Data Sheet (Cat.No.TMPY-03174)

TargetMol

CFHR1 Protein, Human, Recombinant (His)

General Information

Synonyms:	CFHL1;H36-1;CFHL1P;HFL2;CFHR1P;HFL1;complement factor H related 1;CFHR1;FHR1;H36-2;CFHL
Protein Construction:	A DNA sequence encoding the human CFHR1 (Q03591) (Met1-Arg330) was expressed with a polyhistidine tag at the C-terminus. Predicted N terminal: Glu 19
Species:	Human
Expression Host:	HEK293 Cells
Accession:	Q03591
Molecular Weight:	37.2 kDa (predicted); 45 kDa (reducing conditions)

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
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.

Actual storage temperature shall be subject to the COA.

Shipping:

In general, lyophilized powders are shipped with blue ice, while solutions are shipped with dry ice.

Protein Background

CFHR1 is a secreted protein belonging to the complement factor H protein family.The human complement factor H protein family consists of the complement and immune regulators factor H, the factor H-like protein 1(FHL-1) and five factor H-related proteins (CFHR-1 to -5). Members of the H-related protein family are exclusively composed of individually folded protein domains, termed short consensus repeats (SCRs) or complement control modules.

CFHR1 binds to Pseudomonas aeruginosa elongation factor Tuf together with plasminogen, which is proteolytically activated. CFHR1 might be involved in complement regulation. It can associate with lipoproteins and may play a role in lipid metabolism.

Reference

Martnez-Barrica,et al. (2012) Relevance of complement factor H-related 1 (CFHR1) genotypes in age-related macular degeneration. Invest Ophthalmol Vis Sci. 53(3):1087-94.
Leban N,et al. (2012) Factor H and CFHR1 polymorphisms associated with atypical Haemolytic Uraemic Syndrome (aHUS) are differently expressed in Tunisian and in Caucasian populations. Int J Immunogenet. 39(2):110-3.
Kubista KE,et al. (2011) Copy number variation in the complement factor H-related genes and age-related macular degeneration. Int J Immunogenet. Mol Vis. 17:2080-92.

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