

Product Datasheet

OTS964

Catalog No. **BP-02492** · CAS **1338545-07-5** · Form **free base** · Physical state **solid** · Color **Off-white to light yellow** · Version **1.0** · Revision **2026-09-10**

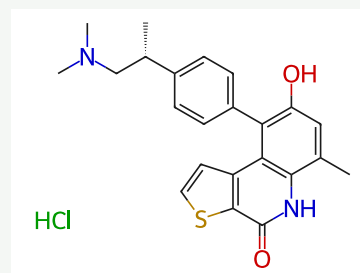
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Target TOPK; CDK; Apoptosis	Research area Cancer
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Molecular formula **C₂₃H₂₅ClN₂O₂S**

Molecular weight **428.9750**

STRUCTURE



DESCRIPTION

OTS964 hydrochloride is an orally active, high affinity and selective TOPK (T-lymphokine-activated killer cell-originated protein kinase) inhibitor with an IC₅₀ of 28 nM . OTS964 hydrochloride is also a potent inhibitor of the cyclin-dependent kinase CDK11, which binds to CDK11B with a K_d of 40 nM .

BIOLOGICAL ACTIVITY

In Vitro

OTS964 hydrochloride (10 nM; 48 hours) suppresses cancer cell proliferation.

OTS964 hydrochloride (10 nM; 48 hours) increases cancer cell death.

OTS964 (0.1-2 μM; 24 and 48 hours) increases the expression of LC3-II and decreases the expression of P62, both in a dose-dependent manner.

In Vivo

OTS964 hydrochloride (intravenously; 40 mg/kg on days 1, 4, 8, 11, 15, and 18) makes tumors shrinking even after the treatment and finally revealing complete regression.

OTS964 hydrochloride (oral administration; 50 or 100 mg/kg/day for 2 weeks) ultimately achieves complete tumor regression.

SOLUBILITY

Soluble in DMSO/H₂O

REFERENCES

[1]. Matsuo Y, et al. TOPK inhibitor induces complete tumor regression in xenograft models of human cancer through inhibition of cytokinesis. *Sci Transl Med.* 2014 Oct 22;6(259):259ra145.

[2]. Lin A, et al. Off-target toxicity is a common mechanism of action of cancer drugs undergoing clinical trials. *Sci Transl Med.* 2019 Sep 11;11(509).

[3]. Lu H, et al. TOPK inhibits autophagy by phosphorylating ULK1 and promotes glioma resistance to TMZ. *Cell Death Dis.* 2019 Aug 5;10(8):583.

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Lot CoA and SDS are separate documents.