Anti-B7H4 Antibody [PSH03-65]

HA722024

Product Type:	Recombinant Rabbit monoclonal IgG, primary antibodies
Species reactivity:	Human, Mouse, Rat
Applications:	WB, IF-Cell
Molecular Wt:	Predicted band size: 31 kDa
Clone number:	PSH03-65

Description:
V-set domain-containing T-cell activation inhibitor 1 is a protein that in humans is encoded by the VTCN1 gene. B7H4 belongs to the B7 family (see CD80; MIM 112203) of costimulatory proteins. These proteins are expressed on the surface of antigen-presenting cells and interact with ligands (e.g., CD28; MIM 186760) on T lymphocytes. B7-H4 is an immune checkpoint molecule.

Immunogen:
Synthetic peptide within human B7H4 aa 101-150 / 282.

Positive control:
MDA-MB-468 cell lysate, NIH:OVCAR-3 cell lysate, mouse uterus tissue lysate, rat ovary tissue lysate, SK-Br-3.

Subcellular location:
Cell membrane.

Database links:
SwissProt: Q7Z7D3 Human | Q7TSP5 Mouse

Recommended Dilutions:

WB	1:1,000
IF-Cell	1:1,000

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.

Applications:WB=Western blot IHC-P=Immunohistochemistry (paraffin) IF-Cell=Immunofluorescence (Cell) IF-Tissue=Immunofluorescence (Tissue) FC=Flow cytometry IP=Immunoprecipitation
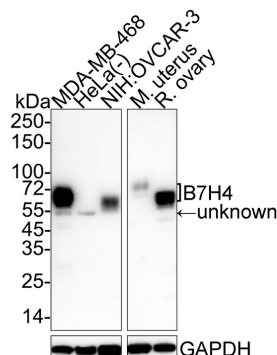
Images

Fig1: Western blot analysis of B7H4 on different lysates with Rabbit anti-B7H4 antibody (HA722024) at 1/1,000 dilution.

Lane 1: MDA-MB-468 cell lysate (no heat) (15 µg/Lane)
Lane 2: HeLa cell lysate (negative) (30 µg/Lane)
Lane 3: NIH:OVCAR-3 cell lysate (30 µg/Lane)
Lane 4: Mouse uterus tissue lysate (30 µg/Lane)
Lane 5: Rat ovary tissue lysate (15 µg/Lane)

Predicted band size: 31 kDa
Observed band size: 60-75 kDa

Exposure time: 35 seconds;

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 (HA722024) at 1/1,000 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: Immunocytochemistry analysis of SK-Br-3 (positive) and HeLa (negative) labeling B7H4 with Rabbit anti-B7H4 antibody (HA722024) at 1/1,000 dilution.
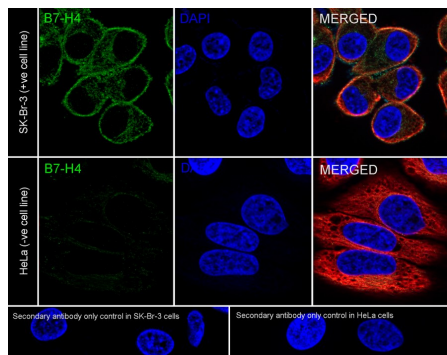
Cells were fixed in 4% paraformaldehyde for 20 minutes at room temperature, permeabilized with 0.1% Triton X-100 in PBS for 5 minutes at room temperature, then blocked with 1% BSA in 10% negative goat serum for 1 hour at room temperature. Cells were then incubated with Rabbit anti-B7H4 antibody (HA722024) at 1/1,000 dilution in 1% BSA in PBST overnight at 4 ℃. Goat Anti-Rabbit IgG H&L (iFluor™ 488, HA1121) was used as the secondary antibody at 1/1,000 dilution. PBS instead of the primary antibody was used as the secondary antibody only control. Nuclear DNA was labelled in blue with DAPI.

Beta tubulin (M1305-2, red) was stained at 1/100 dilution overnight at +4℃. Goat Anti-Mouse IgG H&L (iFluor™ 594, HA1126) was used as the secondary antibody at 1/1,000 dilution.

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

Background References

1. Chen L et al. The B7H4-PDL1 classifier stratifies immuno-phenotype in cervical cancer. Cancer Cell Int. 2022 Jan

2. Peuker K et al. Microbiota-dependent activation of the myeloid calcineurin-NFAT pathway inhibits B7H3- and B7H4-dependent anti-tumor immunity in colorectal cancer. Immunity. 2022 Apr