

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

General Information

Synonyms:	B7-H2;inducible T-cell co-stimulator ligand;GL50;ICOS-L;B7h;LICOS;B7RP-1;Icoslg;GL50-B;GI50
Protein Construction:	Glu47-Lys279
Species:	Mouse
Expression Host:	HEK293 Cells
Accession:	Q9JHJ8-1
Molecular Weight:	27.4 kDa (predicted); 45-70 kDa (reducing condition, due to glycosylation)

QC Testing

Biological Activity:	Immobilized Mouse B7-H2, His Tag at 2 µg/ml (100 µl/well) on the plate. Dose response curve for Mouse ICOS, hFc Tag with the EC50 of 36.2 ng/ml determined by ELISA. Mouse ICOS, hFc Tag captured on CM5 Chip via Protein A can bind Mouse B7-H2, His Tag with an affinity constant of 0.329 µM as determined in SPR assay (Biacore T200).
Purity:	> 95 % as determined by SDS-PAGE
Endotoxin:	< 1.0 EU/µg of the protein as determined by the LAL method.
Formulation:	Lyophilized from 0.22µm filtered solution in PBS (pH 7.4). Normally 8% trehalose is added as protectant before lyophilization.

Preparation and Storage

Reconstitution:

Reconstitute the lyophilized protein in distilled water. The product concentration should not be less than 100 µg/ml. Before opening, centrifuge the tube to collect powder at the bottom. After adding the reconstitution buffer, avoid vortexing or pipetting for mixing.

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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