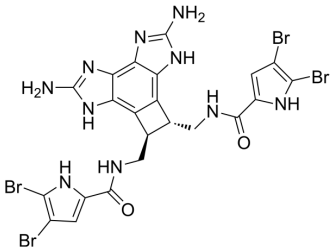
Benzosceptrin C

Cat. No.:	HY-N12687
CAS No.:	1204605-36-6
Molecular Formula:	$C_{22}H_{18}Br_4N_{10}O_2$
Molecular Weight:	774.06
Target:	PD-1/PD-L1; Apoptosis
Pathway:	Immunology/Inflammation; Apoptosis
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description

Benzosceptrin C is an inhibitor for PD-L1, which promotes programmed cell death ligand (PD-L1) degradation in a lysosomal pathway, enhances the cytotoxicity of T-cells and exhibits antitumor activity[1].

In Vitro

Benzosceptrin C (0-10 μM) inhibits PD-L1 expression in CRC cancer cells, enhances T-cell cytotoxicity through PD-L1 checkpoints disruption, and inhibits proliferations of CRC cancer cells RKO and HCT116[1].
Benzosceptrin C (0-10 μM) blocks the palmitoylation of PD-L1 by inhibiting DHHC3, thus promotes the lysosomal degradation of PD-L1, blocks the direct interaction of PD-L1 and PD-1 and exert an immune antitumor effect[1].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Cell Proliferation Assay[1]

Cell Line:	RKO and HCT116
Concentration:	0-10 μM
Incubation Time:	24 days
Result:	Inhibited proliferation of tumor cells in dose-dependent manner.

Western Blot Analysis[1]

Cell Line:	RKO and HCT116
Concentration:	0-10 μM
Incubation Time:	24 h
Result:	Reduced levels of PD-L1 in time- and dose-dependent manner.

In Vivo

Benzosceptrin C (5-50 mg/kg/day, i.p. for 16 days) inhibits tumor growth in MC38 xenograft C57BL/6 mice through activation of tumor-infiltrating T cells and induction of apoptosis[1].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Animal Model:	MC38 xenograft C57BL/6 mice[1]

Dosage:	5-50 mg/kg
Administration:	i.p.,Once a day for 16 days
Result:	Inhibited tumor growth with TGI of 30.4% and 43.1% at dose of 25 and 50 mg/kg with presence of T cells.

REFERENCES

[1]. Wang Q, et al., Benzosceptrin C induces lysosomal degradation of PD-L1 and promotes antitumor immunity by targeting DHHC3. Cell Rep Med. 2024 Feb 20;5(2):101357.

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