



Certificate of Analysis

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Product Name: BI 4394 Catalog No.: 8842 Batch No.: 1

CAS Number: 1222173-37-6

IUPAC Name: 2-Ethyl 5-[3-[[[(4-carboxyphenyl)methyl]amino]carbonyl]-1-methyl-1*H*-pyrazol-5-yl]-1*H*-indole-2-carboxylate

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: $C_{24}H_{22}N_4O_5$.Batch Molecular Weight:446.46Physical Appearance:White solid

Solubility: DMSO to 100 mM Storage: Store at -20°C

Batch Molecular Structure:

2. ANALYTICAL DATA

HPLC: Shows 99.1% purity

¹H NMR: Consistent with structure

Mass Spectrum: Consistent with structure

Microanalysis: Carbon Hydrogen Nitrogen

Theoretical 64.57 4.97 12.55 Found 64.13 4.9 12.46

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

Product Information

Print Date: Jan 27th 2025

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Description:

BI 4394 is a highly potent and selective MMP-13 inhibitor (IC $_{50}$ = 1 nM). BI 4394 inhibits the degradation of isolated bovine nasal cartilage explants (IC $_{50}$ = 31 nM). It shows high selectivity (>1000 fold) for MMP-13 over other MMPs. In vivo, BI 4394 decreases the mean arthritic score vs control in a murine model of rheumatoid arthritis, when administered at a dose of 100 mg/kg over a 14-day period. BI 4394 is orally bioavailable.

Physical and Chemical Properties:

Batch Molecular Formula: C₂₄H₂₂N₄O₅. Batch Molecular Weight: 446.46 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. *Unless contradicted by product-specific protocols or instructions, our standard recommendations apply:

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.

Licensing Information:

This probe is supplied in conjunction with the Structural Genomics Consortium. For further characterization details, please visit the BI 4394 page on the SGC website.

References:

Taylor et al (2021) Indole inhibitors of MMP-13 for arthritic disorders. ACS Omega 6 18635. PMID: 34337203.

Taylor *et al* (2011) Fragment-based discovery of indole inhibitors of matrix metalloproteinase-13. J.Med.Chem. *54* 8174. PMID: 22017539.

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