abcam

Product datasheet

Recombinant Human CD46 protein - BSA and Azide free ab174047

1 Image

Description

Product name	Recombinant Human CD46 protein - BSA and Azide free
Purity	> 90 % SDS-PAGE.
Endotoxin level	< 1.000 Eu/µg
Expression system	HEK 293 cells
Accession	P15529-3
Protein length	Protein fragment
Animal free	No
Carrier free	Yes
Nature	Recombinant
Species	Human
Sequence	CEEPPTFEAMELIGKPKPYYEIGERVDYKCKKGYFYIPPLATHTICDRNH TWLPVSDDACYRETCPYIRDPLNGQAVPANGTYEFGYQMHFICNEGYYLI GEEILYCELKGSVAIWSGKPPICEKVLCTPPPKIKNGKHTFSEVEVFEYL DAVTYSCDPAPGPDPFSLIGESTIYCGDNSVWSRAAPECKVVKCRFPVVE NGKQISGFGKKFYYKATVMFECDKGFYLDGSDTIVCDSNSTWDPPVPKCL KVSTSSTTKSPASSASGPRPTYKPPVSNYPGYPKPEEGILDSLD
Predicted molecular weight	34 kDa including tags
Amino acids	35 to 328
Tags	His tag C-Terminus
Additional sequence information	(AAH30594.1)
Description	Recombinant Human CD46 protein (BSA and azide free)

Specifications

Our **Abpromise guarantee** covers the use of **ab174047** in the following tested applications.

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

Applications	SDS-PAGE
Form	Lyophilized
Additional notes	Lyophilized from 0.22 µm filtered solution.

Preparation and Storage

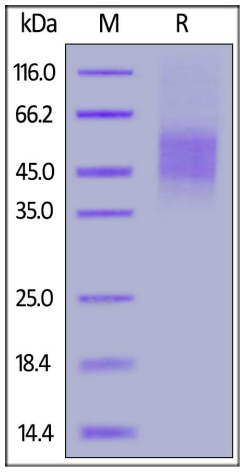
Stability and Storage	Shipped at 4°C. Upon delivery aliquot. Store at -20°C or -80°C. Avoid freeze / thaw cycle. pH: 7.40 Constituents: 95% PBS, 5% Trehalose
Reconstitution	Reconstitute with sterile deionized water to a concentration of 400 µg/ml.

General Info

Function	Acts as a cofactor for complement factor I, a serine protease which protects autologous cells against complement-mediated injury by cleaving C3b and C4b deposited on host tissue. May be involved in the fusion of the spermatozoa with the oocyte during fertilization. Also acts as a costimulatory factor for T-cells which induces the differentiation of CD4+ into T-regulatory 1 cells. T-regulatory 1 cells suppress immune responses by secreting interleukin-10, and therefore are thought to prevent autoimmunity. A number of viral and bacterial pathogens seem to exploit this property and directly induce an immunosuppressive phenotype in T-cells by binding to CD46.
Tissue specificity	Expressed by all cells except erythrocytes.
Involvement in disease	Defects in CD46 are a cause of susceptibility to hemolytic uremic syndrome atypical type 2 (AHUS2) [MIM:612922]. An atypical form of hemolytic uremic syndrome. It is a complex genetic disease characterized by microangiopathic hemolytic anemia, thrombocytopenia, renal failure and absence of episodes of enterocolitis and diarrhea. In contrast to typical hemolytic uremic syndrome, atypical forms have a poorer prognosis, with higher death rates and frequent progression to end-stage renal disease. Note=Susceptibility to the development of atypical hemolytic uremic syndrome can be conferred by mutations in various components of or regulatory factors in the complement cascade system. Other genes may play a role in modifying the phenotype. Patients with CD46 mutations seem to have an overall better prognosis compared to patients carrying CFH mutations.
Sequence similarities	Contains 4 Sushi (CCP/SCR) domains.
Domain	Sushi domains 1 and 2 are required for interaction with human adenovirus B PIV/FIBER protein and with Measles virus H protein. Sushi domains 2 and 3 are required for Herpesvirus 6 binding. Sushi domain 3 is required for Neisseria binding. Sushi domains 3 and 4 are required for interaction with Streptococcus pyogenes M protein and are the most important for interaction with C3b and C4b.
Post-translational modifications	N-glycosylated on Asn-83; Asn-114 and Asn-273 in most tissues, but probably less N-glycosylated in testis. N-glycosylation on Asn-114 and Asn-273 is required for cytoprotective function. N-glycosylation on Asn-114 is required for Measles virus binding. N-glycosylation on Asn-273 is required for Neisseria binding. N-glycosylation is not required for human adenovirus binding. Extensively O-glycosylated in the Ser/Thr-rich domain. O-glycosylation is required for Neisseria

	binding but not for Measles virus or human adenovirus binding. In epithelial cells, isoforms B/D/F/H/J/L/3 are phosphorylated by YES1 in response to infection by Neisseria gonorrhoeae; which promotes infectivity. In T-cells, these isoforms may be phosphorylated by Lck.
Cellular localization	Cytoplasmic vesicle > secretory vesicle > acrosome inner membrane. Inner acrosomal membrane of spermatozoa. Internalized upon binding of Measles virus, Herpesvirus 6 or Neisseria gonorrhoeae, which results in an increased susceptibility of infected cells to complement-mediated injury. In cancer cells or cells infected by Neisseria, shedding leads to a soluble peptide.

Images



SDS-PAGE - Recombinant Human CD46 protein - BSA and Azide free (ab174047)

SDS-PAGE of reduced ab174047 stained overnight with Coomassie Blue. DTT-reduced protein migrates as 45-60 kDa due to glycosylation.

Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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