Rhesus ICOS Protein (Fc & AVI Tag), Biotinylated

Catalog Number: 90866-C41H-B

General Information

Gene Name Synonym:

ICOS

Protein Construction:

A DNA sequence encoding the rhesus ICOS (NP_001253918.1) (Met1-Lys140) was expressed with a c-terminal Fc region of human IgG1 tagged AVI tag at the C-terminus. The expressed protein was biotinylated in vivo by the Biotin-Protein ligase (BirA enzyme) which is co-expressed.

Source: Rhesus

Expression Host: Human Cells

QC Testing

Biotin/Protein Ratio:

0.7-1 as determined by the HABA assay.

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

Endotoxin:

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

Predicted N terminal: Gly 20

Molecular Mass:

The recombinant rhesus ICOS consists of 374 amino acids and predicts a molecular mass of 42.2 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

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

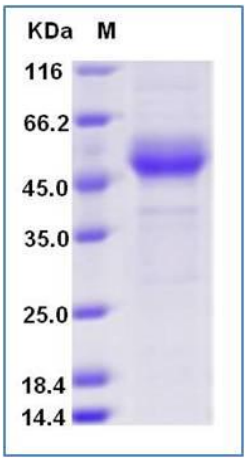
Store it under sterile conditions at -20℃ to -80℃ upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

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 (activiation-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 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-1 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

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.