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Goat Anti-DAP10 / HCST Antibody
Peptide-affinity purified goat antibody
Catalog # AF1299a

Specification

Goat Anti-DAP10 / HCST Antibody - Product Information

Application	**WB, E**
Primary Accession	Q9UBK5
Other Accession	NP_001007470, 10870, 23900 (mouse), 474146 (rat)
Reactivity	**Human**
Predicted	**Mouse, Rat**
Host	**Goat**
Clonality	**Polyclonal**
Concentration	**100ug/200ul**
Isotype	**IgG**
Calculated MW	**9489**

Goat Anti-DAP10 / HCST Antibody - Additional Information

Gene ID 10870

Other Names
Hematopoietic cell signal transducer, DNAX-activation protein 10, Membrane protein DAP10, Transmembrane adapter protein KAP10, HCST, DAP10, KAP10, PIK3AP

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

Format
0.5 mg IgG/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-DAP10 / HCST Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Goat Anti-DAP10 / HCST Antibody - Protein Information

Name HCST

Synonyms DAP10, KAP10, PIK3AP

Function
Transmembrane adapter protein which associates with KLRK1 to form an activation receptor KLRK1-HCST in lymphoid and myeloid cells; this receptor plays a major role in triggering cytotoxicity against target cells expressing cell surface ligands such as MHC class I chain- related MICA and MICB, and UL16-binding proteins (ULBPs); these ligands are up-regulated by stress conditions and pathological state such as viral infection and tumor transformation. Functions as a docking site for PI3-kinase PIK3R1 and GRB2. Interaction of ULBPs with KLRK1-HCST triggers calcium mobilization and activation of the PIK3R1, MAP2K/ERK, and JAK2/STAT5 signaling pathways. Both PIK3R1 and GRB2 are required for full KLRK1-HCST-mediated activation and ultimate killing of target cells. In NK cells, KLRK1-HCST signaling directly induces cytotoxicity and enhances cytokine production initiated via DAP12/TYROBP-associated receptors. In T-cells, it provides primarily costimulation for TCR- induced signals. KLRK1-HCST receptor plays a role in immune surveillance against tumors and is required for cytolysis of tumors cells; indeed, melanoma cells that do not express KLRK1 ligands escape from immune surveillance mediated by NK cells.

Cellular Location
Membrane; Single- pass type I membrane protein

Tissue Location
Predominantly expressed in hemopoietic cells such as NK cells, subset of T-cells and monocytes. Detected in leukocytes, spleen, and thymus.

Goat Anti-DAP10 / HCST Antibody - Protocols

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

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

Goat Anti-DAP10 / HCST Antibody - Images

AF1299a (0.2 µg/ml) staining of human spleen lysate (35 µg protein in RIPA buffer). Primary incubation was 1 hour. Detected by chemiluminescence.

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Goat Anti-DAP10 / HCST Antibody - Background

This gene encodes a transmembrane signaling adaptor that contains a YxxM motif in its cytoplasmic domain. The encoded protein may form part of the immune recognition receptor complex with the C-type lectin-like receptor NKG2D. As part of this receptor complex, this protein may activate phosphatidylinositol 3-kinase dependent signaling pathways through its intracytoplasmic YxxM motif. This receptor complex may have a role in cell survival and proliferation by activation of NK and T cell responses. Alternative splicing results in two transcript variants encoding different isoforms.

Goat Anti-DAP10 / HCST Antibody - References

The traffic of the NKG2D/Dap10 receptor complex during natural killer (NK) cell activation. Roda-Navarro P, et al. J Biol Chem, 2009 Jun 12. PMID 19329438.
A critical role for DAP10 and DAP12 in CD8+ T cell-mediated tissue damage in large granular lymphocyte leukemia. Chen X, et al. Blood, 2009 Apr 2. PMID 19075187.
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Comparative analysis of human NK cell activation induced by NKG2D and natural cytotoxicity receptors. Andr P, et al. Eur J Immunol, 2004 Apr. PMID 15048706.
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