

Product Name: (S)-(-)-Bay K 8644

Catalog No.: 1546

Batch No.: 7

CAS Number: 98625-26-4

IUPAC Name: (4S)-1,4-Dihydro-2,6-dimethyl-5-nitro-4-[2-(trifluoromethyl)phenyl]-3-pyridinecarboxylic acid methyl ester

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₁₆H₁₅F₃N₂O₄·¼H₂O

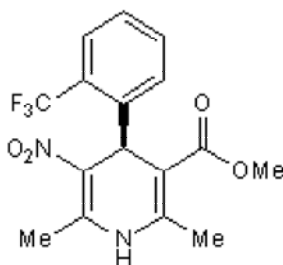
Batch Molecular Weight: 360.8

Physical Appearance: Yellow solid

Solubility: DMSO to 100 mM
ethanol to 100 mM

Storage: Store at +4°C

Batch Molecular Structure:



2. ANALYTICAL DATA

TLC: R_f = 0.4 (CH₂Cl₂/MeOH/NH₄OH (90:9:1))

HPLC: Shows 100% purity

Chiral HPLC: Shows 100% purity

¹H NMR: Consistent with structure

Mass Spectrum: Consistent with structure

Optical Rotation: [α]_D = -54.2 (Concentration = 0.44, Solvent = 1,4-Dioxane)

Microanalysis:

Carbon Hydrogen Nitrogen

Theoretical 53.26 4.33 7.76

Found 53.04 4.34 7.58

Caution - Not Fully Tested • Research Use Only • Not For Human or Veterinary Use

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Description:

L-type Ca²⁺-channel activator with positive inotropic, vasoconstrictive and behavioral effects in vivo. Racemate and (R)-(+)-Enantiomer also available.

Physical and Chemical Properties:

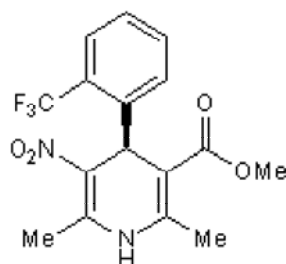
Batch Molecular Formula: C₁₆H₁₅F₃N₂O₄·¼H₂O

Batch Molecular Weight: 360.8

Physical Appearance: Yellow solid

Minimum Purity: >99%

Batch Molecular Structure:



Storage: Store at +4°C

Solubility & Usage Info:

DMSO to 100 mM

ethanol to 100 mM

Stability and Solubility Advice:

Some solutions can be difficult to obtain and can be encouraged by rapid stirring, sonication or gentle warming (in a 45-60°C water bath).

Information concerning product stability, particularly in solution, has rarely been reported and in most cases we can only offer a general guide. Our standard recommendations are:

SOLIDS: Provided storage is as stated on the product label and the vial is kept tightly sealed, the product can be stored for up to 6 months from date of receipt.

SOLUTIONS: We recommend that stock solutions, once prepared, are stored aliquoted in tightly sealed vials at -20°C or below and used within 1 month. Wherever possible solutions should be made up and used on the same day.

References:

Ravens and Schopper (1990) Opposite cardiac actions of the enantiomers of Bay K 8644 at different membrane potentials in guinea-pig papillary muscles. *Naunyn Schmiedebergs Arch.Pharmacol.* **341** 232. PMID: 1692975.

O'Neill and Bolger (1988) Enantiomer selectivity and the development of tolerance to the behavioral effects of the calcium channel activator BAY K 8644. *Brain Res.Bull.* **21** 865. PMID: 2465070.

Franckowiak et al (1985) The optical isomers of the 1,4-dihydropyridine BAY K 8644 show opposite effects on Ca channels. *Eur.J.Pharmacol.* **114** 223. PMID: 2412855.

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