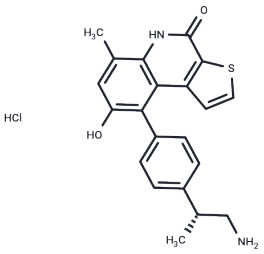
# Data Sheet (Cat.No.T4134)

TargetMol

## OTS514 hydrochloride

### Chemical Properties



CAS No. : 2319647-76-0

Formula: C21H20N2O2S.HCl

Molecular Weight: 400.92

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

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|---|---|
| Description | OTS514 hydrochloride is a highly effective TOPK(T-LAK cell-originated protein kinase) inhibitor (IC50: 2.6 nM). |
| Targets(IC50) | Apoptosis,TOPK |
| In vitro | OTS514 can inhibit the growth of kidney cancer cell lines (VMRC-RCW, Caki-1, Caki-2, 769-P, and 786-O), in which TOPK was highly expressed (IC50:19.9-44.1 nM)[1]. OTS514 markedly inhibits the growth of TOPK-positive cancer cells. It also shows the significant growth-inhibitory effect on ovarian cancer cell lines (IC50: 3.0-46 nM)[3]. |
| In vivo | In mouse xenograft studies with human lung cancer cells, OTS514 shows certain efficacy but also caused severe hematopoietic toxicity (reduction of red blood cells and white blood cells associated with marked increase in platelets)[2]. Compared with vehicle control ($P < 0.001$), OTS514 (p.o.) significantly elongated overall survival in the ES-2 abdominal dissemination xenograft model. |
| Cell Research | Cell lines: CD34+ HSCs. Concentrations: 20 or 40 nM. Incubation Time: 48 h. Method: Cells were cultured in RPMI supplemented with 20% fetal bovine serum and 1×StemSpan CC100.Cells were treated with OTS514 (20 or 40 nM) or OTS964 (100 or 200 nM) for 48 hours.Collected cells were washed with PBS and resuspended in 100 ml of PBS followed by staining with CD41a antibody for 20 min at room temperature.Finally,the cells were washed with PBS again and then analyzed for CD41a staining by flow cytometry. Expression of STAT5 was examined by Western blot with an anti-STAT5 antibody. |
| Animal Research | Animal: BALB/cSLC-nu/nu mice. Solvent: 5% glucose (i.v.); 0.5% methylcellulose (p.o.). Dosages: 1,2.5,and 5 mg/kg |

### Solubility Information

| | |
|---|---|
| Solubility | DMSO: 27.5 mg/mL (68.59 mM),Sonication is recommended.<br>(< 1 mg/ml refers to the product slightly soluble or insoluble) |

Preparing Stock Solutions

| | 1mg | 5mg | 10mg |
|---|---|---|---|
| 1 mM | 2.4943 mL | 12.4713 mL | 24.9426 mL |
| 5 mM | 0.4989 mL | 2.4943 mL | 4.9885 mL |
| 10 mM | 0.2494 mL | 1.2471 mL | 2.4943 mL |
| 50 mM | 0.0499 mL | 0.2494 mL | 0.4989 mL |

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.

Reference

Kato T, et al. Oncotarget. 2016, 7(14):17652-64.
Matsuo Y, et al. Sci Transl Med. 2014, 6(259):259ra145.
Ikeda Y, et al. Clin Cancer Res. 2016, 22(24):6110-6117.