

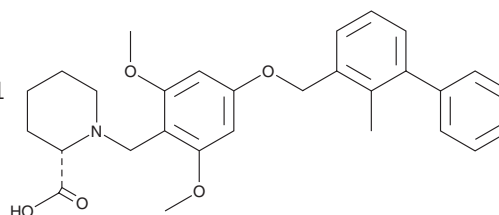
PRODUCT INFORMATION



PD-1/PD-L1 Inhibitor 1

Item No. 19914

CAS Registry No.: 1675201-83-8
Formal Name: (2S)-1-[[2,6-dimethoxy-4-[(2-methyl[1,1'-biphenyl]-3-yl)methoxy]phenyl]methyl]-2-piperidinecarboxylic acid
Synonyms: BMS-1, Programmed Cell Death 1/ Programmed Cell Death-Ligand 1 Inhibitor 1
MF: C₂₉H₃₃NO₅
FW: 475.6
Purity: ≥98%
UV/Vis.: λ_{max}: 211, 236, 270 nm
Supplied as: A crystalline 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

PD-1/PD-L1 inhibitor 1 is supplied as a crystalline solid. A stock solution may be made by dissolving the PD-1/PD-L1 inhibitor 1 in the solvent of choice, which should be purged with an inert gas. PD-1/PD-L1 inhibitor 1 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of PD-1/PD-L1 inhibitor 1 in ethanol is approximately 20 mg/ml and approximately 30 mg/ml in DMSO and DMF.

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 PD-1/PD-L1 inhibitor 1 can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of PD-1/PD-L1 inhibitor 1 in PBS, pH 7.2, is approximately 1 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

PD-1/PD-L1 is an inhibitor of the protein-protein interaction between programmed cell death protein 1 (PD-1) and PD-1 ligand (PD-L1).¹ It inhibits the PD-1/PD-L1 interaction in a time-resolved FRET (TR-FRET) assay (IC₅₀ = 6-100 nM). PD-1/PD-L1 inhibitor 1 reduces LPS-induced increases in PD-1 levels and apoptosis in MH-S mouse alveolar macrophages when used at a concentration of 1 μM.² Surgical neointimal patching with PD-1/PD-L1-coated patches decreases neointimal thickness and inflammatory cell accumulation in a rat model of patch angioplasty.³

References

1. Chupak, L.S. and Zheng, X. Compounds useful as immunomodulators. WO 2015/034820, (2015), PCT/US2014/053695.
2. Jia, L., Liu, K., Fei, Q., *et al.* Programmed cell death-1/programmed cell death-ligand 1 inhibitors exert antiapoptosis and antiinflammatory activity in lipopolysaccharide stimulated murine alveolar macrophages. *Exp. Ther. Med.* **21(4)**, 400 (2021).
3. Bai, H., Wang, Z., Li, M., *et al.* Inhibition of programmed death-1 decreases neointimal hyperplasia after patch angioplasty. *J. Biomed. Mater. Res.* **109(2)**, 269-278 (2020)

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.

WARRANTY AND LIMITATION OF REMEDY

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CAYMAN CHEMICAL

1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA

PHONE: [800] 364-9897
[734] 971-3335

FAX: [734] 971-3640

CUSTSERV@CAYMANCHEM.COM
WWW.CAYMANCHEM.COM