

Catalog # 10-2174

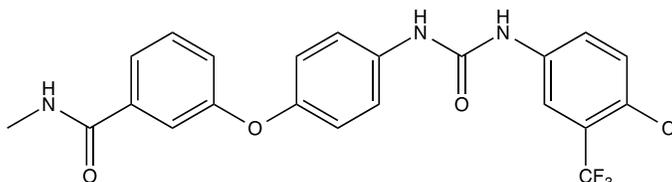
Sorafenib

CAS# 284461-73-0

BAY 43-9006

4-(4-(3-(4-chloro-3-(trifluoromethyl)phenyl)ureido)phenoxy)-N-methylpicolinamide

Lot # X106132



Initially developed as a Raf kinase inhibitor, IC₅₀ = 6 nM, but has been shown to inhibit many receptor tyrosine kinases including BRAF (IC₅₀ = 22 nM); VEGFR-2 (IC₅₀ = 90 nM); VEGFR-3 (IC₅₀ = 20 nM); PDGFR-β (IC₅₀ = 57 nM); Flt3 (IC₅₀ = 58 nM); c-KIT (IC₅₀ = 68 nM); FGFR-1 (IC₅₀ = 580 nM)¹. Paradoxically more potent in a cellular assay (IC₅₀ = 20 nM) compared to an isolated enzyme assay (IC₅₀ = 107 nM) for c-Fms². Inhibits activation of MAPK pathway and ERK phosphorylation³. Induces caspase-independent apoptosis in melanoma cells⁴. Clinically useful anticancer agent.

- 1) Wilhelm *et al.* (2004), *BAY 43-9006 exhibits broad spectrum oral antitumor activity and targets the RAF/MEK/ERK pathway and receptor tyrosine kinases involved in tumor progression and angiogenesis*; *Cancer Res.*, **64** 7099
- 2) Guo *et al.* (2006), *Inhibition of phosphorylation of the colony-stimulating factor-1 receptor (c-Fms) tyrosine kinase in transfected cells by ABT-869 and other tyrosine kinase inhibitors*; *Mol. Cancer Ther.*, **5** 1007
- 3) Wilhelm *et al.* (2003), *The novel Raf inhibitor BAY 43-9006 blocks signaling and proliferation in BRAF mutant and wildtype melanoma and colorectal tumor cell lines*; *Proc. Am. Assoc. Cancer Res.*, **44** 106609
- 4) Panka *et al.* (2006), *The Raf inhibitor BAY 43-9006 (Sorafenib) induces caspase-independent apoptosis in melanoma cells*; *Cancer Res.*, **66** 1611

PHYSICAL DATA

Molecular Weight:	464.83
Molecular Formula:	C ₂₁ H ₁₆ ClF ₃ N ₄ O ₃
Purity:	99% by TLC
	NMR: (Conforms)
Solubility:	DMSO (up to 200 mg/ml) or Ethanol (up to 3 mg/ml)
Physical Description:	Off-white solid
Storage and Stability:	Store as supplied at -20°C for up to 2 years from the date of purchase. Solutions in DMSO or ethanol may be stored at -20°C for up to 1 month.

Materials provided by Focus Biomolecules are for laboratory research use only and are not intended for human or veterinary applications.

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