

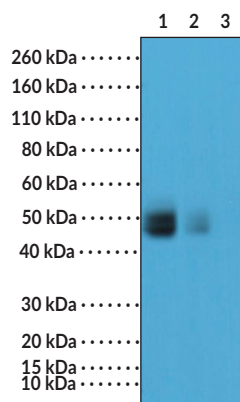
PRODUCT INFORMATION

PD-L1/CD274 (C-Term) Rabbit Monoclonal Antibody (Clone RM320) Item No. 32252

Overview and Properties

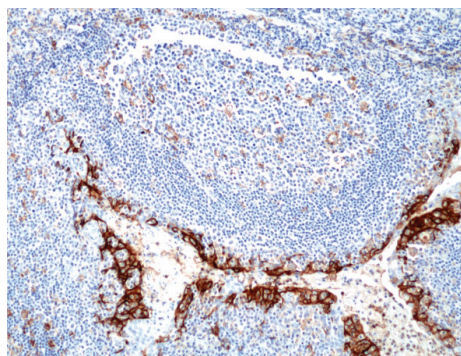
Contents:	This vial contains 100 µl of protein A-affinity purified monoclonal antibody.
Synonyms:	B7-H1, CD274, Programmed Cell Death 1 Ligand 1
Immunogen:	Peptide from the C-terminal region of human PD-L1
Cross Reactivity:	(+) PD-L1
Species Reactivity:	(+) Human
Form:	Liquid
Storage:	-20°C (as supplied)
Stability:	≥1 year
Storage Buffer:	PBS with 50% glycerol, 1% BSA, and 0.09% sodium azide
Clone:	RM320
Host:	Rabbit
Isotype:	IgG
Applications:	Immunocytochemistry (ICC), immunohistochemistry (IHC), and Western blot (WB); the recommended starting dilution is 1:200-1:500, 1:200-1:1,000, and 1:500-1:1,000 for ICC, IHC, and WB, respectively. Other applications were not tested, therefore optimal working concentration/dilution should be determined empirically.

Images

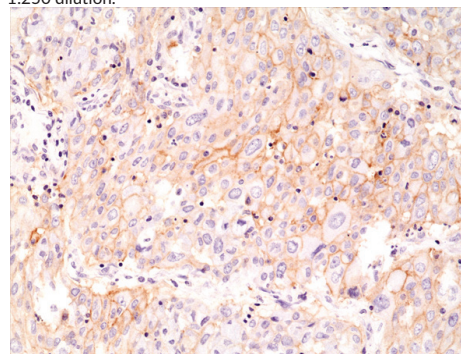


Lane 1: H1975 cell lysates
Lane 2: DU145 cell lysates
Lane 3: LNCaP cell lysates

WB of H1975, DU145, and LNCaP cell lysates using PD-L1/CD274 (C-Term) Rabbit Monoclonal Antibody (Clone RM320) at a dilution of 1:1,000.



Immunohistochemical staining of formalin-fixed and paraffin-embedded human tonsil tissue using PD-L1/CD274 (C-Term) Rabbit Monoclonal Antibody (Clone RM320) at a 1:250 dilution.



Immunohistochemical staining of formalin-fixed and paraffin-embedded human lung cancer tissue using PD-L1/CD274 (C-Term) Rabbit Monoclonal Antibody (Clone RM320) at 1:1,000 dilution.

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
Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

Copyright Cayman Chemical Company, 01/30/2024

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

PRODUCT INFORMATION



Description

Programmed cell death 1 ligand 1 (PD-L1), also known as B7-H1 or CD274, is a B7 family protein that is involved in regulation and attenuation of the adaptive immune response and peripheral T cell tolerance.¹⁻⁴ It is a 290-amino acid type I transmembrane protein encoded by *CD274* in humans and is composed of a 239-amino acid extracellular domain consisting of a signal peptide, an IgV-like domain, and an IgC-like domain, a transmembrane domain, and a cytoplasmic tail.^{1,5} PD-L1 is constitutively expressed in T and B cells, dendritic cells, macrophages, and regulatory T cells (Tregs), as well as a variety of nonhematopoietic cells, and is upregulated by IFN- γ .³ Binding of PD-L1 to its receptor, programmed cell death protein 1 (PD-1; Item No. 32253), suppresses T cell proliferation, migration, and cytokine production.^{2,4} PD-L1 is also aberrantly expressed in a variety of tumor cells, and expression of PD-L1 in tumor tissue is associated with poor prognosis in patients with renal cell carcinoma.⁶⁻⁸ Formulations containing PD-L1 blocking antibodies have been used in the treatment of a variety of cancers. Cayman's PD-L1/CD274 (C-Term) Rabbit Monoclonal Antibody (Clone RM320) can be used for immunocytochemistry (ICC), immunohistochemistry (IHC), and Western blot (WB) applications.

References

1. Fabrizio, F.P., Trombetta, D., Rossi, A., *et al.* Gene code *CD274/PD-L1*: From molecular basis toward cancer immunotherapy. *Ther. Adv. Med. Oncol.* **10** (2018).
2. Riley, J.L. PD-1 signaling in primary T cells. *Immunol. Rev.* **229**(1), 114-125 (2009).
3. del Rio, M.L., Buhler, L., Gibbons, C.E., *et al.* PD-1/PD-L1, PD-1/PD-L2, and other co-inhibitory signaling pathways in transplantation. *Transpl. Int.* **21**(11), 1015-1028 (2008).
4. Akinleye, A. and Rasool, Z. Immune checkpoint inhibitors of PD-L1 as cancer therapeutics. *J. Hematol. Oncol.* **12**(1), 92 (2019).
5. Keir, M.E., Butte, M.J., Freeman, G.J., *et al.* PD-1 and its ligands in tolerance and immunity. *Annu. Rev. Immunol.* **26**, 677-704 (2008).
6. Ji, M., Liu, Y., Li, Q., *et al.* PD-1/PD-L1 pathway in non-small-cell lung cancer and its relation with EGFR mutation. *J. Transl. Med.* **13**, 5 (2015).
7. Thompson, R.H., Dong, H., Lohse, C.M., *et al.* PD-1 is expressed by tumor-infiltrating immune cells and is associated with poor outcome for patients with renal cell carcinoma. *Clin. Cancer Res.* **13**(6), 1757-1761 (2007).
8. Thompson, R.H., Kuntz, S.M., Leibovich, B.C., *et al.* Tumor B7-H1 is associated with poor prognosis in renal cell carcinoma patients with long-term follow-up. *Cancer Res.* **66**(7), 3381-3385 (2006).

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