

Anti-GPR68 Antibody Catalog # AP53850

Specification

Anti-GPR68 Antibody - Product Information

Application	WB, IF
Primary Accession	Q15743
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Calculated MW	41077

Anti-GPR68 Antibody - Additional Information

Gene ID 8111

Other Names

OGR1; Ovarian cancer G-protein coupled receptor 1; OGR-1; G-protein coupled receptor 68; GPR12A; Sphingosylphosphorylcholine receptor

Target/Specificity

KLH-conjugated synthetic peptide encompassing a sequence within the C-term region of human GPR68. The exact sequence is proprietary.

Dilution

WB~~1/500 - 1/1000
IF~~1/50 - 1/200

Format

Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, pH 7.3, 30% glycerol, and 0.09% (W/V) sodium azide.

Storage

Store at -20 °C. Stable for 12 months from date of receipt

Anti-GPR68 Antibody - Protein Information

Name GPR68 {ECO:0000303|PubMed:27693231, ECO:0000312|HGNC:HGNC:4519}

Function

href="http://www.uniprot.org/citations/40215960" target="_blank">40215960

The receptor is almost silent at pH 7.8 but fully activated at pH 6.8 (PubMed:[12955148](http://www.uniprot.org/citations/12955148), PubMed:[39753132](http://www.uniprot.org/citations/39753132)). 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 phospholipase C (PubMed:[29677517](http://www.uniprot.org/citations/29677517), PubMed:[39753132](http://www.uniprot.org/citations/39753132)). GPR68 is mainly coupled to G(q) G proteins and mediates production of diacylglycerol (DAG) and inositol 1,4,5-trisphosphate (IP3) (PubMed:[29677517](http://www.uniprot.org/citations/29677517), PubMed:[39753132](http://www.uniprot.org/citations/39753132)). Acts as a key mechanosensor of fluid shear stress and membrane stretch (PubMed:[29677517](http://www.uniprot.org/citations/29677517), PubMed:[30471999](http://www.uniprot.org/citations/30471999)). Expressed in endothelial cells of small-diameter resistance arteries, where it mediates flow-induced dilation in response to shear stress (PubMed:[29677517](http://www.uniprot.org/citations/29677517)). May represents an osteoblastic pH sensor regulating cell-mediated responses to acidosis in bone (By similarity). Acts as a regulator of calcium-sensing receptor CASR in a seesaw manner: GPR68-mediated signaling inhibits CASR signaling in response to protons, while CASR inhibits GPR68 in presence of extracellular calcium (By similarity).

Cellular Location

Cell membrane; Multi-pass membrane protein

Tissue Location

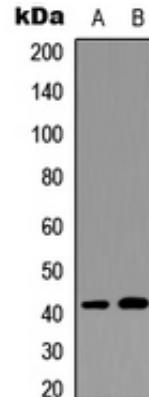
Found at low level in a wide range of tissues, but significantly expressed in lung, kidney, bone and nervous system

Anti-GPR68 Antibody - Protocols

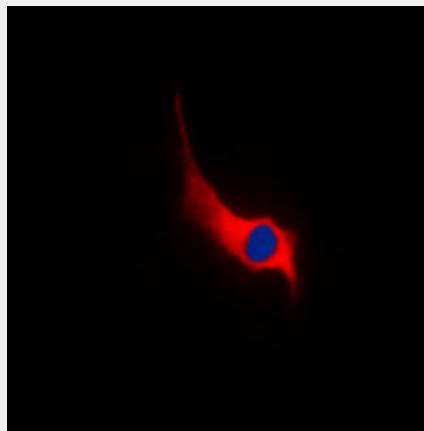
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

Anti-GPR68 Antibody - Images



Western blot analysis of GPR68 expression in HeLa (A), mouse spleen (B) whole cell lysates.



Immunofluorescent analysis of GPR68 staining in HeLa cells. Formalin-fixed cells were permeabilized with 0.1% Triton X-100 in TBS for 5-10 minutes and blocked with 3% BSA-PBS for 30 minutes at room temperature. Cells were probed with the primary antibody in 3% BSA-PBS and incubated overnight at 4 °C in a humidified chamber. Cells were washed with PBST and incubated with a DyLight 594-conjugated secondary antibody (red) in PBS at room temperature in the dark. DAPI was used to stain the cell nuclei (blue).

Anti-GPR68 Antibody - Background

Rabbit polyclonal antibody to GPR68