ARG65862
anti-CD274 / PD-L1 antibody [SQab1716]

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

Summary

Product Description	Recombinant Rabbit Monoclonal antibody [SQab1716] recognizes CD274 / PD-L1
Tested Reactivity	Hu
Tested Application	FACS, ICC/IF, IHC-P, IP, WB
Host	Rabbit
Clonality	Monoclonal
Clone	SQab1716
Isotype	IgG
Target Name	CD274 / PD-L1
Species	Human
Immunogen	Recombinant protein around aa. 19-239 (extracellular) of Human CD274 / PD-L1.
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	1:50 - 1:200
ICC/IF	1:1000 - 1:10000
IHC-P	1:100 - 1:200
IP	1:30
WB	1:2500 - 1:5000

Application Note: IHC-P: Antigen Retrieval: Boil 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.

Observed Size: 40-50 kDa

Properties

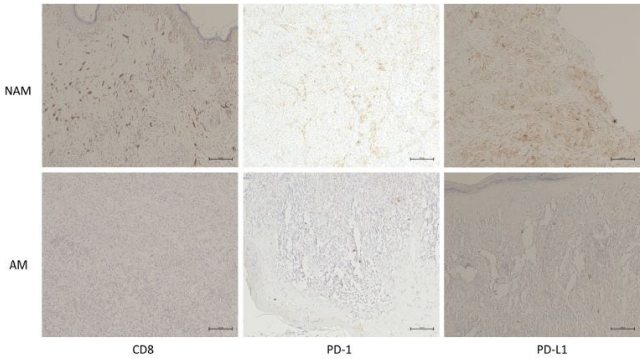
Form	Liquid
Purification	Purification with Protein A.
Buffer	PBS, 0.01% Sodium azide, 40% Glycerol and 0.05% BSA.
Preservative	0.01% Sodium azide

Stabilizer	40% Glycerol and 0.05% BSA
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. 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-Rabbit IgG secondary antibodies; Related news: New PD-1 ELISA Kit, excellent for preclinical studies or pharmatheutical development Time to fight cancer by NK cells The best solution for PD-1/PD-L1 research Examining CTL/NK-mediated cytotoxicity by ELISA
Calculated Mw	33 kDa
Cellular Localization	Cell membrane and Endomembrane system.

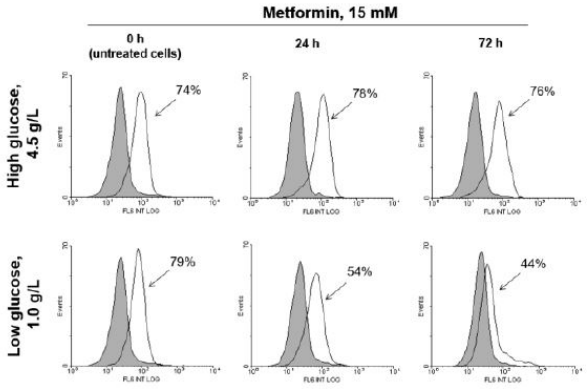
Images



ARG65862 anti-CD274 / PD-L1 antibody [SQab1716] IHC-P image

Immunohistochemistry: Human nonacral melanoma and acral melanoma tumor stained with ARG66628 anti-CD8 antibody [SQab19146] , ARG66243 anti-CD279 / PD-1 antibody [SQab1732] and ARG65862 anti-CD274 / PD-L1 antibody [SQab1716].

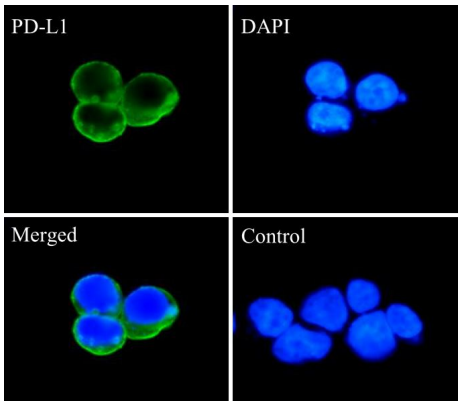
From Yu-Jen Chiu et al. J Dermatol. (2024), doi: 10.1111/1346-8138.17187, Fig. 7.



ARG65862 anti-CD274 / PD-L1 antibody [SQab1716] FACS image

Western blot: A431 stained with ARG65862 anti-CD274 / PD-L1 antibody [SQab1716].

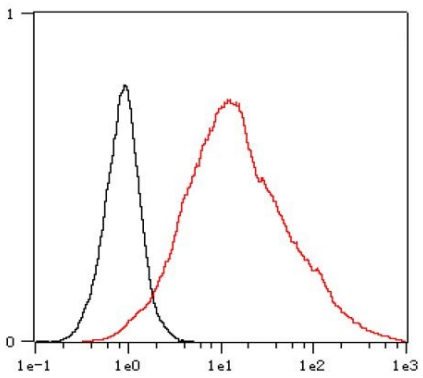
From Alexander M. Scherbakov et al. preprint (2024), doi: 10.33263/LIANBS132.061, Fig. 3. B.



ARG65862 anti-CD274 / PD-L1 antibody [SQab1716] ICC/IF image

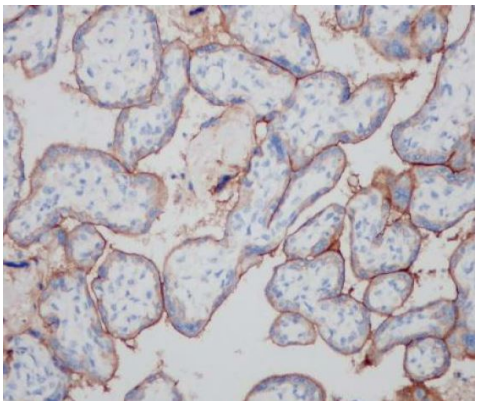
Immunofluorescence: 293 cells trasnfected with PD-L1 gene. Cells were fixed with 4% paraformaldehyde for 30 min at RT, permeabilized with 0.1% Triton X-100 for 10 min at RT then blocked with 10% goat serum for half an hour at room temperature. Samples were stained with ARG65862 anti-CD274 / PD-L1 antibody [SQab1716] (green) at 1:10000 at 4°C. DAPI (blue) was used as the nuclear counter stain.

Control: PBS and secondary antibody.



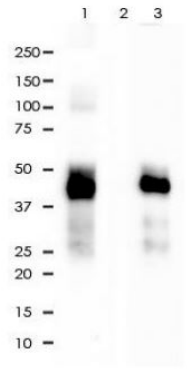
ARG65862 anti-CD274 / PD-L1 antibody [SQab1716] FACS image

Flow Cytometry: 293 cells transfected with PD-L1 gene and stained with ARG65862 anti-CD274 / PD-L1 antibody [SQab1716] at 1:200, in 1x PBS/1% BSA for 30 min at room temperature, followed by Alexa Fluor® 488 labelled secondary antibody (red histogram). Unlabelled sample (black histogram) was used as a control.



ARG65862 anti-CD274 / PD-L1 antibody [SQab1716] IHC-P image

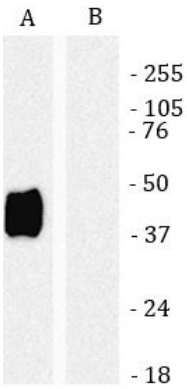
Immunohistochemistry: Formalin/PFA-fixed and paraffin-embedded sections of Human placenta tissue stained with ARG65862 anti-CD274 / PD-L1 antibody [SQab1716] at 1:200 dilution. Antigen Retrieval: Boil tissue section in Tris/EDTA buffer (pH 9.0).



ARG65862 anti-CD274 / PD-L1 antibody [SQab1716] IP image

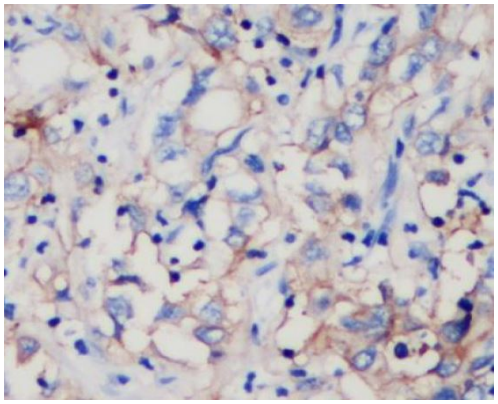
Immunoprecipitation: PD-L1 was immunoprecipitated from 0.2 mg of PD-L1 gene transfected 293 whole cells lysate by ARG65862 anti-CD274 / PD-L1 antibody [SQab1716] at 1:30 dilution. The immunoprecipitated lysates were then stained with ARG65862 anti-CD274 / PD-L1 antibody [SQab1716] by WB.

Lane 1: ARG65862 IP in 293 whole cell lysate transfected with PD-L1 gene.
Lane 2: PBS instead of ARG65862 in 293 whole cell lysate transfected with PD-L1 gene.
Lane 3: 293 whole cell lysate transfected with PD-L1 gene, 2 µg (input).



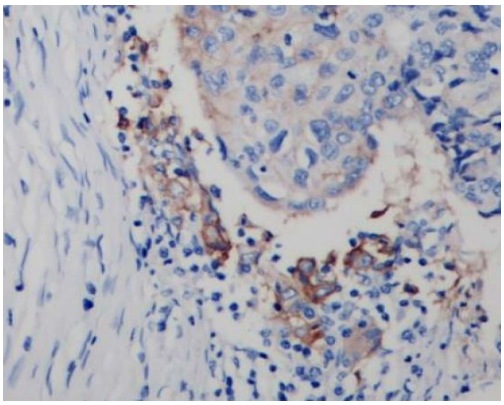
ARG65862 anti-CD274 / PD-L1 antibody [SQab1716] WB image

Western Blot: Lane A - HEK293 overexpressing Human CD274 / PD-L1 stained with ARG65862 anti-CD274 / PD-L1 antibody [SQab1716] at 1:5000 dilution.; Lane B - HEK293 mock-transfected lysate stained with ARG65862 anti-CD274 / PD-L1 antibody [SQab1716] at 1:5000 dilution.



ARG65862 anti-CD274 / PD-L1 antibody [SQab1716] IHC-P image

Immunohistochemistry: Formalin/PFA-fixed and paraffin-embedded sections of Human hepatocellular carcinoma tissue stained with ARG65862 anti-CD274 / PD-L1 antibody [SQab1716] at 1:200 dilution. Antigen Retrieval: Boil tissue section in Tris/EDTA buffer (pH 9.0).



ARG65862 anti-CD274 / PD-L1 antibody [SQab1716] IHC-P image

Immunohistochemistry: Formalin/PFA-fixed and paraffin-embedded sections of Human lung adenocarcinoma tissue stained with ARG65862 anti-CD274 / PD-L1 antibody [SQab1716] at 1:200 dilution. Antigen Retrieval: Boil tissue section in Tris/EDTA buffer (pH 9.0).