

Goat Anti-B7-H4 Antibody

Peptide-affinity purified goat antibody Catalog # AF1134a

# Specification

# **Goat Anti-B7-H4 Antibody - Product Information**

Application Primary Accession Other Accession

Reactivity Predicted Host Clonality Concentration Isotype Calculated MW WB, E <u>Q7Z7D3</u> <u>NP\_078902</u>, <u>79679</u>, <u>242122 (mouse)</u>, <u>295322</u> (rat) Human Mouse, Rat, Dog Goat Polyclonal 100ug/200ul IgG 30878

# Goat Anti-B7-H4 Antibody - Additional Information

Gene ID 79679

**Other Names** 

V-set domain-containing T-cell activation inhibitor 1, B7 homolog 4, B7-H4, B7h.5, Immune costimulatory protein B7-H4, Protein B7S1, T-cell costimulatory molecule B7x, VTCN1 {ECO:0000312|EMBL:EAW56672.1}

Dilution WB~~1:1000 E~~N/A

Format

0.5 mg lgG/ml in Tris saline (20mM Tris pH7.3, 150mM NaCl), 0.02% sodium azide, with 0.5% bovine serum albumin

Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

**Precautions** 

Goat Anti-B7-H4 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

### **Goat Anti-B7-H4 Antibody - Protein Information**

Name VTCN1 {ECO:0000312|EMBL:EAW56672.1}



### 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.

#### **Cellular Location**

Cell membrane; Single-pass type I membrane protein. Note=Expressed at the cell surface. A soluble form has also been detected. {ECO:0000255, ECO:0000269|PubMed:12818165, ECO:0000269|PubMed:15878339, ECO:0000269|PubMed:16782226}

#### **Tissue Location**

Overexpressed in breast, ovarian, endometrial, renal cell (RCC) and non-small-cell lung cancers (NSCLC). Expressed on activated T- and B-cells, monocytes and dendritic cells, but not expressed in most normal tissues (at protein level). Widely expressed, including in kidney, liver, lung, ovary, placenta, spleen and testis

### **Goat Anti-B7-H4 Antibody - Protocols**

Provided below are standard protocols that you may find useful for product applications.

- <u>Western Blot</u>
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- <u>Cell Culture</u>

### Goat Anti-B7-H4 Antibody - Images



AF1134a (0.5  $\mu$ g/ml) staining of Human Pancreas lysate (35  $\mu$ g protein in RIPA buffer). Primary incubation was 1 hour. Detected by chemiluminescence.

# Goat Anti-B7-H4 Antibody - Background



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.

# Goat Anti-B7-H4 Antibody - References

B7-H4 expression promotes tumorigenesis in ovarian cancer. Cheng L, et al. Int J Gynecol Cancer, 2009 Dec. PMID 19955922.

B7-H4 gene polymorphisms are associated with sporadic breast cancer in a Chinese Han population. Zhang J, et al. BMC Cancer, 2009 Nov 11. PMID 19903360.

The negative co-signaling molecule b7-h4 is expressed by human bone marrow-derived mesenchymal stem cells and mediates its T-cell modulatory activity. Xue Q, et al. Stem Cells Dev, 2010 Jan. PMID 19788399.

Identification of a novel susceptibility locus for juvenile idiopathic arthritis by genome-wide association analysis. Hinks A, et al. Arthritis Rheum, 2009 Jan. PMID 19116933.

Serum-soluble B7x is elevated in renal cell carcinoma patients and is associated with advanced stage. Thompson RH, et al. Cancer Res, 2008 Aug 1. PMID 18676826.