

Certificate of Analysis

Product Name: LFM-A13

Catalog No.: 1300

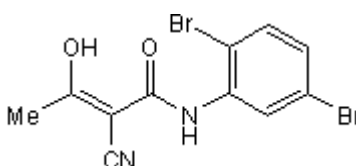
Batch No.: 2

CAS Number: 62004-35-7

IUPAC Name: 2-Cyano-N-(2,5-dibromophenyl)-3-hydroxy-2-butenamide

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₁₁H₈Br₂N₂O₂
Batch Molecular Weight: 360
Physical Appearance: Off White solid
Solubility: DMSO to 100 mM
Storage: Store at RT
Batch Molecular Structure:



2. ANALYTICAL DATA

TLC: R_f = 0.2 (Ethyl acetate:Petroleum ether [4:1])
HPLC: Shows 98.3% purity
¹H NMR: Consistent with structure
Mass Spectrum: Consistent with structure
Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	36.7	2.24	7.78
Found	36.59	2.26	7.59

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

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Description:

Potent and selective inhibitor of Bruton's tyrosine kinase (BTK). Inhibits recombinant BTK with an IC₅₀ value of 2.5 μM and has no activity on other protein kinases (including JAK1, JAK3, HCK, EGFR kinase and insulin receptor kinase) at concentrations of up to 278 μM.

Physical and Chemical Properties:

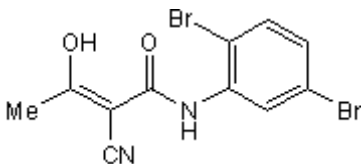
Batch Molecular Formula: C₁₁H₈Br₂N₂O₂

Batch Molecular Weight: 360

Physical Appearance: Off White solid

Minimum Purity: >98%

Batch Molecular Structure:



References:

Mahajan et al (1999) Rational design and synthesis of a novel anti-leukemic agent targeting Bruton's tyrosine kinase (BTK), LFM-A13 [α-cyano-β-hydroxy-β-methyl-N-(2,5-dibromophenyl)propenamide]. *J.Biol.Chem.* **274** 9587. PMID: 10092645.

Vassilev et al (1999) Bruton's tyrosine kinase as an inhibitor of the Fas/CD95 death-inducing signaling complex. *J.Biol.Chem.* **274** 1646. PMID: 9880544.

Crosby and Pool (2002) Interaction of Bruton's tyrosine kinase and protein kinase Cθ in platelets. *J.Biol.Chem.* **277** 9958. PMID: 11788586.

Storage: Store at RT

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.

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