abcam

Product datasheet

Anti-PD-L1 antibody [SP142] - BSA and Azide free ab236238

Recombinant RabMAb

2 References 16 Images

Overview

Product name	Anti-PD-L1 antibody [SP142] - BSA and Azide free
Description	Rabbit monoclonal [SP142] to PD-L1 - BSA and Azide free
Host species	Rabbit
Tested applications	**Suitable for:** IHC-P, mIHC, ICC/IF
Species reactivity	**Reacts with:** Human
Immunogen	Synthetic peptide within Human PD-L1 (C terminal). The exact sequence is proprietary. Database link: **Q9NZQ7**
Positive control	IHC-P: Human placenta, tonsil, lung squamous cell carcinoma, cervical squamous cell carcinoma, skin squamous cell carcinoma, Hodgkin's lymphoma, pancreatic adenocarcinoma and prostate adenocarcinoma tissues. ICC/IF: CHO-PD-L1 cells. mIHC: Human tonsil
General notes	ab236238 is the carrier-free version of **ab228462**. Our **carrier-free** antibodies are typically supplied in a PBS-only formulation, purified and free of BSA, sodium azide and glycerol. The carrier-free buffer and high concentration allow for increased conjugation efficiency. This conjugation-ready format is designed for use with fluorochromes, metal isotopes, oligonucleotides, and enzymes, which makes them ideal for antibody labelling, functional and cell-based assays, flow-based assays (e.g. mass cytometry) and Multiplex Imaging applications. Use our **conjugation kits** for antibody conjugates that are ready-to-use in as little as 20 minutes with <1 minute hands-on-time and 100% antibody recovery: available for fluorescent dyes, HRP, biotin and gold. This product is compatible with the Maxpar® Antibody Labeling Kit from Fluidigm, without the need for antibody preparation. Maxpar® is a trademark of Fluidigm Canada Inc. This product is a recombinant monoclonal antibody, which offers several advantages including: - High batch-to-batch consistency and reproducibility - Improved sensitivity and specificity - Long-term security of supply - Animal-free production For more information **see here**.

This product is FOR RESEARCH USE ONLY. For commercial use, please contact partnerships@abcam.com.

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C. Do Not Freeze.
Storage buffer	pH: 7.20 Constituent: 100% PBS
Carrier free	Yes
Purity	Protein A/G purified
Purification notes	Purified from TCS by protein A/G.
Clonality	Monoclonal
Clone number	SP142
Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab236238 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

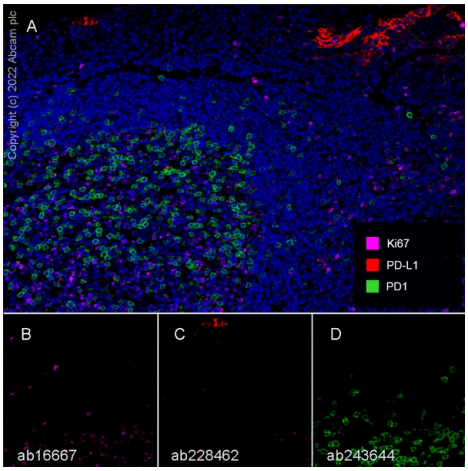
Application	Abreviews	Notes
IHC-P		Use at an assay dependent concentration. Boil tissue section in EDTA buffer, pH 8.0 for 10 minutes followed by cooling at room temperature for 20 minutes. Primary antibody incubation for 10 minutes at room temperature.
mIHC		Use at an assay dependent concentration.
ICC/IF		Use at an assay dependent concentration.

Target

Function	Involved in the costimulatory signal, essential for T-cell proliferation and production of IL10 and IFNG, in an IL2-dependent and a PDCD1-independent manner. Interaction with PDCD1 inhibits T-cell proliferation and cytokine production.
Tissue specificity	Highly expressed in the heart, skeletal muscle, placenta and lung. Weakly expressed in the thymus, spleen, kidney and liver. Expressed on activated T- and B-cells, dendritic cells, keratinocytes and monocytes.
Sequence similarities	Belongs to the immunoglobulin superfamily. BTN/MOG family. Contains 1 Ig-like C2-type (immunoglobulin-like) domain. Contains 1 Ig-like V-type (immunoglobulin-like) domain.

Cellular localization	Cell membrane and Endomembrane system.

Images



Multiplex immunohistochemistry - Anti-PD-L1 antibody [SP142] - BSA and Azide free (ab236238)

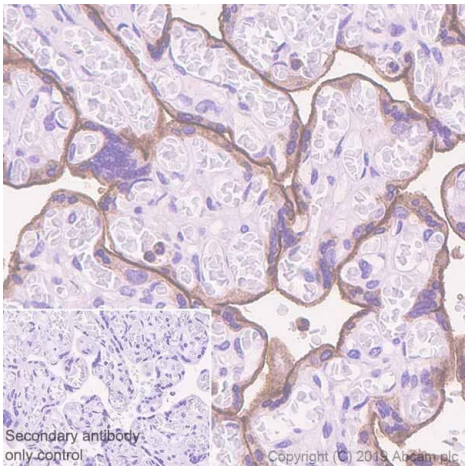
This data was developed using **ab228462**, the same antibody clone in a different buffer formulation.

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of Human tonsil labelling PD1 with **ab243644** at 1/500 dilution (1.02 µg/mL) (D), Ki67 with **ab16667** at 1/200 dilution (0.15 µg/ml) (B) and PD-L1 with **ab228462** at 1/100 dilution (0.52 µg/ml) (C). Opal Polymer HRP Ms + Rb was used as a secondary antibody, and DAPI was used for a nuclear counter stain. Heat mediated antigen retrieval with Citrate buffer (pH 6.0, epitope retrieval solution 1) for 20 mins.

Panel A: merged staining of anti-Ki67 (magenta; Opal™690), anti-PD-L1 (red; Opal™570) and anti-PD1 (green; Opal™520) on human tonsil.
Panel B: anti-Ki67 stained on nucleus of proliferating cells.
Panel C: anti-PD-L1 stained on membrane of cells involved in T cell inhibition.
Panel D: anti-PD1 stained on antigen-stimulated T cells.

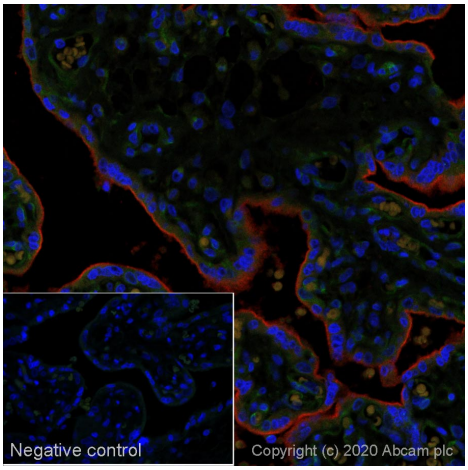
The section was incubated in three rounds of staining: in the order of **ab16667** for 10 mins, **ab243644** for 30 mins and **ab228462** for 10 mins at room temperature. Each round was followed by a separate fluorescent tyramide signal amplification system.

The immunostaining was performed on a Leica Biosystems BOND® RX instrument with an Opal™ 4-color kit. Image acquisition was performed with Leica SP8 confocal microscope.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-PD-L1 antibody [SP142] - BSA and Azide free (ab236238)

Immunohistochemical analysis of paraffin-embedded Human placenta tissue labeling PD-L1 with ab236238 followed by a ready to use Rabbit specific IHC polymer detection kit HRP/DAB (**ab209101**). Positive staining on human placenta, performed on a Leica Biosystems BOND® RX instrument. Counterstained with Hematoxylin. Heat mediated antigen retrieval with EDTA-Tris buffer (pH 9.0, epitope retrieval solution 2) for 10mins. Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is a ready to use Rabbit specific IHC polymer detection kit HRP/DAB (**ab209101**).



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-PD-L1 antibody [SP142] - BSA and Azide free (ab236238)

Clone SP142 (ab236238) has been successfully conjugated by Abcam. This image was generated using Anti-PD-L1 antibody [SP142] (Alexa Fluor® 647). Please refer to **ab267563** for protocol details.

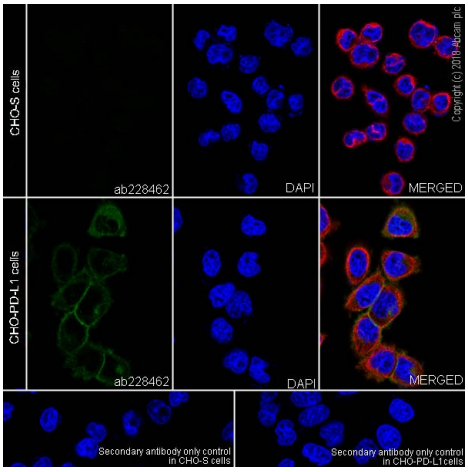
IHC image of PD-L1 staining in a section of formalin-fixed paraffin-embedded normal human placenta*.

The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH6) in a Biocare Medical NxGen pressure cooker using retrieval settings of 110°C for 20 minutes. Non-specific protein-protein interactions were then blocked in TBS containing 0.025% (v/v) Triton X-100, 0.3M (w/v) glycine and 1% (w/v) BSA for 1h at room temperature. The section was then incubated overnight at +4°C in TBS containing 0.025% (v/v) Triton X-100 and 1% (w/v) BSA with **ab267563** at 1/100 dilution (shown in red) and counterstained using **ab195887**, Mouse monoclonal to alpha Tubulin (Alexa Fluor® 488), at 1/250 dilution (shown in green). Nuclear DNA was labelled with DAPI (shown in blue). The section was then mounted using Fluoromount®.

Image was taken with a confocal microscope (Leica-Microsystems, TCS SP8).

For other IHC staining systems (automated and non-automated), customers should optimize variable parameters such as antigen retrieval conditions, antibody concentrations and incubation times.

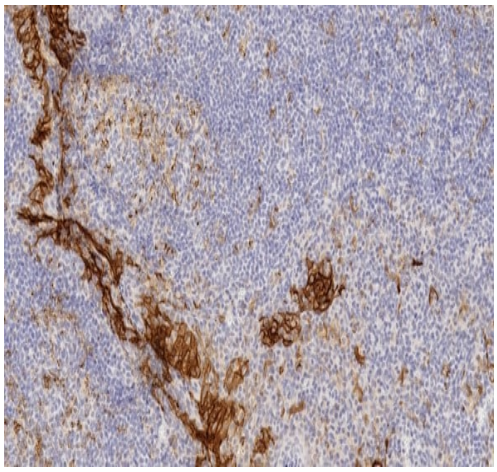
*Tissue obtained from Papworth Hospital Research Tissue Bank.



Immunocytochemistry/ Immunofluorescence - Anti-PD-L1 antibody [SP142] - BSA and Azide free (ab236238)

Immunocytochemistry/ Immunofluorescence analysis of CHO-PD-L1 (PD-L1 stably expessed Chinese hamster ovary epithelial cell) cells labeling PD-L1 with purified **ab228462** at 1/50 (2 µg/ml). Cells were fixed in 4% paraformaldehyde and permeabilized with 0.1% Triton X-100. Cells were counterstained with **ab195889** Anti-alpha Tubulin antibody [DM1A] - Microtubule Marker (Alexa Fluor® 594) 1/200 (2.5 µg/ml). Goat anti rabbit IgG (Alexa Fluor® 488, **ab150077**) was used as the secondary antibody at 1/1000 (2 µg/ml) dilution. DAPI was used as nuclear counterstain. PBS instead of the primary antibody was used as the secondary antibody only control.

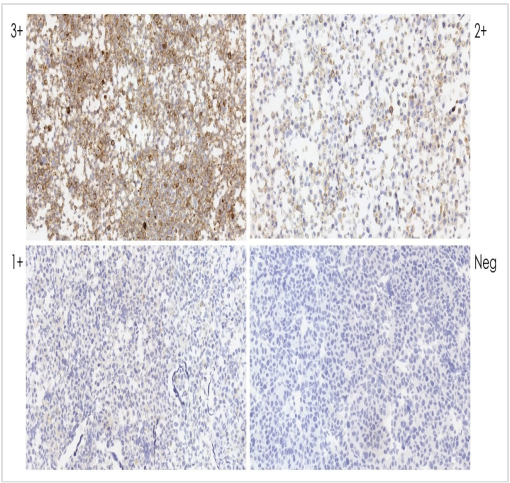
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab228462**).



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-PD-L1 antibody [SP142] - BSA and Azide free (ab236238)

IHC image of **ab228462** staining PD-L1 in human tonsil formalin fixed paraffin embedded tissue sections*, performed on a Leica BOND RX (standard Protocol F, Polymer Refine kit). The section was pre-treated using heat mediated antigen retrieval with EDTA buffer (pH9, epitope retrieval solution 2) for 30 mins at 98°C. The section was then incubated with **ab228462**, 1/400 working dilution, for 15 mins at room temperature and detected using an HRP conjugated compact polymer system for 8 minutes at room temperature. DAB was used as the chromogen for 10 minutes at room temperature. The section was then counterstained with hematoxylin, blued, dehydrated, cleared and mounted with DPX.

This image was generated using **ab228462**, the same antibody but with BSA and Azide

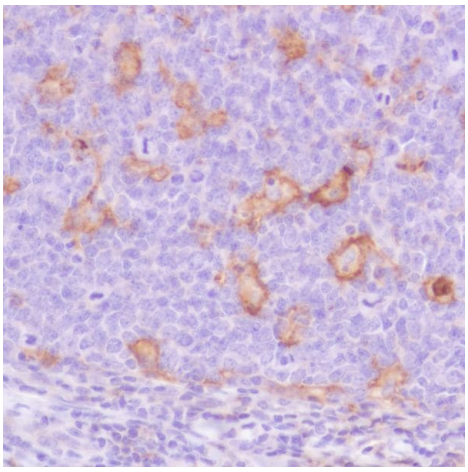


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-PD-L1 antibody [SP142] - BSA and Azide free (ab236238)

IHC image of **ab228462** staining PD-L1 in PD-L1 Dynamic Range Analyte Control formalin fixed paraffin embedded human cell lines (**HistoCyte Laboratories**), performed on a Leica BOND RX (standard Protocol F, Polymer Refine kit). The section was pre-treated using heat mediated antigen retrieval with EDTA buffer (pH9, epitope retrieval solution 2) for 30 mins at 98°C. The section was then incubated with **ab228462**, 1/400 working dilution, for 15 mins at room temperature and detected using an HRP conjugated compact polymer system for 8 minutes at room temperature. DAB was used as the chromogen for 10 minutes at room temperature. The section was then counterstained with hematoxylin, blued, dehydrated, cleared and mounted with DPX.

For other IHC staining systems (automated and non-automated) customers should optimize variable parameters such as antigen retrieval conditions, primary antibody concentration and antibody incubation times.

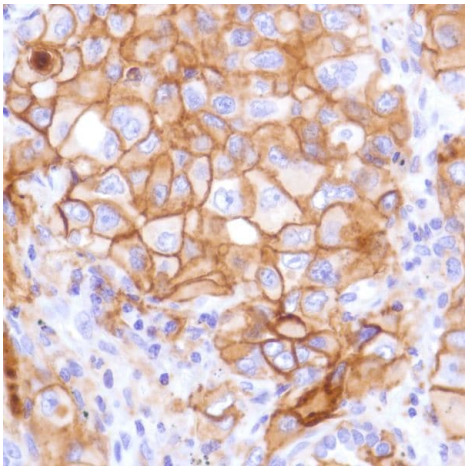
This image was generated using **ab228462**, the same antibody but with BSA and Azide



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-PD-L1 antibody [SP142] - BSA and Azide free (ab236238)

Formalin-fixed, paraffin-embedded human tonsil tissue stained for PD-L1 using **ab228462** at 1/100 dilution in immunohistochemical analysis.

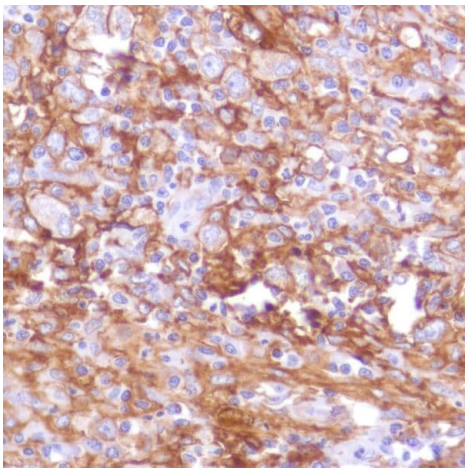
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab228462**).



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-PD-L1 antibody [SP142] - BSA and Azide free (ab236238)

Formalin-fixed, paraffin-embedded human lung squamous cell carcinoma tissue stained for PD-L1 using **ab228462** at 1/100 dilution in immunohistochemical analysis.

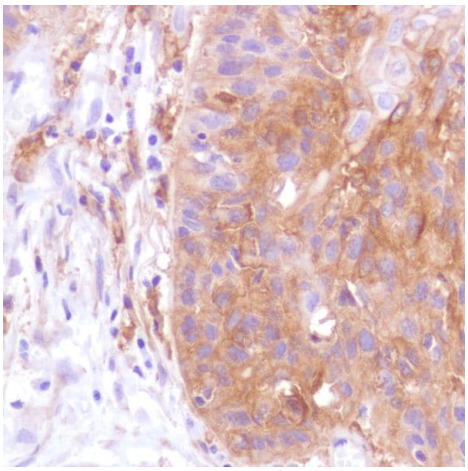
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab228462**).



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-PD-L1 antibody [SP142] - BSA and Azide free (ab236238)

Formalin-fixed, paraffin-embedded human Hodgkin's lymphoma tissue stained for PD-L1 using **ab228462** at 1/100 dilution in immunohistochemical analysis.

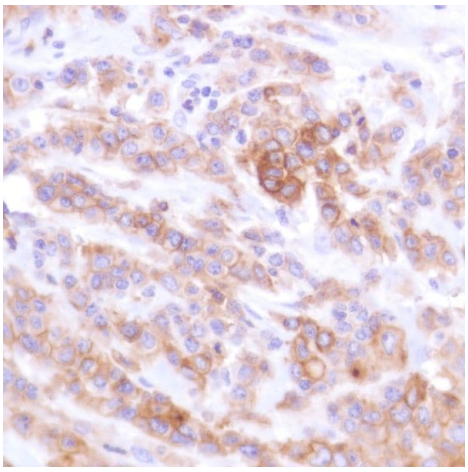
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab228462**).



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-PD-L1 antibody [SP142] - BSA and Azide free (ab236238)

Formalin-fixed, paraffin-embedded human cervical squamous cell carcinoma tissue stained for PD-L1 using **ab228462** at 1/100 dilution in immunohistochemical analysis.

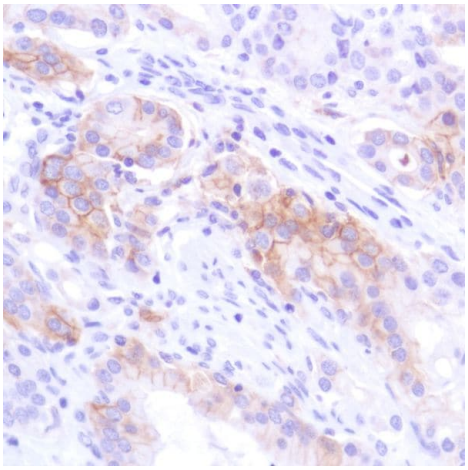
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab228462**).



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-PD-L1 antibody [SP142] - BSA and Azide free (ab236238)

Formalin-fixed, paraffin-embedded human pancreatic adenocarcinoma tissue stained for PD-L1 using **ab228462** at 1/100 dilution in immunohistochemical analysis.

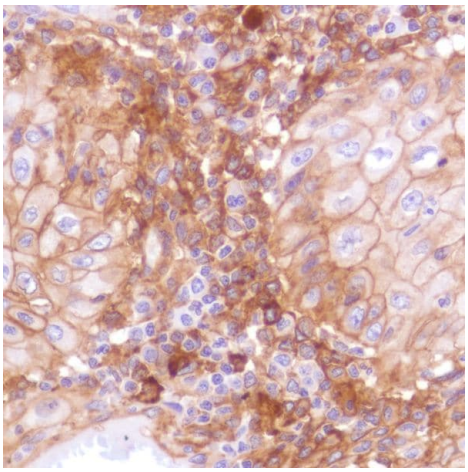
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab228462**).



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-PD-L1 antibody [SP142] - BSA and Azide free (ab236238)

Formalin-fixed, paraffin-embedded human prostate adenocarcinoma tissue stained for PD-L1 using **ab228462** at 1/100 dilution in immunohistochemical analysis.

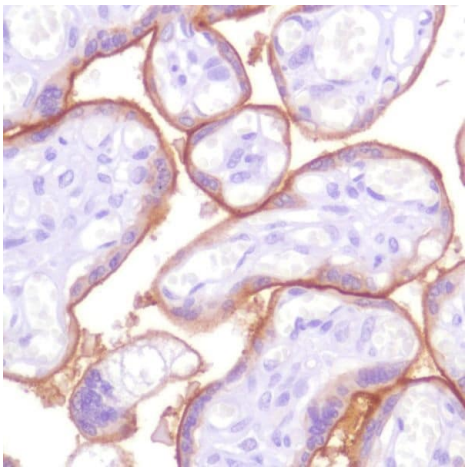
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab228462**).



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-PD-L1 antibody [SP142] - BSA and Azide free (ab236238)

Formalin-fixed, paraffin-embedded human skin squamous cell carcinoma tissue stained for PD-L1 using **ab228462** at 1/100 dilution in immunohistochemical analysis.

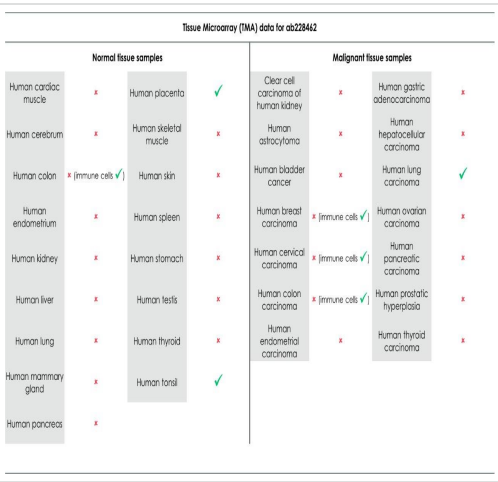
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab228462**).



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-PD-L1 antibody [SP142] - BSA and Azide free (ab236238)

Formalin-fixed, paraffin-embedded human placenta tissue stained for PD-L1 using **ab228462** at 1/100 dilution in immunohistochemical analysis.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab228462**).

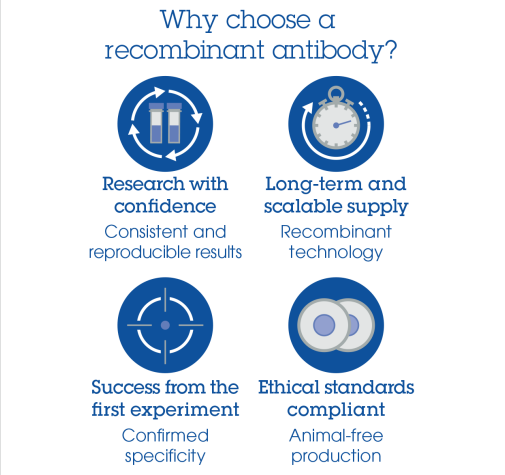


Tissue Microarray (TMA) data for ab228462

Normal tissue samples				Malignant tissue samples			
Human cardiac muscle	x	Human placenta	✓	Clear cell carcinoma of human kidney	x	Human gastric adenocarcinoma	x
Human cerebrum	x	Human skeletal muscle	x	Human astrocytoma	x	Human hepatocellular carcinoma	x
Human colon	x (immune cells ✓)	Human skin	x	Human bladder cancer	x	Human lung carcinoma	✓
Human endometrium	x	Human spleen	x	Human breast carcinoma	x (immune cells ✓)	Human ovarian carcinoma	x
Human kidney	x	Human stomach	x	Human cervical carcinoma	x (immune cells ✓)	Human pancreatic carcinoma	x
Human liver	x	Human testis	x	Human colon carcinoma	x (immune cells ✓)	Human prostatic hyperplasia	x
Human lung	x	Human thyroid	x	Human endometrial carcinoma	x	Human thyroid carcinoma	x
Human mammary gland	x	Human tonsil	✓				
Human pancreas	x						

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-PD-L1 antibody [SP142] - BSA and Azide free (ab236238)

Tissue Microarrays stained for " Anti-PD-L1 antibody [SP142] - C-terminal" using " **ab228462**" in immunohistochemical analysis. This table provides a detailed overview of positive (tick mark) and negative (cross mark) staining per sample type tested. The sections were pre-treated using Heat mediated antigen retrieval using Bond™ Epitope Retrieval Solution 2 (pH 9.0) for 20 minutes. The sections were incubated with **ab228462** for 10 mins at room temperature followed by a ready to use Rabbit specific IHC polymer detection kit HRP/DAB (**ab209101**). The immunostaining was performed on a Leica Biosystems BOND® RX instrument.



Anti-PD-L1 antibody [SP142] - BSA and Azide free

(ab236238)

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