



Product Data Sheet

Compound Name

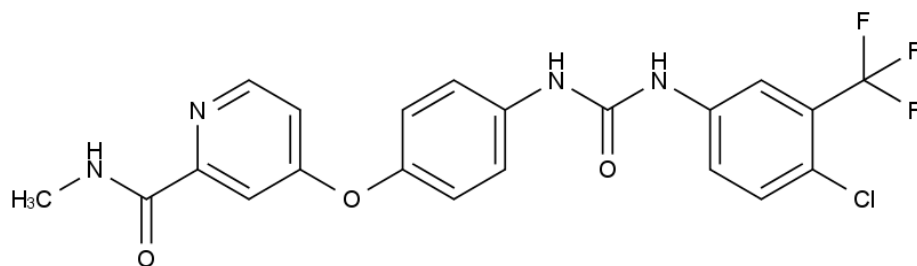
Sorafenib

4-[4-[[4-chloro-3-(trifluoromethyl)phenyl]carbamoylamino]phenoxy]-N-methylpyridine-2-carboxamide

**Catalog Number
SY-Sorafenib**

Alternative names: Nexavar, 284461-73-0, sorafenibum, Sorafenib [INN], Kinome_766, UNII-9ZOQ3TZI87, AC1L50CF, BAY-43-9006, ChEMBL1336

Structure



CAS Number

[284461-73-0]

Molecular Weight

464.82495

**Molecular
Formula:**

C₂₁H₁₆ClF₃N₄O₃

Purity: HPLC:

99.8% @ 254nm

(ESI-MS):

465.0 [M+1]

¹H-NMR: ✓

InChI: InChI=1S/C21H16ClF3N4O3/c1-26-19(30)18-11-15(8-9-27-18)32-14-5-2-12(3-6-14)28-20(31)29-13-4-7-17(22)16(10-13)21(23,24)25/h2-11H,1H3,(H,26,30)(H2,28,29,31)

InChIKey: MLDQJTXFUGDVEO-UHFFFAOYSA-N

Canonical SMILES :

CNC(=O)C1=NC=CC(=C1)OC2=CC=C(C=C2)NC(=O)NC3=CC(=C(C=C3)Cl)C(F)(F)F

Pubchem ID: [CID 216239](#)

ChemSpider ID: [187440](#)

Mode of Action:

Inhibits tyrosine protein receptor kinases likely via ATP inhibition

Predominant Target(s):

Raf kinase, PDGFR, VEGF Receptor 2&3, and c-Kit for SCF, Raf/Mek/Erk pathway.

Published Activity:

Sorafenib is a multi-kinase inhibitor targeting a number of serine/threonine and receptor tyrosine kinases. It inhibits Raf-1, B-Raf and VEGFR-2 with IC₅₀ values of 6 nM, 22 nM and 90 nM, respectively. Used in the

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| | research of primary kidney cancer(advanced renal cell carcinoma) and advanced primary liver cancer (hepatocellular carcinoma treatments and potentially in other cancers as well. |
| Development stage: | Approved by FDA and received E.U. marketing authorization as the drug Nexavar. |
| Use Instructions: | Dissolve in DMSO, keep out of direct light. |
| Storage & Handling: | Store dry, unopened vial at 4°C, protected from light for up to 3 months; long term storage store unopened vial, protected from light at -20°C for up to 1 year. Liquefy material in 100% ACS grade DMSO or ethanol. Store liquefied material at -80°C, in aliquots, protected from light, for up to 1 month. Prevent multiple freeze-thaw cycles. |
| References & Background information Sorafenib is for research use only, not for diagnostic use, not for therapeutic use, not for human use or consumption Thompson N et al (2005) Curr. Opin. Pharmacol. 5(4):350-6. PMID:15955734 Yiu-Keung Lau et al (2007) <i>Sorafenib: new reference standard for systemic treatment of advanced hepatocellular carcinoma</i> . Commun. Oncol. 4, 528-530. Sorafenib is an anticancer compound effective against kidney cancer called advanced renal cell carcinoma (RCC), a certain type of liver cancer known as hepatocellular carcinoma (HCC), when it cannot be treated with surgery, or a certain type of thyroid cancer called differentiated thyroid carcinoma (DTC) that can no longer be treated with radioactive iodine and is progressing. | |