Revision 8

Store at -20C

#29122

PD-L1 (405.9A11) Mouse mAb

Cell Signaling TECHNOLOGY®

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For Research Use Only. Not for Use in Diagnostic Procedures.

Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
W, W-S, IHC-P	H	Endogenous	40-50	Mouse IgG1	#Q9NZQ7	29126

Product Usage Information

Application	Dilution
Western Blotting	1:1000
Simple Western™	1:10 - 1:50
Immunohistochemistry (Paraffin)	1:100 - 1:400

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.

For a carrier-free (BSA and azide free) version of this product see product #39356.

Specificity/Sensitivity

PD-L1 (405.9A11) Mouse 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.

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).

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.

Species Reactivity

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

Western Blot Buffer

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

Applications Key

W: Western Blotting **W-S:** Simple Western™ **IHC-P:** Immunohistochemistry (Paraffin)

Cross-Reactivity Key

H: Human

Trademarks and Patents

KARPAS cell line source: Dr. Abraham Karpas at the University of Cambridge.

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