Product Datasheet

BAY-985

Catalog No. **BP-02007** · CAS **2409479-29-2** · Form **free base** · Physical state **solid** · Color **light yellow to yellow** · Version **1.0** · Revision **2026-09-10**

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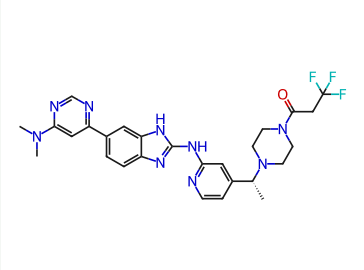
Target	Research area
IKK	**Cancer**

Molecular formula	$C_{27}H_{30}F_3N_9O$
Molecular weight	**553.5820**

STRUCTURE



DESCRIPTION

BAY-985 is a potent and highly selective TBK1/IKKε inhibitor. BAY-985 shows high potency toward TBK1 (IC50 = 2 nM, low ATP assay; 30 nM, high ATP assay) and IKKε(IC50 = 2 nM), as well as high potency in the mechanistic pIRF3 assay (IC50 = 74 nM), and an antiproliferative effect on SK-MEL-2 cells (IC50 = 900 nM).

BIOLOGICAL ACTIVITY

In Vitro

BAY-985 inhibits FLT3, RSK4, DRAK1, and ULK1 with IC50s of 123, 276, 311, and 7930 nM, respectively.

BAY-985 inhibits the cellular phosphorylation of interferon regulatory factor 3 (IRF3) with an IC50 of 74 nM.

BAY-985 is active in cellular mechanistic assay and shows anti-proliferative activity in a few cancer cell lines with IC50s of 900 and 7260 nM for SK-MEL2 (NRAS and TP53 mutated) and ACHN (CDKN2A mutated) cells, respectively.

In Vivo

BAY-985 (200 mg/kg; p.o.; b.i.d.; 111 days) results in weak antitumor efficacy.

BAY-985 shows high clearance (CLb= 4.0 L/h/kg, ca. 95% hepatic extraction), large volume of distribution at steady state (Vss=2.9 L/kg) and a short terminal half-life (t1/2=0.79 h).

SOLUBILITY

Soluble in DMSO

REFERENCES

[1]. Lefranc J, et al. Discovery of BAY-985, a Highly Selective TBK1/IKKε Inhibitor. J Med Chem. 2020 Jan 10.