

## CD53 Protein, Cynomolgus, Recombinant (aa 107-181, His)

### General Information

Synonyms:	CD53 molecule
Protein Construction:	A DNA sequence encoding the cynomolgus CD53 (G7NW46) (Glu107-Asn181) was expressed with a polyhistidine tag at the N-terminus. Predicted N terminal: His
Species:	Cynomolgus
Expression Host:	HEK293 Cells
Accession:	G7NW46
Molecular Weight:	10.7 kDa (predicted); 19-22 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/ $\mu$ g of the protein as determined by the LAL method.
Formulation:	Lyophilized from a solution filtered through a 0.22 $\mu$ m 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

CD53 is a member of the transmembrane 4 superfamily, also called the tetraspanin family. Most of these members are cell-surface proteins that are characterized by the presence of four hydrophobic domains. These proteins mediate signal transduction events that play a role in the regulation of cell development, activation, growth and motility. CD53 is a cell surface glycoprotein that is known to complex with integrins. Familial deficiency of CD53 gene has been linked to an immunodeficiency associated with recurrent infectious diseases caused by bacteria,

fungi and viruses. CD53 contributes to the transduction of CD2-generated signals in T cells and natural killer cells and has been suggested to play a role in growth regulation.

### Reference

Rochelle JM. et al., 1993, Int Immunol. 5 (2): 209-16.

Virtaneva KI. et al., 1993, Immunogenetics. 37 (6): 461-5.

Horejsí V. et al., 1991, FEBS Lett. 288 (1-2): 1-4.

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