Human CD10 / Neprilysin / MME Protein (Fc Tag)

Catalog Number: **10805-H01H**

General Information

Gene Name Synonym:

CALLA; CD10; NEP; SFE

Protein Construction:

A DNA sequence encoding the extracellular domain (Tyr 52-Trp 750) of human membrane metallo-endopeptidase (NP_000893.2) was fused with the Fc region of human IgG1 at the N-terminus.

Source: Human

Expression Host: HEK293 Cells

QC Testing

Purity: > 95 % as determined by SDS-PAGE

Bio Activity:

Measured by its ability to cleave the fluorogenic peptide substrate, Mca-RPPGFSAFK(Dnp)-OH, (R&D Systems, Catalog # ES005) . The specific activity is >1000 pmoles/min/μg.

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: Glu 20

Molecular Mass:

The recombinant human MME/Fc is a disulfide-linked homodimeric protein. The reduced monomer consists of 936 amino acids and predicts a molecular mass of 106 kDa. As a result of glycosylation, the rh Fc monomer migrates as approximately 120-130 kDa band in SDS-PAGE under reducing conditions.

Formulation:

Lyophilized from sterile 100mM Glycine, 10mM NaCl, 50mM Tris, pH 7.5

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:

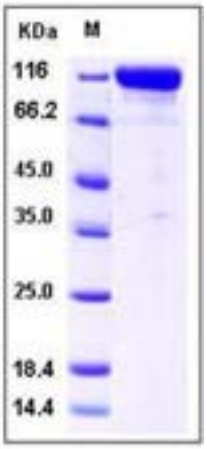
Store it under sterile conditions at -20℃ to -80℃ upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

The cluster of differentiation (CD) system is commonly used as cell markers in immunophynotyping. Different kinds of cells in the immune system can be identified through the surface CD molecules which associating with the immune function of the cell. There are more than 320 CD unique clusters and subclusters have been identified. Some of the CD molecules serve as receptors or ligands important to the cell through initiating a signal cascade which then alter the behavior of the cell. Some CD proteins do not take part in cell signal process but have other functions such as cell adhesion. Cluster of differentiation 10 (CD10), also known as Neprilysin and neutral endopeptidase, is a member of the CD system. CD10 is a zinc-dependent metalloprotease enzyme that had function to degrade a number of small secreted peptides such as the amyloid beta peptide. It exist as a membrane-bound protein and have high concentration in kidney and lung tissues. Mutations in the CD10 gene can induce the familial forms of Alzheimer's disease, providing strong evidence for the protein's association with the Alzheimer's disease process. CD10 is also associated with other biochemical processes.

References

1.Zola H, *et al.* (2007) CD molecules 2006-human cell differentiation molecules. J Immunol Methods. 318 (1-2): 1-5. 2.Ho IC, *et al.* (2009) GATA3 and the T-cell lineage: essential functions before and after T-helper-2-cell differentiation. Nat Rev Immunol. 9 (2): 125-35. 3.Matesanz-Isabel J, *et al.* (2011) New B-cell CD molecules. Immunology Letters.134 (2): 104-12