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## PD-L1 (Extracellular Domain Specific) (D8T4X) Rabbit mAb (Alexa Fluor® 488 Conjugate)

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

<b>Applications:</b> IF-IC, FC-FP, FC-L	<b>Reactivity:</b> H	<b>Sensitivity:</b> Endogenous	<b>Source/Isotype:</b> Rabbit IgG	<b>UniProt ID:</b> #Q9NZQ7	<b>Entrez-Gene Id:</b> 29126
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### Product Usage Information

#### Application

Immunofluorescence (Immunocytochemistry)  
Flow Cytometry (Fixed/Permeabilized)  
Flow Cytometry (Live)

#### Dilution

1:200 - 1:400  
1:50  
1:50

### Storage

Supplied in PBS (pH 7.2), less than 0.1% sodium azide and 2 mg/ml BSA. Store at 4°C. Do not aliquot the antibody. Protect from light. Do not freeze.

### Specificity/Sensitivity

PD-L1 (Extracellular Domain Specific) (D8T4X) Rabbit mAb (Alexa Fluor® 488 Conjugate) recognizes endogenous levels of total PD-L1 protein.

### Source / Purification

Monoclonal antibody is produced by immunizing animals with mammalian cells expressing full length PD-L1 protein.

### Description

This Cell Signaling Technology antibody is conjugated to Alexa Fluor® 488 fluorescent dye and tested in-house for direct flow cytometric analysis in human cells. This antibody is expected to exhibit the same species cross-reactivity as the unconjugated PD-L1 (Extracellular Domain Specific) (D8T4X) Rabbit mAb #86744.

### 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

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- Liang, S.C. et al. (2003) *Eur J Immunol* 33, 2706-16.
- Dong, H. et al. (2002) *Nat Med* 8, 793-800.
- Thompson, R.H. et al. (2006) *Cancer Res* 66, 3381-5.
- Pardoll, D.M. (2012) *Nat Rev Cancer* 12, 252-64.
- Taube, J.M. et al. (2012) *Sci Transl Med* 4, 127ra37.
- Lyford-Pike, S. et al. (2013) *Cancer Res* 73, 1733-41.
- 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).

### Applications Key

**IF-IC:** Immunofluorescence (Immunocytochemistry) **FC-FP:** Flow Cytometry (Fixed/Permeabilized) **FC-L:** Flow Cytometry (Live)

### Cross-Reactivity Key

**H:** Human

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