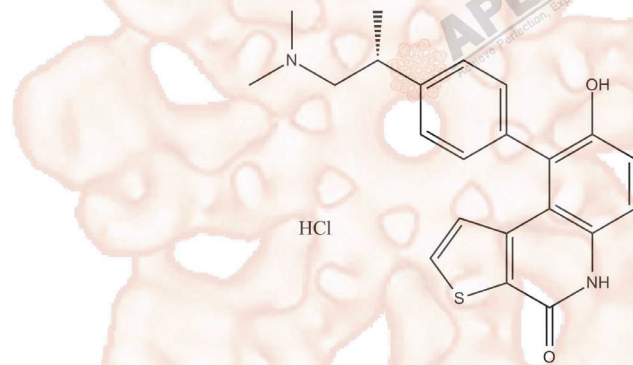


Product Data Sheet

OTS964 hydrochloride

Cat. No.:	A9502
CAS No.:	1338545-07-5
Formula:	C ₂₂ H ₂₃ CIN ₂ O ₂ S
M.Wt:	414.95
Synonyms:	
Target:	MAPK Signaling
Pathway:	Other
Storage:	Store at -20°C



Solvent & Solubility

≥88.6 mg/mL in DMSO; ≥2.15 mg/mL in EtOH with gentle warming and ultrasonic; ≥2.1 mg/mL in H₂O with gentle warming and ultrasonic

In Vitro

Preparing Stock Solutions	Solvent Concentration	Mass		
		1mg	5mg	10mg
	1 mM	2.6421 mL	13.2104 mL	26.4208 mL
	5 mM	0.5284 mL	2.6421 mL	5.2842 mL
	10 mM	0.2642 mL	1.3210 mL	2.6421 mL

Please refer to the solubility information to select the appropriate solvent.

Biological Activity

Shortsummary

TOPK inhibitor, potent and selective

IC₅₀ & Target

In Vitro

Cell Viability Assay

Cell Line:	AML-CD34+, MV4-11 and MOLM13 cell lines
Preparation method:	Soluble in DMSO > 10 mM. General tips for obtaining a higher concentration: Please warm the tube at 37 °C for 10 minutes and/or shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.
Reacting conditions:	~ 48 hours
Applications:	There is a significant decrease in the number of colonies per well in AML-CD34+ cells treated with 10 nM of OTS514 compared to untreated cells

(41 vs 73, P = 0.01). OTS514 exhibits cytotoxic activity in AML cells but not in normal CD34+ cells. OTS514 also leads to 80% and 70% increase in apoptotic cell population in MV4-11 and MOLM13 cells that carried FLT3 mutations.

Animal experiment

Animal models: LU-99 xenografts (female BALB/cSLC-nu/nu Mice)

Dosage form: Intravenously treated with liposomal OTS964 (40 mg/kg)

Applications: OTS514 induces irregular cell morphology with cytokinesis defects and significantly increases the number of LU-99 cells with the “intercellular bridge” which is one of the markers indicating impaired cell division.

Other notes: Please test the solubility of all compounds indoor, and the actual solubility may slightly differ with the theoretical value. This is caused by an experimental system error and it is normal.

In Vivo

Product Citations

See more customer validations on www.apexbt.com.

References

1. Matsuo Y, Park JH2, Miyamoto T, et al. TOPK inhibitor induces complete tumor regression in xenograft models of human cancer through inhibition of cytokinesis. *ci Transl Med*. 2014 Oct 22;6(259):259ra145.
2. Alachkar H, Mutonga M, Malnassy G et al. T-LAK cell-originated protein kinase presents a novel therapeutic target in FLT3-ITD mutated acute myeloid leukemia. *Oncotarget*. 2015 Oct 20;6(32):33410-25.

Caution

FOR RESEARCH PURPOSES ONLY.

NOT FOR HUMAN, VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

Specific storage and handling information for each product is indicated on the product datasheet. Most APEX BIO products are stable under the recommended conditions. Products are sometimes shipped at a temperature that differs from the recommended storage temperature. Shortterm storage of many products are stable in the short-term at temperatures that differ from that required for long-term storage. We ensure that the product is shipped under conditions that will maintain the quality of the reagents. Upon receipt of the product, follow the storage recommendations on the product data sheet.

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