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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
Recognizes endogenous levels of GPR68 protein.

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
Proton-sensing G-protein coupled receptor activated by extracellular pH, which is required to monitor pH changes and generate adaptive reactions (PubMed:12955148, PubMed:29677517, PubMed:32865988, PubMed:33478938, PubMed:39753132). The receptor is almost silent at pH 7.8 but fully activated at pH 6.8 (PubMed:12955148, PubMed:<a

href="http://www.uniprot.org/citations/39753132" target="_blank">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, PubMed: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, PubMed:39753132). Acts as a key mechanosensor of fluid shear stress and membrane stretch (PubMed:29677517, PubMed:30471999). Expressed in endothelial cells of small-diameter resistance arteries, where it mediates flow-induced dilation in response to shear stress (PubMed: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

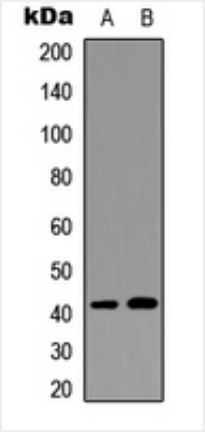
Tissue Location
Found at low level in a wide range of tissues, but significantly expressed in lung, kidney, bone and nervous system

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 Cytomety
- Cell Culture

Anti-GPR68 Antibody - Images



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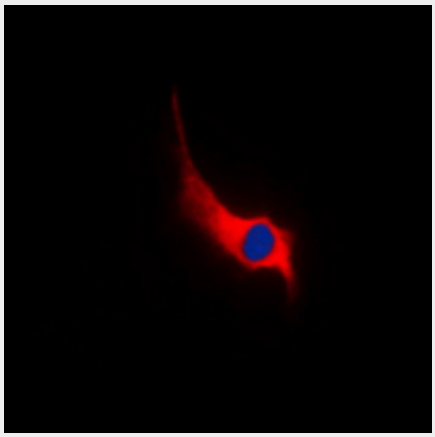
Western blot analysis of GPR68 expression in HeLa (A), mouse spleen (B) whole cell lysates.



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 hidified 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