# **Recombinant Human ICOS/CD278 Protein**



Catalog No.: RP01401 Recombinant

## **Sequence Information**

Species Gene ID Swiss Prot Human 29851 09Y6W8

**Tags** C-hFc&His

Synonyms

AILIM; CD278; CVID1;ICOS;CD278;CVID1

## **Product Information**

**Source** Purification HEK293 cells ≥ 95 % as

determined by SDS-

PAGE.

Calculated MW Observed MW

40.53 kDa 50-60 kDa

#### **Endotoxin**

< 0.1 EU/ $\mu$ g of the protein by LAL method.

#### Formulation

Lyophilized from a 0.22 µm filtered solution of PBS, pH 7.4.

## Reconstitution

Centrifuge the vial before opening. Reconstitute to a concentration of 0.1-0.5 mg/mL in sterile distilled water. Avoid vortex or vigorously pipetting the protein. For long term storage, it is recommended to add a carrier protein or stablizer (e.g. 0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose), and aliquot the reconstituted protein solution to minimize free-thaw cycles.

## **Contact**

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## **Background**

Inducible costimulator (ICOS), also called AlLIM (Activation-Inducible Lymphocyte Immunomediatory Molecule) is a cell-surface receptor and belongs to the CD28 family of immune costimulatory receptors consisting of CD28, CTLA-4, and PD-1. The interaction of B7-H2/ICOS plays a critical role in Th cell differentiation, T?B cell interactions which are essential for the germinal center formation, and humoral immune responses, and as well as the production of cytokine IL-4. Also, ICOS is more potent in the induction of IL-10 production, a cytokine important for the suppressive function of T regulatory cells. The B7-1/B7-2--CD28/CTLA-4 and ICOS-B7RP-1 pathway provide key second signals that can regulate the activation, inhibition, and fine-tuning of T-lymphocyte responses. ICOS stimulates both Th1 and Th2 cytokine production but may have a preferential role in Th2 cell development. Moreover, The B7-1/B7-2-CD28/CTLA-4 and ICOS-B7RP-1 pathway has been suggested as being involved in the development of airway inflammation and airway hyperresponsiveness.

## **Basic Information**

#### Description

Recombinant Human ICOS/CD278 Protein is produced by HEK293 cells expression system. The target protein is expressed with sequence (Glu21-Phe141) of human ICOS/CD278 (Accession  $\#NP_036224.1$ ) fused with a Fc,  $6\times$ His tag at the C-terminus.

#### **Bio-Activity**

Measured by its binding ability in a functional ELISA. Immobilized human B7-H2/ICOSLG at 1  $\mu$ g/mL (100  $\mu$ L/well) can bind Human ICOS/CD278 with a linear range of 2-14.8 ng/mL.

#### **Shipping**

The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.

### Storage

Store at -20°C. Store the lyophilized protein at -20°C to -80 °C up to 1 year from the date of receipt.

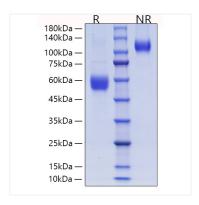
After reconstitution, the protein solution is stable at -20°C for 3 months, at 2-8°C for up to 1 week.

Avoid repeated freeze/thaw cycles.

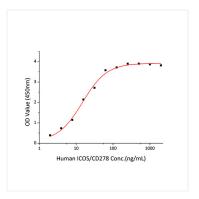
## **Operational Notes**

For your safety and health, please wear a lab coat and disposable gloves for handling.

# **Validation Data**



Recombinant Human ICOS/CD278 Protein was determined by SDS-PAGE under reducing (R) and non-reducing (NR) conditions.



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