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Anti-GPR56 Antibody

Catalog # AP60464

Product Information

Application	WB
Primary Accession	Q9Y653
Reactivity	Human, Rat
Host	Rabbit
Clonality	Polyclonal
Calculated MW	77738

Additional Information

Gene ID	9289
Other Names	TM7LN4; TM7XN1; G-protein coupled receptor 56; Protein TM7XN1
Target/Specificity	KLH-conjugated synthetic peptide encompassing a sequence within the center region of human GPR56. The exact sequence is proprietary.
Dilution	WB~~WB (1/500 - 1/1000)
Format	Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, pH 7.3, 30% glycerol, and 0.01% sodium azide.
Storage	Store at -20 °C.Stable for 12 months from date of receipt

Protein Information

Name	ADGRG1 {ECO:0000303|PubMed:26710850, ECO:0000312|HGNC:HGNC:4512}
Function	Adhesion G protein-coupled receptor (aGPCR) for steroid hormone 17alpha-hydroxypregnenolone (17-OH), which is involved in cell adhesion and cell-cell interactions (PubMed:39389061). Ligand binding causes a conformation change that triggers signaling via guanine nucleotide-binding proteins (G proteins) and modulates the activity of downstream effectors, such as RhoA pathway (PubMed:28874577, PubMed:35418682, PubMed:39389061). ADGRG1 is coupled to G(12) and/or G(13) G proteins (GNA12 and GNA13, respectively) and mediates the activation Rho small GTPases (PubMed:22238662, PubMed:28424266, PubMed:35418682, PubMed:39389061). Acts as a potent suppressor of ferroptosis: binding to 17-OH-binding initiates signaling that down- regulates CD36 and alleviates ferroptosis-induced liver injury (By similarity). Ligand-binding also induces cell adhesion activity via association with proteins such as collagen III/COL3A1 and TGM2 (By similarity). Mediates cell matrix adhesion in developing neurons and hematopoietic stem cells (By similarity). Involved in cortical

development, specifically in maintenance of the pial basement membrane integrity and in cortical lamination: association with COL3A1 in the developing brain inhibits neuronal migration via activation of the RhoA pathway (PubMed:24531968). Together with TGM2, acts as a regulator of myelination and myelin repair in oligodendrocyte precursor cells (By similarity). Acts as a hemostatic sensor of shear force: G protein- coupled receptor signaling is activated in response to shear force in platelets, promoting G(13) G protein signaling, and platelet shape change and aggregation in a COL3A1-dependent manner (PubMed:33097663). Acts as an inhibitor of VEGFA production thereby inhibiting angiogenesis through a signaling pathway mediated by PRKCA (PubMed:16757564, PubMed:19572147, PubMed:21724588). Plays a role in the maintenance of hematopoietic stem cells in bone marrow niche (By similarity). Plays an essential role in testis development (By similarity).

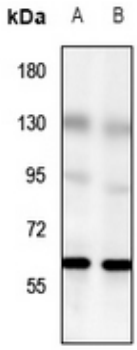
Cellular Location

Cell membrane; Multi-pass membrane protein [Adhesion G protein-coupled receptor G1, C- terminal fragment]: Membrane raft Note=Interaction with its ligand COL3A1 leads to the release of ADGRG1 NT from the membrane and triggers the association of ADGRG1 CT with lipid rafts.

Tissue Location

Widely distributed with highest levels found in thyroid gland, brain and heart. Expressed in a great number of tumor cells. Expression is down-regulated in different tumors from highly metastatic cells.

Images



Western blot analysis of GPR56 expression in C6 (A), Hela (B) whole cell lysates. (Predicted band size: 77 kD; Observed band size: 65 kD)

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