Product Datasheet

LOXO-305

Catalog No. **BP-01972** · CAS **2101700-15-4** · Form **free base** · Physical state **solid** · Color **White to yellow** · Version **1.0** · Revision **2026-09-09**

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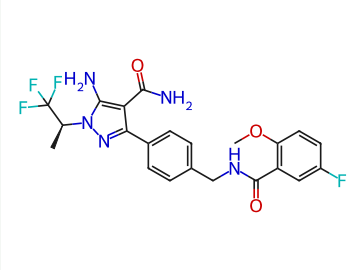
Target	Research area
Btk	**Cancer**

Molecular formula	$C_{22}H_{21}F_4N_5O_3$
Molecular weight	**479.4275**

STRUCTURE



DESCRIPTION

Pirtobrutinib (LOXO-305), a highly selective and non-covalent next generation BTK inhibitor, inhibits diverse BTK C481 substitution mutations.

BIOLOGICAL ACTIVITY

In Vitro

Pirtobrutinib potently inhibits both wild-type BTK and BTK C481S-mediated kinase activity with nanomolar potency. Pirtobrutinib inhibits WT BTK (Y223) autophosphorylation with an IC50 of 3.68 nM. Pirtobrutinib inhibits BTK C481S Y223, C481T Y223, and C481R Y223 autophosphorylation with IC50s of 8.45, 7.23, and 11.73 nM, respectively.

SOLUBILITY

Soluble in DMSO 50 mg/mL

REFERENCES

[1]. Gomez E B , et al. Loxo-305, a Highly Selective and Non-Covalent Next Generation BTK Inhibitor, Inhibits Diverse BTK C481 Substitution Mutations[J]. Blood, 2019, 134(Supplement_1):4644-4644.