

Human ICOS/CD278 Protein

Cat. No. ICO-HM201

Description

Source	Recombinant Human ICOS/CD278 Protein is expressed from HEK293 with hFc tag at the C-Terminus. It contains Glu21-Phe141.
Accession	Q9Y6W8-1
Molecular Weight	The protein has a predicted MW of 40.5 kDa. Due to glycosylation, the protein migrates to 52-60 kDa based on Bis-Tris PAGE result.
Endotoxin	Less than 1EU per μg by the LAL method.
Purity	> 95% as determined by Bis-Tris PAGE > 90% as determined by HPLC

Formulation and Storage

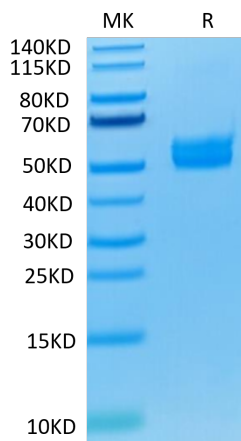
Formulation	Lyophilized from 0.22 μm filtered solution in PBS (pH 7.4). Normally 8% trehalose is added as protectant before lyophilization.
Reconstitution	Centrifuge the tube before opening. Reconstituting to a concentration more than 100 $\mu\text{g}/\text{ml}$ is recommended. Dissolve the lyophilized protein in distilled water.
Storage	-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 AILIM (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.

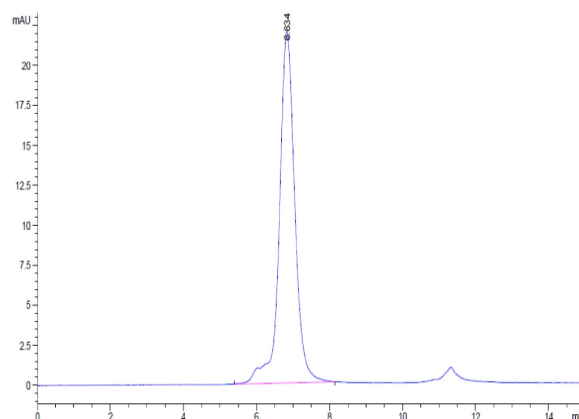
Assay Data

Bis-Tris PAGE



Human ICOS on Bis-Tris PAGE under reduced condition. The purity is greater than 95%.

SEC-HPLC



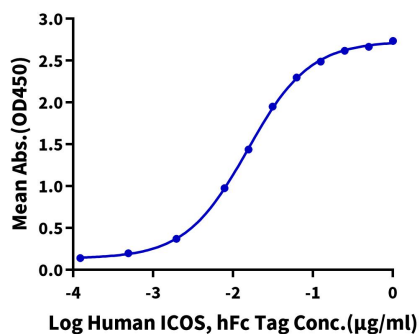
The purity of Human ICOS is greater than 90% as determined by SEC-HPLC.

Assay Data

ELISA Data

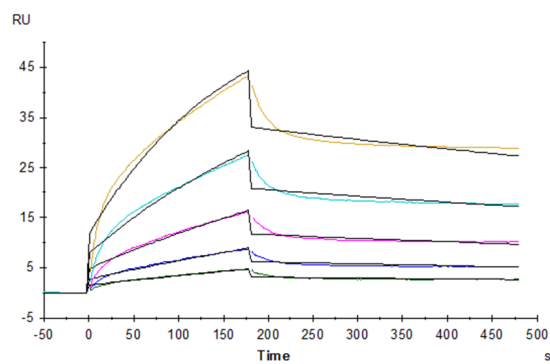
Human ICOS, hFc Tag ELISA

0.1µg Human B7-H2, His Tag Per Well



Immobilized Human B7-H2, His Tag at 1µg/ml (100µl/Well) on the plate. Dose response curve for Human ICOS, hFc Tag with the EC50 of 15.2ng/ml determined by ELISA (QC Test).

SPR Data



Human ICOS, hFc Tag captured on CM5 Chip via Protein A can bind Cynomolgus B7-H2, His Tag with an affinity constant of 5.42 nM as determined in SPR assay (Biacore T200).