Product datasheet

Anti-CD13 antibody [SP182] ab183358

Overview

Product name: Anti-CD13 antibody [SP182]
Description: Rabbit monoclonal [SP182] to CD13
Host species: Rabbit
Tested applications: Suitable for: IHC-P, Flow Cyt
Species reactivity: Reacts with: Human
Predicted to work with: Rabbit, Pig

Immunogen: Synthetic peptide within Human CD13 aa 250-350 (internal sequence). The exact sequence is proprietary.
Database link: P15144

Positive control: IHC-P: Human kidney, tonsil, hepatoma, thymus, lung, liver, placenta, bladder, bladder TCC, cerebellum, and cervix tissue; FC: U937 cells.

General notes: This product is a recombinant rabbit monoclonal antibody.

Properties

Form: Liquid
Storage buffer: pH: 7.6
Preservative: 0.1% Sodium azide
Constituents: PBS, 1% BSA
Purity: Protein A/G purified
Purification notes: Purified from TCS by protein A/G.
Clonality: Monoclonal
Clone number: SP182
Isotype: IgG
Function

Broad specificity aminopeptidase. Plays a role in the final digestion of peptides generated from hydrolysis of proteins by gastric and pancreatic proteases. May play a critical role in the pathogenesis of cholesterol gallstone disease. May be involved in the metabolism of regulatory peptides of diverse cell types including small intestinal and tubular epithelial cells, macrophages, granulocytes and synaptic membranes from the CNS. Found to cleave antigen peptides bound to major histocompatibility complex class II molecules of presenting cells and to degrade neurotransmitters at synaptic junctions. Is also implicated as a regulator of IL-8 bioavailability in the endometrium, and therefore may contribute to the regulation of angiogenesis. Is used as a marker for acute myeloid leukemia and plays a role in tumor invasion. In case of human coronavirus 229E (HCoV-229E) infection, serves as receptor for HCoV-229E spike glycoprotein. Mediates as well human cytomegalovirus (HCMV) infection.

Tissue specificity

Expressed in epithelial cells of the kidney, intestine, and respiratory tract; granulocytes, monocytes, fibroblasts, endothelial cells, cerebral pericytes at the blood-brain barrier, synaptic membranes of cells in the CNS. Also expressed in endometrial stromal cells, but not in the endometrial glandular cells. Found in the vasculature of tissues that undergo angiogenesis and in malignant gliomas and lymph node metastases from multiple tumor types but not in blood vessels of normal tissues. A soluble form has been found in plasma. It is found to be elevated in plasma and effusions of cancer patients.

Sequence similarities

Belongs to the peptidase M1 family.

Domain

Amino acids 260-353 are essential to mediate susceptibility to infection with HCoV-229E (in porcine/human chimeric studies) and more specifically amino acids 288-295 (mutagenesis studies).

Post-translational modifications

Sulfated.

N- and O-glycosylated.

May undergo proteolysis and give rise to a soluble form.

Cellular localization

Cell membrane. Cyttoplasm > cytosol. A soluble form has also been detected.

Abpromise guarantee covers the use of ab183358 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

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Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of Human kidney tissue sections labeling CD13 with ab183358 at 1/100 dilution (1.29 µg/ml). Heat mediated antigen retrieval was performed Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0, epitope retrieval solution 2) for 10 mins. Rabbit specific IHC polymer detection kit HRP/DAB (ab209101) was used as the secondary antibody. Negative control: PBS instead of the primary antibody. Hematoxylin was used as a counterstain.

Flow Cytometry analysis of U937 (Human histiocytic lymphoma cell line) cells labeling CD13 using ab183358 at 1/400 (green). Negative control rabbit IgG (blue).

Immunohistochemical analysis of formalin fixed, paraffin embedded human kidney tissue sections labeling CD13 using ab183358 at a 1/100 dilution.
Immunohistochemical analysis of formalin fixed, paraffin embedded human tonsil tissue sections labeling CD13 using ab183358 at a 1/100 dilution.

Immunohistochemical analysis of formalin fixed, paraffin embedded human hepatoma tissue sections labeling CD13 using ab183358 at a 1/100 dilution.

Immunohistochemical analysis of formalin fixed, paraffin embedded human thymus tissue sections labeling CD13 using ab183358 at a 1/100 dilution.
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Immunohistochemical analysis of formalin fixed, paraffin embedded human cerebellum tissue sections labeling CD13 using ab183358 at a 1/100 dilution.
Immunohistochemical analysis of formalin fixed, paraffin embedded human cervix tissue sections labeling CD13 using ab183358 at a 1/100 dilution.

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