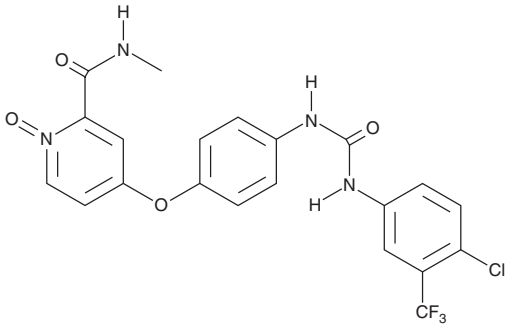
PRODUCT INFORMATION

Sorafenib N-oxide

Item No. 27830

CAS Registry No.:	583840-03-3
Formal Name:	4-[4-[[[[4-chloro-3-(trifluoromethyl) phenyl]amino]carbonyl] amino]phenoxy]-N-methyl-2-pyridinecarboxamide, 1-oxide
Synonym:	BAY 67-3472
MF:	$C_{21}H_{16}ClF_3N_4O_4$
FW:	480.8
Purity:	≥98%
Supplied as:	A solid
Storage:	-20°C
Stability:	≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

Sorafenib N-oxide is supplied as a solid. A stock solution may be made by dissolving the sorafenib N-oxide in the solvent of choice, which should be purged with an inert gas. Sorafenib N-oxide is soluble in the organic solvent DMSO. Sorafenib N-oxide is slightly soluble in methanol (warmed).

Description

Sorafenib N-oxide is an active metabolite of sorafenib (BAY 43-9006; Item No. 10009644), an inhibitor of Raf-1, B-RAF, and receptor tyrosine kinases.[1] Sorafenib N-oxide inhibits FLT3 that contains the internal tandem duplication mutation (FLT3-ITD; K_d = 70 nM) and inhibits proliferation of MV4-11 acute myeloid leukemia (AML) cells expressing *FLT3*-ITD (IC_{50} = 25.8 nM). It is selective for AML cell lines containing *FLT3*-ITD over lines containing wild-type *FLT3* (IC_{50}s = 3.9-13.3 µM). Sorafenib N-oxide is also a linear-mixed inhibitor of the cytochrome P450 (CYP) isoform CYP3A4 (K_i = 15 µM in human liver microsomes).[2]

References

1. Inaba, H., Rubnitz, J.E., Coustan-Smith, E., *et al.* Phase I pharmacokinetic and pharmacodynamic study of the multikinase inhibitor sorafenib in combination with clofarabine and cytarabine in pediatric relapsed/refractory leukemia. *J. Clin. Oncol.* **29(24)**, 3293-3300 (2011).
2. Ghassabian, S., Gillani, T.B., Rawling, T., *et al.* Sorafenib N-oxide is an inhibitor of human hepatic CYP3A4. *AAPS J.* **21(2)**, 15 (2019).

WARNING
THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA
This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent *via* email to your institution.

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