

# Produktinformation



Forschungsprodukte & Biochemikalien



Zellkultur & Verbrauchsmaterial



Diagnostik & molekulare Diagnostik



Laborgeräte & Service

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## Lieferung & Zahlungsart

siehe unsere Liefer- und Versandbedingungen

## Zuschläge

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- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

## SZABO-SCANDIC HandelsgmbH

Quellenstraße 110, A-1100 Wien

T. +43(0)1 489 3961-0

F. +43(0)1 489 3961-7

mail@szabo-scandic.com

www.szabo-scandic.com

linkedin.com/company/szaboscandic in



# PRODUCT INFORMATION



## **Naquotinib**

Item No. 23498

CAS Registry No.: 1448232-80-1

Formal Name: 6-ethyl-3-[[4-[4-(4-methyl-1-

> piperazinyl)-1-piperidinyl]phenyl] amino]-5-[[(3R)-1-(1-oxo-2propen-1-yl)-3-pyrrolidinyl]oxy]-2-

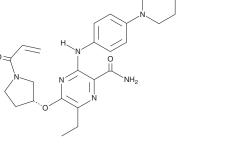
pyrazinecarboxamide

MF:  $C_{30}H_{42}N_8O_3$ FW: 562.7 **Purity:** ≥98%

UV/Vis.:  $\lambda_{max}$ : 308 nm A crystalline solid Supplied as:

-20°C Storage: ≥2 years Stability:

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



### **Laboratory Procedures**

Naquotinib is supplied as a crystalline solid. A stock solution may be made by dissolving the naquotinib in the solvent of choice. Naquotinib is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF), which should be purged with an inert gas. The solubility of naquotinib in ethanol and DMF is approximately 30 mg/ml and approximately 2 mg/ml in DMSO.

#### Description

Naquotinib is an irreversible inhibitor of mutant EGF receptors (EGFRs).<sup>1</sup> It inhibits proliferation of Ba/F3 cells expressing various EGFR mutations, including deletion of exon 19, deletion of exon 19 plus a T790M mutation, L858R, and L858R plus the T790M mutation (IC<sub>50</sub>s = 9, 10, 11, and 9 nM, respectively). It is selective for these mutations over the triple mutations that include exon 19 deletion plus T790M and C797S and L858R plus T790M and C797S and over wild-type EGFR (IC $_{50}$ S = 235, 1,994, and 830 nM, respectively). It reduces phosphorylated levels of EGFR, AKT, and ERK and decreases cell viability in non-small cell lung cancer (NSCLC) cells and in Ba/F3 cells carrying an exon 20 insertion mutation. Naquotinib (50 mg/kg per day) also reduces tumor growth in a PC-9/NaqRc2 mouse xenograft model.<sup>2</sup>

#### References

- 1. Hirano, T., Yasuda, H., Hamamoto, J., et al. Pharmacological and structural characterizations of naquotinib, a novel third-generation EGFR tyrosine kinase inhibitor, in EGFR-mutated non-small cell lung cancer. Mol. Cancer Ther. 17(4), 740-750 (2018).
- 2. Ninomiya, K., Ohashi, K., Makimoto, G., et al. MET or NRAS amplification is an acquired resistance mechanism to the third-generation EGFR inhibitor naquotinib. Sci. Rep. 8(1), 1955 (2018).

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

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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#### **CAYMAN CHEMICAL**

1180 EAST ELLSWORTH RD ANN ARBOR, MI 48108 · USA PHONE: [800] 364-9897

[734] 971-3335

FAX: [734] 971-3640 CUSTSERV@CAYMANCHEM.COM WWW.**CAYMANCHEM**.COM