



Recombinant Protein Technical Manual  
Recombinant Mouse SIRPB1A/SIRP beta 1 Protein  
(His Tag)  
RPES1605

Product Data:

**Product SKU:** RPES1605

**Size:** 20µg

**Species:** Mouse

**Expression host:** HEK293 Cells

**Uniprot:** BAD26610.1

Protein Information:

**Molecular Mass:** 39.1 kDa

**AP Molecular Mass:** 55-60 kDa

**Tag:** C-His

**Bio-activity:**

**Purity:** > 98 % as determined by SDS-PAGE

**Endotoxin:** < 1.0 EU per µg of the protein as determined by the LAL method.

**Storage:** Lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.

**Shipping:** This product is provided as lyophilized powder which is shipped with ice packs.

**Formulation:** Lyophilized from sterile PBS, pH 7.4

**Reconstitution:** Please refer to the printed manual for detailed information.

**Application:**

**Synonyms:** 9930027N05Rik;SIRP-beta;Sirpb;Sirpb1;Sirpb1a

## Immunogen Information:

**Sequence:** Met 1-Lys 363

## Background:

SIRPB1A (Signal-regulatory protein beta 1A), also known as SIRP beta 1, belongs to signal-regulatory-protein (SIRP) family, and immunoglobulin superfamily. Signal-regulatory proteins (SIRPs) are cell-surface glycoproteins expressed on myeloid and neural cells that have been shown to recruit SH2 domain-containing protein phosphatase 1 (SHP) and SHP-2 and to regulate receptor tyrosine kinase-coupled signaling. SIRP are classified as SIRP alpha molecules, containing a 110- to 113-amino acid long, or SIRP beta molecules, with a 5-amino acid long intracytoplasmic domain. SIRP beta 1 is a new DAP12-associated receptor involved in the activation of myeloid cells, which contains a short cytoplasmic domain that lacks sequence motifs capable of recruiting SHP and SHP-2. SIRP beta 1 acts as an activating isoform of SIRP alpha molecules, confirming the co-existence of inhibitory ITIM-bearing molecules, recruiting SHP and SHP-2 protein tyrosine phosphatases, and activating counterparts, whose engagement couples to protein tyrosine kinases via ITAM-bearing molecules.