Human ICOS / AILIM / CD278 Protein (His & Fc Tag)

Catalog Number: 10344-H03H

General Information

Gene Name Synonym:

AILIM; CD278; CVID1

Protein Construction:

A DNA sequence encoding the extracellular domain of human ICOS (NP_036224.1) (Met 1-Phe 141) was fused to the C-terminal polyhistidine-tagged Fc region of human IgG1 at the C-terminus.

Source: Human

Expression Host: HEK293 Cells

QC Testing

Purity: > 90 % as determined by SDS-PAGE

Bio Activity:

Immobilized Recombinant Human ICOS Ligand / B7-H2 / ICOSLG Protein (Fc Tag)(Cat:11559-H02H) at 2 μg/ml (100 μl/well) can bind Recombinant Human ICOS / AILIM / CD278 Protein (His & Fc Tag)(Cat:10344-H03H),The EC_{50} is 8-30 ng/mL.

Endotoxin:

< 1.0 EU per μg of the protein as determined by the LAL method

Predicted N terminal: Glu 21

Molecular Mass:

The recombinant human ICOS/Fc is a disulfide-linked homodimeric protein. The reduced monomer consists of 368 amino acids and predicts a molecular mass of 41.6 kDa. The apparent molecular mass of rhICOS/Fc monomer is approximately 50 kDa due to glycosylation.

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

Stability & Storage:
Samples are stable for twelve months from date of receipt at -20℃ to -80℃.

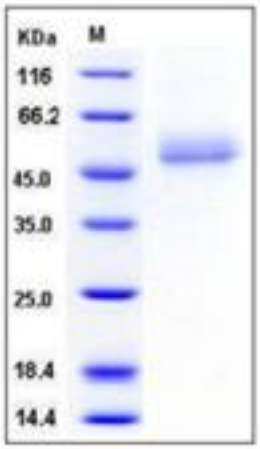
Store it under sterile conditions at -20℃ to -80℃ upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

Inducible 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-1. The interaction of B7-H2/ICOS plays a critical role in Th cell differentiation, T−B cell interactions which are essential for the germinal center formation, and humoral immune responses, and as well as the production of cytokine IL-4. Also, ICOS is more potent in the induction of IL-10 production, a cytokine important for the suppressive function of T regulatory cells. The B7-1/B7-2--CD28/CTLA-4 and ICOS-B7RP-1 pathway provide 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 as being involved in the development of airway inflammation and airway hyperresponsiveness.

References

1.Coyle AJ, *et al.* (2004) The role of ICOS and other costimulatory molecules in allergy and asthma. Springer Semin Immunopathol. 25(3-4): 349-59. 2.Chen YQ, *et al.* (2006) CD28/CTLA-4--CD80/CD86 and ICOS--B7RP-1 costimulatory pathway in bronchial asthma. Allergy. 61(1): 15-26. 3.van Berkel ME, *et al.* (2006) CD28 and ICOS: similar or separate costimulators of T cells Immunol Lett. 105(2): 115-22.