Anti-CD43 Antibody [A2F8]

EM1901-70

Product Type:	Mouse monoclonal IgG1, primary antibodies
Species reactivity:	Human
Applications:	WB, IHC-P, FC
Molecular Wt:	Predicted band size: 40 kDa
Clone number:	A2F8

Description: This gene encodes a highly sialylated glycoprotein that functions in antigen-specific activation of T cells, and is found on the surface of thymocytes, T lymphocytes, monocytes, granulocytes, and some B lymphocytes. It contains a mucin-like extracellular domain, a transmembrane region and a carboxy-terminal intracellular region. Predominant cell surface sialoprotein of leukocytes which regulates multiple T-cell functions, including T-cell activation, proliferation, differentiation, trafficking and migration. Positively regulates T-cell trafficking to lymph-nodes via its association with ERM proteins (EZR, RDX and MSN). Negatively regulates Th2 cell differentiation and predisposes the differentiation of T-cells towards a Th1 lineage commitment. Promotes the expression of IFN-gamma by T-cells during T-cell receptor (TCR) activation of naive cells and induces the expression of IFN-gamma by CD4+ T-cells and to a lesser extent by CD8+ T-cells. Plays a role in preparing T-cells for cytokine sensing and differentiation into effector cells by inducing the expression of cytokine receptors IFNGR and IL4R, promoting IFNGR and IL4R signaling and by mediating the clustering of IFNGR with TCR. Acts as a major E-selectin ligand responsible for Th17 cell rolling on activated vasculature and recruitment during inflammation. Mediates Th17 cells, but not Th1 cells, adhesion to E-selectin. Acts as a T-cell counter-receptor for SIGLEC1.

Immunogen:	Synthetic peptide within C-terminal human CD43.
Positive control:	K562 cell lysates, human B lymphocyte tumor tissue, human tonsil tissue, HL-60.
Subcellular location:	Membrane, microvillus, uropodium, Nucleus, PML body.
Database links:	SwissProt: P16150 Human
Recommended Dilutions:	
WB	1:500
IHC-P	1:1,000
FC	1:50-1:100
Storage Buffer:	1*PBS (pH7.4), 0.2% BSA, 50% Glycerol. Preservative: 0.05% Sodium Azide.
Storage Instruction:	Shipped at 4℃. Store at +4℃ short term (1-2 weeks). It is recommended to aliquot into single-use upon delivery. Store at -20℃ long term.
Purity:	Protein G affinity purified.

Images

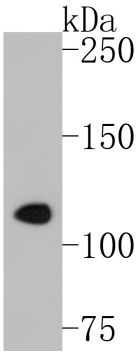

Fig1: Western blot analysis of CD43 on K562 cell lysates. Proteins were transferred to a PVDF membrane and blocked with 5% BSA in PBS for 1 hour at room temperature. The primary antibody (EM1901-70, 1/200) was used in 5% BSA at room temperature for 2 hours. Goat Anti-Mouse IgG - HRP Secondary Antibody (HA1006) at 1:5,000 dilution was used for 1 hour at room temperature.

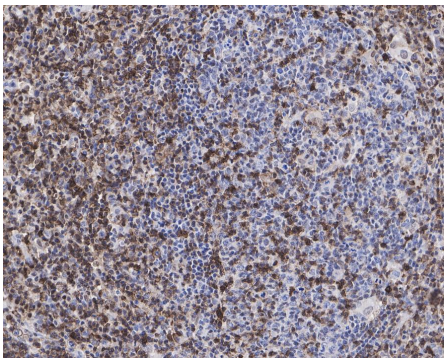

Fig2: Immunohistochemical analysis of paraffin-embedded human B lymphocyte tumor tissue with Mouse anti-CD43 antibody (EM1901-70) at 1/1,000 dilution.

The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 20 minutes. The tissues were blocked in 1% BSA for 20 minutes at room temperature, washed with ddH_2O and PBS, and then probed with the primary antibody (EM1901-70) at 1/1,000 dilution for 1 hour at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.

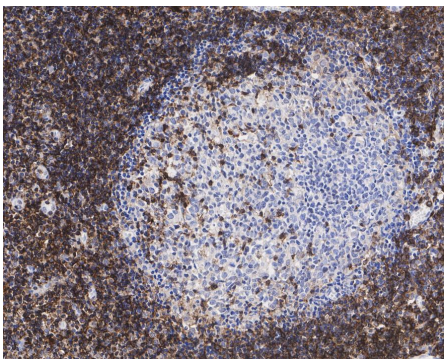

Fig3: Immunohistochemical analysis of paraffin-embedded human tonsil tissue with Mouse anti-CD43 antibody (EM1901-70) at 1/1,000 dilution.

The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 20 minutes. The tissues were blocked in 1% BSA for 20 minutes at room temperature, washed with ddH_2O and PBS, and then probed with the primary antibody (EM1901-70) at 1/1,000 dilution for 1 hour at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.

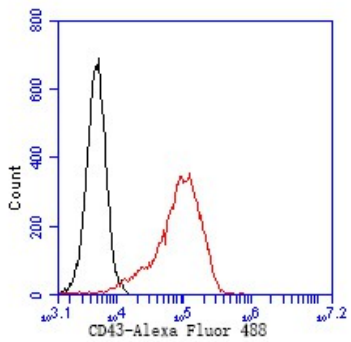

Fig4: Flow cytometric analysis of CD43 was done on HL-60 cells. The cells were fixed, permeabilized and stained with the primary antibody (EM1901-70, 1/50) (red). After incubation of the primary antibody at room temperature for an hour, the cells were stained with a Alexa Fluor 488-conjugated Goat anti-Mouse IgG Secondary antibody at 1/1,000 dilution for 30 minutes.Unlabelled sample was used as a control (cells without incubation with primary antibody; black).

Background References

1. Fay KT. et. al. Increased mortality in CD43-deficient mice during sepsis. PLoS One. 2018 Sep 18;13(9):e0202656.
2. Ma XB. et. al. Coexpression of CD5 and CD43 predicts worse prognosis in diffuse large B-cell lymphoma. Cancer Med. 2018 Sep;7(9):4284-4295.