

B7-H2/ICOSLG Protein, Mouse, Recombinant (His & hFc)

General Information

Synonyms:	Icoslg;B7-H2;B7RP-1;GL50;B7h;LICOS;ICOS-L;GI50;inducible T-cell co-stimulator ligand; GL50-B
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. Predicted N terminal: Glu 47
Species:	Mouse
Expression Host:	HEK293 Cells
Accession:	Q544C7
Molecular Weight:	54.3 kDa (predicted); 75-85 kDa (reducing condition, due to glycosylation)

QC Testing

Biological Activity:	Immobilized Recombinant Mouse ICOS / AILIM / CD278 Protein (Fc Tag) at 2 µg/ml (100 µl/well) can bind Recombinant Mouse ICOS Ligand / B7-H2 / ICOSLG Protein (His & Fc Tag), the EC50 is 25-80 ng/mL.
Purity:	> 95 % as determined by SDS-PAGE
Endotoxin:	< 1.0 EU/µg of the protein as determined by the LAL method.
Formulation:	Lyophilized from a solution filtered through a 0.22 µm filter, containing PBS, pH 7.4. Typically, a mixture containing 5% to 8% trehalose, mannitol, and 0.01% Tween 80 is incorporated as a protective agent before lyophilization.

Preparation and Storage

Reconstitution:

A Certificate of Analysis (CoA) containing reconstitution instructions is included with the products. Please refer to the CoA for detailed information.

Stability & Storage:

It is recommended to store recombinant proteins at -20°C to -80°C for future use. Lyophilized powders can be stably stored for over 12 months, while liquid products can be stored for 6-12 months at -80°C. For reconstituted protein solutions, the solution can be stored at -20°C to -80°C for at least 3 months. Please avoid multiple freeze-thaw cycles and store products in aliquots.

Actual storage temperature shall be subject to the COA.

Shipping:

In general, lyophilized powders are shipped with blue ice, while solutions are shipped with dry ice.

Protein Background

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. The 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. Cancer Immunotherapy Co-stimulatory Immune Checkpoint Targets Immune Checkpoint Immune Checkpoint Detection: Antibodies Immune Checkpoint Detection: ELISA Antibodies Immune Checkpoint Detection: FCM Antibodies Immune Checkpoint Detection: WB Antibodies Immune Checkpoint Targets Immunotherapy Targeted Therapy

Reference

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- 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.
- 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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