

Human SIRPG / SIRP gamma / CD172g Protein (His Tag)

Catalog Number: 11828-H08H



Sino Biological
Biological Solution Specialist

General Information

Gene Name Synonym:

bA77C3.1; CD172g; SIRP-B2; SIRPB2; SIRPgamma

Protein Construction:

A DNA sequence encoding the human SIRPG (NP_061026.2) extracellular domain (Met 1-Ser 364) was expressed, with a polyhistidine tag at the C-terminus.

Source: Human

Expression Host: HEK293 Cells

QC Testing

Purity: > 96 % as determined by SDS-PAGE

Bio Activity:

Measured by its binding ability in a functional ELISA. Immobilized human SIRPG-His at 10 µg/ml (100 µl/well) can bind human CD47-Fc (Cat:12283-H02H). The EC_{50} of human CD47-Fc (Cat:12283-H02H) is 0.58-1.34 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: Val 64

Molecular Mass:

The recombinant human SIRPG consists of 312 amino acids and predicts a molecular mass of 34.7 kDa. In SDS-PAGE under reducing conditions, the apparent molecular mass of rhSIRPG is approximately 45-48 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

Storage:

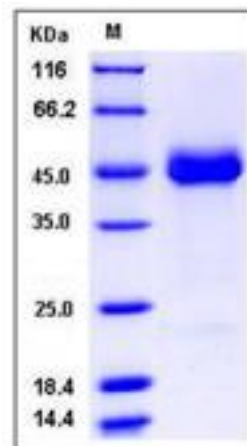
Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

Signal-regulatory protein gamma (SIRPG/SIRP gamma) also known as CD172 antigen-like family member B, CD172g, and CD172g antigen, is a member of the signal-regulatory protein (SIRP) family, and also belongs to the immunoglobulin superfamily. SIRP family members are receptor-type transmembrane glycoproteins known to be involved in the negative regulation of receptor tyrosine kinase-coupled signaling processes. SIRPG/SIRP gamma/CD172g is probable immunoglobulin-like cell surface receptor. On binding with CD47, SIRPG can mediate cell-cell adhesion. SIRPG/SIRP gamma is engagement on T-cells by CD47 on antigen-presenting cells results in enhanced antigen-specific T-cell proliferation and costimulates T-cell activation. SIRPG/SIRP gamma/CD172g is detected in liver, and at very low levels in brain, heart, lung, pancreas, kidney, placenta and skeletal muscle. Expressed on CD4+ T-cells, CD8+ T-cells, CD56-bright natural killer (NK) cells, CD20+ cells, and all activated NK cells. This cytokine is mainly present in the paracortical T-cell area of lymph nodes, with only sparse positive cells in the mantle and in the germinal center of B-cell follicles. In the thymus, SIRPG is primarily expressed in the medulla on mature T-lymphocytes that have undergone thymic selection.

References

1. Meador JA, *et al.* (2011) p53-independent downregulation of histone gene expression in human cell lines by high- and low-let radiation. *Radiat Res.* 175(6): 689-99.
2. Reddy MV, *et al.* (2011) Association between type 1 diabetes and GWAS SNPs in the southeast US Caucasian population. *Genes Immun.* 12(3): 208-12.
3. Kawasaki M, *et al.* (2009) Changes in the gene expression of peripheral blood mononuclear cells during the menstrual cycle of females is associated with a gender bias in the incidence of systemic lupus erythematosus. *Clin Exp Rheumatol.* 27(2): 260-6.

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