

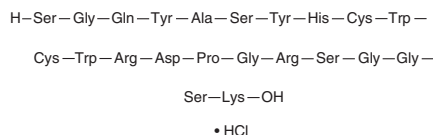
PRODUCT INFORMATION



TPP-1 (hydrochloride)

Item No. 37410

Formal Name: L-serylglycyl-L-glutaminy-L-tyrosyl-L-alanyl-L-seryl-L-tyrosyl-L-histidyl-L-cysteinyl-L-tryptophyl-L-cysteinyl-L-tryptophyl-L-arginyl-L- α -aspartyl-L-prolylglycyl-L-arginyl-L-serylglycylglycyl-L-seryl-L-lysine, monohydrochloride



Synonym: Targeting PD-L1 Peptide

Peptide Sequence: SGQYASYHCWCRDPGRSGGSK-OH

MF: $\text{C}_{107}\text{H}_{150}\text{N}_{34}\text{O}_{32}\text{S}_2 \bullet \text{HCl}$

FW: 2,525.1

Purity: $\geq 95\%$

UV/Vis.: λ_{max} : 282 nm

Supplied as: A solid

Storage: -20°C

Stability: ≥ 4 years

Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

TPP-1 (hydrochloride) is supplied as a solid. A stock solution may be made by dissolving the TPP-1 (hydrochloride) in the solvent of choice, which should be purged with an inert gas. TPP-1 (hydrochloride) is soluble in the organic solvent DMSO at a concentration of approximately 10 mg/ml.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. Organic solvent-free aqueous solutions of TPP-1 (hydrochloride) can be prepared by directly dissolving the solid in aqueous buffers. The solubility of TPP-1 (hydrochloride) in PBS (pH 7.2) is approximately 1 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

TPP-1 is a peptide inhibitor of the protein-protein interaction between programmed cell death protein 1 (PD-1) and PD-1 ligand (PD-L1).¹ It binds to PD-L1 in a cell-free assay ($K_d = 94.67$ nM). TPP-1 (20 μM) reverses PD-L1-induced decreases in IFN- γ levels in anti-CD3-induced isolated human CD4⁺ T cells. It reduces tumor volume in a mouse xenograft model using HL-60 leukemia cells co-cultured with anti-CD3-activated isolated human CD4⁺ T cells prior to implantation when administered at a dose of 4 mg/kg.

Reference

1. Li, C., Zhang, N., Zhou, J., *et al.* Peptide blocking of PD-1/PD-L1 interaction for cancer immunotherapy. *Cancer Immunol. Res.* **6**(2), 178-188 (2018).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the [complete](#) Safety Data Sheet, which has been sent via email to your institution.

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