

**Product Name:** Tucatinib

**Catalog No.:** 7640

**Batch No.:** 1

CAS Number: 937263-43-9

IUPAC Name: *N*<sup>6</sup>-(4,5-Dihydro-4,4-dimethyl-2-oxazolyl)-*N*<sup>4</sup>-[3-methyl-4-([1,2,4]triazolo[1,5-*a*]pyridin-7-yloxy)phenyl]-4,6-quinazolinediamine

## 1. PHYSICAL AND CHEMICAL PROPERTIES

**Batch Molecular Formula:** C<sub>26</sub>H<sub>24</sub>N<sub>8</sub>O<sub>2</sub>·2½H<sub>2</sub>O

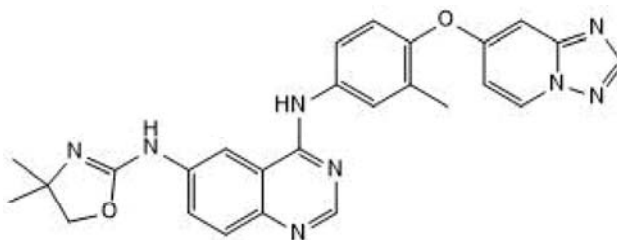
**Batch Molecular Weight:** 525.56

**Physical Appearance:** Off White solid

**Solubility:** DMSO to 100 mM

**Storage:** Store at -20°C

**Batch Molecular Structure:**



## 2. ANALYTICAL DATA

**HPLC:** Shows 99.0% purity

**<sup>1</sup>H NMR:** Consistent with structure

**Mass Spectrum:** Consistent with structure

**Microanalysis:**

	Carbon	Hydrogen	Nitrogen
Theoretical	59.42	5.56	21.32
Found	59.07	5.35	21.16

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**bio-techne.com**

info@bio-techne.com

techsupport@bio-techne.com

**North America**

Tel: (800) 343 7475

**China**

info.cn@bio-techne.com

Tel: +86 (21) 52380373

**Europe Middle East Africa**

Tel: +44 (0)1235 529449

**Rest of World**

[www.tocris.com/distributors](http://www.tocris.com/distributors)

Tel: +1 612 379 2956

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**Description:**

Tucatinib is a potent and selective ErbB-2 (also called HER2) kinase inhibitor (IC<sub>50</sub> = 7 nM). It exhibits >50-fold selectivity for ErbB-2 over EGFR. In vitro, Tucatinib inhibits ErbB-2 signaling activity and cell proliferation in ErbB-2-amplified breast cancer cell lines (BT-474). In vivo, Tucatinib (25-100 mg/kg) reduces tumor volume in breast and gastric xenograft mouse models. This compound is orally bioavailable.

**Physical and Chemical Properties:**

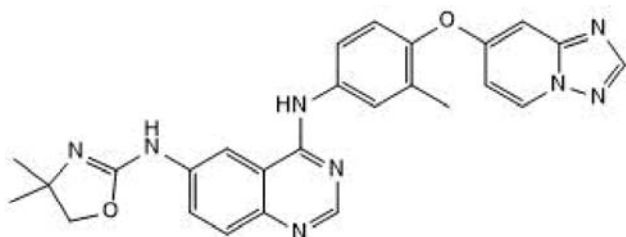
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Batch Molecular Weight: 525.56

Physical Appearance: Off White solid

**Minimum Purity:** ≥98%

**Batch Molecular Structure:**



**Storage:** Store at -20°C

**Solubility & Usage Info:**

DMSO to 100 mM

**Stability and Solubility Advice:**

Some solutions can be difficult to obtain and can be encouraged by rapid stirring, sonication or gentle warming (in a 45-60°C water bath).

Information concerning product stability, particularly in solution, has rarely been reported and in most cases we can only offer a general guide. Our standard recommendations are:

**SOLIDS:** Provided storage is as stated on the product label and the vial is kept tightly sealed, the product can be stored for up to 6 months from date of receipt.

**SOLUTIONS:** We recommend that stock solutions, once prepared, are stored aliquoted in tightly sealed vials at -20°C or below and used within 1 month. Wherever possible solutions should be made up and used on the same day.

**References:**

**Kulukian et al** (2020) Preclinical activity of HER2-selective Tyrosine Kinase inhibitor Tucatinib as a single agent or in combination with Trastuzumab or Docetaxel in solid tumor models. *Mol.Cancer.Ther.* **19** 976. PMID: 32241871.

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