Small Molecules

ISCK03

SCF/c-KIT pathway inhibitor; Inhibits c-KIT

Catalog #	73732	1 mg
	73734	10 mg

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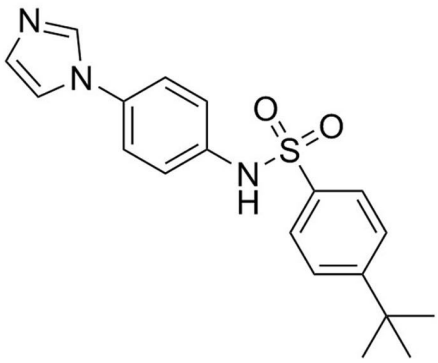
Product Description

ISCK03 (inhibitor of SCF/c-KIT) is a cell-permeable phenyl-imidazolosulfonamide compound that inhibits c-KIT activity. ISCK03 inhibits SCF-induced c-KIT phosphorylation and downstream ERK phosphorylation at a concentration of 1 - 5 µM in 501mel melanoma cells (Na et al.).

Molecular Name:	ISCK03
Alternative Names:	c-Kit Inhibitor II; Stem cell factor/c-Kit Inhibitor
CAS Number:	945526-43-2
Chemical Formula:	$C_{19}H_{21}N_3O_2S$
Molecular Weight:	355.5 g/mol
Purity:	≥ 95%
Chemical Name:	4-tert-butyl-N-(4-imidazol-1-ylphenyl)benzenesulfonamide
Structure:	

Properties

Physical Appearance:	A crystalline solid
Storage:	Product stable at -20°C as supplied. Protect product from prolonged exposure to light. For long-term storage store with a desiccant. Stable as supplied for 12 months from date of receipt.
Solubility:	· DMSO ≤ 70 mM · Absolute ethanol ≤ 5.6 mM For example, to prepare a 10 mM stock solution in DMSO, resuspend 1 mg in 281 µL of DMSO. Prepare stock solution fresh before use. Information regarding stability of small molecules in solution has rarely been reported, however, as a general guide we recommend storage in DMSO at -20°C. Aliquot into working volumes to avoid repeated freeze-thaw cycles. The effect of storage of stock solution on compound performance should be tested for each application. Compound has low solubility in aqueous media. For use as a cell culture supplement, stock solution should be diluted into culture medium immediately before use. Avoid final DMSO concentration above 0.1% due to potential cell toxicity.

Published Applications

CANCER RESEARCH
· Causes significant decrease in blood vessel density on human lung adenocarcinoma (A549) cells irradiated with X-rays (6 Gy; Kamlah et al.).
· Reduces cell viability and ERK1/2 phosphorylation in acute myeloid leukemia (AML)-derived cell lines (Kon et al.).

References

Kamlah F et al. (2011) Comparison of the effects of carbon ion and photon irradiation on the angiogenic response in human lung adenocarcinoma cells. Int J Radiat Oncol Biol Phys 80(5): 1541–9.
Kon S et al. (2013) Smap1 deficiency perturbs receptor trafficking and predisposes mice to myelodysplasia. J Clin Invest 123(3): 1123–37.
Na YJ et al. (2007) [4-t-butylphenyl]-N-(4-imidazol-1-yl phenyl)sulfonamide (ISCK03) inhibits SCF/c-kit signaling in 501mel human melanoma cells and abolishes melanin production in mice and brownish guinea pigs. Biochem Pharmacol 74(5): 780–6.

Related Small Molecules

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This product is hazardous. Please refer to the Safety Data Sheet (SDS).