Overview

Product name: Anti-CD26 antibody [236.3]
Description: Mouse monoclonal [236.3] to CD26
Host species: Mouse
Tested applications: Suitable for: ICC/IF, IP, Flow Cyt, IHC-Fr
Species reactivity: Reacts with: Rat, Human
Immunogen: Full length Rat CD26 protein (110-120 kD).

Properties

Form: Liquid
Storage instructions: Shipped at 4°C. Store at -20°C.
Storage buffer: Constituent: 99% PBS
Purity: Protein G purified
Clonality: Monoclonal
Clone number: 236.3
Isotype: IgG2b
Light chain type: kappa

Applications

Our Abpromise guarantee covers the use of ab119346 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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<td>ICC/IF</td>
<td>1/20 - 1/200.</td>
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<td>IP</td>
<td>Use at an assay dependent concentration.</td>
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Function
Cell surface glycoprotein receptor involved in the costimulatory signal essential for T-cell receptor (TCR)-mediated T-cell activation. Acts as a positive regulator of T-cell coactivation, by binding at least ADA, CAV1, IGF2R, and PTPRC. Its binding to CAV1 and CARD11 induces T-cell proliferation and NF-kappa-B activation in a T-cell receptor/CD3-dependent manner. Its interaction with ADA also regulates lymphocyte-epithelial cell adhesion. In association with FAP is involved in the pericellular proteolysis of the extracellular matrix (ECM), the migration and invasion of endothelial cells into the ECM. May be involved in the promotion of lymphatic endothelial cells adhesion, migration and tube formation. When overexpressed, enhanced cell proliferation, a process inhibited by GPC3. Acts also as a serine exopeptidase with a dipeptidyl peptidase activity that regulates various physiological processes by cleaving peptides in the circulation, including many chemokines, mitogenic growth factors, neuropeptides and peptide hormones. Removes N-terminal dipeptides sequentially from polypeptides having unsubstituted N-termini provided that the penultimate residue is proline.

Tissue specificity
Expressed specifically in lymphatic vessels but not in blood vessels in the skin, small intestine, esophagus, ovary, breast and prostate glands. Not detected in lymphatic vessels in the lung, kidney, uterus, liver and stomach (at protein level). Expressed in the poorly differentiated crypt cells of the small intestine as well as in the mature villous cells. Expressed at very low levels in the colon.

Sequence similarities
Belongs to the peptidase S9B family. DPPIV subfamily.

Domain
The extracellular cysteine-rich region is necessary for association with collagen, dimer formation and optimal dipeptidyl peptidase activity.

Post-translational modifications
The soluble form (Dipeptidyl peptidase 4 soluble form also named SDPP) derives from the membrane form (Dipeptidyl peptidase 4 membrane form also named MDPP) by proteolytic processing.
N- and O-Glycosylated.
Phosphorylated. Mannose 6-phosphate residues in the carbohydrate moiety are necessary for interaction with IGF2R in activated T-cells. Mannose 6-phosphorylation is induced during T-cell activation.

Cellular localization
lymphocyte-epithelial cell adhesion. Colocalized with IGF2R in internalized cytoplasmic vesicles adjacent to the cell surface and Secreted. Detected in the serum and the seminal fluid.

Images

Flow cytometry analysis of CD26 in PC12 cells (green) compared to an isotype control (blue). Cells were harvested, adjusted to a concentration of 1-5x10^6 cells/ml, fixed with 2% paraformaldehyde and washed with PBS. Cells were blocked with a 2% solution of BSA-PBS for 30 min at room temperature and incubated with a CD26 monoclonal antibody (ab119346) at a dilution of 2 µg/test for 60 min at room temperature. Cells were then incubated for 40 min at room temperature in the dark using a Dylight 488-conjugated secondary antibody and re-suspended in PBS for FACS analysis.

Flow cytometry analysis of CD26 in Hela cells (green) compared to an isotype control (blue). Cells were harvested, adjusted to a concentration of 1-5x10^6 cells/ml, fixed with 2% paraformaldehyde and washed with PBS. Cells were blocked with a 2% solution of BSA-PBS for 30 min at room temperature and incubated with a CD26 monoclonal antibody (ab119346) at a dilution of 2 µg/test for 60 min at room temperature. Cells were then incubated for 40 min at room temperature in the dark using a Dylight 488-conjugated secondary antibody and re-suspended in PBS for FACS analysis.

ab119346 labelling CD26 (green) in the cytoplasm of HeLa cells (right) compared with a negative control (left) by Immunocytochemistry/Immunofluorescence. Formalin-fixed cells were permeabilized with 0.1% Triton X-100 in TBS for 5-10 minutes and blocked with 3% BSA-PBS for 30 minutes at room temperature. Cells were incubated with the primary antibody (1:20 in 3% BSA-PBS) overnight at 4 ºC. A Dylight 488-conjugated Goat anti-mouse IgG (H+L) was used as the secondary antibody. Red (phalloidin) - F-actin, Blue (DAPI) - nuclei. Images were taken at a magnification of 60x.
ab119346 labelling CD26 (green) in the cytoplasm of PC12 cells (right) compared with a negative control (left) by Immunocytochemistry/Immunofluorescence. Formalin-fixed cells were permeabilized with 0.1% Triton X-100 in TBS for 5-10 minutes and blocked with 3% BSA-PBS for 30 minutes at room temperature. Cells were incubated with the primary antibody (1:20 in 3% BSA-PBS) overnight at 4 ºC. A DyLight 488-conjugated Goat anti-mouse IgG (H+L) was used as the secondary antibody. Red (phalloidin) - F-actin, Blue (DAPI) - nuclei. Images were taken at a magnification of 60x.

ab119346 labelling CD26 (green) in the cytoplasm of H-4-II-E cells (right) compared with a negative control (left) by Immunocytochemistry/Immunofluorescence. Formalin-fixed cells were permeabilized with 0.1% Triton X-100 in TBS for 5-10 minutes and blocked with 3% BSA-PBS for 30 minutes at room temperature. Cells were incubated with the primary antibody (1:20 in 3% BSA-PBS) overnight at 4 ºC. A DyLight 488-conjugated Goat anti-mouse IgG (H+L) was used as the secondary antibody. Red (phalloidin) - F-actin, Blue (DAPI) - nuclei. Images were taken at a magnification of 60x.

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