

Product datasheet

Anti-CD13 antibody [WM15] ab7417

KO **VALIDATED** Recombinant

★★★★★ 7 Abreviews 19 References 4 Images

Overview

Product name	Anti-CD13 antibody [WM15]
Description	Mouse monoclonal [WM15] to CD13
Host species	Mouse
Tested applications	Suitable for: Flow Cyt, ICC/IF
Species reactivity	Reacts with: Human
Immunogen	Tissue, cells or virus corresponding to Human CD13. Human AML cells
Epitope	The antibody recognizes an extracellular epitope.
Positive control	ICC: THP-1, PANC-1 and A375 cells. Flow Cyt: Human peripheral blood leukocytes; Human Fibrosarcoma cells.
General notes	<p>This product has switched from a hybridoma to recombinant production method on 08th March 2021.</p> <p>This product is a recombinant monoclonal antibody, which offers several advantages including:</p> <ul style="list-style-type: none"> - High batch-to-batch consistency and reproducibility - Improved sensitivity and specificity - Long-term security of supply - Animal-free production <p>For more information see here.</p>

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C long term. Avoid freeze / thaw cycle.
Storage buffer	<p>pH: 7.40</p> <p>Preservative: 0.01% Sodium azide</p> <p>Constituents: 59% PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA</p>
Purity	Protein A purified
Purification notes	Purified by protein-A affinity chromatography > 95% pure (by SDS-PAGE).
Clonality	Monoclonal

Clone number	WM15
Myeloma	NS1
Isotype	IgG1

Applications

The Abpromise guarantee Our [Abpromise guarantee](#) covers the use of ab7417 in the following tested applications.

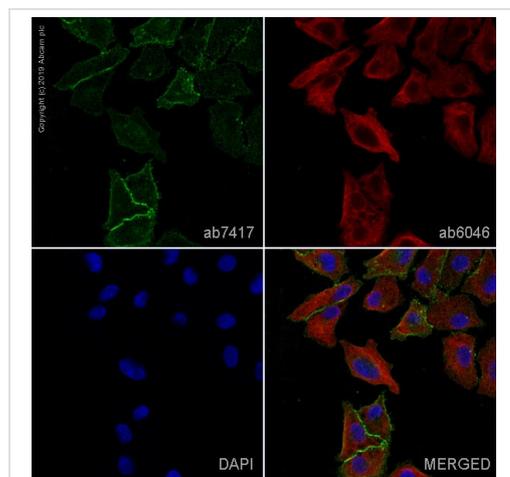
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
Flow Cyt	★★★★★ (2)	Use a concentration of 1 µg/ml. ab170190 - Mouse monoclonal IgG1, is suitable for use as an isotype control with this antibody.
ICC/IF	★★★★★ (1)	Use a concentration of 1 µg/ml. This product also produced a positive signal in A375 when fixed with 4% formaldehyde (10min)

Target

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.

Images

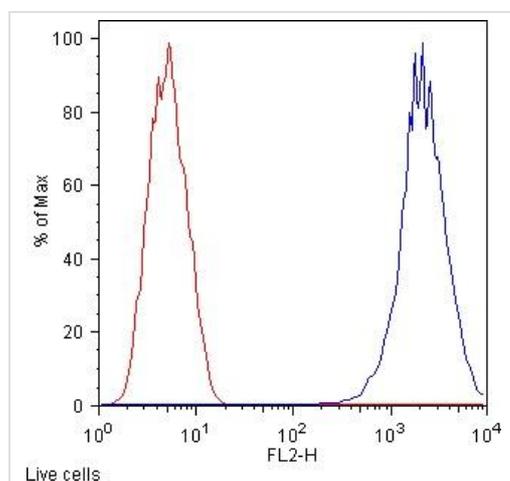


Immunocytochemistry - Anti-CD13 antibody [WM15] (ab7417)

ab7417 staining CD13 in A375 cells. The cells were fixed with 100% methanol (5 min), permeabilized with 0.1% PBS-Tween for 5 minutes and then blocked with 1% BSA/10% normal goat serum/0.3M glycine in 0.1%PBS-Tween for 1h. The cells were then incubated overnight at 4°C with ab7417 at 1 µg/ml and ab6046, Rabbit polyclonal to beta Tubulin - Loading Control. Cells were then incubated with ab150117, Goat polyclonal Secondary Antibody to Mouse IgG H&L (Alexa Fluor® 488) preadsorbed at 1/1000 dilution (shown in green) and ab150080, Goat polyclonal Secondary Antibody to Rabbit IgG - H&L (Alexa Fluor®; 594) at 1/1000 dilution (shown in pseudocolour red). Nuclear DNA was labelled with DAPI (shown in blue).

Also suitable in cells fixed with 4% paraformaldehyde (10 min).

Image was acquired with a high-content analyser (Operetta CLS, Perkin Elmer) and a maximum intensity projection of confocal sections is shown

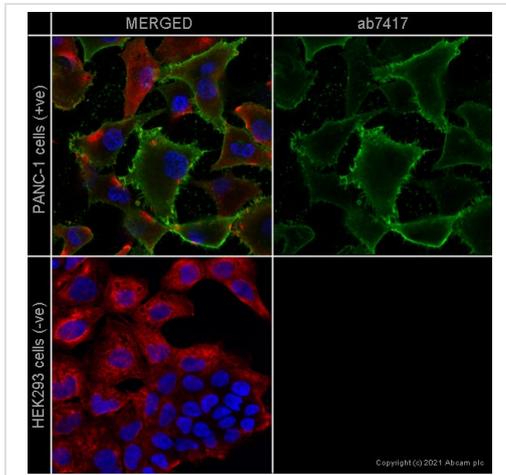


Flow Cytometry - Anti-CD13 antibody [WM15] (ab7417)

This image is courtesy of an anonymous Abreview

This image was generated from the hybridoma version of the product.

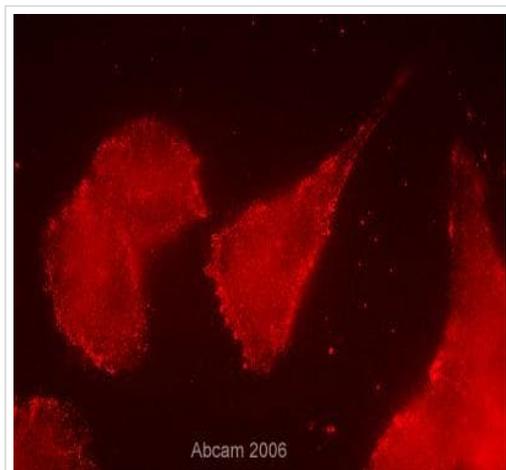
Ab7417 staining CD13 in Human Fibrosarcoma cells by flow cytometry. Cells were fixed with paraformaldehyde. The sample was incubated with primary antibody at 10 µg/ml in PBS for 1 hour at 20°C. An Allophycocyanin (APC) conjugated anti-mouse monoclonal was used as a secondary antibody at 5 µg/ml. Secondary antibody only (red). Ab7417 and secondary antibody (blue).



Immunocytochemistry - Anti-CD13 antibody [WM15] (ab7417)

ab7417 staining CD13 in PANC-1 cells (top panel - positive control) and HEK-293 cells (bottom panel - negative control). The cells were fixed with 4% paraformaldehyde (10 min) then permeabilized with 0.1% PBS-Tween for 5 minutes and then blocked with 1% BSA/10% normal goat serum/0.3M glycine in 0.1% PBS-Tween for 1h. The cells were then incubated with ab7417 at 0.5µg/ml concentration and ab6046 (Rabbit polyclonal to beta Tubulin) at 1/1000 dilution overnight at 4°C followed by a further incubation at room temperature for 1h with a goat secondary antibody to mouse IgG (Alexa Fluor® 488) (ab150117) at 2 µg/ml (shown in green) and a goat secondary antibody to rabbit IgG (Alexa Fluor® 594) (ab150080) at 2 µg/ml (shown in red). Nuclear DNA was labelled in blue with DAPI.

Image was taken with a confocal microscope (Leica-Microsystems TCS SP8).



Immunocytochemistry/ Immunofluorescence - Anti-CD13 antibody [WM15] (ab7417)

This image is courtesy of an anonymous Abreview

This image was generated from the hybridoma version of the product.

Ab7417 staining CD13 in HT1080 cells by ICC/IF (Immunocytochemistry/Immunofluorescence). Cells were fixed with 4% paraformaldehyde and permeabilized with 0.1% Triton X-100. Samples were incubated with primary antibody at 10µg/ml for 1 hour. A Texas Red Goat Anti-mouse polyclonal was used as the secondary antibody.

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