Product Datasheet

VRT752271

Catalog No. **BP-02323** · CAS **869886-67-9** · Form **free base** · Physical state **other** · Version **1.0** · Revision **2026-09-10**

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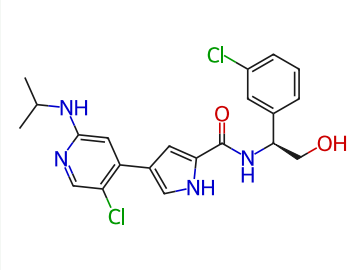
Target	Research area
ERK	**Cancer**

Molecular formula	$C_{21}H_{22}Cl_2N_4O_2$
Molecular weight	**433.3310**

STRUCTURE



DESCRIPTION

Ulixertinib (BVD-523; VRT752271) 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 (BVD-523; VRT752271) inhibits the phosphorylated ERK2 (pERK) and downstream kinase RSK (pRSK) in an A375 melanoma cell line.

BIOLOGICAL ACTIVITY

In Vitro

Combined Ulixertinib (BVD-523; 10, 20, 30 μM; 48 hours) and VS-5584 treatment causes significant induction of cell death in human pancreatic cancer (HPAC) cells in PDAC cell lines BxPC-3, MIAPaCa-2, and CFPAC-1.

In Vivo

In the pharmacokinetic study, the sensitivity and specificity of the assay are found to be sufficient for accurately characterizing the plasma pharmacokinetics of Ulixertinib (VRT752271) in Balb/C mice.

SOLUBILITY

Soluble in DMSO, not in water

REFERENCES

[1]. 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.

[2]. Kumar R, et al. Determination of ulixertinib in mice plasma by LC-MS/MS and its application to a pharmacokinetic study in mice. J Pharm Biomed Anal. 2016 Jun 5;125:140-4.

[3]. 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.

Lot CoA and SDS are separate documents.