Small Molecules

SU11274

HGF pathway inhibitor; Inhibits MET

Catalog # 73432 1 mg
73434 5 mg

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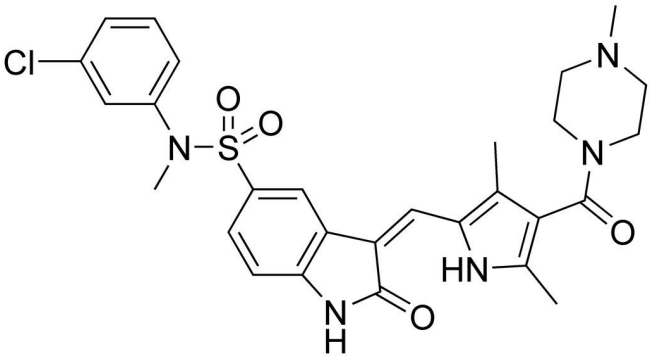
Product Description

SU11274 is a selective, ATP-competitive inhibitor of c-MET receptor tyrosine kinase (IC_{50} = 20 nM; Sattler et al.). It shows good selectivity towards c-MET versus other receptor tyrosine kinases with IC_{50} values of 1.3 µM and 9.7 µM for fetal liver kinase (FLK-1) and fibroblast growth factor receptor-1 (FGFR-1), respectively (Sattler et al.). It retains activity for certain c-MET mutants, for example H1112Y and M1268T (Berthou et al.).

Molecular Name:	SU11274
Alternative Names:	Met Kinase Inhibitor
CAS Number:	658084-23-2
Chemical Formula:	$C_{28}H_{30}ClN_5O_4S$
Molecular Weight:	568.1 g/mol
Purity:	≥ 98%
Chemical Name:	(3Z)-N-(3-chlorophenyl)-3-[[3,5-dimethyl-4-[(4-methyl-1-piperazinyl)carbonyl]-1H-pyrrol-2-yl]methylene]-2,3-dihydro-N-methyl-2-oxo-1H-indole-5-sulfonamide
Structure:	

Properties

Physical Appearance:	A crystalline solid
Storage:	Product stable at -20°C as supplied. Protect from prolonged exposure to light. Stable as supplied for 12 months from date of receipt.
Solubility:	· DMSO ≤ 15 mM · Absolute ethanol ≤ 0.4 mM For example, to prepare a 10 mM stock solution in DMSO, resuspend 1 mg in 176 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
· Induces apoptosis and cell cycle arrest in TPR-MET-transformed mouse pre-B (Ba/F3) cells (Sattler et al.).
· Inhibits cell viability and motility of human head and neck squamous cell carcinoma cell lines in vitro (Seiwert et al.).
· Inhibits cell viability of c-MET-expressing human non-small cell lung carcinoma cell lines in vitro (Ma et al.).

References

Berthou S et al. (2004) The Met kinase inhibitor SU11274 exhibits a selective inhibition pattern toward different receptor mutated variants. Oncogene 23(31): 5387–93.
Ma et al. (2005) Functional expression and mutations of c-Met and its therapeutic inhibition with SU11274 and small interfering RNA in non-small cell lung cancer. Cancer Res 65(4): 1479–88.
Sattler M et al. (2003) A novel small molecule met inhibitor induces apoptosis in cells transformed by the oncogenic TPR-MET tyrosine kinase. Cancer Res 63(17): 5462–9.
Seiwert TY et al. (2009) The MET receptor tyrosine kinase is a potential novel therapeutic target for head and neck squamous cell carcinoma. Cancer Res 69(7): 3021–31.

Related Small Molecules

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