

# Mouse ICOS Ligand / B7-H2 / ICOSLG Protein (His & Fc Tag)

Catalog Number: 50190-M03H



Sino Biological  
Biological Solution Specialist

## General Information

### Gene Name Synonym:

ICOSLG

### Protein Construction:

A DNA sequence encoding the mouse B7-H2 (NP\_056605.1) extracellular domain (Met 1-Lys 279) was fused with the C-terminal polyhistidine-tagged Fc region of human IgG1 at the C-terminus.

**Source:** Mouse

**Expression Host:** HEK293 Cells

## QC Testing

**Purity:** > 95 % as determined by SDS-PAGE

### Bio Activity:

**Measured by its binding ability in a functional ELISA . Immobilized human ICOS at 1 µg/ml (100 µl/well) can bind biotinylated mouse B7-H2 Fc chimera with a linear range of 0.125-1.0 µg/ml .**

### Endotoxin:

< 1.0 EU per µg of the 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 47

### Molecular Mass:

The secreted recombinant mouse B7-H2/Fc is a disulfide-linked homodimer after removal of the signal peptide. The reduced monomer comprises 481 amino acids with a predicted molecular mass of 54.3 kDa. As a result of glycosylation, it migrates as an approximately 75-85 kDa band in SDS-PAGE under reducing conditions.

### 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:

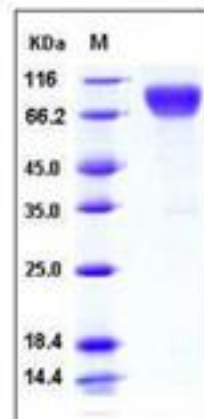
Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

**Avoid repeated freeze-thaw cycles.**

### Reconstitution:

Detailed reconstitution instructions are sent along with the products.

## SDS-PAGE:



## Protein Description

Inducible co-stimulator ligand (ICOSL), also known as B7-H2, is a member of the B7 family of co-stimulatory molecules related to B7-1 and B7-2. It is a transmembrane glycoprotein with extracellular IgV and IgC domains, and binds to ICOS on activated T cells, thus delivers a positive costimulatory signal for optimal T cell function. The structural features of ICOSL are crucial for its costimulatory function. Present study shows that ICOSL displays a marked oligomerization potential, resembling more like B7-1 than B7-2. B7-H2-dependent signaling may play an active role in a proliferative response rather than in cytokine and chemokine production. The CD28/B7 and ICOS/B7-H2 pathways are both critical for costimulating T cell immune responses. Deficiency in either pathway results in defective T cell activation, cytokine production and germinal center formation.

## References

1.Flesch IE. (2002) Inducible costimulator-ligand (ICOS-L). J Biol Regul Homeost Agents. 16(3): 217-9. 2.Kajiwara K, *et al.* (2009) Expression and function of the inducible costimulator ligand B7-H2 in human airway smooth muscle cells. Allergol Int. 58(4): 573-83. 3.Wong SC, *et al.* (2009) Functional hierarchy and relative contribution of the CD28/B7 and ICOS/B7-H2 costimulatory pathways to T cell-mediated delayed-type hypersensitivity. Cell Immunol. 256(1-2): 64-71.

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