



Recombinant Protein Technical Manual  
Recombinant Human ICOS/AILIM Protein (His & Fc  
Tag)(Active)  
RPES4104

Product Data:

**Product SKU:** RPES4104

**Size:** 50µg

**Species:** Human

**Expression host:** HEK293 Cells

**Uniprot:** NP\_036224.1

Protein Information:

**Molecular Mass:** 41.6 kDa

**AP Molecular Mass:** 50 kDa

**Tag:** C-His & Fc

**Bio-activity:** Measured by its binding ability in a functional ELISA. Immobilized human human B7-H2 at 1 µg/ml (100 µl/well) can bind human ICOS with a linear range of 1.6-200 ng/ml.

**Purity:** > 90 % as determined by reducing SDS-PAGE.

**Endotoxin:** < 1.0 EU per µg as determined by the LAL method.

**Storage:** Lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.

**Shipping:** This product is provided as lyophilized powder which is shipped with ice packs.

**Formulation:** Lyophilized from sterile PBS, pH 7.4

**Reconstitution:** Please refer to the printed manual for detailed information.

**Application:** Functional ELISA

**Synonyms:** Inducible T-cell costimulator; activation-inducible lymphocyte immunomediatory molecule; CD278; AILIM; CVID1; ICOS;

## Immunogen Information:

**Sequence:** Met 1-Phe 141

## Background:

Inducible costimulator (ICOS), also called AILIM (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. The interaction of B7-H2/ICOS plays a critical role in Th cell differentiation, T-B cell interactions which is essential for germinal center formation, and humoral immune responses, and as well as the production of cytokine IL-4. In addition, ICOS is more potent in the induction of IL10 production, a cytokine important for suppressive function of T regulatory cells. The B7/B7-2-CD28/CTLA-4 and ICOS-B7RP pathway provides 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/B7-2-CD28/CTLA-4 and ICOS-B7RP pathway has been suggested of being involved in the development of airway inflammation and airway hyperresponsiveness.