### General Information

**Gene Name Synonym:**
AILIM; CCLP; CRP-1; H4; Ly115

**Protein Construction:**
A DNA sequence encoding the mouse Icos (NP_059508.2) (Met1-Leu144) was expressed with the Fc region of rabbit IgG at the C-terminus.

**Source:** Mouse

**Expression Host:** HEK293 Cells

**QC Testing**

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

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

**Stability:**
Samples are stable for up to twelve months from date of receipt at -70 °C.

**Predicted N terminal:** Glu 21

**Molecular Mass:**
The recombinant mouse Icos consists of 355 amino acids and predicts a molecular mass of 40.2 kDa.

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

Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Specific concentrations are included in the hardcopy of COA. Please contact us for any concerns or special requirements.

### Usage Guide

**Storage:**
Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

**Reconstitution:**
Detailed reconstitution instructions are sent along with the products.

### SDS-PAGE:

![SDS-PAGE Image]

### Protein Description

Inducible costimulator (ICOS), also called AILIM (activation-inducible lymphocyte immunemediatory 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 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 IL-10 production, a cytokine important for suppressive function of T regulatory cells. The B7-1/B7-2–CD28/CTLA-4 and ICOS-B7RP-1 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 B7-1/B7-2–CD28/CTLA-4 and ICOS-B7RP-1 pathway has been suggested of being involved in the development of airway inflammation and airway hyperresponsiveness.

### References