Data Sheet (Cat.No.TMPY-03543)

TargetMol

SIRP gamma Protein, Cynomolgus, Recombinant (His)

General Information

Synonyms:	signal-regulatory protein γ;signal-regulatory protein gamma;SIRP γ/SIRPG
Protein Construction:	A DNA sequence encoding the cynomolgus SIRPG (Met1-His360) was expressed with a polyhistidine tag at the C-terminus. Predicted N terminal: Glu 29
Species:	Cynomolgus
Expression Host:	HEK293 Cells
Molecular Weight:	38.1 kDa (predicted); 45 kDa (reducing conditions)

QC Testing

Biological Activity:	Activity testing is in progress. It is theoretically active, but we cannot guarantee it. If you require protein activity, we recommend choosing the eukaryotic expression version first.
Purity:	> 90 % 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

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 a 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.

Reference

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.

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.

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.

Tel:781-999-4286 E_mail:info@targetmol.com Address:34 Washington Street,Wellesley Hills,MA 02481