

PRODUCT INFORMATION



(D)-PPA 1 (trifluoroacetate salt)

Item No. 35647

Formal Name: D-asparaginy-D-tyrosyl-D-seryl-D-lysyl-D-prolyl-D-threonyl-D- α -aspartyl-D-arginyl-D-glutaminy-D-tyrosyl-D-histidyl-D-phenylalanine, trifluoroacetate salt

Synonyms: D PPA-1, NYSKPTDRQYHF

MF: $C_{70}H_{98}N_{20}O_{21} \cdot XCF_3COOH$

FW: 1,555.7

Purity: $\geq 98\%$

Supplied as: A solid

Storage: $-20^\circ C$

Stability: ≥ 4 years

H-Asn - Tyr - Ser - Lys - Pro - Thr - Asp - Arg - Gln - Tyr - His - Phe - OH

$\cdot XCF_3COOH$

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

Laboratory Procedures

(D)-PPA 1 (trifluoroacetate salt) is supplied as a solid. A stock solution may be made by dissolving the (D)-PPA 1 (trifluoroacetate salt) in the solvent of choice, which should be purged with an inert gas. (D)-PPA 1 (trifluoroacetate salt) is soluble in organic solvents such as DMSO and dimethyl formamide. The solubility of (D)-PPA 1 (trifluoroacetate salt) in these solvents is approximately 10 mg/ml. It is also slightly soluble in ethanol.

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 (D)-PPA 1 (trifluoroacetate salt) can be prepared by directly dissolving the solid in aqueous buffers. The solubility of (D)-PPA 1 (trifluoroacetate salt) in PBS (pH 7.2) is approximately 5 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

(D)-PPA 1 is an inhibitor of the protein-protein interaction between programmed cell death protein 1 (PD-1) and PD-1 ligand (PD-L1).¹ It binds to the extracellular domain of PD-L1 ($K_d = 0.51 \mu M$ for the recombinant human protein). (D)-PPA 1 (2 mg/kg) decreases tumor volume and improves survival in a CT26 murine colorectal cancer model.

Reference

1. Chang, H.-N., Liu, B.-Y., Qi, Y.-K., *et al.* Blocking of the PD-1/PD-L1 interaction by a D-peptide antagonist for cancer immunotherapy. *Angew. Chem. Int. Ed. Engl.* **54(40)**, 11760-11764 (2015).

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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