



Rabbit Anti-HCST antibody

SL23084R

Product Name:	HCST
Chinese Name:	造血细胞Signal transduction蛋白抗体
Alias:	DAP10; DNAX activation protein 10; Hematopoietic cell signal transducer; KAP10; Membrane protein DAP10; phosphoinositide 3 kinase adaptor protein; PIK3AP; Transmembrane adapter protein KAP10; HCST HUMAN.
Organism Species:	Rabbit
Clonality:	Polyclonal
React Species:	Human,
Applications:	WB=1:500-2000ELISA=1:500-1000IHC-P=1:400-800IHC-F=1:400-800ICC=1:100-500IF=1:100-500 (Paraffin sections need antigen repair) not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Molecular weight:	8kDa
Cellular localization:	The cell membrane
Form:	Lyophilized or Liquid
Concentration:	1mg/ml
immunogen:	KLH conjugated synthetic peptide derived from human HCST:11-50/93<Extracellular>
Lsotype:	IgG
Purification:	affinity purified by Protein A
Storage Buffer:	0.01M TBS(pH7.4) with 1% BSA, 0.03% Proclin300 and 50% Glycerol.
Storage:	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stable at room temperature for at least one month and for greater than a year when kept at -20°C. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.
PubMed:	PubMed
Product Detail:	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. [provided by RefSeq, Jul 2008]

Function:

Transmembrane adapter protein which associates with NKG2D to form an activation receptor NKG2D-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 docking site for PI3-kinase PIK3R1 and GRB2. Interaction of ULBPs with NKG2D-DAP10 triggers calcium mobilization and activation of the PIK3R1, MAP2K/ERK, and JAK2/STAT5 signaling pathways. Both PIK3R1 and GRB2 are required for full NKG2D-HCST-mediated activation and ultimate killing of target cells. In NK cells, NKG2D-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. NKG2D-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 NKG2D ligands escape from immune surveillance mediated by NK cells.

Subunit:

Interacts with CLEC5A. Forms an CLEC5A/TYROBP/HCST trimolecular complex depending almost solely on TYROBP. Homodimer; Disulfide-linked. Interacts with NKG2D to form a stable complex, which results in surface expression of both proteins, whereas alone, it is minimally expressed. Interacts with PIK3R1 and GRB2.

Subcellular Location:

Membrane; Single-pass type I membrane protein.

Tissue Specificity:

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

Post-translational modifications:

Phosphorylated; PIK3R1 and GRB2 associate specifically with tyrosine-phosphorylated HCST.

O-glycosylated.

Similarity:

Belongs to the DAP10 family.

SWISS:

Q9Y3Y0

Gene ID:

10870

Database links:

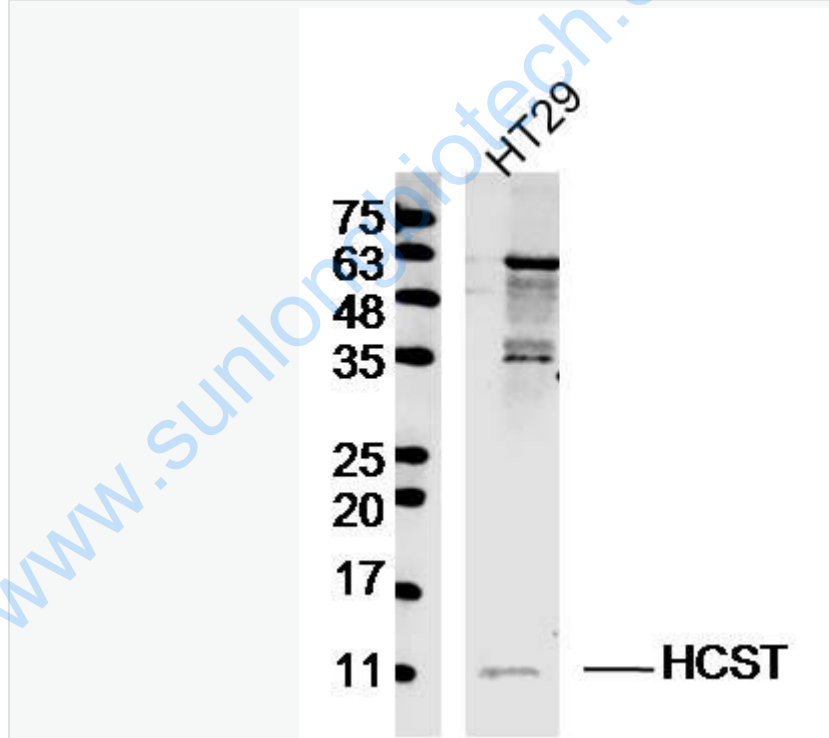
[Entrez Gene: 10870](#)Human

[SwissProt: Q9Y3Y0](#)Human

Important Note:

This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.

Picture:



Sample: HT29(human) Cell Lysate at 40 ug

Primary: Anti-HCST (SL23084R) at 1/300 dilution

Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution

Predicted band size: 8 kD

	Observed band size: 11 kD
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