abcam

ab171280

Anti-B7H4 antibody [H74] - Low endotoxin, Azide free

Key facts

Isotype	IgG1
Host species	Mouse
Storage buffer	pH: 7.2 Constituents: PBS
Form	Liquid
Clonality	Monoclonal
Immunogen	Full Length Protein corresponding to Human VTCN1. The exact immunogen used to generate this antibody is proprietary information. Database link Q7Z7D3
Carrier free	Yes
Clone number	H74
Purification technique	Affinity purification Protein G
Light chain type	kappa
Concentration	1 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

Flow Cyt

Tested

Species	Human
Dilution info	0.125-0.25 µg for 10^5-10^8 Cells

Notes	(in a final volume of 100 µl). ab170190 - Mouse monoclonal IgG1, is suitable for use as an isotype control with this antibody.

Target data

See full target information VTCN1

Function	Negatively regulates T-cell-mediated immune response by inhibiting T-cell activation, proliferation, cytokine production and development of cytotoxicity. When expressed on the cell surface of tumor macrophages, plays an important role, together with regulatory T-cells (Treg), in the suppression of tumor-associated antigen-specific T-cell immunity. Involved in promoting epithelial cell transformation.

Storage

Shipped at conditions	Blue Ice
Appropriate short-term storage duration	1-2 weeks
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	-20°C
Aliquoting information	Upon delivery aliquot
Storage information	Avoid freeze / thaw cycle

Notes

Endotoxin Level: Less than 0.001 ng/µg antibody, as determined by the LAL assay.

Supplementary info

This supplementary information is collated from multiple sources and compiled automatically.

Activity summary	B7-H4 also known as VTCN1 or B7x is a member of the B7 family of immunoregulatory proteins. It has an approximate molecular mass of 50 kDa. B7-H4 expression is detected on the surface of various cells including B cells T cells monocytes and some cancer cells. Its expression is often inducible; immune cells can express B7-H4 in response to specific conditions or signals in the environment.

Biological function summary	B7-H4 acts as an immune checkpoint molecule that negatively regulates T cell immunity. It does not form a known complex with other proteins but instead interacts directly with T cells. By inhibiting T cell activation and proliferation B7-H4 contributes to the regulation of immune responses helping to maintain self-tolerance and prevent autoimmunity.
Pathways	B7-H4 is involved in the regulation of immune checkpoints prominently in the pathways related to immune tolerance and suppression. It plays a critical role in the pathways that modulate tumor evasion of the immune system. B7-H4 is related to other immune checkpoint proteins such as PD-L1 which are also pivotal in immune regulation and therapy targets.
Associated diseases and disorders	B7-H4 is connected to cancer progression and autoimmune conditions. Overexpression of B7-H4 in certain cancers such as ovarian and breast cancer associates with tumor immune evasion allowing tumors to grow unchecked by the immune system. Its expression links with proteins like CTLA-4 in maintaining immune suppression. B7-H4 modifications could serve as a potential target in cancer immunotherapy aiming to enhance the immune system's ability to combat malignancies.

Product promise

Tested

We have tested this species and application combination and it works. It is covered by our product promise.

Expected

We have not tested this specific species and application combination in-house, but expect it will work. It is covered by our product promise.

Predicted

This species and application combination has not been tested, but we predict it will work based on strong homology. However, this combination is not covered by our product promise.

Not recommended

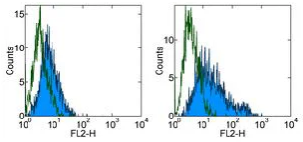
We do not recommend this combination. It is not covered by our product promise.

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1 product image



Flow Cytometry - Anti-B7H4 antibody [H74] - Low endotoxin, Azide free (ab171280)

B7H4 Flow Cytometry staining using mouse Anti-B7H4 antibody

Flow cytometric analysis of non-transfected (left) and Human B7H4 transfected (right) 293T cells with 0.125 µg of Mouse IgG1 K Isotype Control (open histogram) or 0.125 µg of ab171280 (filled histogram) followed by Anti-Mouse IgG Biotin and Streptavidin PE. Total cells were used for analysis.

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