# Data Sheet (Cat.No.T207863)

TargetMol

PXB17

## Chemical Properties

CAS No. :

Formula: C29H35N7O4

Molecular Weight:

Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year
Actual storage temperature shall be subject to the COA.

## Biological Description

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|---|---|
| Description | PXB17 inhibits CSF1R activation (IC50= 1.7 nM) by blocking the PI3K/AKT/mTORC1 signaling pathway. It is effective orally, significantly suppresses the growth of colorectal cancer (CRC), enhances the efficacy of PD-1 monoclonal antibodies (PD-1mAb), and reduces the recurrence of CRC tumors. |
| Targets(IC50) | c-Fms |
| In vitro | PXB17, when applied in concentrations ranging from 30 to 3000 nM for 4 hours, enhances the stability of CSF1R in a dose-dependent manner. At 30 and 100 nM over 24 hours, PXB17 inhibits cholesterol biosynthesis and promotes the transformation of the M2 phenotype to the M1 phenotype by blocking PI3K-AKT-mTORC1 signaling, thereby hindering the progression of CRC. Additionally, at concentrations of 10, 30, and 100 nM over 72 hours, PXB17 increases the expression of CD69 in CD8+ T cells, helping to prevent the growth of CRC cells by boosting antitumor immunity. |
| In vivo | PXB17 administered orally at doses of 10 and 20 mg/kg daily effectively suppresses tumor growth in C57BL/6 mice inoculated with MC-38 cells. In C57BL/6 and BALB/c mice with MC-38 cell inoculation, PXB17 affects tumor cell survival and proliferation by directly inhibiting CSF1R and modulating the cholesterol biosynthesis pathway, while also reshaping the tumor microenvironment by altering macrophage phenotypes. Concurrent administration of PXB17 (20 mg/kg; p.o.; daily) with PD-1 mAb enhances antitumor efficacy in CT-26 (MSS) and MC-38 (MSI-H) mouse models and reduces recurrence. |



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