

Certificate of Analysis

Print Date: Feb 22nd 2022

Batch No.: 3

www.tocris.com

Catalog No.: 1798

Product Name: Gabexate mesylate

CAS Number: 56974-61-9

IUPAC Name: 4-[[6-[(Aminoiminomethyl)amino]-1-oxohexyl]oxy]-benzoic acid ethyl ester mesylate

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₁₆H₂₃N₃O₄.CH₃SO₃H

Batch Molecular Weight: 417.48 **Physical Appearance:** White solid

Solubility: water to 100 mM

phosphate buffered saline to 50 mM

Storage: Desiccate at RT

Batch Molecular Structure:

2. ANALYTICAL DATA

HPLC: Shows 99.5% purity

¹H NMR: Consistent with structure

Mass Spectrum: Consistent with structure

Microanalysis: Carbon Hydrogen Nitrogen

Theoretical 48.91 6.52 10.07 Found 49.1 6.6 10.12



Product Information

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Description:

Gabexate mesylate is a serine protease inhibitor; Gabexate mesylate inhibits trypsin, plasmin, plasma kallikrein and thrombin (IC $_{50}$ values are 9.4, 30, 41 and 110 μ M respectively). Antithrombotic in vitro and in vivo. Gabexate mesylate also inhibits LPS-induced TNF- α production, probably by inhibiting NF- κ B and AP-1 activation. Gabexate mesylate attenuates allergen-induced airway inflammation and eosinophils infiltration in the lung of asthma murine model.

Physical and Chemical Properties:

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Batch Molecular Weight: 417.48 Physical Appearance: White solid

Minimum Purity: ≥98%

Batch Molecular Structure:

Storage: Desiccate at RT

Solubility & Usage Info:

water to 100 mM

phosphate buffered saline to 50 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:

Chen et al (2006) Serine protease inhibitors nafamostat mesilate and gabexate mesilate attenuate allergeninduced airway inflammation and eosinophilia in a murine model of asthma. J.Allergy Clin.Immunol. 118 105. PMID: 16815145.

Yuksel *et al* (2003) Gabexate mesilate, a synthetic protease inhibitor, inhibits lipopolysaccharide-induced tumor necrosis factor-α production by inhibiting activation of both nuclear factor-κB and activator protein-1 in human monocytes. J.Pharmacol.Exp.Ther. *305* 298. PMID: 12649382.

Ohno et al (1981) FOY: [Ethyl p-(6-guanidinohexanoyloxy) benzoate] methanesulfonate as a serine proteinase inhibitor. II. In vivo effect on coagulo-fibrinolytic system in comparison with he. or apro. Thromb.Res. 24 445. PMID: 6178174.

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