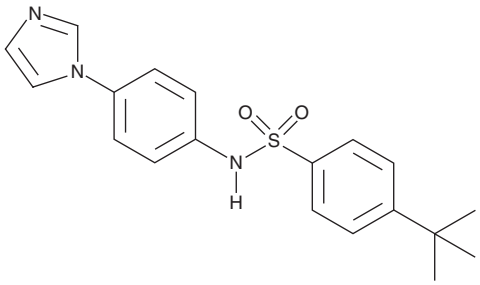
PRODUCT INFORMATION

ISCK03

Item No. 15781

CAS Registry No.:	945526-43-2
Formal Name:	4-(1,1-dimethylethyl)-N-[4-(1H-imidazol-1-yl) phenyl]-benzenesulfonamide
Synonyms:	c-Kit Inhibitor II, Stem-Cell Factor/c-Kit Inhibitor
MF:	$C_{19}H_{21}N_3O_2S$
FW:	355.5
Purity:	≥95%
UV/Vis.:	λ_{max}: 227, 253 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

ISCK03 is supplied as a crystalline solid. A stock solution may be made by dissolving the ISCK03 in the solvent of choice, which should be purged with an inert gas. ISCK03 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of ISCK03 in these solvents is approximately 2, 25, and 30 mg/ml, respectively.

ISCK03 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, ISCK03 should first be dissolved in DMF and then diluted with the aqueous buffer of choice. ISCK03 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

The receptor tyrosine kinase c-kit, activated by its ligand stem-cell factor (SCF), modulates diverse cellular processes, including cell proliferation, differentiation, and survival.[1,2] ISCK03 is a cell-permeable inhibitor of SCF-mediated c-kit activation, completely blocking phosphorylation of c-kit in human melanoma cells at a concentration between 1 and 5 µM.[3] These concentrations also prevent SCF-mediated downstream phosphorylation of p44/p42 ERK but does not prevent phosphorylation of p44/p42 ERK induced by hepatocyte growth factor.[3] Oral administration of ISCK03 in mice induces hair depigmentation, whereas topical application decreases epidermal melanin in guinea pig skin darkened by UV irradiation.[3] ISCK03 has also been used to elucidate the role of SCF/c-kit signaling in cell viability, radiation-induced angiogenesis, and melanocortin receptor action.[4-6]

References

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3. Na, Y.J., Baek, H.S., Ahn, S.M., *et al. Biochem. Pharmacol.* **74(5)**, 780-786 (2007).
4. Kamlah, F., Hänze, J., Arenz, A., *et al. Int. J. Radiat. Oncol. Biol. Phys.* **80(5)**, 1541-1549 (2011).
5. Kon, S., Minegishi, N., Tanabe, K., *et al. J. Clin. Invest.* **123(3)**, 1123-1137 (2013).
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