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Datasheet for 600-401-A71

PDL1 Antibody

Overview

Description:	Anti-Programmed Cell Death 1 Ligand (PDL-1) (RABBIT) Antibody - 600-401-A71
Item No.:	600-401-A71
Size:	100 µg
Applications:	ELISA, FC, IF, IHC, WB
Reactivity:	Human, Mouse, Rat
Host Species:	Rabbit

Product Details

Background:	Cell-mediated immune responses are initiated by T lymphocytes that are themselves stimulated by cognate peptides bound to MHC molecules on antigen-presenting cells (APC). T-cell activation is generally self-limited as activated T cells express receptors such as PDCD-1 (Programmed Cell Death 1) that mediate inhibitory signals from the APC. PDCD-1 can bind two different but related ligands, PDL-1 and PDL-2 (Programmed Cell Death Ligand -1 and -2, respectively). PDL-1 is a B7-related protein that inhibits cell-mediated immune responses by reducing the secretion of IL-2 and IL-10 from memory T cells. This suggests that PDL-1 may be useful in reducing allogenic CD4+ memory T-cell responses to endothelial cells, thereby reducing the likelihood of host immune responses to allografts. Anti-PDL-1 antibody is ideal for investigators involved in cancer research, cytokine research, immune research and apoptosis research.
Synonyms:	Rabbit anti-PDL1 antibody, Rabbit Anti-Programmed cell death 1 ligand 1 Antibody, Programmed cell death ligand 1, CD274, B7H1, PDCD1L1, PDCD1LG1, PDL1, B7 homolog 1, PD-L1, PDCD1 ligand 1, B7-H1, B7 homolog 1, PDL-1, PDL 1
Host Species:	Rabbit
Clonality:	Polyclonal
Format:	IgG

Target Details

Gene Name:	CD274
Reactivity:	Human, Mouse, Rat

Immunogen Type:	Conjugated Peptide
Immunogen:	PDL-1 Antibody was produced from whole rabbit serum prepared by repeated immunizations with a peptide corresponding to an internal region of human PDL-1.
Purity/Specificity:	Anti-PDL-1 Antibody was affinity purified from monospecific antiserum by immunoaffinity purification. A BLAST analysis was used to suggest cross-reactivity with PD-L1 with Human, Rat, and Mouse based on 100% homology with the immunizing sequence. PDL-1 antibody has no cross-reactivity to PDL-2. At least two isoforms of PDL-1 are known to exist; this antibody is specific to the larger isoform. Cross-reactivity with PDL-1 from other sources has not been determined.
Relevant Links:	• UniProtKB - Q9NZQ7 • NCBI - Q9NZQ7.1 • GeneID - 29126

Application Details

Tested Applications:	ELISA, FC, IF, IHC, WB
Application Note:	Rabbit Anti-PDL-1 antibody has been tested for use in ELISA, IHC, IF, FLOW, and western blotting. Expect a band at ~32 kDa in size corresponding to PDL-1 by western blotting in the appropriate cell lysate or extract. Raji cell lysate can be used as positive control. Specific conditions for reactivity should be optimized by the end user.
Assay Dilutions:	All assays should be optimized by the user. Recommended dilutions (if any) may be listed below.
ELISA:	1:10,000 - 1:40,000
FC:	0.5 µg/ml
IF:	User Optimized
IHC:	2.5-5 µg/mL
WB:	0.5 - 1 µg/ml

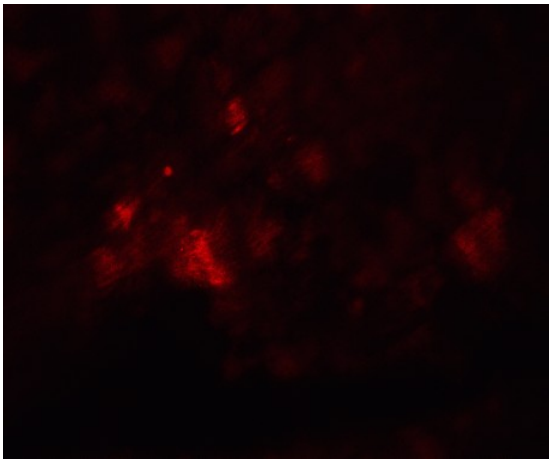
Formulation

Physical State:	Liquid (sterile filtered)
Concentration:	1.0 mg/mL by UV absorbance at 280 nm
Buffer:	0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2
Preservative:	0.02% (w/v) Sodium Azide
Stabilizer:	None

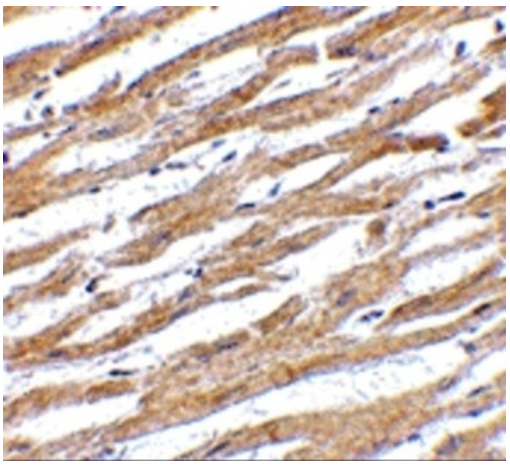
Shipping & Handling

Shipping Condition:	Dry Ice
Storage Condition:	Store vial at -20° C prior to opening. Aliquot contents and freeze at -20° C or below for extended storage. Avoid cycles of freezing and thawing. Centrifuge product if not completely clear after standing at room temperature. This product is stable for several weeks at 4° C as an undiluted liquid. Dilute only prior to immediate use.
Expiration:	Expiration date is one (1) year from date of receipt.

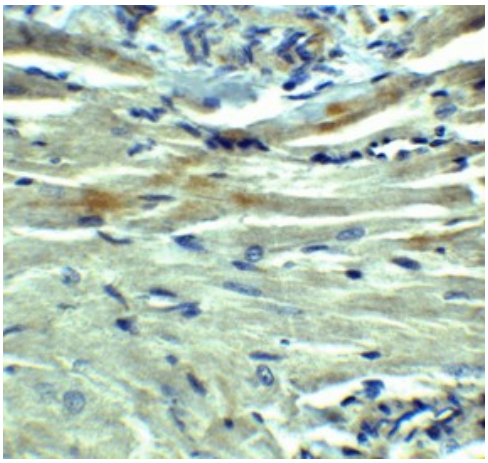
Images



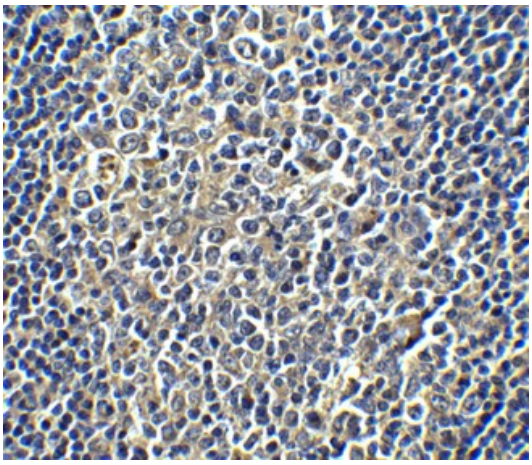
Immunofluorescence Microscopy
Immunofluorescence Validation of PD-L1.
Immunofluorescence analysis of 4% paraformaldehyde-fixed rat heart tissue labeling PD-L1 at 20 µg/ml, followed by goat anti-rabbit IgG secondary antibody at 1/250 dilution (red).



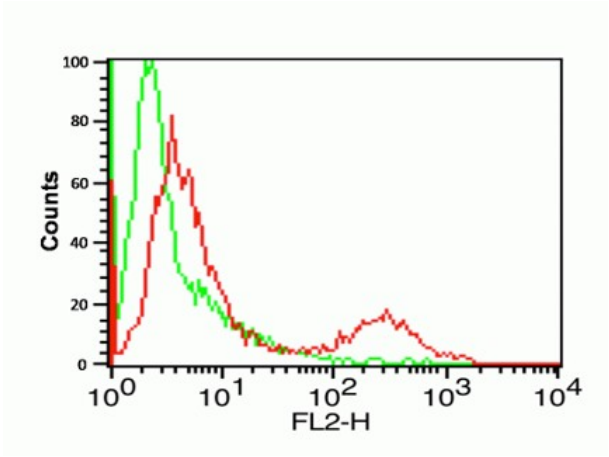
Immunohistochemistry
Immunohistochemistry Validation of PD-L1.
Immunohistochemical analysis of paraffin-embedded human heart tissue using anti-PD-L1 antibody at 2.5 µg/ml. Tissue was fixed with formaldehyde and blocked with 10% serum for 1 h at RT; antigen retrieval was by heat mediation with a citrate buffer (pH6). Samples were incubated with primary antibody overnight at 4°C. A goat anti-rabbit IgG H&L (HRP) at 1/250 was used as secondary. Counter stained with Hematoxylin.



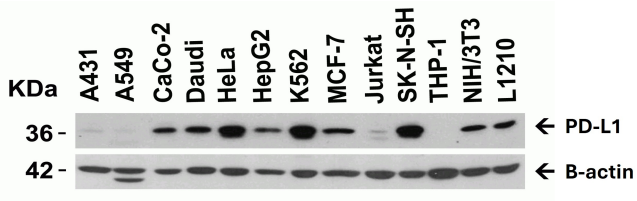
Immunohistochemistry
Immunohistochemistry Validation of PD-L1. Immunohistochemical analysis of paraffin-embedded rat heart tissue using anti-PD-L1 antibody at 5 µg/ml. Tissue was fixed with formaldehyde and blocked with 10% serum for 1 h at RT; antigen retrieval was by heat mediation with a citrate buffer (pH6). Samples were incubated with primary antibody overnight at 4°C. A goat anti-rabbit IgG H&L (HRP) at 1/250 was used as secondary. Counter stained with Hematoxylin.



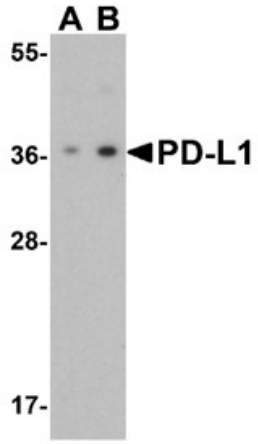
Immunohistochemistry
Immunohistochemistry Validation of PD-L1. Immunohistochemical analysis of paraffin-embedded human tonsil tissue using anti-PD-L1 antibody at 5 µg/ml. Tissue was fixed with formaldehyde and blocked with 10% serum for 1 h at RT; antigen retrieval was by heat mediation with a citrate buffer (pH6). Samples were incubated with primary antibody overnight at 4°C. A goat anti-rabbit IgG H&L (HRP) at 1/250 was used as secondary. Counter stained with Hematoxylin.



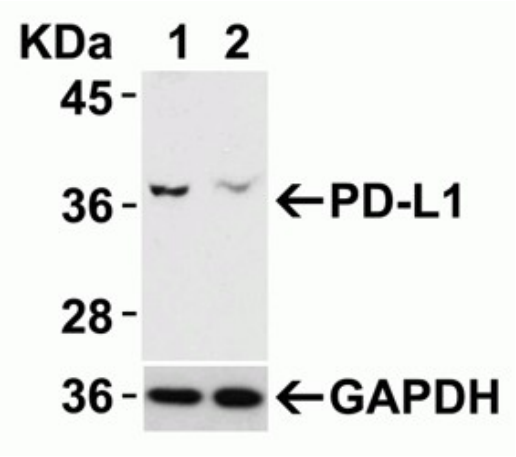
Flow Cytometry
Flow Cytometry Validation of PD-L1. Overlay histogram showing A-20 cells stained with PD-L1 (red line, 1µg/1x106 cells). 1 h incubation at 4°C in 2% FBS/PBS. Followed by secondary antibody 488 goat anti-rabbit IgG (H+L) at 1/500 dilution for 1 h 4°C. Isotype control antibody (Green line) was mouse IgG1 (1µg/1x106 cells) used under the same conditions. Acquisition of >10,000 events was performed.



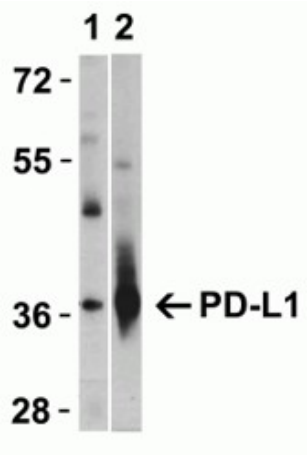
Western Blot
Western Blot using PDL1. Loading: 15 µg of human and mouse cell line lysates per lane. Antibodies: (2 µg/mL), and beta-actin (1 µg/mL), 1 h incubation at RT in 5% NFDM/TBST. Secondary: Goat anti-rabbit and or anti-mouse IgG HRP conjugate at 1:10000 and 1:5000 dilution, respectively.



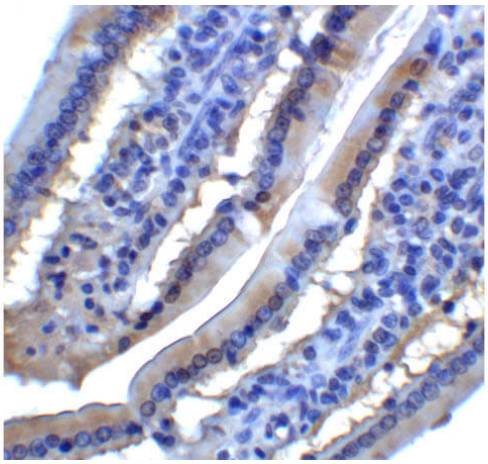
Western Blot
Western Blot Validation of PD-L1. Loading: 15 µg of HeLa cell lysates per lane. Antibodies: PD-L1 (A: 1 µg/mL, B: 2 µg/mL), 1 h incubation at RT in 5% NFDM/TBST. Secondary: Goat anti-rabbit IgG HRP conjugate at 1:10000 dilution.



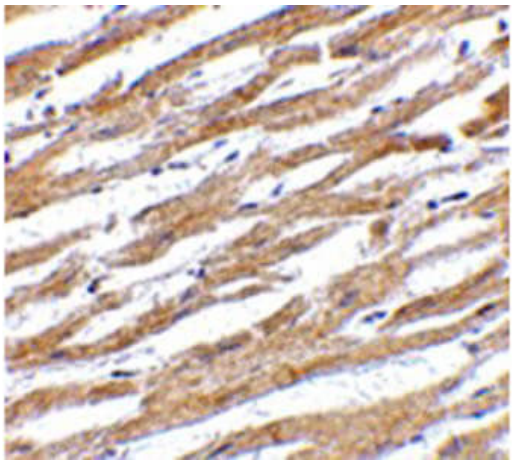
Western Blot
Validation with PD-L1 siRNA Knockdown. HeLa cells were transfected with control siRNAs (lane 1) or PD-L1 siRNAs (lane 2). Loading: 10 µg of HeLa whole cell lysates per lane. Antibodies: (2 µg/mL) and GAPDH (0.02 µg/mL), 1 h incubation at RT in 5% NFDM/TBST. Secondary: Goat anti-mouse IgG HRP conjugate at 1:5000 dilution.



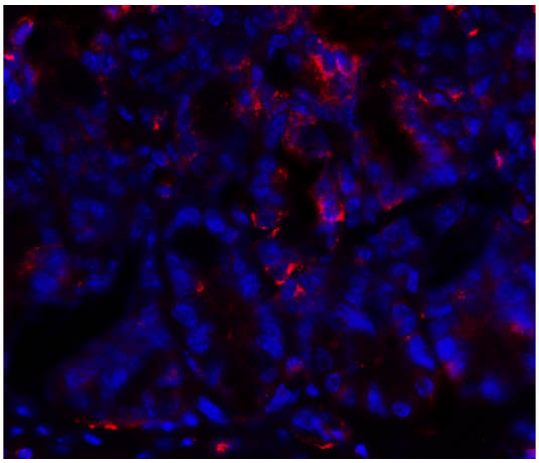
Western Blot
Western Blot Validation with PD-L1 overexpression in 293 cells. Loading: Lysates at 15 µg per lane. Lane 1: non-transfected 293 cells, Lane 2: PD-L1 overexpressed 293 cells. Antibodies: PD-L1 (1 µg/mL) 1 h incubation at RT in 5% NFDM/TBST. Secondary: Goat anti-rabbit IgG HRP conjugate at 1:10000 dilution.



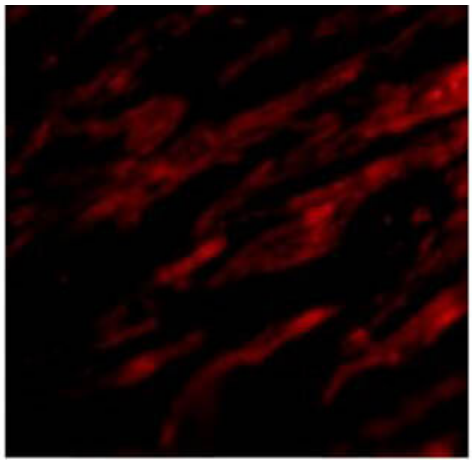
Immunohistochemistry
Immunohistochemistry of Rabbit anti-PDL-1 antibody. Tissue: Mouse Small Intestine. Fixation: formalin fixed paraffin embedded. Antigen retrieval: not required. Primary antibody: PDL1 antibody at 2 µg/mL for 1 h at RT. Secondary antibody: Biotinylated secondary antibody, HRP conjugated rabbit 1:200 for 30 min. Streptavidin-HRP for 30 min. Localization: PDL-1 is found in the cell membrane. Staining: PDL 1 as precipitated brown signal with hematoxylin purple nuclear counterstain.



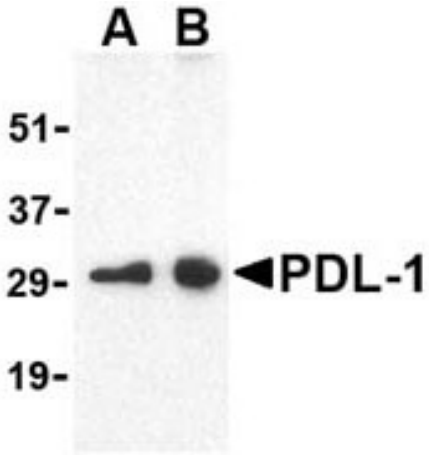
Immunohistochemistry
Immunohistochemistry of Rabbit anti-PDL-1 antibody. Tissue: human heart tissue. Fixation: formalin fixed paraffin embedded. Antigen retrieval: not required. Primary antibody: PDL1 antibody at 2.5 µg/mL for 1 h at RT. Secondary antibody: Peroxidase rabbit secondary antibody at 1:10,000 for 45 min at RT. Localization: PDL-1 is found in the cell membrane. Staining: PDL 1 as precipitated brown signal with hematoxylin purple nuclear counterstain.



Immunofluorescence Microscopy
Immunofluorescence Microscopy of Rabbit anti-PDL-1 antibody. Tissue: Mouse Small Intestine. Fixation: 0.5% PFA. Antigen retrieval: not required. Primary antibody: PDL 1 antibody at 20 µg/mL for 1 h at RT. Secondary antibody: Fluorescein rabbit secondary antibody at 1:10,000 for 45 min at RT. Localization: PDL-1 is found in the cell membrane. Staining: PDL1 as red signal.



Immunofluorescence Microscopy
Immunofluorescence Microscopy of Rabbit anti-PDL-1 antibody. Tissue: human heart cells. Fixation: 0.5% PFA. Antigen retrieval: not required. Primary antibody: PDL 1 antibody at 20 µg/mL for 1 h at RT. Secondary antibody: Fluorescein rabbit secondary antibody at 1:10,000 for 45 min at RT. Localization: PDL-1 is found in the cell membrane. Staining: PDL1 as red signal.



Western Blot
Western blot using Rockland's affinity purified anti-PDL-1. Lane A: Raji whole cell lysate at 0.5 µg/ml of anti-PDL-1 antibody. Lane B: Raji whole cell lysate at 1.0 µg/ml of anti-PDL-1 antibody. Expect: detection of a predominant band at ~31 kDa corresponding to PDL-1 (arrowhead).

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