Small Molecules

SU5402

MEK/ERK pathway inhibitor; Inhibits VEGFR2, FGFR1, and PDGFRB

Catalog #	73912	1 mg
	73914	5 mg

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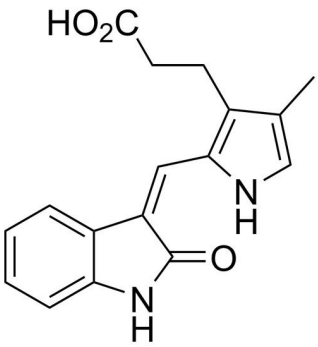
Product Description

SU5402 is a potent and selective inhibitor of vascular endothelial growth factor receptor 2 (VEGFR2), fibroblast growth factor receptor 1 (FGFR1), and platelet-derived growth factor receptor beta (PDGFRB) with IC_{50} = 0.02, 0.03, and 0.51 µM, respectively (Sun et al.).

Molecular Name:	SU5402
Alternative Names:	Not applicable
CAS Number:	215543-92-3
Chemical Formula:	$C_{17}H_{16}N_2O_3$
Molecular Weight:	296.3 g/mol
Purity:	≥ 95%
Chemical Name:	2-[(1,2-dihydro-2-oxo-3H-indol-3-ylidene)methyl]-4-methyl-1H-pyrrole-3-propanoic acid
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 ≤ 100 mM For example, to prepare a 10 mM stock solution in DMSO, resuspend 1 mg in 338 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. 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

MAINTENANCE AND SELF-RENEWAL
· Supports robust long-term embryonic stem cell propagation when used in combination with leukemia inhibitory factor (Ying et al.).
IMMUNOLOGY
· Inhibits growth and survival of mouse B cells (Trudel et al.).
CANCER RESEARCH
· Induces apoptosis of human multiple myeloma cell lines (Trudel et al.).

References

Sun L et al. (1999) Design, synthesis, and evaluations of substituted 3-[(3- or 4-carboxyethylpyrrol-2-yl)methylidenyl]indolin-2-ones as inhibitors of VEGF, FGF, and PDGF receptor tyrosine kinases. J Med Chem 42(25): 5120–30.
Trudel S et al. (2004) Inhibition of fibroblast growth factor receptor 3 induces differentiation and apoptosis in t(4;14) myeloma. Blood 103(9): 3521–8.
Ying Q-L et al. (2008) The ground state of embryonic stem cell self-renewal. Nature 453(7194): 519–23.

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