Data Sheet (Cat.No.TMPK-00020)

TargetMol

CD59 Protein, Human, Recombinant (hFc)

General Information

Synonyms:	CD59;HRF20;MACIF;MIN1;MIC11;MAC-IP;MIN3;MIN2;HRF-20;MEM43;MACIP;MSK21;G344;1F5;MIRL
Protein Construction:	Leu26-Asn102
Species:	Human
Expression Host:	HEK293 Cells
Accession:	P13987-1
Molecular Weight:	35.73 kDa (predicted). Due to glycosylation, the protein migrates to 45-50 kDa based on Tris-Bis PAGE result.

QC Testing

Biological Activity:	Activity has not been tested. 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 Tris-Bis PAGE; > 95% as determined by 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, 8% trehalose is incorporated as a protective agent before lyophilization.

Preparation and Storage

Reconstitution:

Reconstitute the lyophilized protein in distilled water. The product concentration should not be less than 100 μg/ml. Before opening, centrifuge the tube to collect powder at the bottom. After adding the reconstitution buffer, avoid vortexing or pipetting for mixing.

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

CD59 regulates complement activation cascade at the final step, inhibiting formation of membrane attack complex (MAC). This protein, being anchored to the cell membrane via glycosyl phosphatidyl inositol (GPI), is expressed ubiquitously on cells which are in contact with body fluids containing components.

Reference

Sugita Y, Masuho Y. CD59: its role in complement regulation and potential for therapeutic use. Immunotechnology. 1995 Dec;1(3-4):157-68. doi: 10.1016/1380-2933(95)00018-6. PMID: 9373344.

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