

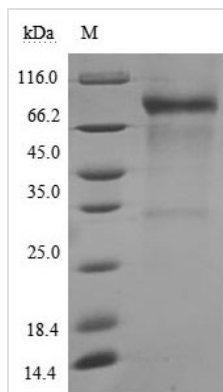


Recombinant Human Membrane cofactor protein (CD46), partial (Active)

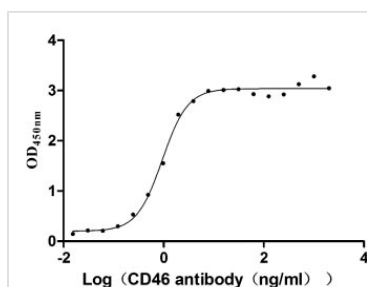
Product Code	CSB-MP004939HU
Relevance	Acts as a cofactor for complement factor I, a serine protease which protects autologous cells against complement-mediated injury by cleaving C3b and C4b deposited on host tissue. May be involved in the fusion of the spermatozoa with the oocyte during fertilization. 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. (Microbial infection) A number of viral and bacterial pathogens seem to bind MCP in order to exploit its immune regulation property and directly induce an immunosuppressive phenotype in T-cells. (Microbial infection) Acts as a receptor for Adenovirus subgroup B2 and Ad3. (Microbial infection) Acts as a receptor for cultured Measles virus. (Microbial infection) Acts as a receptor for Herpesvirus 6/HHV-6. (Microbial infection) May act as a receptor for pathogenic bacteria Neisseria and Streptococcus pyogenes (PubMed:7708671, PubMed:9379894, PubMed:11260136, PubMed:11971006).
Storage	The shelf life is related to many factors, storage state, buffer ingredients, storage temperature and the stability of the protein itself. Generally, the shelf life of liquid form is 6 months at -20°C/-80°C. The shelf life of lyophilized form is 12 months at -20°C/-80°C.
Uniprot No.	P15529
Storage Buffer	Lyophilized from a 0.2 µm filtered PBS, 6% Trehalose, pH 7.4
Product Type	Others
Immunogen Species	Homo sapiens (Human)
Biological Activity	Measured by its binding ability in a functional ELISA. Immobilized CD46 at 2 µg/ml can bind Anti-CD46 rabbit monoclonal antibody, the EC50 of human CD46 protein is 0.8333-1.054 ng/ml.
Purity	Greater than 90% as determined by SDS-PAGE. Greater than 95% as determined by SEC-HPLC.
Sequence	CEEPPTFEAMELIGKPKPYEIGERVDYKCKKGYFYIPPLATHHTICDRNHTWLP VSDDACYRETCPYIRDPLNGQAVPANGTYEFGYQMHFICNEGYYLIGEEILYCE LKGSVAIWSGKPPICEKVLCTPPPKIKNGKHTFSEVEVFYLDVITYSCDPAPG PDPFSLIGESTIYCGDNSVWSRAAPECKVVKCRFPVVENGKQISGFGKKFYK ATVMFECDKGFYLDGSDTIVCDNSTWDPPVPKCLKVLPPSSTKPPALSHSVS TSSTTKSPASSASGPRPTYKPPVSNY
Research Area	Cancer
Source	Mammalian cell
Gene Names	CD46
Expression Region	35-328aa

Notes	Repeated freezing and thawing is not recommended. Store working aliquots at 4°C for up to one week.
Tag Info	C-terminal hFc-tagged
Mol. Weight	61.6 kDa
Protein Description	Partial

Image

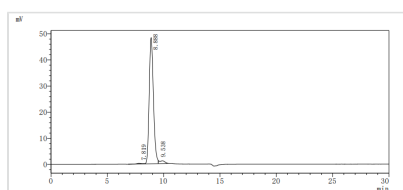


(Tris-Glycine gel) Discontinuous SDS-PAGE (reduced) with 5% enrichment gel and 15% separation gel.



Activity

Measured by its binding ability in a functional ELISA. Immobilized CD46 at 2 µg/ml can bind Anti-CD46 rabbit monoclonal antibody, the EC₅₀ of human CD46 protein is 0.8333-1.054 ng/ml.



The purity of Human CD46 was greater than 95% as determined by SEC-HPLC

Description

The DNA fragment encoding the human CD46 (Cys35-Tyr328) was expressed with a C-terminal hFc-tag in the mammalian cells. The expressed protein is the recombinant human CD46 protein with low endotoxin (< 1.0 EU/µg protein, LAL method) and high purity (> 90%, SDS-PAGE). This CD46 protein displayed a molecular weight of approximately 90 kDa on the gel due to glycosylation. It is biologically active. In the functional ELISA, this CD46 protein can bind to the anti-CD46 antibody with an EC₅₀ of 0.8333-1.054 ng/ml. This recombinant CD46 protein is in stock now.

CD46 is ubiquitously expressed, alternatively spliced complement regulatory protein. It acts as a cofactor for the serine protease factor I to mediate the interaction of C3b and C4b deposited on host cells, thus protecting host cells from injury. CD46 also modulates adaptive immunity and participates in human



infectious and Th1 biology. Increased expression of CD46 has been found in many types of cancer.

Endotoxin

Less than 1.0 EU/ug as determined by LAL method.