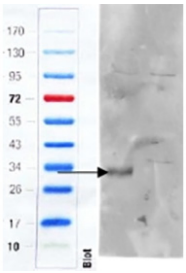
CD97 Antibody / Adhesion GPCR Immune Marker (R36295)

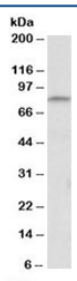
Catalog No.	Formulation	Size
R36295-100UG	0.5 mg/ml in 1X TBS, pH7.3, with 0.5% BSA (US sourced) and 0.02% sodium azide	100 ug

Bulk quote request

Availability	1-3 business days
Species Reactivity	Mouse
Format	Antigen affinity purified
Host	Goat
Clonality	Polyclonal (goat origin)
Isotype	Goat Ig
Purity	Antigen affinity
Gene ID	26364
Applications	Western blot: 0.3-1ug/ml ELISA (peptide) LOD: 1:128000
Limitations	This CD97 Antibody / Adhesion GPCR Immune Marker is available for research use only.



CD97 Antibody Knockout Colon WB. Western blot analysis of mouse colon tissue lysates from wild-type and Cd97 knockout mice using goat polyclonal CD97 antibody at 1 ug/ml. Immunoreactive bands corresponding to processed CD97 receptor species are markedly reduced in knockout tissue, supporting selective detection of Adhesion G protein-coupled receptor E5 / ADGRE5. The observed molecular weight pattern is consistent with known full-length and cleavage-derived forms of the CD97 adhesion GPCR.



CD97 Antibody Thymus WB. Western blot testing of mouse thymus tissue lysate using goat polyclonal CD97 antibody at 0.3 ug/ml. Immunoreactive bands are detected corresponding to expected CD97 receptor species, including processed forms associated with autoproteolytic cleavage of Adhesion G protein-coupled receptor E5 / ADGRE5. The observed expression pattern is consistent with the known leukocyte-associated and immune tissue distribution of this adhesion GPCR.

Description

Adhesion G protein-coupled receptor E5 (ADGRE5), commonly known as CD97, is a leukocyte-associated adhesion GPCR encoded by the ADGRE5 gene and involved in immune cell migration, inflammatory signaling, and cell-cell interactions. CD97 Antibody / Adhesion GPCR Immune Marker is useful for studying leukocyte biology, adhesion receptor signaling, tumor invasion, and immune microenvironment regulation. CD97 belongs to the adhesion G protein-coupled receptor family, a specialized GPCR subgroup characterized by large extracellular adhesion domains and autoproteolytic receptor processing.

CD97 antibody, also referred to as ADGRE5 antibody, Leukocyte antigen CD97 antibody, or Adhesion G protein-coupled receptor E5 antibody in the literature, recognizes a receptor broadly expressed on leukocytes and activated immune cell populations. CD97 interacts with ligands including CD55/DAF and extracellular matrix-associated proteins to regulate immune cell adhesion, migration, and tissue infiltration. The receptor has additionally been implicated in inflammatory responses, macrophage activation, neutrophil trafficking, and tumor-associated invasion pathways.

CD97 is synthesized as a multidomain precursor protein that undergoes autoproteolytic cleavage into alpha and beta receptor subunits, producing multiple biologically relevant molecular species detectable by western blot analysis. The extracellular alpha chain participates in ligand recognition and adhesion signaling, while the transmembrane beta chain contributes to intracellular GPCR signaling mechanisms. Because of this cleavage-dependent maturation process, CD97 may appear as multiple immunoreactive bands corresponding to full-length receptor and processed receptor components.

ADGRE5 is highly expressed in immune-associated tissues and leukocyte-rich cellular environments including thymus, lymphoid organs, activated macrophages, granulocytes, and subsets of T cells. Increased CD97 expression has additionally been reported in multiple cancers including colorectal carcinoma, thyroid carcinoma, pancreatic cancer, and glioblastoma, where the receptor has been associated with invasive growth patterns and metastatic behavior. The protein contributes to signaling pathways regulating cell motility, inflammatory activation, and interactions between immune cells and stromal microenvironments.

CD97 is encoded on human chromosome 19p13 and produces a member of the adhesion GPCR family containing epidermal growth factor-like extracellular domains and a GPCR autoproteolysis-inducing domain involved in receptor cleavage. The receptor localizes primarily to the plasma membrane where it mediates adhesion-dependent signaling and immune cell communication. Due to its leukocyte-associated expression profile and role in inflammatory regulation, CD97 remains an important target in immunology, oncology, and adhesion receptor signaling research.

This goat polyclonal CD97 antibody has been supported using knockout-validated and endogenous tissue western blot approaches in mouse colon and thymus lysates. Knockout analysis demonstrates marked reduction of CD97-associated bands in knockout colon tissue relative to wild-type controls, supporting selective endogenous receptor detection. Additional western blot analysis in mouse thymus identifies immunoreactive bands consistent with full-length and processed CD97 receptor forms, supporting detection of ADGRE5 in immune-associated tissues.

Explore our Knockdown Validated Antibodies page for additional antibodies supported by gene silencing or knockout validation strategies to help confirm target-specific signal detection in western blot, immunofluorescence, and related research applications.

Application Notes

Optimal dilution of the CD97 Antibody / Adhesion GPCR Immune Marker should be determined by the researcher.

Immunogen

Amino acids TSQTRALRSSES were used as the immunogen for this CD97 Antibody.

Storage

Aliquot and store the CD97 Antibody at -20oC.

Alternate Names

ADGRE5 antibody, Adhesion G protein-coupled receptor E5 antibody, Leukocyte antigen CD97 antibody, CD97 leukocyte receptor antibody, ADGRE5 immune receptor antibody

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