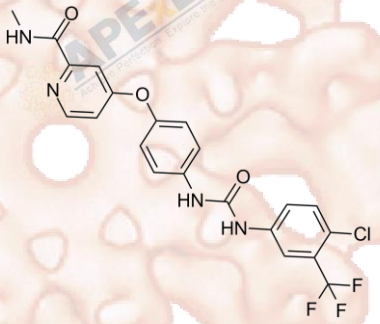
Product Data Sheet

Sorafenib



Cat. No.:	A3009
CAS No.:	284461-73-0
Formula:	C21H16ClF3N4O3
M.Wt:	464.82
Synonyms:	BAY-43-9006, Sorafenib, Nexavar, sorafenibum
Target:	Tyrosine Kinase
Pathway:	PDGFR
Storage:	Store at -20°C

Solvent & Solubility

In Vitro

⩾23.25 mg/mL in DMSO; insoluble in H2O; insoluble in EtOH

Preparing Stock Solutions

Mass / Solvent / Concentration	1mg	5mg	10mg
1 mM	2.1514 mL	10.7569 mL	21.5137 mL
5 mM	0.4303 mL	2.1514 mL	4.3027 mL
10 mM	0.2151 mL	1.0757 mL	2.1514 mL

Please refer to the solubility information to select the appropriate solvent.

Biological Activity

Shortsummary	Raf kinases and tyrosine kinases inhibitor
IC_{50} & Target	, 22 nM (B-Raf), 90 nM (VEGFR2), 57 nM (PDGFRβ)

In Vitro

Cell Viability Assay

Cell Line:	PLC/PRF/5 and HepG2 cells
Preparation method：	The solubility of this compound in DMSO is >10 mM. General tips for obtaining a higher concentration: Please warm the tube at 37 °C for 10 minutes and/or shake it in the ultrasonic bath for a while.Stock solution can be stored below -20°C for several months.

	Reacting conditions:	IC50: 6.3 μM for PLC/PRF/5 cells 4.5 μM for HepG2 cells 72 hours
	Applications:	The effect of sorafenib on cell proliferation was measured by CellTiter-Glo assay. Sorafenib inhibited cell proliferation dose-dependently with an IC50 of 6.3 μmol/L in PLC/PRF/5 and 4.5 μmol/L in HepG2 cells.
In Vivo	**Animal experiment**	
	Animal models:	Female CB17 SCID mice injected with PLC/PRF/5 cells
	Dosage form:	Oral administration; 10, 30, and 100 mg/kg body weight; once daily for 16 or 21 days
	Applications:	Sorafenib tosylate produced dose-dependent growth inhibition of s.c. implanted PLC/PRF/5 tumor xenografts in SCID mice. Dose levels of 10 and 30 mg/kg produced significant and dose-dependent TGIs of 49% and 78%, respectively. Sorafenib tosylate produced durable partial tumor regressions in 50% of the mice at the 100 mg/kg dose level.
	Other notes:	Please test the solubility of all compounds indoor, and the actual solubility may slightly differ with the theoretical value. This is caused by an experimental system error and it is normal.

Product Citations

1. Cheriyan VT, Alsaab H, et al. "A CARP-1 functional mimetic compound is synergistic with BRAF-targeting in non-small cell lung cancers." Oncotarget. 2018 Jul 3;9(51):29680-29697.PMID:30038713
2. Sieber J, Wieder N, et al. "GDC-0879, a BRAF(V600E) Inhibitor, Protects Kidney Podocytes fromDeath." Cell Chem Biol. 2017 Dec 6.PMID:29249695

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References

[1] Liu L, Cao Y, Chen C, et al. Sorafenib blocks the RAF/MEK/ERK pathway, inhibits tumor angiogenesis, and induces tumor cell apoptosis in hepatocellular carcinoma model PLC/PRF/5. Cancer research, 2006, 66(24): 11851-11858.

Caution

FOR RESEARCH PURPOSES ONLY.

NOT FOR HUMAN, VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

Specific storage and handling information for each product is indicated on the product datasheet. Most APExBIO products are stable under the recommended conditions. Products are sometimes shipped at a temperature that differs from the recommended storage temperature. Shortterm storage of many products are stable in the short-term at temperatures that differ from that required for long-term storage. We ensure that the product is shipped under conditions that will maintain the quality of the reagents. Upon receipt of the product, follow the storage recommendations on the product data sheet.

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