Data Sheet (Cat.No.TMPY-02023)

TargetMol

CD46 Protein, Human, Recombinant (His)

General Information

Synonyms:	AHUS2;MIC10;CD46 molecule, complement regulatory protein;TLX;MCP;TRA2.10
Protein Construction:	A DNA sequence encoding the human CD46 (EAW93471.1) extracellular domain (Met 1-Asp 328) was fused with a polyhistidine tag at the C-terminus. Predicted N terminal: Cys 35
Species:	Human
Expression Host:	HEK293 Cells
Accession:	EAW93471.1
Molecular Weight:	34 kDa (predicted); 55-60 kDa (reducing condition, due to glycosylation)

QC Testing

Biological Activity:	Activity testing is in progress. It is theoretically active, but we cannot guarantee it. If you require protein activity, we recommend choosing the eukaryotic expression version first.
Purity:	≥ 95 % as determined by SDS-PAGE. ≥ 95 % as determined by SEC-HPLC.
Endotoxin:	< 1.0 EU/μg of the protein as determined by the LAL method.
Formulation:	Lyophilized from a solution filtered through a 0.22 μm filter, containing PBS, pH 7.4. Typically, a mixture containing 5% to 8% trehalose, mannitol, and 0.01% Tween 80 is incorporated as a protective agent before lyophilization.

Preparation and Storage

Reconstitution:

A Certificate of Analysis (CoA) containing reconstitution instructions is included with the products. Please refer to the CoA for detailed information.

Stability & Storage:

It is recommended to store recombinant proteins at -20°C to -80°C for future use. Lyophilized powders can be stably stored for over 12 months, while liquid products can be stored for 6-12 months at -80°C. For reconstituted protein solutions, the solution can be stored at -20°C to -80°C for at least 3 months. Please avoid multiple freeze-thaw cycles and store products in aliquots.

Shipping:

In general, Lyophilized powders are shipping with blue ice.

Protein Background

CD46, also known as Membrane Cofactor Protein (MCP), is a complement regulatory protein. CD46 is a type 1 membrane protein that plays an important inhibitory role in the complement system. CD46 is expressed in white blood cells, platelets, epithelial cells, and fibroblasts. Human CD46 shares 5% amino acid sequence identity with mouse and rat CD46. The importance of CD46 to complement regulation is underscored by the observation that genetic loss of CD46 leads to development of atypical hemolytic-uremic syndrome (aHUS), a disease characterized

by uncontrolled complement activation. CD46 is implicated in the development and/or progression of selected cancer types.

Reference

Lublin D.M.,et al.,(1988), Molecular cloning and chromosomal localization of human membrane cofactor protein (MCP). Evidence for inclusion in the multigene family of complement-regulatory proteins. J. Exp. Med. 168:181-194.

Purcell D.F.,et al., (1991), Alternatively spliced RNAs encode several isoforms of CD46 (MCP), a regulator of complement activation.Immunogenetics 33:335-344.

Post T.W.,et al.,(1991), Membrane cofactor protein of the complement system: alternative splicing of serine/threonine/proline-rich exons and cytoplasmic tails produces multiple isoforms that correlate with protein phenotype.J. Exp. Med. 174:93-102.