Certificate of Analysis

Product Name: **STF 31** **Catalog No.: 4484** **Batch No.: 2**

CAS Number: 724741-75-7

IUPAC Name: 4-[[[[4-(1,1-Dimethylethyl)phenyl]sulfonyl]amino]methyl]-*N*-3-pyridinylbenzamide

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: $C_{23}H_{25}N_3O_3S$

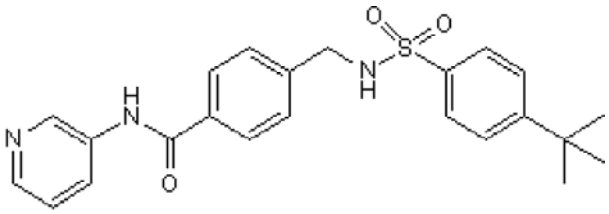
Batch Molecular Weight: 423.53

Physical Appearance: Yellow solid

Solubility: DMSO to 100 mM

Storage: Store at RT

Batch Molecular Structure:



2. ANALYTICAL DATA

TLC: R_f = 0.54 (Dichloromethane:Methanol [95:5])

HPLC: Shows 99.6% purity

^{1}H NMR: Consistent with structure

Mass Spectrum: Consistent with structure

Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	65.23	5.95	9.92
Found	65.05	5.99	9.74

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Description:

STF 31 is an inhibitor of GLUT1; inhibits glucose uptake in renal cell carcinoma (RCC) 4 cells. Activity causes necrotic cell death in von Hippel-Lindau (VHL)-deficient RCC cells. Also NAMPT inhibitor. Eliminates human pluripotent stem cells from culture with limited toxicity towards differentiated cells.

Physical and Chemical Properties:

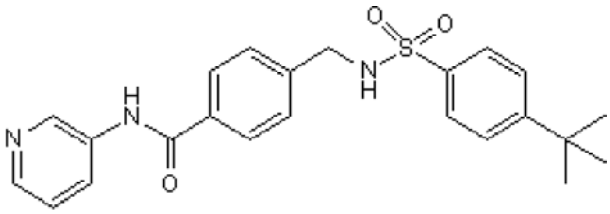
Batch Molecular Formula: $C_{23}H_{25}N_3O_3S$

Batch Molecular Weight: 423.53

Physical Appearance: Yellow solid

Minimum Purity: ≥99%

Batch Molecular Structure:



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.

References:

Kropp *et al* (2015) Inhibition of an NAD+ salvage pathway provides efficient and selective toxicity to human pluripotent stem cells. Stem Cells Transl.Med. ***4*** 483. PMID: 25834119.

Adams *et al* (2014) NAMPT is the cellular target of STF-31-like small-molecule probes. ACS Chem.Biol. ***9*** 2247. PMID: 25058389.

Chan *et al* (2011) Targeting GLUT1 and the Warburg effect in renal cell carcinoma by chemical synthetic lethality. Sci.Transl.Med. ***3*** 94ra70. PMID: 21813754.