

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 | CEEPPTFEAMELIGKPKPYEIGERVDYKCKKGYFYIPPLA THTICDRNH TWLPVSDDACYRETCPYIRDPLNGQAVPANGTYEFGYQM HFICNEGYLI GEEILYCELKGSVAWMSGKPPICEKVLCTPPPKIKNGKHTF SEVEVFEYL DAVTYSCDPAPGDPFSLIGESTIYCGDNSVWSRAAPEC KVVKCRFPVVE NGKQISGFGKKFYKATVMFECDKGFYLDGSDTM/CDSNS TWDPVPKCL KVSTSSTTKSPASSASGPRPTYKPPVSNYPGYPKPEEGIL DSLD | |
| Predicted molecular weight | 34 kDa including tags | |
| Amino acids | 35 to 328 | |
| Tags | His tag C-Terminus | |
| Additional sequence information | (AAH30594.1) | |

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.

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

Preparation and Storage

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|------------------------------|---|
| 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

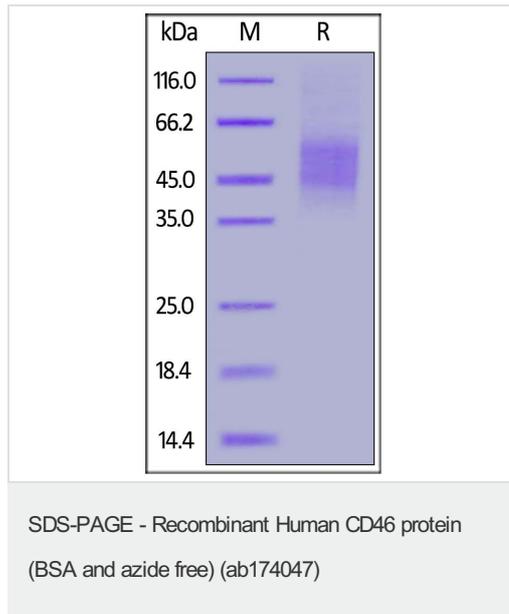
| | |
|---|--|
| Function | Acts as a cofactor for complement factor I, a serine protease which protects autologous cells against complement-mediated injury by cleaving C3b and C4b deposited on host tissue. May be involved in the fusion of the spermatozoa with the oocyte during fertilization. Also acts 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 PV/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 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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