

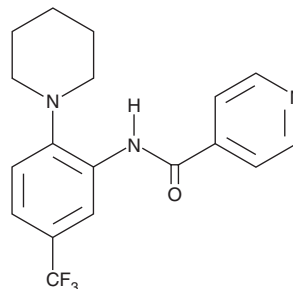
PRODUCT INFORMATION



SRPIN340

Item No. 16284

CAS Registry No.: 218156-96-8
Formal Name: N-[2-(1-piperidiny)-5-(trifluoromethyl)phenyl]-4-pyridinecarboxamide
MF: C₁₈H₁₈F₃N₃O
FW: 349.4
Purity: ≥95%
UV/Vis.: λ_{max}: 265 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

SRPIN340 is supplied as a crystalline solid. A stock solution may be made by dissolving the SRPIN340 in the solvent of choice, which should be purged with an inert gas. SRPIN340 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of SRPIN340 in ethanol and DMF is approximately 25 mg/ml and approximately 15 mg/ml in DMSO.

SRPIN340 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, SRPIN340 should first be dissolved in ethanol and then diluted with the aqueous buffer of choice. SRPIN340 has a solubility of approximately 0.2 mg/ml in a 1:4 solution of ethanol:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

Serine/arginine-rich protein kinase 1 (SRPK1) targets proteins that contain multiple serine/arginine (SR) dipeptides, including SR-rich splicing factor 1, SRSF1.¹ SRPIN340 is an isonicotinamide compound that inhibits SRPK1 (K_i = 0.89 μM).² It is about 10-fold less effective against SRPK2 and does not inhibit the related SRPKs, Clk1 and Clk4.² SRPIN340 suppresses the propagation of Sindbis virus in Vero cells and the replication of hepatitis C virus in Huh7/Rep-Feo-2a cells.^{2,3} By blocking SRPK1-mediated phosphorylation of SRSF1, SRPIN340 modulates alternative splicing of VEGF, reducing neovascularization both in cells and in animals.⁴⁻⁶

References

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3. Karakama, Y., Sakamoto, N., Itsui, Y., *et al.* Inhibition of hepatitis C virus replication by a specific inhibitor of serinearginine-rich protein kinase. *Antimicrob. Agents Chemother.* **54**(8), 3179-3186 (2010).
4. Ghadimi, M.P., Lopez, G., Torres, K.E., *et al.* Targeting the PI3K/mTOR axis, alone and in combination with autophagy blockade, for the treatment of malignant peripheral nerve sheath tumors. *Mol. Cancer Ther.* **11**(8), 1758-1769 (2012).
5. Gammons, M.V.R., Dick, A.D., Harper, S.J., *et al.* SRPK1 inhibition modulates VEGF splicing to reduce pathological neovascularization in a rat model of retinopathy of prematurity. *Invest. Ophthalmol. Vis. Sci.* **54**(8), 5797-5806 (2013).
6. Dong, Z., Noda, K., Kanda, A., *et al.* Specific inhibition of serine/arginine-rich protein kinase attenuates choroidal neovascularization. *Mol. Vis.* **19**, 536-543 (2013).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

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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