Mouse SPN / CD43 Protein (Fc Tag)

Catalog Number: **50735-M02H**

General Information

Gene Name Synonym:

A630014B01Rik; Cd43; Galgp; Ly-48; Ly48

Protein Construction:

A DNA sequence encoding the extracellular domain of mouse SPN (P15702) (Met 1-Gly 248) was fused with the Fc region of human IgG1 at the C-terminus.

Source: Mouse

Expression Host: HEK293 Cells

QC Testing

Purity: > 80 % as determined by SDS-PAGE

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 ℃

Predicted N terminal: Asp 20

Molecular Mass:

The secreted recombinant mouse SPN/Fc is a disulfide-linked homodimer. The reduced monomer comprises 470 amino acids and has a calculated molecular mass of 49.6 kDa. As a result of glycosylation, the apparent molecular mass of rmSPN/Fc monomer is approximately 110 kDa in SDS-PAGE under reducing conditions.

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:

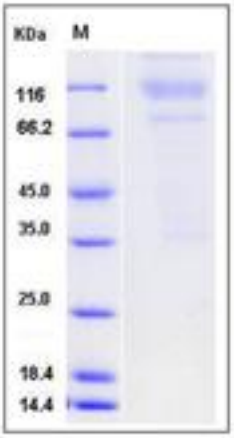
Store it under sterile conditions at -20℃ to -80℃ upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

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 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.

References

1.. Layseca-Espinosa E, et al. (2003) Journal of Leukocyte Biology. 74(6): 1083-93. 2.Cannon JL, et al. (2011) Mol Biol Cell. 22(7):954-63. 3.Pallant A,et al. (1989). Proc Natl Acad Sci. 86 (4): 1328–32.