



Certificate of Analysis

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Product Name: Linifanib Catalog No.: 7743 Batch No.: 2

CAS Number: 796967-16-3

IUPAC Name: N-[4-(3-Amino-1*H*-indazol-4-yl)phenyl]-N'-(2-fluoro-5-methylphenyl)urea

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: $C_{21}H_{18}FN_5O$.

Batch Molecular Weight: 375.4

Physical Appearance: White solid

Solubility: ethanol to 20 mM

DMSO to 100 mM

Storage: Store at -20°C

Batch Molecular Structure:

2. ANALYTICAL DATA

HPLC: Shows 98.5% purity

¹H NMR: Consistent with structure

Mass Spectrum: Consistent with structure

Microanalysis: Carbon Hydrogen Nitrogen

Theoretical 67.19 4.83 18.66

Found 66.57 4.66 18.15

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Product Information

Print Date: Mar 19th 2025

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IUPAC Name: N-[4-(3-Amino-1*H*-indazol-4-yl)phenyl]-N'-(2-fluoro-5-methylphenyl)urea

Description:

Linifanib is a potent receptor tyrosine kinase (RTK) inhibitor. It inhibits PDGFR β , KDR, FLT3, CSF-1R (IC $_{50}$ values are 2, 4, 4 and 7 nM, respectively). Linifanib inhibits angiogenesis in vascularized micro-organs and potently inhibits VEGF-stimulated endothelial cell proliferation (IC $_{50}$ = 0.2 nM). Linifanib also promotes the generation and reprogramming of iPSCs from somatic cells.

Physical and Chemical Properties:

Batch Molecular Formula: $C_{21}H_{18}FN_5O$.

Batch Molecular Weight: 375.4 Physical Appearance: White solid

Minimum Purity: ≥98%

Batch Molecular Structure:

Storage: Store at -20°C

Solubility & Usage Info:

ethanol to 20 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. *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.

References:

Guan et al (2022) Chemical reprogramming of human somatic cells to pluripotent stem cells. Nature 605 325. PMID: 35418683.

Jahid *et al* (2022) Structure-based design of CDC42 effector interaction inhibitors for the treatment of cancer. Cell Rep. **39** 110641. PMID: 35385746.

Albert et al (2006) Preclinical activity of ABT-869, a multitargeted receptor tyrosine kinase inhibitor. Mol.Cancer Ther. 5 995. PMID: 16648571.

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