

Certificate of Analysis

Product Name: GKA 50

Catalog No.: 5133

Batch No.: 1

CAS Number: 851884-87-2

IUPAC Name: 6-[[3-[(1S)-2-Methoxy-1-methylethoxy]-5-[(1S)-1-methyl-2-phenylethoxy]benzoyl]amino-3-pyridinecarboxylic acid

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: $C_{26}H_{28}N_2O_6 \cdot \frac{1}{4}H_2O$

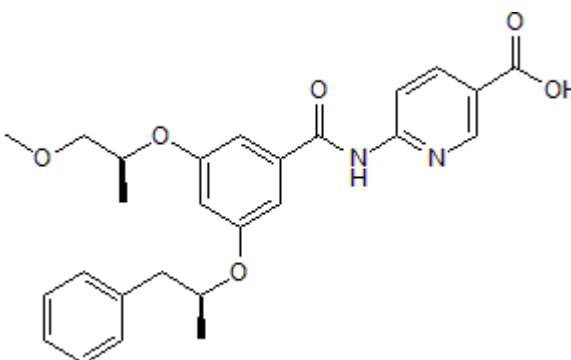
Batch Molecular Weight: 469.01

Physical Appearance: White solid

Solubility: DMSO to 100 mM

Storage: Store at -20°C

Batch Molecular Structure:



2. ANALYTICAL DATA

TLC: $R_f = 0.48$ (Chloroform:Methanol [9:1])

HPLC: Shows 98.8% purity

¹H NMR: Consistent with structure

Mass Spectrum: Consistent with structure

Microanalysis:

Carbon Hydrogen Nitrogen

Theoretical	66.58	6.12	5.97
Found	66.63	6.1	5.95

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Description:

Potent glucokinase activator ($EC_{50} = 33$ nM). Significantly reduces plasma glucose levels in diabetic rats; stimulates insulin release from mouse islets of Langerhans.

Physical and Chemical Properties:

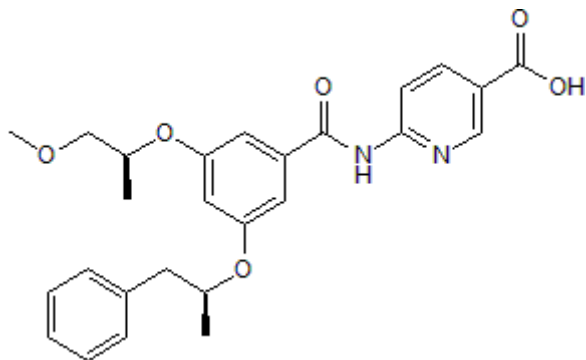
Batch Molecular Formula: $C_{26}H_{28}N_2O_6 \cdot \frac{1}{4}H_2O$

Batch Molecular Weight: 469.01

Physical Appearance: White solid

Minimum Purity: >98%

Batch Molecular Structure:



Storage: Store at -20°C

Solubility & Usage Info:

DMSO 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:

Coope et al (2006) Predictive blood glucose lowering efficacy by Glucokinase activators in high fat fed female Zucker rats. *Br.J.Pharmacol.* **149** 328. PMID: 16921397.

Johnson et al (2007) Glucokinase activators: molecular tools for studying the physiology of insulin-secreting cells. *Biochem.Soc.Trans.* **35** 1208. PMID: 17956314.

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