10320 Camino Santa Fe, Suite G
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# GPR56 Antibody
**Purified Mouse Monoclonal Antibody (Mab)**
**Catalog # AW5485**

## Specification

### GPR56 Antibody - Product Information

| | |
|---|---|
| Application | **IF, WB,E** |
| Primary Accession | Q9Y653 |
| Reactivity | **Human** |
| Host | **Mouse** |
| Clonality | **Monoclonal** |
| Calculated MW | **H=78,77,59,58 KDa** |
| Isotype | **IgG1,k** |
| Antigen Source | **HUMAN** |

### GPR56 Antibody - 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

**Dilution**
IF~~1:25
WB~~1:1000

**Target/Specificity**
This antibody is generated from a mouse immunized with a recombinant protein.

**Format**
Purified monoclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein G column, followed by dialysis against PBS.

**Storage**
Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

**Precautions**
GPR56 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

### GPR56 Antibody - 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:<a href="http://www.uniprot.org/citations/22238662" target="_blank">22238662</a>). 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:<a href="http://www.uniprot.org/citations/16757564" target="_blank">16757564</a>, PubMed:<a href="http://www.uniprot.org/citations/21724588" target="_blank">21724588</a>). 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.

## GPR56 Antibody - 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

## GPR56 Antibody - Images

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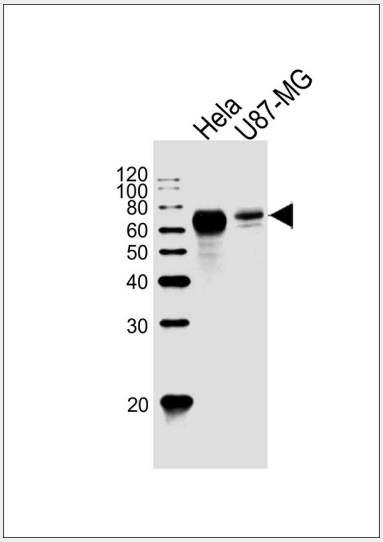
Immunofluorescent analysis of 4% paraformaldehyde-fixed HeLa (human cervical epithelial adenocarcinoma cell line) cells labeling Pdx1 with AW5485 at 1/25 dilution, followed by Dylight® 488-conjugated goat anti-mouse IgG (NK179883) secondary antibody at 1/200 dilution (green). Immunofluorescence image showing Cytoplasm staining on HeLa cell line. Cytoplasmic actin is detected with Dylight® 554 Phalloidin (PD18466410) at 1/100 dilution (red). The nuclear counter stain is DAPI (blue).




All lanes : Anti-GPR56 Antibody at 1:1000 dilution Lane 1: Hela whole cell lysates Lane 2: U87-MG whole cell lysates Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Mouse IgG, (H+L),Peroxidase conjugated at 1/10000 dilution Predicted band size : 78 kDa Blocking/Dilution buffer: 5% NFDM/TBST.

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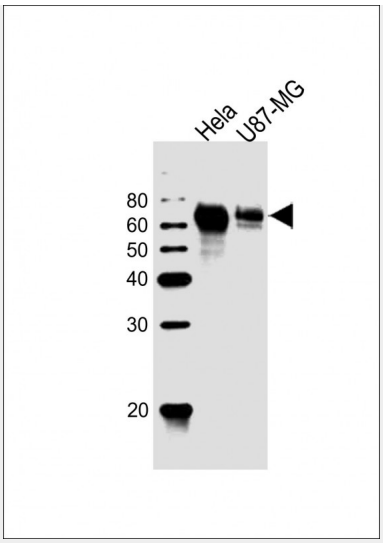


All lanes : Anti-GPR56 Antibody at 1:1000 dilution Lane 1: Hela whole cell lysates Lane 2: U87-MG whole cell lysates Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Mouse IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 78 kDa Blocking/Dilution buffer: 5% NFDM/TBST.

## GPR56 Antibody - 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.

## GPR56 Antibody - 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).