Anti-CD276 Antibody [PD00-36]

HA721245

Product Type:	Recombinant Rabbit monoclonal IgG, primary antibodies
Species reactivity:	Human
Applications:	IHC-P, FC, WB
Molecular Wt:	Predicted band size: 57 kDa
Clone number:	PD00-36

Description: The protein encoded by this gene belongs to the immunoglobulin superfamily. May participate in the regulation of T-cell-mediated immune response. May play a protective role in tumor cells by inhibiting natural-killer mediated cell lysis as well as a role of marker for detection of neuroblastoma cells. May be involved in the development of acute and chronic transplant rejection and in the regulation of lymphocytic activity at mucosal surfaces. Could also play a key role in providing the placenta and fetus with a suitable immunological environment throughout pregnancy. Both isoform 1 and isoform 2 appear to be redundant in their ability to modulate CD4 T-cell responses. Isoform 2 is shown to enhance the induction of cytotoxic T-cells and selectively stimulates interferon gamma production in the presence of T-cell receptor signaling.

Immunogen: Synthetic peptide within C terminal human CD276.

Positive control: HeLa cell lysate, MCF7 cell lysate, HEK-293 cell lysate, LoVo cell lysate, U-2 OS cell lysate, LNCaP cell lysate, SH-SY5Y cell lysate, THP-1 cell lysate, HCT 116 cell lysate, HS-SY-II cell lysate, human lung squamous cell carcinoma tissue, human lung adenocarcinoma tissue, human prostate carcinoma tissue, HEK-293, THP-1.

Subcellular location: Membrane.

Database links: SwissProt: Q5ZPR3 Human

Recommended Dilutions:

IHC-P	1:5,000
FC	1:500-1:1,000
WB	1:2,000-1:5,000

Storage Buffer: PBS (pH7.4), 0.1% BSA, 40% Glycerol. Preservative: 0.05% Sodium Azide.

Storage Instruction: Store at +4℃ after thawing. Aliquot store at -20℃. Avoid repeated freeze / thaw cycles.

Purity: Protein A affinity purified.

Images

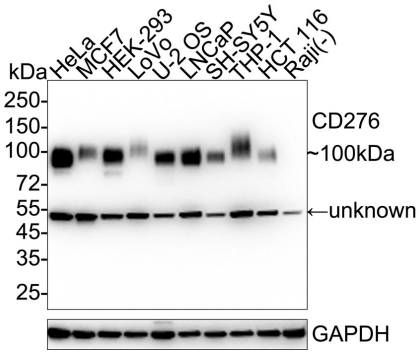

Fig1: Western blot analysis of CD276 on different lysates with Rabbit anti-CD276 antibody (HA721245) at 1/1,000 dilution.

Lane 1: HeLa cell lysate (20 µg/Lane)
Lane 2: MCF7 cell lysate (20 µg/Lane)
Lane 3: HEK-293 cell lysate (20 µg/Lane)
Lane 4: LoVo cell lysate (20 µg/Lane)
Lane 5: U-2 OS cell lysate (20 µg/Lane)
Lane 6: LNCaP cell lysate (20 µg/Lane)
Lane 7: SH-SY5Y cell lysate (20 µg/Lane)
Lane 8: THP-1 cell lysate (20 µg/Lane)
Lane 9: HCT 116 cell lysate (20 µg/Lane)
Lane 10: Raji cell lysate (negative) (20 µg/Lane)

Predicted band size: 57 kDa
Observed band size: 100 kDa

Exposure time: 6 seconds; ECL: K1801;
4-20% SDS-PAGE gel.

Proteins were transferred to a PVDF membrane and blocked with 5% NFDM/TBST for 1 hour at room temperature. The primary antibody (HA721245) at 1/2,000 dilution was used in 5% NFDM/TBST at 4℃ overnight. Goat Anti-Rabbit IgG - HRP Secondary Antibody (HA1001) at 1/50,000 dilution was used for 1 hour at room temperature.

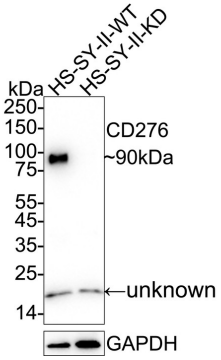

Fig2: Western blot analysis of CD276 on different lysates with Rabbit anti-CD276 antibody (HA721245) at 1/5,000 dilution.

Lane 1: HS-SY-II-si NT cell lysate
Lane 2: HS-SY-II-si CD276 cell lysate

Lysates/proteins at 10 µg/Lane.

Predicted band size: 57 kDa
Observed band size: 90 kDa

Exposure time: 1 minute 2 seconds; ECL: K1801;

4-20% SDS-PAGE gel.

Proteins were transferred to a PVDF membrane and blocked with 5% NFDM/TBST for 1 hour at room temperature. The primary antibody (HA721245) at 1/5,000 dilution was used in primary antibody dilution at 4℃ overnight. Goat Anti-Rabbit IgG - HRP Secondary Antibody (HA1001) at 1/50,000 dilution was used for 1 hour at room temperature.

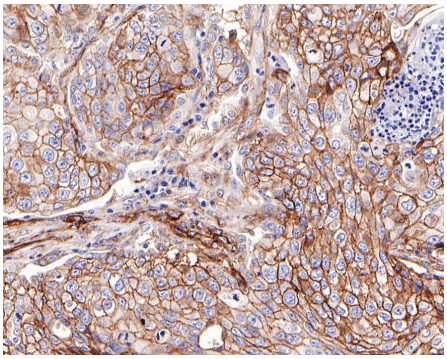

Fig3: Immunohistochemical analysis of paraffin-embedded human lung squamous cell carcinoma tissue with Rabbit anti-CD276 antibody (HA721245) at 1/5,000 dilution.

The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 20 minutes. The tissues were blocked in 1% BSA for 20 minutes at room temperature, washed with ddH_2O and PBS, and then probed with the primary antibody (HA721245) at 1/5,000 dilution for 1 hour at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.

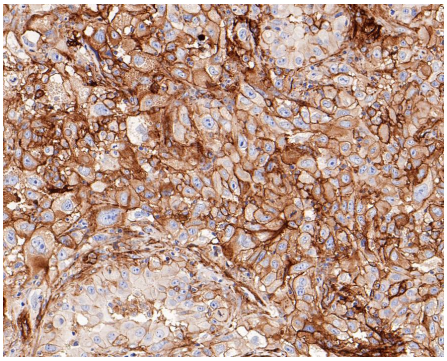

Fig4: Immunohistochemical analysis of paraffin-embedded human lung adenocarcinoma tissue with Rabbit anti-CD276 antibody (HA721245) at 1/5,000 dilution.

The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 20 minutes. The tissues were blocked in 1% BSA for 20 minutes at room temperature, washed with ddH_2O and PBS, and then probed with the primary antibody (HA721245) at 1/5,000 dilution for 1 hour at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.

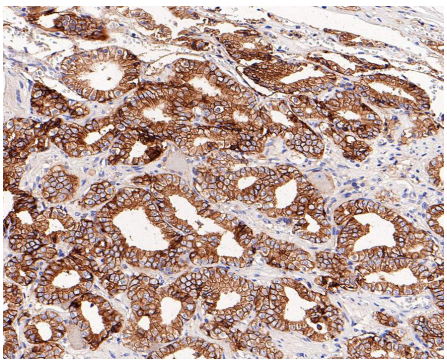

Fig5: Immunohistochemical analysis of paraffin-embedded human prostate carcinoma tissue with Rabbit anti-CD276 antibody (HA721245) at 1/5,000 dilution.

The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 20 minutes. The tissues were blocked in 1% BSA for 20 minutes at room temperature, washed with ddH_2O and PBS, and then probed with the primary antibody (HA721245) at 1/5,000 dilution for 1 hour at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.

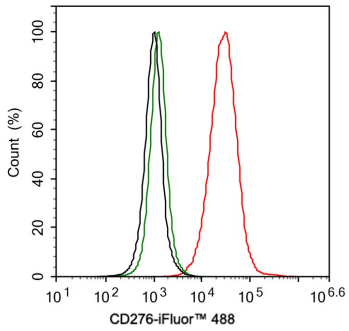

Fig6: Flow cytometric analysis of HEK-293 cells labeling CD276.

Cells were fixed and permeabilized. Then stained with the primary antibody (HA721245, 1ug/ml) (red) compared with Rabbit IgG Isotype Control (green). After incubation of the primary antibody at +4℃ for an hour, the cells were stained with a iFluor™ 488 conjugate-Goat anti-Rabbit IgG Secondary antibody (HA1121) at 1/1,000 dilution for 30 minutes at +4℃. Unlabelled sample was used as a control (cells without incubation with primary antibody; black).

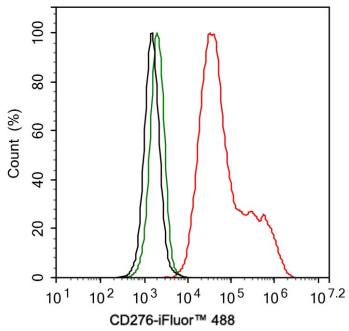

Fig7: Flow cytometric analysis of THP-1 cells labeling CD276.

Cells were fixed and permeabilized. Then stained with the primary antibody (HA721245, 1ug/ml) (red) compared with Rabbit IgG Isotype Control (green). After incubation of the primary antibody at +4℃ for an hour, the cells were stained with a iFluor™ 488 conjugate-Goat anti-Rabbit IgG Secondary antibody (HA1121) at 1/1,000 dilution for 30 minutes at +4℃. Unlabelled sample was used as a control (cells without incubation with primary antibody; black).

Note: All products are "FOR RESEARCH USE ONLY AND ARE NOT INTENDED FOR DIAGNOSTIC OR THERAPEUTIC USE".

Background References

1. Zhou WT et al. B7-H3/CD276: An Emerging Cancer Immunotherapy. Front Immunol. 2021 Jul
2. Liu S et al. The Role of CD276 in Cancers. Front Oncol. 2021 Mar