

Small Molecules

ISCK03

SCF/KIT pathway inhibitor; Inhibits KIT



Scientists Helping Scientists™ | WWW.STEMCELL.COM

TOLL FREE PHONE 1 800 667 0322 • PHONE +1 604 877 0713

INFO@STEMCELL.COM • TECHSUPPORT@STEMCELL.COM

FOR GLOBAL CONTACT DETAILS VISIT OUR WEBSITE

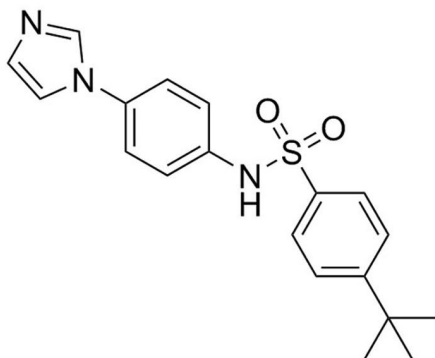
Catalog # 73732
73734

1 mg
10 mg

Product Description

ISCK03 (inhibitor of SCF/KIT) is a cell-permeable phenyl-imidazolosulfonamide compound that inhibits KIT activity. ISCK03 inhibits SCF-induced KIT phosphorylation and downstream ERK phosphorylation at a concentration of 1 - 5 μ M 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 ₃ O ₂ S
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. For product expiry date, please contact techsupport@stemcell.com .
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 μ L 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

For a complete list of small molecules available from STEMCELL Technologies, please visit our website at www.stemcell.com/smallmolecules or contact us at techsupport@stemcell.com.

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

STEMCELL TECHNOLOGIES INC.'S QUALITY MANAGEMENT SYSTEM IS CERTIFIED TO ISO 13485. PRODUCTS ARE FOR RESEARCH USE ONLY AND NOT INTENDED FOR HUMAN OR ANIMAL DIAGNOSTIC OR THERAPEUTIC USES UNLESS OTHERWISE STATED.

Copyright © 2016 by STEMCELL Technologies Inc. All rights reserved including graphics and images. STEMCELL Technologies & Design, STEMCELL Shield Design and Scientists Helping Scientists are trademarks of STEMCELL Technologies Inc. While STEMCELL has made all reasonable efforts to ensure that the information provided by STEMCELL and its suppliers is correct, it makes no warranties or representations as to the accuracy or completeness of such information.