Human CD93 / C1QR1 Protein (Fc Tag)

Catalog Number: **12589-H02H**

General Information

Gene Name Synonym:

C1qR; C1qR(P); C1QR1; C1qRP; CDw93; dJ737E23.1; ECSM3; MXRA4

Protein Construction:

A DNA sequence encoding the human CD93 (Q9NPY3) extracellular domain (Met 1-Lys 580) was fused with the Fc region of human IgG1 at the C-terminus.

Source: Human

Expression Host: HEK293 Cells

QC Testing

Purity: > 85 % 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: Thr 22

Molecular Mass:

The recombinant human CD93/Fc is a disulfide-linked homodimer. The reduced monomer consists of 800 amino acids after removal the signal peptide and has a predicted molecular mass of 85.2 kDa. As a result of glycosylation, rh CD93/Fc monomer migrates as an approximately 125 kDa band 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:

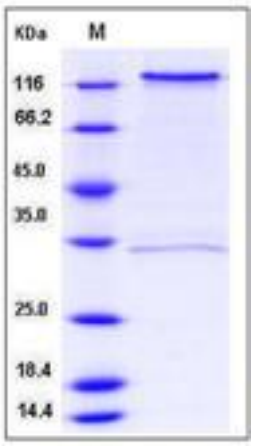
Store it under sterile conditions at -20℃ to -80℃ upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

CD93 or C1q receptor 1 (C1qR) is an about 120 kDa O-sialoglycoprotein that within the hematopoietic system is selectively expressed on cells of the myeloid lineage. CD93/C1qR is a highly glycosylated transmembrane protein expressed on monocytes, neutrophils, endothelial cells, and stem cells. CD93 was originally identified as a myeloid cell-surface marker and subsequently associated with an ability to modulate phagocytosis of suboptimally opsonized immunoglobulin G and complement particles in vitro. CD93/C1qR, a receptor expressed during early B-cell development, is reinduced during plasma-cell differentiation. High CD93/CD138 expression was restricted to antibody-secreting cells both in T-dependent and T-independent responses as naive, memory, and germinal-center B cells remained CD93-negative. CD93 was expressed on (pre)plasmablasts/plasma cells, including long-lived plasma cells that showed decreased cell cycle activity, high levels of isotype-switched Ig secretion, and modification of the transcriptional network. CD93 is important for the maintenance of plasma cells in bone marrow niches.

References

1.Bohlson SS, *et al.* (2005) CD93 is rapidly shed from the surface of human myeloid cells and the soluble form is detected in human plasma. J Immunol. 175(2): 1239-47. 2.Norsworthy PJ, *et al.* (2004) Murine CD93 (C1qRp) contributes to the removal of apoptotic cells in vivo but is not required for C1q-mediated enhancement of phagocytosis. J Immunol. 172(6): 3406-14. 3.Chevrier S, *et al.* (2009) CD93 is required for maintenance of antibody secretion and persistence of plasma cells in the bone marrow niche. Proc Natl Acad Sci U S A. 106(10): 3895-900.