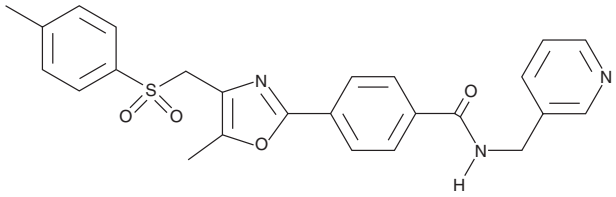
PRODUCT INFORMATION

STF-118804

Item No. 15283

CAS Registry No.: 894187-61-2
Formal Name: 4-[5-methyl-4-[[(4-methylphenyl) sulfonyl]methyl]-2-oxazolyl]-N-(3-pyridinylmethyl)-benzamide
MF: $C_{25}H_{23}N_3O_4S$
FW: 461.5
Purity: ≥95%
UV/Vis.: λ_{max}: 222, 300 nm
Supplied as: A crystalline solid
Storage: -20°C
Stability: ≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

STF-118804 is supplied as a crystalline solid. A stock solution may be made by dissolving the STF-118804 in the solvent of choice, which should be purged with an inert gas. STF-118804 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of STF-118804 in these solvents is approximately 1, 20, and 25 mg/ml, respectively.

STF-118804 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, STF-118804 should first be dissolved in DMF and then diluted with the aqueous buffer of choice. STF-118804 has a solubility of approximately 0.2 mg/ml in a 1:5 solution of DMF:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

Nicotinamide phosphoribosyltransferase (Nampt) converts nicotinamide into nicotinamide mononucleotide (NMN), which is subsequently converted to NAD^+ by NMN adenyltransferase. Cancer cells commonly have an unusually high rate of NAD^+ turnover, suggesting that inhibition of Nampt might selectively target cancer cells. STF-118804 is a small molecule inhibitor of Nampt (IC_{50}s = 3-6 nM) that prevents NAD^+ synthesis from nicotinamide.[1] It inhibits the viability of multiple B-cell acute lymphoblastic leukemia (B-ALL) cell lines with nanomolar potency and induces apoptosis in MV4-11 cells.[1] At 50 mg/kg for 20 days, STF-118804 has been shown to improve survival in an orthotopic xenotransplant model of high-risk ALL in mice.[1] It has also been shown to target leukemia stem cells.[1]

References

1. Matheny, C.J., Wei, M.C., Bassik, M.C., *et al.* Next-generation NAMPT inhibitors identified by sequential high-throughput phenotypic chemical and functional genomic screens. *Chem. Biol.* **20**, 1352-1363 (2013).

CAYMAN CHEMICAL
1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA
PHONE: [800] 364-9897
[734] 971-3335
FAX: [734] 971-3640
CUSTSERV@CAYMANCHEM.COM
WWW.**CAYMANCHEM**.COM