## Recombinant Mouse SPN/CD43 Protein (Fc Tag)

Catalog Number: PKSM040511



Note: Centrifuge before opening to ensure complete recovery of vial contents.

#### **Description**

**Synonyms** A630014B01Rik;Cd43;Galgp;Ly-48;Ly48

**Species** Mouse

**Expression Host** HEK293 Cells **Sequence** Met 1-Gly 248

Accession P15702

Calculated Molecular Weight 49.6 kDa

Observed molecular weight 110 kDa

Tag C-hFc

#### **Properties**

**Purity** > 80 % as determined by reducing SDS-PAGE.

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

**Storage** Generally, 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

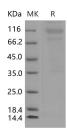
Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as

protectants before lyophilization.

Please refer to the specific buffer information in the printed manual.

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

#### Data



> 80 % as determined by reducing SDS-PAGE.

### **Background**

CD43 is an abundantly expressed molecule on the T-cell surface that shows distinct localization to the migrating T-cell uropod and the distal pole complex (DPC) opposite the immunological synapse via association with the ezrin-radixin-moesin (ERM) family of actin regulatory proteins. CD43 has a 235-amino acid (aa) extracellular domain, a 23-aa transmembrane domain, and a 123-aa cytoplasmic domain, all encoded by a single exon. The intracytoplasmic region of the protein is necessary to transduce signals; it is rich in potentially phosphorylable threonines and serines but lacks tyrosine residues as well as catalytic activity. CD43 engagement on human peripheral blood T cells and monocytes leads to cell activation and proliferation through the generation of second messengers such as diacylglycerol and inositol phosphates, protein kinase C (PKC) activation and Ca2+ mobilization. In addition, CD43 ligation on human T cells

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induces the association of CD43 with Src family kinases, presumably through the interaction of their Src homology 3 domain with a proline-rich region of the CD43 intracytoplasmic tail. This molecule has been implicated in T cell activation, enhancing T cell response to allogeneic or mitogenic stimulation and CD43-specific signals have been reported to be sufficient to activate T cells in the absence of T cell receptor (TCR) engagement. In summary, CD43 regulates multiple T-cell functions, including T-cell activation, proliferation, apoptosis, and migration.

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