Product Datasheet

Ulixertinib hydrochloride

Catalog No. **BP-02521A** · CAS **1956366-10-1** · Form **salt · hydrochloride** · Physical state **other** · Color **White to off-white** · Version **1.0** · Revision **2026-09-10**

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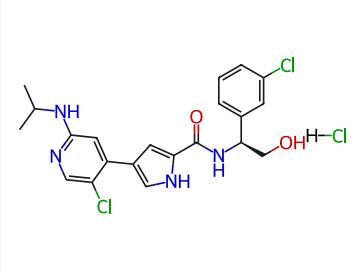
Target	Research area
ERK	**Cancer**

Molecular formula	$C_{21}H_{23}Cl_3N_4O_2$
Molecular weight	**469.7920**

STRUCTURE



DESCRIPTION

Ulixertinib hydrochloride (BVD-523 hydrochloride) is a potent, orally active, highly selective, ATP-competitive and reversible covalent inhibitor of ERK1/2 kinases, with an IC50 of <0.3 nM against ERK2. Ulixertinib hydrochloride inhibits the phosphorylated ERK2 (pERK) and downstream kinase RSK (pRSK) in an A375 melanoma cell line .

BIOLOGICAL ACTIVITY

Ulixertinib hydrochloride (BVD-523 hydrochloride) is a potent, orally active, highly selective, ATP-competitive and reversible covalent inhibitor of ERK1/2 kinases, with an IC50 of <0.3 nM against ERK2. Ulixertinib hydrochloride inhibits the phosphorylated ERK2 (pERK) and downstream kinase RSK (pRSK) in an A375 melanoma cell line.

SOLUBILITY

Soluble in DMSO,H2O

In vitro	DMSO : 100 mg/mL H2O : < 0.1 mg/mL

REFERENCES

[1].Changwen Ning, et al. Targeting ERK Enhances the Cytotoxic Effect of the Novel PI3K and mTOR Dual Inhibitor VS-5584 in Preclinical Models of Pancreatic Cancer. Oncotarget. 2017 Jul 4;8(27):44295-44311.

[2].Ward RA, et al. Structure-Guided Design of Highly Selective and Potent Covalent Inhibitors of ERK1/2. J Med Chem. 2015 Jun 11;58(11):4790-801.