

CD97 Active Protein | ADGRE5 active protein

CD97 Protein, Human, Recombinant (His Tag)

CATALOG #
AAA257974

HOST
HEK293 Cells

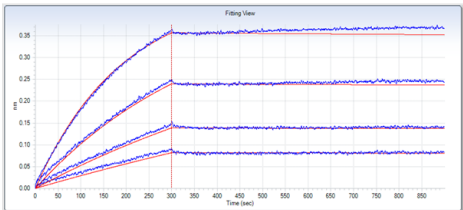
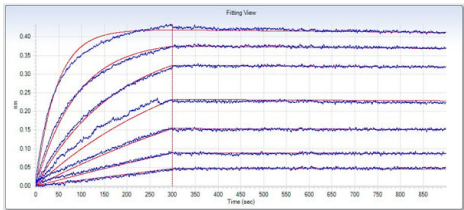
PRODUCT SYNONYMS

CD97; CD97 Protein; Human; Recombinant (His Tag); Human ADGRE5/CD97 Protein (His Tag); TM7LN1 Protein; adhesion G protein-coupled receptor E5; ADGRE5 active protein

PRODUCT SPECIFICATIONS

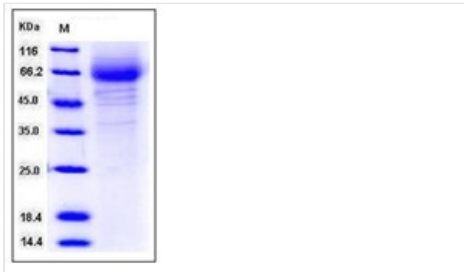
Host	HEK293 Cells
Purity/Purification	>85% as determined by SDS-PAGE
Form/Format	Lyophilized from sterile PBS, pH7.4. Normally 5%-8% trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Please refer to the specific buffer information in the hard copy of CoA.
Sequence	Met1-Gln39 8
Species	Human
Endotoxin	<1.0EU per ug of the protein as determined by the LAL method
Predicted N Terminal	Gln 21
Tag	C-His
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.
Reconstitution	A hardcopy of COA with reconstitution instruction is sent along with the products. Please refer to it for detailed information.
Activity	1. Measured by its binding ability in a functional ELISA. Immobilized recombinant human CD97 at 10ug/ml (100uL/well) can bind recombinant human CD55 at a linear range of 0.46-30ug/ml. 2. Using the Octet RED System. The affinity constant (Kd) of Anti-CD97 Antibody bound to CD97 Protein, Human, Recombinant (His Tag)
Preparation and Storage	Samples are stable for up to twelve months from date of receipt at -20 degree C to -80 degree C. Store it under sterile conditions at -20 degree C to -80 degree C. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles. In general, recombinant proteins are provided as lyophilized powder which are shipped at ambient temperature. Bulk packages of recombinant proteins are provided as frozen liquid. They are shipped out with blue ice.

IMAGES



Application Data
Loaded Anti-CD97 Antibody on AMC Biosensor, can bind CD97 Protein, Human, Recombinant (His Tag) with an affinity constant of 0.2 nM as determined by Octet RED System.

Application Data
Using the Octet RED System, the affinity constant (Kd) of CD97 Protein, Human, Recombinant (His Tag) bound to Anti-CD97 Antibody was 0.1 nM.



SDS-PAGE

ADDITIONAL INFORMATION

Related Product Information for
ADGRE5 active protein

Background: The cluster of differentiation (CD) system is commonly used as cell markers in immunophenotyping. 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. Mature 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 adhere to CD97-transfected COS cells suggest that CD97 has the ability to bind cellular ligands. CD97 alpha has three alternatively spliced isoforms that are related to the calcium-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

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.Matesanz-Isabel J, et al. (2011) New B-cell CD molecules. Immunology Letters.134 (2): 104-12.Gray JX, et al. (1996) CD97 is a processed, seven-transmembrane, heterodimeric receptor associated with inflammation. The journal of Immunology. 157 (12): 5438-47.Hamann J,et al. (1998) Characterization of the CD55 (DAF)-binding site on the seven-span transmembrane receptor CD97.European Journal of Immunology. 28 (5): 1701-7.

NCBI AND UNIPROT INFORMATION

NCBI GI #	17978489
NCBI GeneID	976
NCBI Accession #	NP_001775.2
NCBI GenBank Nucleotide #	NM_001784.4
UniProt Accession #	P48960; O00718; O76101; Q8NG72; Q8TBQ7; A8K7Z4; B2RBJ9
Molecular Weight	86,628 Da

NCBI Official Full Name	CD97 antigen isoform 2 preproprotein
NCBI Official Synonym Full Names	adhesion G protein-coupled receptor E5
NCBI Official Symbol	ADGRE5
NCBI Official Synonym Symbols	CD97; TM7LN1
NCBI Protein Information	CD97 antigen
UniProt Protein Name	CD97 antigen
UniProt Gene Name	CD97
UniProt Entry Name	CD97_HUMAN

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/hek293-cells-adgre5-active-protein/cd97/257974>