bio-techne
TOCRIS

Print Date: Sep 22nd 2023

Certificate of Analysis

www.tocris.com

Product Name: **SB 525334** **Catalog No.: 3211** **Batch No.: 5**

CAS Number: 356559-20-1

IUPAC Name: 6-[2-(1,1-Dimethylethyl)-5-(6-methyl-2-pyridinyl)-1*H*-imidazol-4-yl]quinoxaline

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: $C_{21}H_{21}N_5.½H_2O$

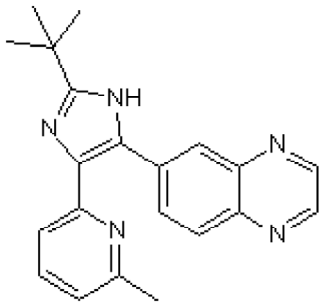
Batch Molecular Weight: 352.43

Physical Appearance: Yellow solid

Solubility: DMSO to 100 mM

Storage: Store at -20°C

Batch Molecular Structure:



2. ANALYTICAL DATA

HPLC: Shows 99.3% purity

^{1}H NMR: Consistent with structure

Mass Spectrum: Consistent with structure

Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	71.57	6.29	19.87
Found	71.11	6.18	19.89

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Description:

SB 525334 is a selective inhibitor of transforming growth factor-β receptor I (ALK5, TGF-βRI) (IC_{50} = 14.3 nM). Inhibits TGF-β1-induced smad2/3 nuclear localization and TGF-βRI-induced mRNA expression in kidney cells. Attenuates bleomycin-induced pulmonary fibrosis.

Physical and Chemical Properties:

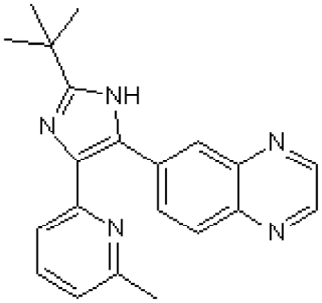
Batch Molecular Formula: $C_{21}H_{21}N_5.½H_2O$

Batch Molecular Weight: 352.43

Physical Appearance: Yellow solid

Minimum Purity: ≥97%

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:

Sold with the permission of GlaxoSmithKline

References:

Higashiyama *et al* (2007) Inhibition of AVNreceptor-like kinase 5 attenuates bleomycin-induced pulmonary fibrosis Exp.Mol.Pathol. ***83*** 39. PMID: 17274978.

Laping *et al* (2007) Tumor-specific efficacy of transforming growth factor-βRI inhibition in eker rats. Clin.Cancer Res. ***13*** 3087. PMID: 17505012.

Grygielko *et al* (2005) Inhibition of gene markers of fibrosis with a novel inhibitor of transforming growth factor-β type I receptor kinase in puromycin-induced nephritis. J.Pharmacol.Exp.Ther. ***313*** 943. PMID: 15769863.