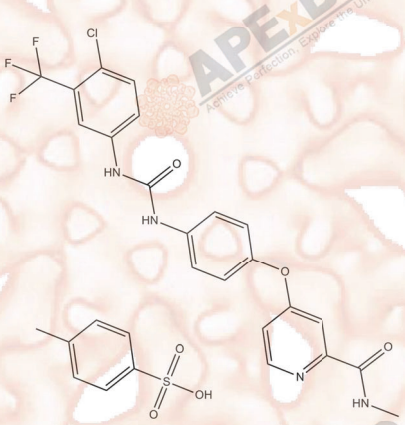
Product Data Sheet

Sorafenib Tosylate

Cat. No.: A8245
CAS No.: 475207-59-1
Formula: C21H16ClF3N4O3·C7H8O3S
M.Wt: 637.03
Synonyms:
Target: Tyrosine Kinase
Pathway: PDGFR
Storage: Store at -20°C



Solvent & Solubility

In Vitro

≥31.85mg/mL in DMSO, ≥4.15 mg/mL in EtOH with ultrasonic,insoluble in H2O

Preparing Stock Solutions

Concentration \ Mass / Solvent	1mg	5mg	10mg
1 mM	1.5698 mL	7.8489 mL	15.6978 mL
5 mM	0.3140 mL	1.5698 mL	3.1396 mL
10 mM	0.1570 mL	0.7849 mL	1.5698 mL

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

Biological Activity

Shortsummary	Raf kinases and tyrosine kinases inhibitor
IC_{50} & Target	6 nM (Raf-1), 22 nM (B-Raf), 90 nM (VEGFR2), 57 nM (PDGFRβ)

In Vitro

Cell Viability Assay

Cell Line:	MV4-11 and EOL-1 cells
Preparation method:	The solubility of this compound in DMSO is > 31.9 mg/mL. 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:	100 pM ~ 10 μM; 72 hrs for MV4-11 cells and 24 hrs for EOL-1 cells

	Applications:	At a concentration of 100 nM, Sorafenib induced 43.6 ± 5.2% of the cells to undergo apoptosis. In EOL-1 cells, Sorafenib at a concentration as low as 10 nM promoted 89.29 ± 1.8% of the cells to undergo apoptosis. In addition, cell cycle analysis of Sorafenib-treated MV4-11 cells showed that Sorafenib dose-dependently induced cell cycle arrest with an increase in the percentages of cells in G0/G1 from 52.7 ± 0.9% (the control group) to 66.8 ± 1.5% (the 100 nM Sorafenib group).
In Vivo	**Animal experiment**	
	Animal models:	Athymic mice bearing FLT3-ITD tumors
	Dosage form:	0.3, 1.0, 3 or 10 mg/kg; p.o.
	Applications:	In athymic mice bearing FLT3-ITD tumors, Sorafenib showed dose-dependent antitumor activity. At the doses of 3 and 10 mg/kg, 6 and 9 out of 10 mice showed complete responses, respectively. According to the Western blot analysis of MV4-11 tumors, phosphorylation of STAT5 was completely abolished 3 hrs after the second administration. Meanwhile, phospho-histone H3 was also significantly reduced.
	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. Ming-Hua Hsu, Shih-Ming Hsu, et al. "Treatment with low-dose sorafenib in combination with a novel benzimidazole derivative bearing a pyrolidine side chain provides synergistic anti-proliferative effects against human liver cancer." RSC Adv., 2017, 7, 16253-16263.

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References

[1]. D Auclair, D Miller, V Yatsula, et al. Antitumor activity of sorafenib in FLT3-driven leukemic cells. Leukemia, 2007, 21:439-445.

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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