

CD59 Protein, Rat, Recombinant (His)

General Information

Synonyms: CD59 molecule;CD59

Protein Construction: A DNA sequence encoding the rat CD59 (P27274) (Met1-Asn100) was expressed, fused with a polyhistidine tag at the C-terminus. Predicted N terminal: Leu 23

Species: Rat

Expression Host: HEK293 Cells

Accession: P27274

Molecular Weight: 10.3 kDa (predicted); 17 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.

Shipping:

In general, Lyophilized powders are shipping with blue ice.

Protein Background

CD59 glycoprotein, also known as 2 kDa homologous restriction factor, HRF2, MAC-inhibitory protein, Membrane attack complex inhibition factor, Membrane inhibitor of reactive lysis, MIC11, MIRL and CD59, is a cell membrane protein which contains one UPAR/Ly6 domain. CD59 is a small, highly glycosylated, GPI-linked protein, with a wide expression profile. The soluble form of CD59 from urine retains its specific complement binding activity, but exhibits greatly reduced ability to inhibit MAC assembly on cell membranes. CD59 is a potent inhibitor of the

complement membrane attack complex (MAC) action. CD59 was first identified as a regulator of the terminal pathway of complement. It acts by binding to the C8 and/or C9 complements of the assembling MAC, thereby preventing incorporation of the multiple copies of C9 required for complete formation of the osmolytic pore. This inhibitor appears to be species-specific. CD59 is involved in signal transduction for T-cell activation complexed to a protein tyrosine kinase. Defects in CD59 are the cause of CD59 deficiency (CD59D).

Reference

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Heibeck TH. et al., 2009, J Proteome Res. 8: 3852-61.

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