Anti-CD35 Antibody [JE54-31]

ET7111-05

Product Type:	Recombinant Rabbit monoclonal IgG, primary antibodies
Species reactivity:	Human
Applications:	WB, IHC-P
Molecular Wt:	Predicted band size: 224 kDa.
Clone number:	JE54-31

Description: Complement receptor type 1 (CR1) also known as C3b/C4b receptor or CD35 (cluster of differentiation 35) is a protein that in humans is encoded by the CR1 gene.[3][4] This gene is a member of the regulators of complement activation (RCA) family and is located in the 'cluster RCA' region of chromosome 1. The gene encodes a monomeric single-pass type I membrane glycoprotein found on erythrocytes, leukocytes, glomerular podocytes, hyalocytes, and splenic follicular dendritic cells. The Knops blood group system is a system of antigens located on this protein. The protein mediates cellular binding to particles and immune complexes that have activated complement. Decreases in expression of this protein and/or mutations in its gene have been associated with gallbladder carcinomas, mesangiocapillary glomerulonephritis, systemic lupus erythematosus and sarcoidosis. Mutations in this gene have also been associated with a reduction in Plasmodium falciparum rosetting, conferring protection against severe malaria. Alternate allele-specific splice variants, encoding different isoforms, have been characterized. Additional allele specific isoforms, including a secreted form, have been described but have not been fully characterized.In primates, CR1 serves as the main system for processing and clearance of complement opsonized immune complexes. It has been shown that CR1 can act as a negative regulator of the complement cascade, mediate immune adherence and phagocytosis and inhibit both the classic and alternative pathways. The number of CR1 molecules decreases with aging of erythrocytes in normal individuals and is also decreased in pathological conditions such as systemic lupus erythematosus (SLE), HIV infection, some haemolytic anaemias and other conditions featuring immune complexes.[5] In mice, CR1 is an alternatively spliced variant of the complement receptor 2 (CR2) gene.Certain alleles of this gene have been statistically associated with an increased risk of developing late-onset Alzheimer's disease.

Immunogen:	Recombinant protein within Human CD35 aa 280-372 / 2,039.
Positive control:	Human tonsil tissue, human spleen tissue, human kidney tissue.
Subcellular location:	Membrane.
Database links:	SwissProt: P17927 Human
Recommended Dilutions:	
IHC-P	1:50-1:200
WB	1:500
Storage Buffer:	1*TBS (pH7.4), 0.05% BSA, 40% 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 A affinity purified.

Images

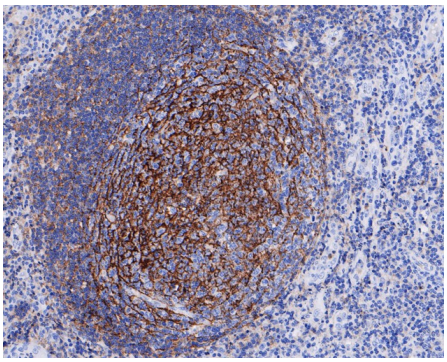

Fig1: Immunohistochemical analysis of paraffin-embedded human tonsil tissue with Rabbit anti-CD35 antibody (ET7111-05) at 1/50 dilution.

The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 6.0)) 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 (ET7111-05) at 1/50 dilution for 0.5 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.

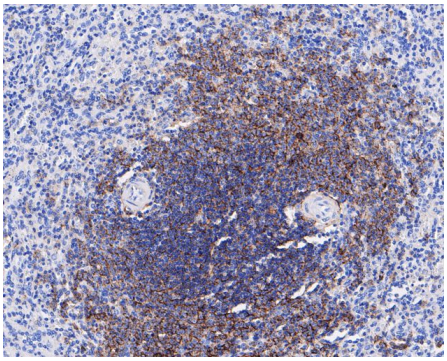

Fig2: Immunohistochemical analysis of paraffin-embedded human spleen tissue with Rabbit anti-CD35 antibody (ET7111-05) at 1/50 dilution.

The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0) (high pressure) for 2 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 (ET7111-05) at 1/50 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.

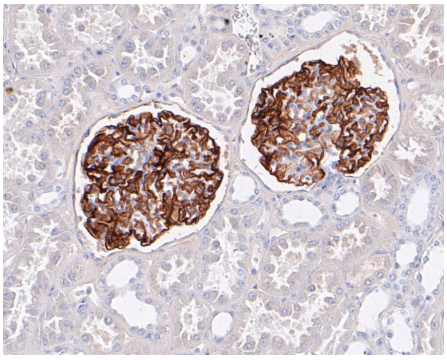

Fig3: Immunohistochemical analysis of paraffin-embedded human kidney tissue with Rabbit anti-CD35 antibody (ET7111-05) at 1/50 dilution.

The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0) (high pressure) for 2 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 (ET7111-05) at 1/50 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.

Background References

1. Vorup-Jensen T. et. al. Structural Immunology of Complement Receptors 3 and 4. Front Immunol. 2018 Nov 26;9:2716.
2. Ogembo JG. et. al. Human complement receptor type 1/CD35 is an Epstein-Barr Virus receptor. Cell Rep. 2013 Feb 21;3(2):371-85.