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## DATASHEET

(±)-Bay K 8644

### Product overview

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

### Images



### Biological Data

<b>Biological description</b>	L-type Ca <sup>2+</sup> 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

<b>Storage instructions</b>	+4 °C
<b>Solubility overview</b>	Soluble in ethanol (100mM)
<b>Important</b>	This product is for RESEARCH USE ONLY and is not intended for therapeutic or diagnostic use. Not for human or veterinary use.

### Chemical Data

<b>Chemical name</b>	1,4-Dihydro-2,6-dimethyl-5-nitro-4-[2-(trifluoromethyl)phenyl]-3-pyridinecarboxylic acid, methyl ester
<b>Molecular Weight</b>	356.3
<b>Chemical structure</b>	

<b>Molecular Formula</b>	C <sub>16</sub> H <sub>15</sub> F <sub>3</sub> N <sub>2</sub> O <sub>4</sub>
<b>CAS Number</b>	71145-03-4
<b>PubChem identifier</b>	2303
<b>SMILES</b>	<chem>COC(=O)C1=C(C)NC(C)=C(C1C1=CC=CC=C1C(F)(F)F)[N+](=[O-])=O</chem>
<b>InChi</b>	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
<b>InChiKey</b>	ZFLWDHHVRRZMEI-UHFFFAOYSA-N
<b>MDL number</b>	MFCD00036697
<b>Appearance</b>	Yellow solid

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## References

### Reduced effects of BAY K 8644 on L-type Ca<sup>2+</sup> 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](#)

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