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CD59 Antibody

Catalog # ASC11617

Product Information

Application	WB, E
Primary Accession	P13987
Other Accession	NP_000602, 10835165
Reactivity	Human, Mouse
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Calculated MW	14177
Concentration (mg/ml)	1 mg/mL
Conjugate	Unconjugated
Application Notes	CD59 antibody can be used for detection of CD59 by Western blot at 1 - 2 g/mL.

Additional Information

Gene ID	966
Other Names	CD59 glycoprotein, 1F5 antigen, 20 kDa homologous restriction factor, HRF-20, HRF20, MAC-inhibitory protein, MAC-IP, MEM43 antigen, Membrane attack complex inhibition factor, MACIF, Membrane inhibitor of reactive lysis, MIRL, Protectin, CD59, CD59, MIC11, MIN1, MIN2, MIN3, MSK21
Target/Specificity	CD59;
Reconstitution & Storage	CD59 antibody can be stored at 4℃ for three months and -20℃, stable for up to one year.
Precautions	CD59 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	CD59 {ECO:0000303|PubMed:2475570, ECO:0000312|HGNC:HGNC:1689}
Function	Potent inhibitor of the complement membrane attack complex (MAC) action, which protects human cells from damage during complement activation (PubMed:11882685, PubMed:1698710, PubMed:2475111, PubMed:2475570, PubMed:2606909, PubMed:9053451). Acts by binding to the beta-haipins of C8 (C8A and C8B) components of the assembling MAC, forming an intermolecular beta-sheet that prevents incorporation of the multiple copies of C9 required for complete formation of the osmolytic pore (PubMed:11882685, PubMed:1698710, PubMed:36797260).
Cellular Location	Cell membrane; Lipid-anchor, GPI-anchor. Secreted. Note=Localizes to the cell

surface (PubMed:36797260). Soluble form found in a number of tissues (PubMed:8670172).

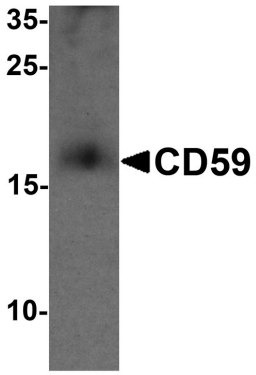
Background

CD59 Antibody: The complement regulatory protein CD59 is a cell surface glycoprotein that regulates complement-mediated cell lysis and is involved in lymphocyte signal transduction. CD59 is a potent inhibitor of the complement membrane attack complex, whereby it binds complement C8 and/or C9 during the assembly of this complex, thereby inhibiting the incorporation of multiple copies of C9 into the complex, which is necessary for osmolytic pore formation. CD59 also plays a role in signal transduction pathways in the activation of T cells. Mutations in this gene cause CD59 deficiency, a disease resulting in hemolytic anemia and thrombosis, and ultimately cerebral infarction.

References

Venneker GT and Asghar SS. CD59: a molecule involved in antigen presentation as well as downregulation of membrane attack complex. Exp. Clin. Immunogenet. 1992; 9:33-47.
Kimberly FC, Sivasankar B, and Paul Morgan B. Alternative roles for CD59. Mol. Immunol. 2007; 44:73-81.
Ninomiya H and Sims PJ. The human complement regulatory protein CD59 binds to the alpha-chain of C8 and to the “b” domain of C9. J. Biol. Chem. 1992; 267:13675-80.
Deckert M, Ticchioni M, Mari B, et al. The glycosylphosphatidylinositol-anchored CD59 protein stimulates both T cell receptor zeta/ZAP-70-dependent and –independent signaling pathways in T cells. Eur. J. Immunol. 1995; 25:1815-22

Images



Western blot analysis of CD59 in mouse spleen tissue lysate with CD59 antibody at 1 µg/mL

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.