h4-7,13,20H,1-3H3
InChiKey	ZFLWDHHVRRZMEI-UHFFFAOYSA-N
MDL number	MFCD00036697
Appearance	Yellow solid

References

Reduced effects of BAY K 8644 on L-type Ca²⁺ current in failing human cardiac myocytes are related to abnormal adrenergic regulation.

Chen X *et al* (2008) Am J Physiol Heart Circ Physiol 294(5)

PubMedID [18359894](#)

Activation of protein kinase C by 1,4-dihydro-2,6-dimethyl-5-nitro-4-[2-(trifluoromethyl)-phenyl]-3-pyridine carboxylic acid methyl ester (Bay K 8644), a calcium channel agonist, in alveolar type II cells.

Sen N *et al* (1997) Biochem Pharmacol 53(9)

PubMedID [9214691](#)

Dimemorfan prevents seizures induced by the L-type calcium channel activator BAY k-8644 in mice.

Shin EJ *et al* (2004) Behav Brain Res 151(1-2)

PubMedID [15084442](#)
