BMSpep-57 hydrochloride

Cat. No.: HY-P3143A

Molecular Formula: $C_{89}H_{127}ClN_{24}O_{19}S$

Molecular Weight: 1904.63

Sequence: {mercaptoacetic acid}-Phe-Ala-Asn-Pro-His-Leu-Ser-Trp-Ser-Trp-{norleucine}-{norleucine}-Arg-Cys-Gly (Sulfide bridge:mercaptoacetic acid 1-Cys15)

Sequence Shortening: {mercaptoacetic acid}-FANPHLSWSW-{norleucine}-{norleucine}-RCG (Sulfide bridge: mercaptoacetic acid 1-Cys15)

Target: PD-1/PD-L1

Pathway: Immunology/Inflammation

Storage: Sealed storage, away from moisture

Powder	-80°C	2 years
	-20°C	1 year

* In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture)

BIOLOGICAL ACTIVITY

Description	BMSpep-57 hydrochloride is a potent and competitive macrocyclic peptide inhibitor of PD-1/PD-L1 interaction with an IC_{50} of 7.68 nM. BMSpep-57 hydrochloride binds to PD-L1 with K_ds of 19 nM and 19.88 nM in MST and SPR assays, respectively. BMSpep-57 hydrochloride facilitates T cell function by in creasing IL-2 production in PBMCs[1].
IC_{50} & Target	IC50: 7.68 nM (PD-1/PD-L1 interaction)[1]
In Vitro	In a ELISA competition assay, BMSpep-57 inhibits PD-1/PD-L1 binding up to 98.1% 300 nM. And it shows a concentration dependent inhibition of PD-1/PD-L1 binding with an IC_{50} of 7.68 nM[1]. BMSpep-57 induced high levels of IL-2 at 1 μM and 500 nM concentrations in SEB-stimulated peripheral blood mononuclear cells[1]. BMSpep-57 (0.2-10 μM; 24 hours) does not show any effect on the Jurkat, CHO and HepG2 cells' viability at the various concentrations tested[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Aravindhan Ganesan, et al. Comprehensive in vitro characterization of PD-L1 small molecule inhibitors.Sci Rep . 2019 Aug 27;9(1):12392.

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