

PD-1/PD-L1

PD-1/Programmed death-ligand 1

Programmed death-1 (PD-1) is a cell surface receptor that functions as a T cell checkpoint and plays a central role in regulating T cell exhaustion. PD-1 is activated by the engagement of its ligands PDL-1 or PDL-2. PD-1 receptor delivers inhibitory checkpoint signals to activated T cells upon binding to its ligands PD-L1 and PD-L2 expressed on antigen-presenting cells and cancer cells, resulting in suppression of T-cell effector function and tumor immune evasion. Inhibiting the programmed cell death-1 (PD-1)/programmed cell death-ligand 1 (PD-L1) pathway is an attractive strategy for tumor immunotherapy.

PD-1 is expressed on activated T cells, B cells, monocytes, dendritic cells (DCs), regulatory T cells (Tregs), and natural killer T cells (NKT). It is a member of a family of immunoglobulin domain (Ig) co-receptors that modify the outcome of activation of the T cell receptor by an antigen-presenting cell (APC) or infected target cell. PD-L1 is widely and constitutively expressed on both hematopoietic and nonhematopoietic cells; e.g., naive T and B cells, vascular endothelial cells, and pancreatic islet cells, whereas PD-L2 is exclusively and inducibly expressed on professional APCs.

PD-1/PD-L1 Inhibitors, Antagonists & Activators

ARB-272572

Cat. No.: HY-142221

ARB-272572 is a potent small-molecule PD-L1 inhibitor with an IC_{so} value of 400pM.

Purity: >98%

Clinical Data: No Development Reported

Size: 1 mg, 5 mg

Atezolizumab

(MPDL3280A) Cat. No.: HY-P9904

Atezolizumab (MPDL3280A) is a selective humanized monoclonal IgG1 antibody against programmed death ligand 1 (PD-L1), used for cancer research.

Atezolizumab

98 98% Purity: Clinical Data: Launched

1 mg, 5 mg, 25 mg, 50 mg

AUNP-12

(NP-12) Cat. No.: HY-P1812

AUNP-12 (NP-12) is a peptide antagonist of the PD-1 signaling pathway, displays equipotent antagonism toward PD-L1 and PD-L2 in rescue of lymphocyte proliferation and effector functions.

SNTSESF-NH SNTSESFKFRVTQLAPKAQIKE-NH₂

Purity: >98%

Clinical Data: No Development Reported

1 mg, 5 mg

AUNP-12 TFA

(NP-12 TFA) Cat. No.: HY-P1812A

AUNP-12 TFA (NP-12 TFA) is a peptide antagonist of the PD-1 signaling pathway, displays equipotent antagonism toward PD-L1 and PD-L2 in

rescue of lymphocyte proliferation and effector

functions.

Purity: ≥96.0%

Clinical Data: No Development Reported 1 mg, 5 mg, 10 mg

Avelumab (Anti-Human PD-L1, Human Antibody; MSB 0010718C;

MSB0010718C) Cat. No.: HY-108730

Avelumab is a fully human IgG1 anti-PD-L1 monoclonal antibody with potential antibody-dependent cell-mediated cytotoxicity.

Avelumab

>98% Purity: Clinical Data: Launched Size: 1 mg, 5 mg, 10 mg

BMS-1

(PD-1/PD-L1 inhibitor 1)

BMS-1 is an inhibitor of the PD-1/PD-L1 protein/protein interaction (IC₅₀ between 6 and 100

Cat. No.: HY-19991

99.56% Purity:

Clinical Data: No Development Reported

10 mM × 1 mL, 5 mg, 10 mg, 25 mg, 50 mg, 100 mg

BMS-1001 hydrochloride

Cat. No.: HY-120635

BMS-1001 hydrochloride is an orally active human PD-L1/PD-1 immune checkpoint inhibitor. BMS-1001 hydrochloride exhibits low-toxicity in cells.

Purity: 98.46%

Clinical Data: No Development Reported

Size 10 mM × 1 mL, 5 mg, 10 mg, 25 mg, 50 mg, 100 mg

BMS-1166

Cat. No.: HY-102011

BMS-1166 is a potent PD-1/PD-L1 immune checkpoint inhibitor. BMS-1166 induces dimerization of PD-L1 and blocks its interaction with PD-1, with an IC_{so} of 1.4 nM. BMS-1166 antagonizes the inhibitory effect of PD-1/PD-L1 immune checkpoint on T cell

activation.

Purity: 98.37%

Clinical Data: No Development Reported

10 mM × 1 mL, 5 mg, 10 mg, 25 mg, 50 mg, 100 mg

BMS-1166 hydrochloride

Cat. No.: HY-102011A

BMS-1166 hydrochloride is a potent PD-1/PD-L1 immune checkpoint inhibitor. BMS-1166 hydrochloride induces dimerization of PD-L1 and blocks its interaction with PD-1, with an IC_{50} of 1.4 nM.

Purity: >98%

Clinical Data: No Development Reported

1 mg, 5 mg Size

BMS-202

Cat. No.: HY-19745

BMS-202 is a potent and nonpeptidic PD-1/PD-L1 complex inhibitor with an ${\rm IC}_{\rm 50}$ of 18 nM and a K_p of 8 μM. BMS-202 binds to PD-L1 and blocks human PD-1/PD-L1 interaction. BMS-202 has antitumor activity.

99.39% Purity:

Clinical Data: No Development Reported

10 mM × 1 mL, 5 mg, 10 mg, 25 mg, 50 mg, 100 mg

BMS-8

BMS-8 inhibits the PD-1/PD-L1 interaction with IC_{50} of 7.2 μ M. BMS-8, binds directly to PD-L1 and induces formation of PD-L1 beyond in the second state of the production of the product

induces formation of PD-L1 homodimers, which in turn prevents the interaction with PD-1.

Cat. No.: HY-116274

Purity: >98%

Clinical Data: No Development Reported

Size: 1 mg, 5 mg

BMSpep-57

BMSpep-57 is a potent and competitive macrocyclic peptide inhibitor of PD-1/PD-L1 interaction with an $\rm IC_{50}$ of 7.68nM. BMSpep-57 binds to PD-L1 with K $_d$ s of 19 nM and 19.88 nM in MST and SPR assays,

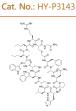
respectively.

CA-170

Purity: >98%

Clinical Data: No Development Reported

Size: 1 mg, 5 mg



Cat. No.: HY-101093

BMSpep-57 hydrochloride

Cat. No.: HY-P3143A

BMSpep-57 hydrochloride is a potent and competitive macrocyclic peptide inhibitor of PD-1/PD-L1 interaction with an $\rm IC_{50}$ of 7.68nM. BMSpep-57 hydrochloride binds to PD-L1 with $\rm K_d s$ of 19 nM and 19.88 nM in MST and SPR assays, respectively.

Purity: 99.79%

Clinical Data: No Development Reported

Size: 1 mg



CA-170 is an orally delivered dual inhibitor of VISTA and PD-L1. CA-170 exhibits potent rescue of proliferation and effector functions of T cells inhibited by PD-L1/L2 and VISTA with selectivity over other immune checkpoint proteins as well as a

broad panel of receptors and enzymes.

Purity: 96.26%

Clinical Data: No Development Reported

Size: 10 mM × 1 mL, 1 mg, 5 mg, 10 mg, 25 mg, 50 mg, 100 mg

Camrelizumab

(SHR-1210) Cat. No.: HY-P9971

Camrelizumab (SHR-1210) is a potent humanied high-affinity IgG4- κ monoclonal antibody (mAb) to PD-1. Camrelizumab binds PD-1 at a high affinity of 3 nM and inhibits the binding interaction of PD-1 and PD-L1 with an IC₅₀ of 0.70

Camrelizumab

nM.

Purity: 97.70%

Clinical Data: No Development Reported

Size: 1 mg, 5 mg

D18

D18 is an immune modulator. D18 acts as a TLR7/8 dual agonist (EC_{so} =24 nM for hTLR7 and 10 nM for hTLR8, respectively). D18 increases PD-L1 expression through epigenetic regulation, thus sensitizing tumors to PD-1/PD-L1 blockade.

N NH₂

Cat. No.: HY-144501

Purity: >98%

Clinical Data: No Development Reported

Size: 1 mg, 5 mg

Durvalumab

(MEDI 4736) Cat. No.: HY-P9919

Durvalumab (MEDI 4736) is an humanized anti-PD-L1 monoclonal antibody. Durvalumab (MEDI4736) completely blocks the binding of PD-L1 to both PD-1 and CD80, with IC_{50} s of 0.1 and 0.04 nM, respectively.

Durvalumab

Purity: 99.60% Clinical Data: Launched

Size: 1 mg, 5 mg, 25 mg, 50 mg

Evixapodlin

(PD-1/PD-L1-IN 7) Cat. No.: HY-138407

Evixapodlin (PD-1/PD-L1-IN 7) is a human PD-1/PD-L1 protein/protein interaction inhibitor with an IC $_{50}$ of 0.213 nM. Evixapodlin has anticancer and antiviral functions.



Purity: 98.48%

Clinical Data: No Development Reported

Size: 10 mM × 1 mL, 5 mg, 10 mg, 25 mg, 50 mg

Fraxinellone

Cat. No.: HY-N0242

Fraxinellone is isolated from the root bark of the Rutaceae plant, Dictamnus dasycarpus. Fraxinellone is a PD-L1 inhibitor and inhibits HIF-1 α protein synthesis without affecting HIF-1 α protein degradation.

Purity: 99.99%

Clinical Data: No Development Reported
Size: 10 mM × 1 mL, 5 mg, 10 mg, 20 mg



HE-S2

Cat. No.: HY-144497

HE-S2 is an antibody-drug conjugate triggering a potent antitumor immune response. HE-S2 acts by blocking the PD-1/PD-L1 interaction and activating the Toll-like receptor 7/8 (TLR7/8) signaling pathway. HE-S2 has remarkable antitumor activity.



Purity: >98%

Clinical Data: No Development Reported

Size: 1 mg, 5 mg

Human PD-L1 inhibitor II

Cat. No.: HY-P2470

Human PD-L1 inhibitor II is a potent PD-L1 inhibitor with anti-cancer activity.

FNWDYSLEELREKAKYK

>98% Purity:

Clinical Data: No Development Reported

Size: 1 mg, 5 mg

Human PD-L1 inhibitor III

Cat. No.: HY-P2564

Human PD-L1 inhibitor III is a human PD-L1

inhibitor

TEKDYRHGNIRMKLAYDL

>98% Purity:

Clinical Data: No Development Reported

Size: 1 mg, 5 mg

Human PD-L1 inhibitor IV

Cat. No.: HY-P2477

Human PD-L1 inhibitor IV, a polypeptide, is a competitive human PD-1 protein inhibitor with a K_d value of 1.38 μ M. Human PD-L1 inhibitor IV inhibits the interaction of hPD-1/hPD-L1.

GNWDYNSORAOI YNO

Purity: >98%

Clinical Data: No Development Reported

1 mg, 5 mg

Human PD-L1 inhibitor V

Cat. No.: HY-P2478

Human PD-L1 inhibitor V, a human PD-1 protein binding peptide with a K_d value of 3.32 μM . Human PD-L1 inhibitor V inhibit the interaction of

hPD-1/hPD-L1.

LDYVNRRKMYQ

Purity: >98%

Clinical Data: No Development Reported

1 mg, 5 mg

Human PD-L1 inhibitor V TFA

Cat. No.: HY-P2478A

Human PD-L1 inhibitor V TFA, a human PD-1 protein binding peptide with a K_d value of 3.32 μM. Human PD-L1 inhibitor V TFA inhibit the interaction of hPD-1/hPD-L1.

LDYVNRRKMYQ (TFA salt)

Purity: 96.63%

Clinical Data: No Development Reported

Size: 10 mg

INCB086550

(PD-1/PD-L1-IN-8) Cat. No.: HY-134884

INCB086550 (PD-1/PD-L1-IN-8; example 24) is a PD-1/PD-L1 inhibitor, with an $IC_{50} \le 10$ nM.

98.86% Purity:

Clinical Data: No Development Reported

Size: 5 mg, 10 mg

N-deacetylated BMS-202

Cat. No.: HY-19745A

N-deacetylated BMS-202 is the deacetylated of BMS-202. BMS-202 is an inhibitor of the PD-1/PD-L1 interaction, mainly used for cancer treatment.

98.13% Purity:

Clinical Data: No Development Reported

Size: 10 mM × 1 mL, 5 mg, 10 mg, 25 mg, 50 mg, 100 mg

N2S2-CBMBC

Cat. No.: HY-145769

N2S2-CBMBC, an N2S2 bromo-benzyl ether derivative, acts as a ligand and use 99mTc-labelled complexes 99mTc-N2S2-CBMBC can be used as an imaging agent to be applied to the aspect of detecting PD-L1 expression, realize the real-time, comprehensive and convenient detection of...

Purity:

Clinical Data: No Development Reported

Size 1 mg, 5 mg



Nivolumab

(BMS-936558; ONO-4538; MDX-1106) Cat. No.: HY-P9903

Nivolumab is a programmed death receptor-1 (PD-1) blocking human IgG4 antibody to treat advanced (metastatic) non-small cell lung cancer.

Nivolumab

Purity: 98.56% Clinical Data: Launched

Size: 1 mg, 5 mg, 25 mg, 50 mg

Onvatilimab

(JNJ-61610588)

Cat. No.: HY-P99040

Onvatilimab (JNJ-61610588) is a human IgG1k anti-VISTA (V-domain Ig Suppressor of T-cell Activation) monoclonal antibody. Onvatilimab has an anti-tumor activity.

Onvatilimab

Purity: >98%

Clinical Data: No Development Reported

1 mg, 5 mg

PD-1-IN-17

PD-1-IN-17 is a programmed cell death-1 (PD-1) inhibitor extracted from patent WO2015033301A1. Compound 12, inhibits 92% splenocyte proliferation at 100 nM.

Cat. No.: HY-101097

Purity: >95.0%

Clinical Data: No Development Reported

Size: 10 mM × 1 mL, 5 mg, 10 mg, 25 mg, 50 mg, 100 mg

PD-1-IN-18

Cat. No.: HY-101098

PD-1-IN-18 is a PD1 signaling pathway inhibitor, which acts as an immunomodulator.

Purity: >98%

Clinical Data: No Development Reported

1 mg, 5 mg Size:

PD-1-IN-22

Cat. No.: HY-128605

PD-1-IN-22 is a potent programmed cell death-1 (PD-1)/programmed cell death-ligand 1 (PD-L1) interaction inhibitor with an IC_{so} of 92.3 nM.

Cat. No.: HY-103048

Purity: >98%

Clinical Data: No Development Reported

Size: 1 mg, 5 mg

PD-1/PD-L1-IN 3

PD-1/PD-L1-IN 3, a macrocyclic peptide, is a potent and selective inhibitor of the PD-1/PD-L1 and CD80/PD-L1 interactions extracted from patent

WO2014151634A1, compound No.1.

>98% Purity:

Clinical Data: No Development Reported

Size: 1 mg, 5 mg

PD-1/PD-L1-IN 5

Cat. No.: HY-129172A

PD-1/PD-L1-IN 5 is a PD-1/PD-L1 protein/protein interaction inhibitor extracted from patent WO2017222976A1, compound Example 1, has an IC_{so} of ≤100 nM.

Purity: >98%

Clinical Data: No Development Reported

Size: 1 mg, 5 mg

PD-1-IN-17 TFA

PD-1-IN-17 TFA is a programmed cell death-1 (PD-1) inhibitor extracted from patent WO2015033301A1, Compound 12, inhibits 92% splenocyte proliferation at 100 nM.

Cat. No.: HY-101097A

>98% Purity:

Clinical Data: No Development Reported

Size: 1 mg, 5 mg

PD-1-IN-20

Cat. No.: HY-101093B

PD-1-IN-20 is the less active enantiomer of PD-1-IN-1. PD-1-IN-1 is an inhibitor of programmed cell dealth-1 (PD-1) extracted from patent WO 2015033299 A1, compound example 4.

Purity: >98%

Clinical Data: No Development Reported

1 mg, 5 mg

PD-1-IN-24

Cat. No.: HY-134886

PD-1-IN-24 (compound 1) is an orally active PD-1

inhibitor

98.04% Purity:

Clinical Data: No Development Reported

Size 10 mM × 1 mL, 5 mg, 10 mg, 25 mg, 50 mg, 100 mg

PD-1/PD-L1-IN 3 TFA

PD-1/PD-L1-IN 3 TFA, a macrocyclic peptide, is a potent and selective inhibitor of the PD-1/PD-L1 and CD80/PD-L1 interactions extracted from patent

WO2014151634A1, compound No.1.



Cat. No.: HY-103048A

>98% Purity:

Clinical Data: No Development Reported

Size 1 mg, 5 mg

PD-1/PD-L1-IN 5 TFA

Cat. No.: HY-129172

PD-1/PD-L1-IN 5 TFA is a PD-1/PD-L1 protein/protein interaction inhibitor extracted

from patent WO2017222976A1, compound Example 1, has an IC_{50} of ≤ 100 nM.



Purity: >98%

Clinical Data: No Development Reported

1 mg, 5 mg

PD-1/PD-L1-IN-10

PD-1/PD-L1-IN-10 (compound B2) is an orally active PD-1/PD-L1 inhibitor (IC_{so} of 2.7 nM) with potent anticancer efficacy.

Cat. No.: HY-144258

Purity: 99 29%

Clinical Data: No Development Reported 5 mg, 10 mg, 25 mg, 50 mg, 100 mg Size:

Cat. No.: HY-132202

PD-1/PD-L1-IN-13 (Compound 43) is a potent immune checkpoint PD-1/PD-L1 inhibitor with an IC₅₀ value of 10.2 nM. PD-1/PD-L1-IN-13 promots CD8+ T cell activation and delays the tumor growth in the Hepa1-6 syngeneic mouse model.



Cat. No.: HY-145239

>98% Purity:

PD-1/PD-L1-IN-13

Clinical Data: No Development Reported

Size: 1 mg, 5 mg

PD-1/PD-L1-IN-14

PD-1/PD-L1-IN-14 (compound 17) is a bifunctional inhibitor of PD-1/PD-L1 interactions, with an IC_{so} of 27.8 nM. PD-1/PD-L1-IN-14 (compound 17)

inhibits PD-1/PD-L1 interactions and promotes dimerization, internalization, and degradation of PD-L1.

Purity: >98%

Clinical Data: No Development Reported

1 mg, 5 mg Size:

PD-1/PD-L1-IN-23

PD-1/PD-L1-IN-23 is a potent and orally active inhibitor of PD-1/PD-L1. PD-1/PD-L1-IN-23 is an

ester prodrug of L7. L7 is a

benzo[c][1,2,5]oxadiazole derivative and biologically evaluated as inhibitors of PD-L1.

Cat. No.: HY-145774

Purity: >98%

Clinical Data: No Development Reported 5 mg, 10 mg, 25 mg, 50 mg, 100 mg

PD-1/PD-L1-IN-24

Cat. No.: HY-144649

PD-1/PD-L1-IN-24 is a highly potent PD-1/PD-L1 inhibitor with IC₅₀ value of 1.57 nM. PD-1/PD-L1-IN-24 can restore T-cell function at the cellular level by significantly elevating the IFN-y level. PD-1/PD-L1-IN-24 has low toxicity on the PBMCs.

Purity:

Clinical Data: No Development Reported

Size: 1 mg, 5 mg

PD-1/PD-L1-IN-27

PD-1/PD-L1-IN-27 is a potent PD-1/PD-L1 inhibitor with an IC₅₀ value of 134 nM. PD-1/PD-L1-IN-27 shows antitumor effects with low T cell cytotoxicity. PD-1/PD-L1-IN-27 has the ability to

activate CD8+ T cells and reduces T cell exhaustion

Purity:

Clinical Data: No Development Reported

Size: 1 mg, 5 mg

PD-1/PD-L1-IN-NP19



Cat. No.: HY-146740

PD-1/PD-L1-IN-9

Cat. No.: HY-132192

PD-1/PD-L1-IN-9 is a potent and orally active inhibitor of PD-1/PD-L1 interaction, with an IC_s, of 3.8 nM. PD-1/PD-L1-IN-9 can enhance the killing activity of tumor cells by immune cells. PD-1/PD-L1-IN-9 also exhibits significant in vivo antitumor activity in a CT26 mouse model.

Purity: 98.01%

Clinical Data: No Development Reported 5 mg, 10 mg, 25 mg, 50 mg, 100 mg Size:

PD-1/PD-L1-IN-NP19 is a PD-1/PD-L1 inhibitor, with an IC₅₀ of 12.5 nM for human PD-1/PD-L1 interaction. PD-1/PD-L1-IN-NP19 could activate the immune microenvironment in tumor, which may contribute to its antitumor effects.

98.05% Purity:

Clinical Data: No Development Reported

10 mM × 1 mL, 5 mg, 10 mg, 25 mg, 50 mg, 100 mg



Cat. No.: HY-131347

PD-L1-IN-1

Cat. No.: HY-139781

PD-L1-IN-1 is a potent PD-L1 inhibitor with an IC_{so} of 115 nM.

Purity: 99.53%

Clinical Data: No Development Reported Size: 5 mg, 10 mg, 25 mg, 50 mg, 100 mg

PD1-PDL1-IN 1

PD1-PDL1-IN 1 is a potent programmed cell death 1 (PD-1) inhibitor. PD1-PDL1-IN 1 is useful as

immune modulator.



Cat. No.: HY-101058

Purity: >98%

Clinical Data: No Development Reported

1 mg, 5 mg

Tel: 609-228-6898 Fax: 609-228-5909 Email: sales@MedChemExpress.com

Pembrolizumab

(MK-3475; Lambrolizumab) Cat. No.: HY-P9902

Pembrolizumab is a humanized IgG4 antibody inhibiting the programmed cell death 1 (PD-1) receptor, used in cancer immunotherapy.

Pembrolizumab

Purity: 99.06% Clinical Data: Launched

Size: 1 mg, 5 mg, 25 mg, 50 mg

PROTAC PD-1/PD-L1 degrader-1

PROTAC PD-1/PD-L1 degrader-1, a PD-1/PD-L1 PROTAC based on Cereblon E3 ligand, inhibits PD-1/PD-L1 interaction with an IC_{50} of 39.2 nM. PROTAC PD-1/PD-L1 degrader-1 significantly restores the immunity repressed in a co-culture model of Hep3B/OS-8/hPD-L1 and CD3 T cells.

Purity: 98.35%

Clinical Data: No Development Reported
Size: 5 mg, 10 mg, 25 mg, 50 mg, 100 mg



Cat. No.: HY-131183

Sulfamethoxypyridazine

Cat. No.: HY-B1387

Sulfamethoxypyridazine is a long-acting sulfonamide antibiotic, for treatment of Dermatitis herpetiformis.

Purity: 99.67%

Clinical Data: No Development Reported Size: 10 mM × 1 mL, 100 mg

Tomivosertib

(eFT508) Cat. No.: HY-100022

Tomivosertib (eFT508) is a potent, highly selective, and orally active MNK1 and MNK2 inhibitor, with $\rm IC_{50}s$ of 1-2 nM against both isoforms.

Purity: 99.92% Clinical Data: Phase 2

Size: 10 mM × 1 mL, 1 mg, 5 mg, 10 mg, 50 mg, 100 mg

TPP-1

Cat. No.: HY-P3139

TPP-1 is a potent inhibitor of the PD-1/PD-L1 interaction. TPP-1 binds specifically to PD-L1 with a high affinity ($K_{\rm p}$ =95 nM). TPP-1 inhibits human tumor growth in vivo via reactivating T-cell function.

SGQYASYHCWCWRDPGRSGGSK

Purity: 98.04%

Clinical Data: No Development Reported

Size: 25 mg

TPP-1 TFA

Cat. No.: HY-P3139A

TPP-1 TFA is a potent inhibitor of the PD-1/PD-L1 interaction. TPP-1 TFA binds specifically to PD-L1 with a high affinity ($K_{\rm p}$ =95 nM). TPP-1 TFA inhibits human tumor growth in vivo via reactivating T-cell function.

SGQYASYHCWCWRDPGRSGGSK (TFA salt)

Purity: >98%

Clinical Data: No Development Reported

Size: 1 mg, 5 mg

[D-Leu-4]-OB3

Cat. No.: HY-P3342

[D-Leu-4]-OB3 inhibits expressions of pro-inflammatory, proliferative and metastatic genes and PD-L1 expression. [D-Leu-4]-OB3 stimulates expression of pro-apoptotic genes.

Purity: >98%

Clinical Data: No Development Reported

Size: 1 mg, 5 mg