Human CD23 / FCER2 Protein (His Tag)

Catalog Number: **10261-H07H**

General Information

Gene Name Synonym:

BLAST-2; CD23; CD23A; CLEC-6; CLEC4J; CLEC6; CLECSF8; FCE2; IGEBF; MCL; MGC40078; MPCL

Protein Construction:

A DNA sequence encoding the human CD23 isoform 2 (P06734-1) extracellular domain (Asp 48-Ser 321) was expressed, with a polyhistidine tag at the N-terminus.

Source: Human

Expression Host: HEK293 Cells

QC Testing

Purity: > 96 % 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: His

Molecular Mass:

The recombinant human CD23 consists of 290 amino acids and has a calculated molecular mass of 33.2 kDa. In SDS-PAGE under reducing conditions, the apparent molecular mass of rhCD23 is approximately 44 kDa due to glycosylation.

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:

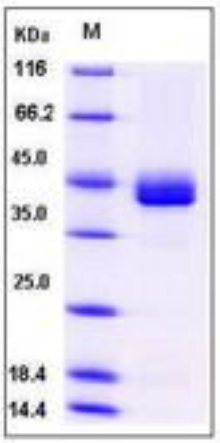
Store it under sterile conditions at -20℃ to -80℃ upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

Fc fragment of IgE, low affinity II, receptor for (CD23) or CD23 antigen is a member of the cluster of differentiation family. The cluster of differentiation (cluster of designation) (often abbreviated as CD) is a protocol used for the identification and investigation of cell surface molecules present on white blood cells initially but found in almost any kind of cell of the body, providing targets for immunophenotyping of cells. Physiologically, CD molecules can act in numerous ways, often acting as receptors or ligands (the molecule that activates a receptor) important to the cell. A signal cascade is usually initiated, altering the behavior of the cell (see cell signaling). Some CD proteins do not play a role in cell signaling, but have other functions, such as cell adhesion. CD23/FCER2 is a B-cell specific antigen, and a low-affinity receptor for IgE. It has essential roles in B cell growth and differentiation, and the regulation of IgE production. This protein also exists as a soluble secreted form, then functioning as a potent mitogenic growth factor. Increased levels of soluble CD23/FCER2 cause the recruitment of non-sensitised B-cells in the presentation of antigen peptides to allergen-specific B-cells, therefore increasing the production of allergen specific IgE. IgE, in turn, is known to upregulate the cellular expression of CD23 and Fc epsilon RI (high-affinity IgE receptor).

References

1.Aubry JP, *et al.* (1992) CD21 is a ligand for CD23 and regulates IgE production. Nature. 358(6386): 505-7. 2.Punnonen J, *et al.* (1993) Interleukin 13 induces interleukin 4-independent IgG4 and IgE synthesis and CD23 expression by human B cells. Proc Natl Acad Sci U S A. 90(8): 3730-4. 3.Yu P, *et al.* (1994) Negative feedback regulation of IgE synthesis by murine CD23. Nature. 369(6483): 753-6.