Product Datasheet

BAY-069

Catalog No. **BP-02239** · CAS **2639638-66-5** · Form **free base** · Physical state **other** · Color **White to off-white** · Version **1.0** · Revision **2026-09-03**

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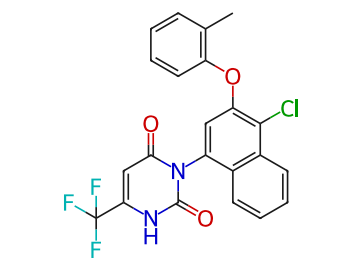
Target	Research area
Fluorescent Dye	**Cancer**

Molecular formula	**$C_{22}H_{14}ClF_3N_2O_3$**
Molecular weight	**446.8060**

STRUCTURE



DESCRIPTION

BAY-069 is a potent branched-chain amino acid transaminases 1 (BCAT1) and BCAT2 inhibitor with IC50 values of 31 nM and 153 nM, respectively. BAY-069 also can be used as a chemical probe. BAY-069 can be used tor research anticancer.

BIOLOGICAL ACTIVITY

In Vitro

BAY-069 (compound 36a) (70 nM-50 μM; 72 h) inhibits cell proliferation of U-87 and MDA-MB-231.

In Vivo

BAY-069 exhibits high metabolic stability after incubation with human liver microsomes (CLblood = 0.11 L/h/kg) and moderate metabolic stability after incubation with rat hepatocytes (CLblood = 1.8 L/h/kg); shows high permeability through Caco-2 cell monolayers with no hint of efflux.

BAY-069 (0.3 mg/kg for i.v.; 0.6 mg/kg for p.o.; single dosage) exhibits a favorable pharmacokinetic profile after i.v. dosing with low blood clearance (CLblood), moderate volume of distribution at steady state (Vss), and intermediate terminal half-life (t1/2).

SOLUBILITY

Soluble in DMSO

In vitro	DMSO : 100 mg/mL

REFERENCES

[1]. Günther J, et al. BAY-069, a Novel (Trifluoromethyl)pyrimidinedione-Based BCAT1/2 Inhibitor and Chemical Probe. J Med Chem. 2022 Oct 19.

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