

Data Sheet (Cat.No.T23418)

Tandutinib (MLN518) HCl

Chemical Properties

CAS No.:	T23418
Formula:	C ₃₁ H ₄₃ CIN ₆ O ₄
Molecular Weight:	599.16
Appearance:	N/A
Storage:	0-4°C for short term (days to weeks), or -20°C for long term (months).

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 ₅₀ : ~200 nM).
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 ₅₀ : 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

Solubility	DMSO: ≥59.9mg/mL (< 1 mg/ml refers to the product slightly soluble or insoluble)
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Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.669 mL	8.345 mL	16.69 mL
5 mM	0.334 mL	1.669 mL	3.338 mL
10 mM	0.167 mL	0.835 mL	1.669 mL
50 mM	0.033 mL	0.167 mL	0.334 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. The storage conditions and period of the stock solution: - 80 °C for 6 months; - 20 °C for 1 month. Please use it as soon as possible.

Inhibitors · Natural Compounds · Compound Libraries

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

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