Product Datasheet

NVL-520

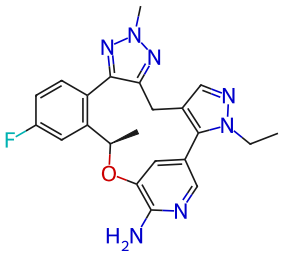
Catalog No. **BP-02045** · CAS **2739829-00-4** · Form **free base** · Physical state **solid** · Color **Off-white to light yellow** · Version **1.0** · Revision **2026-09-11**

FOR RESEARCH USE ONLY. NOT FOR HUMAN OR VETERINARY USE.

Target	Research area
ROS Kinase	**Cancer**

Molecular formula	$C_{22}H_{22}FN_7O$
Molecular weight	**419.4548**

STRUCTURE



DESCRIPTION

Zidesamtinib (NVL-520) is a potent, selective, orally active and brain-penetrant inhibitor of diverse ROS1 fusions and resistance mutations, with IC50s of 0.7 and 7.9 nM for wild-type ROS1 and ROS1 G2032R, respectively, and spares TRK inhibition. Zidesamtinib can be used for the research of cancer.

BIOLOGICAL ACTIVITY

In Vitro

Zidesamtinib (72 h) inhibits the growth of seven cell lines expressing wild-type ROS1 fusions, with average IC50s of 0.4 nM.

Zidesamtinib (72 h) inhibits the growth of six cell lines harboring ROS1 fusions with the G2032R mutation, with average IC50s of 1.6 nM.

Zidesamtinib (72 h) potently inhibits the non-G2032R ROS1 mutants, with IC50s ≤ 1.5 nM.

Zidesamtinib (10-1000 nM; 4 weeks) suppresses colony formation in NIH3T3 cells expressing wild-type ROS1 fusions and expressing ROS1 fusions with G2032R.

In Vivo

Zidesamtinib (0.04-15 mg/kg; p.o. twice daily for 28 d) induces tumor regression at all doses ≥0.2 mg/kg in wild-type ROS1 xenograft models.

SOLUBILITY

Soluble in DMSO : 50 mg/mL

REFERENCES

[1]. Drilon A, et, al. NVL-520 is a selective, TRK-sparing, and brain-penetrant inhibitor of ROS1 fusions and secondary resistance mutations. Cancer Discov. 2022 Dec 13;CD-22-0968.

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