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ADGRG1 / GPR56 Antibody (Cytoplasmic Domain)
Rabbit Polyclonal Antibody
Catalog # ALS10301

Specification

ADGRG1 / GPR56 Antibody (Cytoplasmic Domain) - Product Information

Application	**IHC**
Primary Accession	Q9Y653
Reactivity	**Human, Monkey**
Host	**Rabbit**
Clonality	**Polyclonal**
Calculated MW	**78kDa KDa**

ADGRG1 / GPR56 Antibody (Cytoplasmic Domain) - Additional Information

Gene ID 9289

Other Names
G-protein coupled receptor 56, Protein TM7XN1, GPR56 N-terminal fragment, GPR56 NT, GPR56(N), GPR56 extracellular subunit, GPR56 subunit alpha, GPR56 C-terminal fragment, GPR56 CT, GPR56(C), GPR56 seven-transmembrane subunit, GPR56 7TM, GPR56 subunit beta, GPR56, TM7LN4, TM7XN1

Target/Specificity
Human GPR56. BLAST analysis of the peptide immunogen showed no homology with other human proteins.

Reconstitution & Storage
Long term: -70°C; Short term: +4°C

Precautions
ADGRG1 / GPR56 Antibody (Cytoplasmic Domain) is for research use only and not for use in diagnostic or therapeutic procedures.

ADGRG1 / GPR56 Antibody (Cytoplasmic Domain) - Protein Information

Name ADGRG1 (HGNC:4512)

Synonyms GPR56, TM7LN4, TM7XN1

Function
Receptor involved in cell adhesion and probably in cell-cell interactions. Mediates cell matrix adhesion in developing neurons and hematopoietic stem cells. Receptor for collagen III/COL3A1 in the developing brain and involved in regulation of cortical development, specifically in maintenance of the pial basement membrane integrity and in cortical lamination (By similarity). Binding to the COL3A1 ligand inhibits neuronal migration and activates the RhoA pathway by coupling to GNA13 and possibly GNA12 (PubMed:22238662). Plays a role

in the maintenance of hematopoietic stem cells and/or leukemia stem cells in bone marrow niche (By similarity). Plays a critical role in cancer progression by inhibiting VEGFA production thereby inhibiting angiogenesis through a signaling pathway mediated by PRKCA (PubMed:16757564, PubMed:21724588). Plays an essential role in testis development (By similarity).

Cellular Location
Cell membrane; Multi-pass membrane protein [ADGRG1 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.

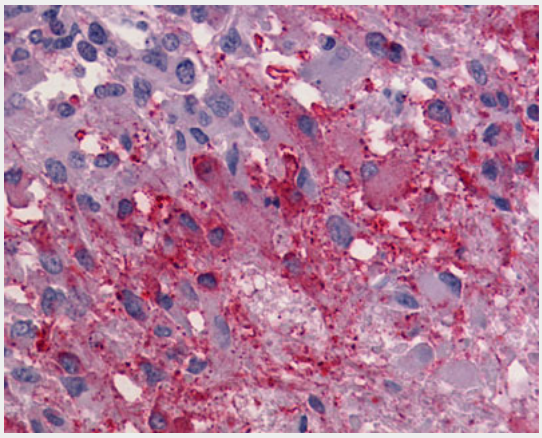
Volume
50 µl

ADGRG1 / GPR56 Antibody (Cytoplasmic Domain) - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

ADGRG1 / GPR56 Antibody (Cytoplasmic Domain) - Images



Anti-GPR56 antibody IHC of human Brain, Glioblastoma.

ADGRG1 / GPR56 Antibody (Cytoplasmic Domain) - Background

Involved in cell adhesion and probably in cell-cell interactions. Regulates the migration of neural precursor cells. Receptor for collagen III/COL3A1 in the developing brain and involved in regulation

of cortical development, specifically in maintenance of the pial basemant membrane integrity and in cortical lamination. Binding to the COL3A1 ligand inhibits neuronal migration and activates the RhoA pathway by coupling to GNA13 and possibly GNA12. Isoforms show differences in receptor signaling, specifically in serum response element (SRE) transcriptional activation upon overexpression. Overexpression inhibits melanoma tumor growth and metastasis and, during melanoma progression, regulates VEGFA production and angiogenesis through PRKCA; unprocessed GPR56 is inhibiting and GPR56 NT is activating angiogenesis. Required for normal cortical development and regulation of neuroprogenitor cells proliferation.

ADGRG1 / GPR56 Antibody (Cytoplasmic Domain) - References

Liu M.,et al.Genomics 55:296-305(1999).
Zendman A.J.W.,et al.FEBS Lett. 446:292-298(1999).
Kaighin V.A.,et al.Submitted (DEC-2007) to the EMBL/GenBank/DDBJ databases.
Clark H.F.,et al.Genome Res. 13:2265-2270(2003).
Ota T.,et al.Nat. Genet. 36:40-45(2004).