ARG63715
anti-CD274 / PD-L1 antibody

Package: 100 µg, 50 µg
Store at: -20°C

Summary

Product Description	Goat Polyclonal antibody recognizes CD274 / PD-L1
Tested Reactivity	Hu
Tested Application	FACS, ICC/IF, IHC-P, WB
Host	Goat
Clonality	Polyclonal
Isotype	IgG
Target Name	CD274 / PD-L1
Species	Human
Immunogen	CKKQSDTHLEET
Conjugation	Un-conjugated
Alternate Names	Programmed cell death 1 ligand 1; B7-H1; B7H1; PDL1; PDCD1 ligand 1; B7 homolog 1; PD-L1; CD antigen CD274; PDCD1L1; B7-H; Programmed death ligand 1; PDCD1LG1

Application Instructions

Application table

Application	Dilution
FACS	10 µg/ml
ICC/IF	10 µg/ml
IHC-P	2 - 4 µg/ml
WB	0.01 - 0.1 µg/ml

Application Note	WB: Recommend incubate at RT for 1h. IHC-P: Antigen Retrieval: (1) Microwaved tissue section in Citrate buffer (pH 6.0), or (2) Steam tissue section in Tris/EDTA buffer (pH 9.0). * The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.
Positive Control	Human heart and U2OS
Observed Size	~ 50 kDa

Properties

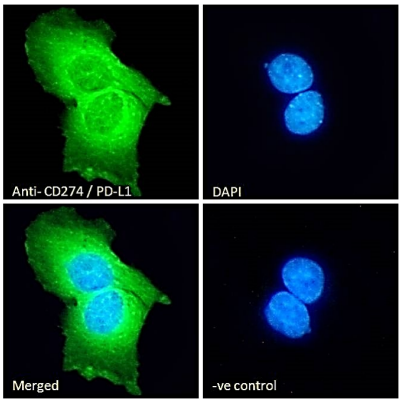
Form	Liquid
Purification	Purified from goat serum by ammonium sulphate precipitation followed by antigen affinity chromatography using the immunizing peptide.
Buffer	Tris saline (pH 7.3), 0.02% Sodium azide and 0.5% BSA
Preservative	0.02% Sodium azide

Stabilizer	0.5% BSA
Concentration	0.5 mg/ml
Storage instruction	For continuous use, store undiluted antibody at 2-8°C for up to a week. For long-term storage, aliquot and store at -20°C or below. Storage in frost free freezers is not recommended. Avoid repeated freeze/thaw cycles. Suggest spin the vial prior to opening. The antibody solution should be gently mixed before use.
Note	For laboratory research only, not for drug, diagnostic or other use.

Bioinformation

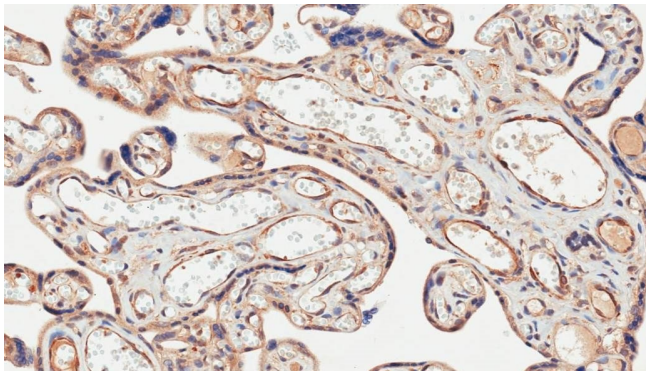
Database links	GeneID: 29126 Human Swiss-port # Q9NZQ7 Human
Gene Symbol	CD274
Gene Full Name	CD274 molecule
Background	CD274 / PD-L1 is an immune inhibitory receptor ligand. It is expressed by hematopoietic and non-hematopoietic cells, such as T cells and B cells and various types of tumor cells. The encoded protein is a type I transmembrane protein that has immunoglobulin V-like and C-like domains. Interaction of this ligand with its receptor inhibits T-cell activation and cytokine production. During infection or inflammation of normal tissue, this interaction is important for preventing autoimmunity by maintaining homeostasis of the immune response. In tumor microenvironments, this interaction provides an immune escape for tumor cells through cytotoxic T-cell inactivation. Expression of this gene in tumor cells is considered to be prognostic in many types of human malignancies, including colon cancer and renal cell carcinoma. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Sep 2015]
Function	CD274 / PD-L1 plays a critical role in induction and maintenance of immune tolerance to self (PubMed:11015443, PubMed:28813417, PubMed:28813410). As a ligand for the inhibitory receptor PDCD1/PD-1, modulates the activation threshold of T-cells and limits T-cell effector response (PubMed:11015443, PubMed:28813417, PubMed:28813410). Through a yet unknown activating receptor, may costimulate T-cell subsets that predominantly produce interleukin-10 (IL10) (PubMed:10581077). The PDCD1-mediated inhibitory pathway is exploited by tumors to attenuate anti-tumor immunity and escape destruction by the immune system, thereby facilitating tumor survival (PubMed:28813417, PubMed:28813410). The interaction with PDCD1/PD-1 inhibits cytotoxic T lymphocytes (CTLs) effector function. The blockage of the PDCD1-mediated pathway results in the reversal of the exhausted T-cell phenotype and the normalization of the anti-tumor response, providing a rationale for cancer immunotherapy. [UniProt]
Highlight	Related products: PD-L1 antibodies; PD-L1 ELISA Kits; Anti-Goat IgG secondary antibodies; Related news: The best solution for PD-1/PD-L1 research Examining CTL/NK-mediated cytotoxicity by ELISA
Research Area	Immune System antibody
Calculated Mw	33 kDa
Cellular Localization	Cell membrane and Endomembrane system.

Images



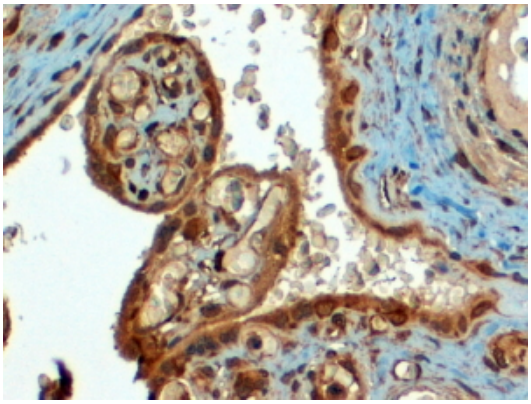
ARG63715 anti-CD274 / PD-L1 antibody ICC/IF image

Immunofluorescence: Paraformaldehyde fixed A431 cells permeabilized with 0.15% Triton. Cells were stained with ARG63715 anti-CD274 / PD-L1 antibody (green) at 10 µg/ml dilution for 1 hour. DAPI (blue) for nuclear staining. Negative control: Unimmunized goat IgG (green) at 10 µg/ml dilution.



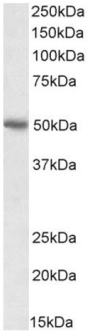
ARG63715 anti-CD274 / PD-L1 antibody IHC-P image

Immunohistochemistry: Paraffin-embedded Human placenta tissue. Antigen Retrieval: Microwaved tissue section in Citrate buffer (pH 6.0). The tissue section was stained with ARG63715 anti-CD274 / PD-L1 antibody at 2 µg/ml dilution followed by HRP-staining.



ARG63715 anti-CD274 / PD-L1 antibody IHC-P image

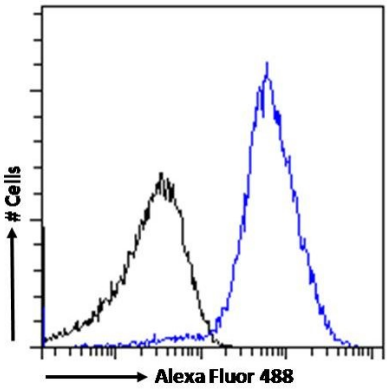
Immunohistochemistry: Paraffin-embedded Human placenta tissue. Antigen Retrieval: Steam tissue section in Tris/EDTA buffer (pH 9.0). The tissue section was stained with ARG63715 anti-CD274 / PD-L1 antibody at 4 µg/ml dilution followed by HRP-staining.



Human heart

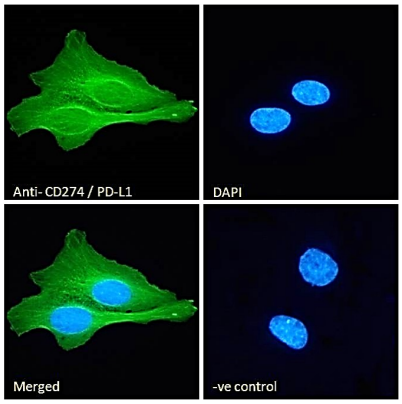
ARG63715 anti-CD274 / PD-L1 antibody WB image

Western blot: 35 µg of Human heart lysate (in RIPA buffer) stained with ARG63715 anti-CD274 / PD-L1 antibody at 0.01 µg/ml dilution and incubated at RT for 1 hour.



ARG63715 anti-CD274 / PD-L1 antibody FACS image

Flow Cytometry: Paraformaldehyde-fixed Jurkat cells permeabilized with 0.5% Triton. Cells were stained with ARG63715 anti-CD274 / PD-L1 antibody (blue line) at 10 µg/ml dilution for 1 hour, followed by incubation with Alexa Fluor 488 labelled secondary antibody. IgG control: Unimmunized goat IgG (black line).



ARG63715 anti-CD274 / PD-L1 antibody ICC/IF image

Immunofluorescence: Paraformaldehyde fixed U2OS cells permeabilized with 0.15% Triton. Cells were stained with ARG63715 anti-CD274 / PD-L1 antibody (green) at 10 µg/ml dilution for 1 hour. DAPI (blue) for nuclear staining. Negative control: Unimmunized goat IgG (green) at 10 µg/ml dilution.

ARG63715 anti-CD274 / PD-L1 antibody WB image

Western blot: 35 µg of U2OS cell lysate (in RIPA buffer) stained with ARG63715 anti-CD274 / PD-L1 antibody at 0.1 µg/ml dilution and incubated at RT for 1 hour.