Human ADGRE5 / CD97 Protein (His Tag)

Catalog Number: 11280-H08H

Sino Biological
Biological Solution Specialist

General Information

Gene Name Synonym:

CD97; TM7LN1

Protein Construction:

A DNA sequence encoding the first 398 amino acids (Met 1-Gln 398) of human CD97 isoform 2 (NP_001775.2) extracellular domain was fused with a polyhistidine tag at the C-terminus.

Source: Human

Expression Host: HEK293 Cells

QC Testing

Purity: > 85 % as determined by SDS-PAGE

Bio Activity:

1. Measured by its binding ability in a functional ELISA. Immobilized recombinant human CD97 at 10 μg/ml (100 μl/well) can bind recombinant human CD55 at a linear range of 0.46-30 μg/ml.
2. Using the Octet RED System, the affinity constant (Kd) of Anti-CD97 Antibody (Cat. 11280-MM03) bound to CD97 Protein, Human, Recombinant (His Tag) (Cat.11280-H08H was 0.2 nM..

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: Gln 21

Molecular Mass:

The recombinant human CD97 consists of 389 amino acids and predictes a molecular mass of 42.6 kDa. In SDS-PAGE under reducing conditions, the apparent molecular mass of rh CD97 is approximately 60-70 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:

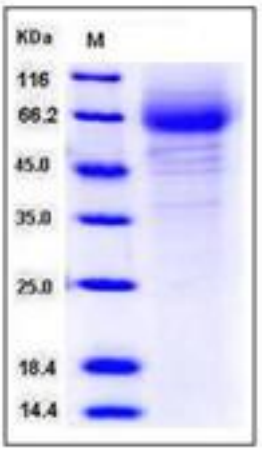
Store it under sterile conditions at -20℃ to -80℃ upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

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 32 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. The CD97 is a receptor predominantly expressed in leukocytes and belongs to a new group of seven-span transmembrane molecules, which is also designed EGF-TM7 family. The family members are characterized by an extended extracellular region with several N-terminal epidermal growth factor-like domains two of which contain a calcium binding site. Muture CD 97 has two noncovalently associated subunits and is composed of a large extracellular protein (CD97 alpha) and a seven-membrane spanning protein (CD97 beta). CD97 is considered as a defining feature of G protein-coupled receptors. The effects that lymphocytes and erythrocytes adere to CD97-transfected COS cells suggest that CD97 has the ability to bind cellular ligands. CD97 alpha has three alternatively spliced isforms that are related to the calium binding EGF-like repeats in the microfibril protein fibrillin. Leukocytes strongly positive for CD97 are concentrated at sites of inflammation relative to CD97 expression in normal lymphoid tissues.

References

1.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.
2.Matesanz-Isabel J, et al. (2011) New B-cell CD molecules. Immunology Letters.134 (2): 104-12.
3.Gray JX, et al. (1996) CD97 is a processed, seven-transmembrane, heterodimeric receptor associated with inflammation. The journal of Immunology. 157 (12): 5438-47.