

Certificate of Analysis

Product Name: YM 90709

Catalog No.: 1675

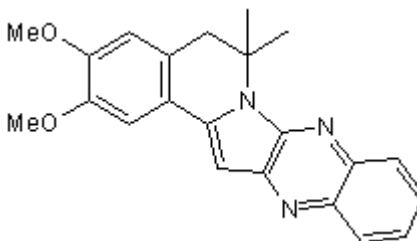
Batch No.: 1

CAS Number: 163769-88-8

IUPAC Name: 5,6-Dihydro-2,3-dimethoxy-6,6-dimethylbenz[7,8]indolizino[2,3-*b*]quinoxaline

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₂₂H₂₁N₃O₂
Batch Molecular Weight: 359.43
Physical Appearance: Yellow solid
Solubility: ethanol to 25 mM
 DMSO to 50 mM
Storage: Store at RT
Batch Molecular Structure:



2. ANALYTICAL DATA

TLC: R_f = 0.58 (Dichloromethane:Methanol [19:1])
Melting Point: Between 155 - 156°C
HPLC: Shows >99.7% purity
¹H NMR: Consistent with structure

Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	73.52	5.89	11.69
Found	73.4	5.94	11.63

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

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Description:

Novel, selective inhibitor of interleukin-5 (IL-5) (IC₅₀ = 0.45 - 1 mM). Inhibits IL-5-prolonged eosinophil survival and IL-5-induced tyrosine phosphorylation of JAK2 without inhibiting GM-CSF-mediated effects. Inhibits antigen-induced eosinophil and lymphocyte recruitment in rat airways in vivo, without affecting peripheral blood or bone marrow leukocytes.

Physical and Chemical Properties:

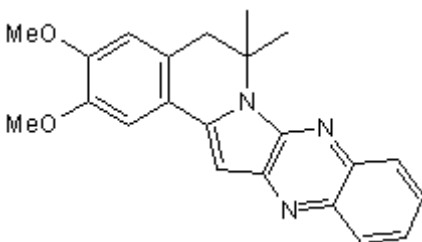
Batch Molecular Formula: C₂₂H₂₁N₃O₂

Batch Molecular Weight: 359.43

Physical Appearance: Yellow solid

Minimum Purity: >99%

Batch Molecular Structure:



References:

Morokata et al (2002) Characterization of YM-90709 as a novel antagonist which inhibits the binding of interleukin-5 to interleukin-5 receptor. *Int.Immunopharmacol.* **2** 1693. PMID: 12469943.

Morokata et al (2004) Effect of a novel interleukin-5 receptor antagonist, YM-90709 (2,3-dimethoxy-6,6-dimethyl-5,6-dihydrobenzo[7,8]indolizino[2,3-*b*]quinoxaline), on antigen-induced airway inflammation in BN rats. *Int.Immunopharmacol.* **4** 873. PMID: 15182727.

Morokata et al (2005) Effect of a novel interleukin-5 receptor antagonist, YM-90709, on antigen-induced eosinophil infiltration into the airway of BDF1 mice. *Immunol.Lett.* **98** 161. PMID: 15790522.

Storage: Store at RT

Solubility & Usage Info:

ethanol to 25 mM

DMSO 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.

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