#13684 Store at -20°C

PD-L1 (E1L3N®) XP® Rabbit mAb

☐ Small 100 µl
(10 western blots)

☐ Petite 40 µl
(4 western blots)

Cell Signaling TECHNOLOGY®

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For Research Use Only. Not For Use In Diagnostic Procedures.

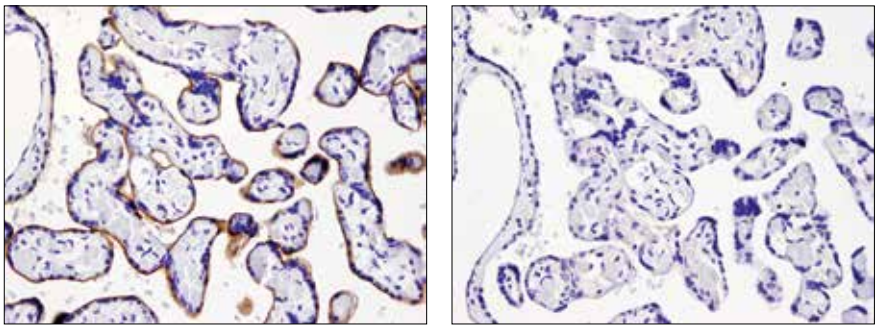
Entrez Gene ID #29126
UniProt ID #Q9NZQ7

Applications	Species Cross-Reactivity*	Molecular Wt.	Isotype
W, IP, IHC-P, F	H	40-50 kDa	Rabbit IgG**
Endogenous			

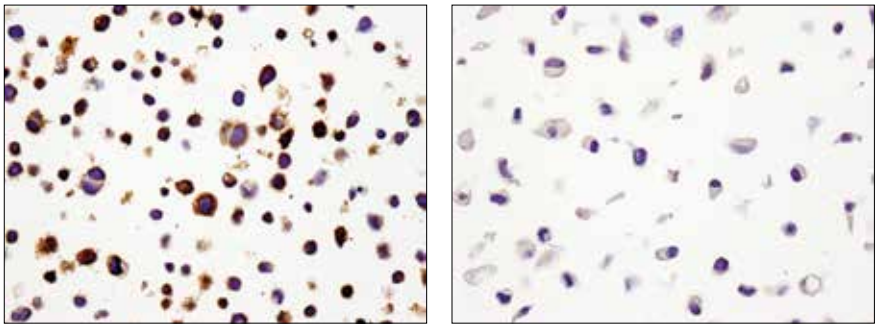
Background: Programmed cell death 1 ligand 1 (PD-L1, B7-H1, CD274) is a member of the B7 family of cell surface ligands that regulate T cell activation and immune responses. The PD-L1 ligand binds the PD-1 transmembrane receptor and inhibits T cell activation. PD-L1 was discovered following a search for novel B7 protein homologs and was later shown to be expressed by antigen presenting cells, activated T cells, and tissues including placenta, heart, and lung (1-3). Similar in structure to related B7 family members, PD-L1 protein contains extracellular IgV and IgC domains and a short, cytoplasmic region. Research studies demonstrate that PD-L1 is expressed in several tumor types, including melanoma, ovary, colon, lung, breast, and renal cell carcinomas (4-6). Expression of PD-L1 in cancer is associated with tumor infiltrating lymphocytes, which mediate PD-L1 expression through the release of interferon gamma (7). Additional research links PD-L1 expression to cancers associated with viral infections (8,9).

Specificity/Sensitivity: PD-L1 (E1L3N®) XP® Rabbit mAb recognizes endogenous levels of total PD-L1 protein.

Source/Purification: Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues near the carboxy terminus of human PD-L1 protein.



Immunohistochemical analysis of paraffin-embedded human placenta using PD-L1 (E1L3N®) XP® Rabbit mAb in the presence of control peptide (left) or antigen-specific peptide (right).



Immunohistochemical analysis of paraffin-embedded Karpas-299 (left) or PC-3 (right) cell pellets using PD-L1 (E1L3N®) XP® Rabbit mAb.

IMPORTANT: For western blots, incubate membrane with diluted antibody in 5% w/v nonfat dry milk, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.

Storage: Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at –20°C. *Do not aliquot the antibody.*

***Species cross-reactivity is determined by western blot.**

****Anti-rabbit secondary antibodies must be used to detect this antibody.**

Recommended Antibody Dilutions:

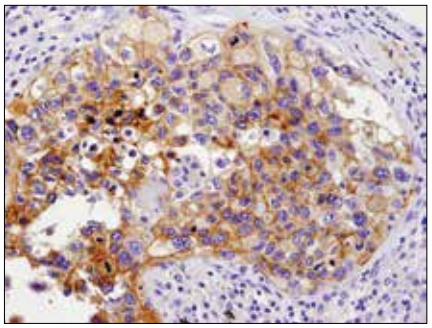
Western blotting	1:1000
Immunoprecipitation	1:50
Immunohistochemistry (Paraffin)	1:200†
Unmasking buffer:	EDTA
Antibody diluent:	SignalStain® Antibody Diluent #8112
Detection reagent:	SignalStain® Boost (HRP, Rabbit) #8114

†*Optimal IHC dilutions determined using SignalStain® Boost IHC Detection Reagent.*

Flow Cytometry	1:400

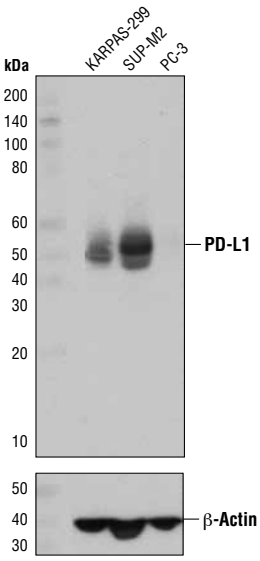
For product specific protocols please see the web page for this product at www.cellsignal.com.

Please visit www.cellsignal.com for a complete listing of recommended companion products.

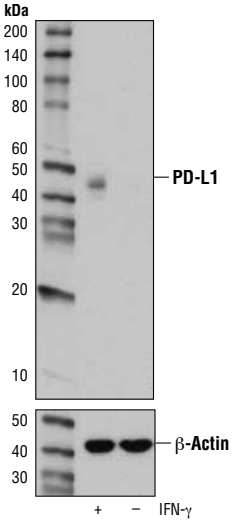


Immunohistochemical analysis of paraffin-embedded human lung carcinoma using PD-L1 (E1L3N®) XP® Rabbit mAb.

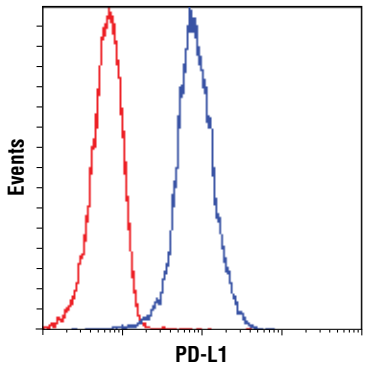
Applications Key: **W**—Western **IP**—Immunoprecipitation **IHC**—Immunohistochemistry **ChIP**—Chromatin Immunoprecipitation **IF**—Immunofluorescence **F**—Flow cytometry **E-P**—ELISA-Peptide
Species Cross-Reactivity Key: **H**—human **M**—mouse **R**—rat **Hm**—hamster **Mk**—monkey **Mi**—mink **C**—chicken **Dm**—D. melanogaster **X**—Xenopus **Z**—zebrafish **B**—bovine **Dg**—dog **Pg**—pig **Sc**—S. cerevisiae **Ce**—C. elegans **Hr**—horse **All**—all species expected Species enclosed in parentheses are predicted to react based on 100% homology.



Western blot analysis of extracts from KARPAS-299, SUP-M2, and PC-3 cells using PD-L1 (E1L3N®) XP® Rabbit mAb (upper) and β-Actin (D6A8) Rabbit mAb #8457 (lower).



Western blot analysis of extracts from A549 cells, IFN-γ treated (100 ng/mL, 48 hr; +) or untreated (-), using PD-L1 (E1L3N®) XP® Rabbit mAb (upper) or β-Actin (D6A8) Rabbit mAb #8457 (lower).



Flow cytometric analysis of untreated SUP-M2 cells using PD-L1 (E1L3N®) XP® Rabbit mAb (blue) compared to concentration matched Rabbit (DA1E) mAb IgG XP® Isotype Control #3900 (red). Anti-rabbit IgG (H+L), F(ab')$_2$ Fragment (Alexa Fluor® 647 Conjugate) #4414 was used as a secondary antibody.

Background References:

(1) Dong, H. et al. (1999) *Nat Med* 5, 1365-9.
(2) Freeman, G.J. et al. (2000) *J Exp Med* 192, 1027-34.
(3) Liang, S.C. et al. (2003) *Eur J Immunol* 33, 2706-16.
(4) Dong, H. et al. (2002) *Nat Med* 8, 793-800.
(5) Thompson, R.H. et al. (2006) *Cancer Res* 66, 3381-5.
(6) Pardoll, D.M. (2012) *Nat Rev Cancer* 12, 252-64.
(7) Taube, J.M. et al. (2012) *Sci Transl Med* 4, 127ra37.
(8) Lyford-Pike, S. et al. (2013) *Cancer Res* 73, 1733-41.
(9) Chen, B.J. et al. (2013) *Clin Cancer Res* 19, 3462-73.