

# PRODUCT INFORMATION



## Avitinib

Item No. 21387

**CAS Registry No.:** 1557267-42-1  
**Formal Name:** N-[3-[[2-[[3-fluoro-4-(4-methyl-1-piperazinyl)phenyl]amino]-7H-pyrrolo[2,3-d]pyrimidin-4-yl]oxy]phenyl]-2-propenamide

**Synonym:** AC0010

**MF:** C<sub>26</sub>H<sub>26</sub>FN<sub>7</sub>O<sub>2</sub>

**FW:** 487.5

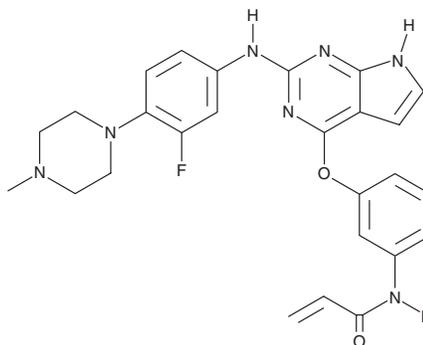
**Purity:** ≥98%

**UV/Vis.:** λ<sub>max</sub>: 282 nm

**Supplied as:** A crystalline 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

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

Avitinib is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, avitinib should first be dissolved in ethanol and then diluted with the aqueous buffer of choice. Avitinib has a solubility of approximately 0.9 mg/ml in a 1:10 solution of ethanol:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

### Description

Avitinib is a pyrrolopyrimidine-based, irreversible inhibitor of the epidermal growth factor receptor (EGFR). It is selective for EGFR-active and T790M mutations, exhibiting a 298-fold increase in potency compared with wild-type EGFR.<sup>1</sup> In a xenograft model, oral administration of 500 mg/kg avitinib was shown to result in complete remission of tumors with EGFR-active and T790M mutations.<sup>1</sup>

### Reference

1. Xu, X., Mao, L., Xu, W., *et al.* AC0010, an irreversible EGFR inhibitor selectively targeting mutated EGFR and overcoming T790M-induced resistance in animal models and lung cancer patients. *Mol. Cancer Ther.* **15**(11), 2586-2597 (2016).

#### 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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