# Data Sheet (Cat.No.TMPY-01853)

TargetMol

## SIRP gamma Protein, Human, Recombinant (His)

### General Information

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| Synonyms: | bA77C3.1;signal-regulatory protein gamma;SIRP γ/SIRPG;signal-regulatory protein γ;SIRPγ;SIRPB2;CD172g;SIRPgamma;SIRP-B2 |
| Protein Construction: | A DNA sequence encoding the human SIRPG (NP_061026.2) extracellular domain (Met1-Ser364) was expressed with a polyhistidine tag at the C-terminus. Predicted N terminal: Glu 29 |
| Species: | Human |
| Expression Host: | HEK293 Cells |
| Accession: | Q9P1W8-1 |
| Molecular Weight: | 38.5 kDa (predicted); 45-48 kDa (reducing condition, due to glycosylation) |

### QC Testing

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| Biological 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 , The EC50 of human CD47-Fc is 0.58-1.34 μg/ml. |
| Purity: | ≥ 96 % as determined by SDS-PAGE. ≥ 90 % as determined by SEC-HPLC. |
| 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:

Reconstituted with sterile deionized water to 0.25 mg/mL. Reconstitution conditions may vary depending on the lot.

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

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