

Certificate of Analysis

Product Name: Cinalukast

Catalog No.: 2025

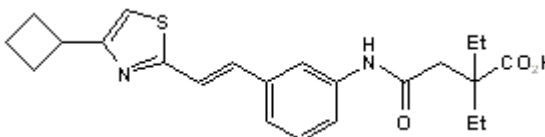
Batch No.: 1

CAS Number: 128312-51-6

IUPAC Name: 4-[[3-[(1E)-2-(4-Cyclobutyl-2-thiazolyl)ethenyl]phenyl]amino]-2,2-diethyl-4-oxobutanoic acid

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₂₃H₂₈N₂O₃S
Batch Molecular Weight: 412.55
Physical Appearance: Pale yellow solid
Solubility: ethanol to 10 mM
 DMSO to 100 mM
Storage: Desiccate at -20°C
Batch Molecular Structure:



2. ANALYTICAL DATA

TLC: R_f = 0.4 (Dichloromethane:Methanol [95:5])
Melting Point: Between 168 - 170°C
HPLC: Shows >98.2% purity
¹H NMR: Consistent with structure
¹³C NMR: Consistent with structure
Mass Spectrum: Consistent with structure
Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	66.96	6.84	6.79
Found	66.91	6.82	6.71

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

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Description:

Potent, selective CysLT₁ (LTD₄) leukotriene receptor antagonist (IC₅₀ = 6.4 nM). Inhibits LTD₄-induced bronchoconstriction in guinea pigs when administered intravenously, orally or by aerosol.

Physical and Chemical Properties:

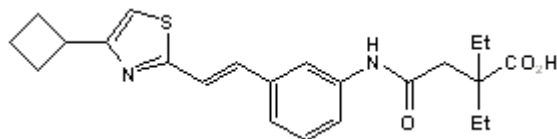
Batch Molecular Formula: C₂₃H₂₈N₂O₃S

Batch Molecular Weight: 412.55

Physical Appearance: Pale yellow solid

Minimum Purity: >98%

Batch Molecular Structure:



Storage: Desiccate at -20°C

Solubility & Usage Info:

ethanol to 10 mM
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:

O'Donnell (1991) Ro 24-5913: a potent, specific, orally active LTD₄ antagonist. *Ann.N.Y.Acad.Sci.* **629** 413. PMID: 1659286.

O'Donnell et al (1991) Pharmacologic actions of Ro 24-5913, a novel antagonist of leukotriene D₄. *J.Pharmacol.Exp.Ther.* **259** 751. PMID: 1658310.

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