

# Human ICOS/CD278 (C136S, C137S) Protein, Ultra Low Endotoxin



Cat. No. ICO-HM102-UL

## Description

<b>Source</b>	Recombinant Human ICOS/CD278(C136S, C137S) Protein is expressed from HEK293 with His tag at the C-Terminus. It contains Glu21-Phe141(C136S,C137S).
<b>Accession</b>	Q9Y6W8-1
<b>Molecular Weight</b>	The protein has a predicted MW of 14.8 kDa. Due to glycosylation, the protein migrates to 35-40 kDa based on Bis-Tris PAGE result.
<b>Endotoxin</b>	Less than 0.01 EU per µg by the LAL method.
<b>Purity</b>	> 95% as determined by Bis-Tris PAGE

## Formulation and Storage

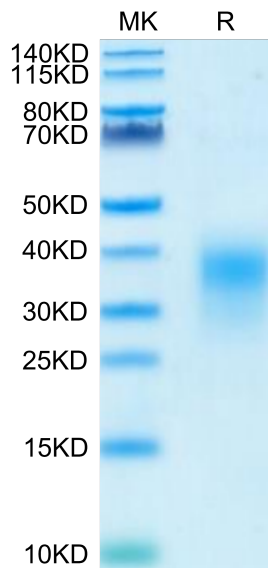
<b>Formulation</b>	Lyophilized from 0.22µm filtered solution in PBS (pH 7.4). Normally 8% trehalose is added as protectant before lyophilization.
<b>Reconstitution</b>	Dissolve the lyophilized protein in distilled water. Please refer to the Certificate of Analysis for detailed instructions.
<b>Storage</b>	-20 to -80°C for 12 months as supplied from date of receipt. -80°C for 3 months after reconstitution. Recommend to aliquot the protein into smaller quantities for optimal storage. Please minimize freeze-thaw cycles.

## Background

Inducible co-stimulator (ICOS), also called ALLIM (activation-inducible lymphocyte immunomediatory molecule) and CRP-1 (CD28-related protein-1), is a member of the growing CD28 family of immune costimulatory receptors. Other family members are CD28, CTLA-4 and PD-1. Human ICOS is a homodimeric type I transmembrane protein consisting of 199 amino acids (aa) with a putative 20 aa signal sequence, a 121 aa extracellular domain, a 23 aa transmembrane region, and a 35 aa cytoplasmic domain.

## Assay Data

### Bis-Tris PAGE



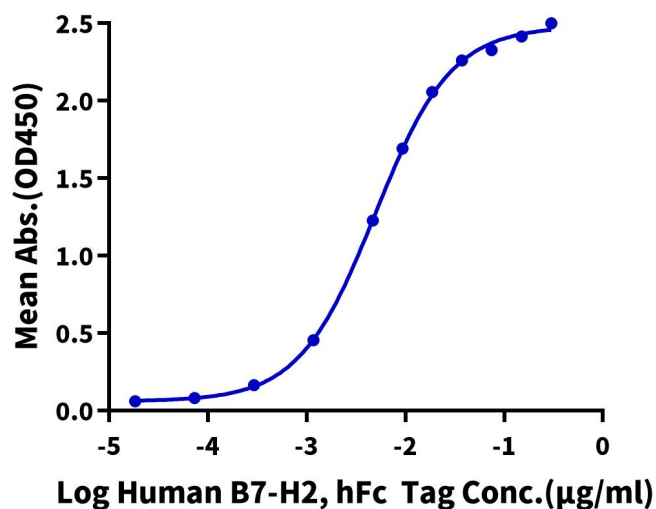
Human ICOS (C136S,C137S) on Bis-Tris PAGE under reduced condition. The purity is greater than 95%.

### ELISA Data

Assay Data

**Human ICOS (C136S, C137S), His Tag ELISA**

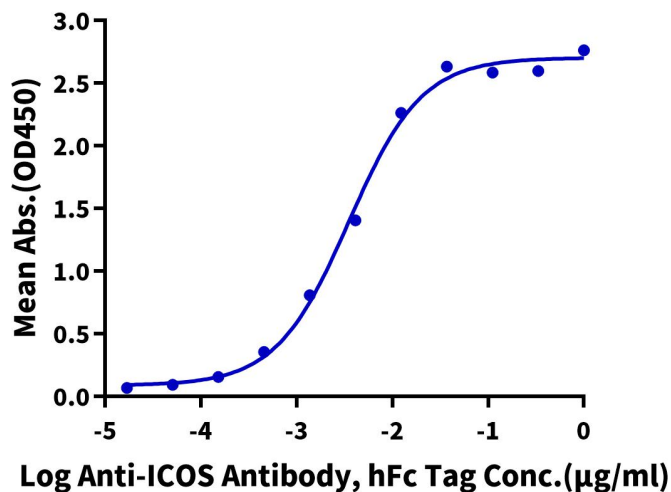
0.5µg Human ICOS (C136S, C137S), His Tag Per Well



Immobilized Human ICOS (C136S, C137S), His Tag at 5µg/ml (100µl/Well) on the plate. Dose response curve for Human B7-H2, hFc Tag with the EC50 of 5.0ng/ml determined by ELISA (QC Test).

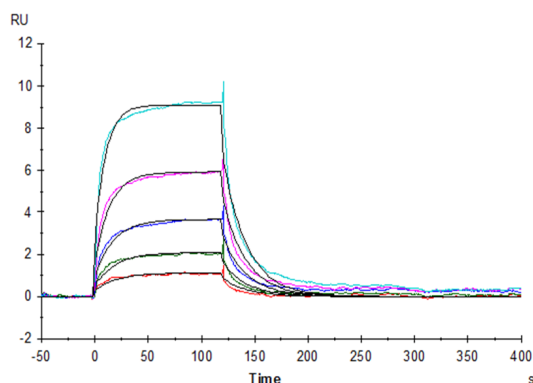
**Human ICOS (C136S, C137S), His Tag ELISA**

0.05µg Human ICOS (C136S, C137S), His Tag Per Well



Immobilized Human ICOS (C136S, C137S), His Tag at 0.5µg/ml (100µl/well) on the plate. Dose response curve for Anti-ICOS Antibody, hFc Tag with the EC50 of 3.5ng/ml determined by ELISA.

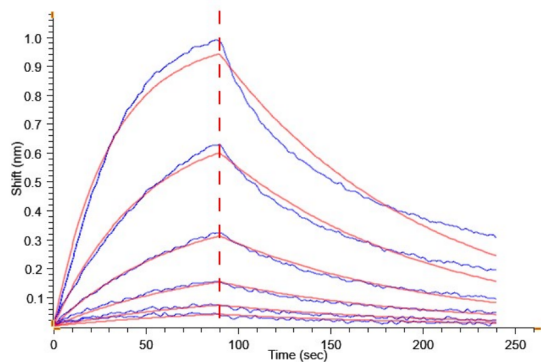
SPR Data



Human B7-H2, hFc Tag captured on Protein A chip, can bind Human ICOS (C136S,C137S) , His Tag with an affinity constant of 40.2nM as determined in a SPR assay (Biacore T200).

BLI Data

Assay Data



Loaded Biotinylated Human B7-H2, His-Avi Tag on Streptavidin-Biosensor can bind Human ICOS (C136S, C137S), His Tag with an affinity constant of 77.40 nM as determined in BLI assay .