

# Recombinant human CD47 protein

Catalog Number: ATGP4070

## PRODUCT INFORMATION

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### Expression system

Baculovirus

### Domain

19-141aa

### UniProt No.

Q08722

### NCBI Accession No.

NP\_001768

### Alternative Names

Leukocyte surface antigen CD47 isoform 1, CD47, IAP, MER6, OA3

## PRODUCT SPECIFICATION

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### Molecular Weight

40.9 kDa (362aa)

### Concentration

0.5mg/ml (determined by absorbance at 280nm)

### Formulation

Liquid in. Phosphate-Buffered Saline (pH 7.4) containing 10% glycerol

### Purity

> 95% by SDS-PAGE

### Endotoxin level

< 1 EU per 1ug of protein (determined by LAL method)

### Biological Activity

Measured by its binding ability in a functional ELISA with Human SIRP alpha/CD172a (CAT# ATGP4069). The ED50 range  $\leq$  100 ng/ml.

### Tag

hIgG-His-Tag

### Application

SDS-PAGE, Bioactivity

### Storage Condition

Can be stored at +2C to +8C for 1 week. For long term storage, aliquot and store at -20C to -80C. Avoid repeated freezing and thawing cycles.

## BACKGROUND

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## Description

CD47, also known as leukocyte surface antigen CD47 isoform 1, is a member of immunoglobulin superfamily. It has a role in both cell adhesion by acting as an adhesion receptor for THBS1 on platelets, and in the modulation of integrins. Also, it plays an important role in memory formation and synaptic plasticity in the hippocampus. This protein is a receptor for SIRPA, binding to which prevents maturation of immature dendritic cells and inhibits cytokine production by mature dendritic cells. CD47 mediates cell-cell adhesion, enhances super antigen-dependent T-cell-mediated proliferation and co-stimulates T-cell activation. It may play a role in membrane transport and/or integrin dependent signal transduction and prevent premature elimination of red blood cells. Recombinant human CD47, fused to hlgG-His-tag at C-terminus, was expressed in insect cell and purified by using conventional chromatography techniques.

## Amino acid Sequence

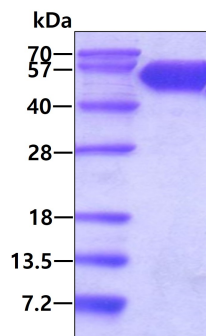
QLLFNKTKSV EFTFCNDTVV IPCFVTNMEA QNTTEVYVKW KFKGRDIYTF DGALNKSTVP TDFSSAKIEV SQLLKGDASL  
 KMDKSDAVSH TGNYTCEVTE LTREGETIIE LKYRVVSWFS PNE<LEPKSCD KTHTCPPCPA PELLGGPSVF LFPPKPKDTL  
 MISRTPEVTC VVVDVSHEDP EVKFNWYVDG VEVHNAKTKP REEQYNSTYR VVSVLTVLHQ DWLNGKEYKC KVS NKALPAP  
 IEKTISKAKG QPREPQVYTL PPSRDELTKN QVSLTCLVKG FYPSDIAVEW ESNGQPENNY KTPPVLDSD GSFFLYSKLT  
 VDKSRWQQGN VFSCSVMHEA LHNHYTQKSL SLSPGKHHHH HH>

## General References

- Iwamoto C., et al. (2014) *Exp. Hematol.* 42:163-171.
- Wang Y., et al. (2013) *Mol. Ther.* 21:1919-1929.
- Jiang H., et al. (2013) *Leuk. Res.* 37:907-910.

## DATA

### SDS-PAGE



3ug by SDS-PAGE under reducing condition and visualized by coomassie blue stain

## Biological Activity

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Human SIRP alpha/CD172a (CAT# ATGP4069) is coated at 2 ug/ml (100 ul/well) can bind Human CD47. The ED50 range  $\leq$  100 ng/ml.

