

## Tandutinib (MLN518) HCl

### Chemical Properties

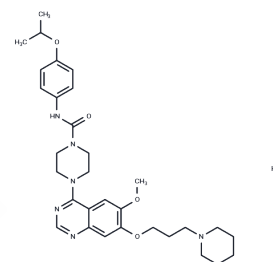
CAS No. :

Formula: C<sub>31</sub>H<sub>43</sub>ClN<sub>6</sub>O<sub>4</sub>

Molecular Weight: 599.16

Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year

Actual storage temperature shall be subject to the COA.



### Biological Description

|                            |   |
|----------------------------|---|
| Description                | Tandutinib is an effective antagonist for FLT3, platelet-derived growth factor receptor (PDGFR), and c-Kit. Tandutinib potently inhibited the activity of FLT3, PDGFR, and c-Kit (IC <sub>50</sub> : ~200 nM).  |
| Targets(IC <sub>50</sub> ) | Others  |
| In vitro                   | Tandutinib showed no significant effects on other tyrosine or serine/threonine kinases. In Ba/F3 cells expressing different FLT3-ITD mutants, Tandutinib inhibited IL-3-independent cell growth and FLT3-ITD autophosphorylation (IC <sub>50</sub> : 10-100 nM). In human FLT3-ITD-positive AML cell lines, Tandutinib induced apoptosis and inhibited FLT3-ITD phosphorylation, cellular proliferation, and signaling through the MAP kinase and PI3 kinase pathways. Tandutinib inhibited phosphorylation of c-Kit, Akt, mTOR, and p70S6 kinase. Tandutinib significantly inhibited the proliferation and colony formation ability of colon cancer cell lines. Tandutinib decreased the expression level of COX-2, VEGF, and interleukin-8. Intraperitoneal administration of Tandutinib significantly suppressed the growth of colon cancer tumor xenografts. Tandutinib inhibited the expression of cancer-promoting genes COX-2 and VEGF and suppressed the activation of Akt/mTOR signaling proteins in the xenograft tissues [1][2]. |

### Solubility Information

|            |  |
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| Solubility | DMSO: ≥59.9 mg/mL, Sonication is recommended.<br>(< 1 mg/ml refers to the product slightly soluble or insoluble) |
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### Preparing Stock Solutions

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|       | <b>1mg</b> | <b>5mg</b> | <b>10mg</b> |
|-------|------------|------------|-------------|
| 1 mM  | 1.669 mL   | 8.345 mL   | 16.690 mL   |
| 5 mM  | 0.3338 mL  | 1.669 mL   | 3.338 mL    |
| 10 mM | 0.1669 mL  | 0.8345 mL  | 1.669 mL    |
| 50 mM | 0.0334 mL  | 0.1669 mL  | 0.3338 mL   |

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Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

**Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins**

This product is for Research Use Only · Not for Human or Veterinary or Therapeutic Use

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