

## CD47 Protein, Cynomolgus/Rhesus macaque, Recombinant (His)

### General Information

Synonyms:	CD47;OA3;IAP;CD47 molecule;CD47 glycoprotein;MER6
Protein Construction:	Gln19-Glu141
Species:	Cynomolgus,Rhesus
Expression Host:	HEK293 Cells
Accession:	F7A802
Molecular Weight:	15 kDa (predicted). Due to glycosylation, the protein migrates to 45-65 kDa based on Tris-Bis PAGE result.

### QC Testing

Biological Activity:	<ol style="list-style-type: none"><li>1. Immobilized Cynomolgus/Rhesus macaque CD47, His Tag at 5µg/ml (100µl/well) on the plate. Dose response curve for Human SIRP alpha, hFc Tag with the EC50 of 0.52ug/ml determined by ELISA (QC Test).</li><li>2. Cynomolgus SIRP alpha, His Tag immobilized on CM5 Chip can bind Cynomolgus /Rhesus macaque CD47, His Tag with an affinity constant of 63.27 nM as determined in SPR assay.</li></ol>
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

CD47 (Cluster of Differentiation 47) also known as integrin associated protein (IAP) is a transmembrane protein that in humans is encoded by the CD47 gene. CD47 belongs to the immunoglobulin superfamily and partners with

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membrane integrins and also binds the ligands thrombospondin-1 (TSP-1) and signal-regulatory protein alpha (SIRP $\alpha$ ).CD-47 acts as a don't eat me signal to macrophages of the immune system which has made it a potential therapeutic target in some cancers.

### Reference

Weiskopf K, et al. Engineered SIRP $\alpha$  variants as immunotherapeutic adjuvants to anticancer antibodies[J]. Science, 2013, 341(6141):88-91.

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