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M Gpr68 Antibody (Center)
Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP20524c

Specification

M Gpr68 Antibody (Center) - Product Information

Application	**WB,E**
Primary Accession	Q8BFQ3
Other Accession	Q15743, O46685
Reactivity	**Mouse**
Predicted	**Bovine, Human**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**Rabbit IgG**
Calculated MW	**41209**
Antigen Region	**200-225**

M Gpr68 Antibody (Center) - Additional Information

Gene ID 238377

Other Names
Ovarian cancer G-protein coupled receptor 1, G-protein coupled receptor 68, Sphingosylphosphorylcholine receptor, Gpr68, Ogr1

Target/Specificity
This Mouse Gpr68 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 200-225 amino acids from the Central region of mouse Gpr68.

Dilution
WB~~1:1000
E~~Use at an assay dependent concentration.

Format
Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

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
M Gpr68 Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

M Gpr68 Antibody (Center) - Protein Information

Name Gpr68 {ECO:0000303|PubMed:29677517, ECO:0000312|MGI:MGI:2441763}

Function Proton-sensing G-protein coupled receptor activated by extracellular pH, which is required to monitor pH changes and generate adaptive reactions (By similarity). The receptor is almost silent at pH 7.8 but fully activated at pH 6.8 (By similarity). 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 (By similarity). GPR68 is mainly coupled to G(q) G proteins and mediates production of diacylglycerol (DAG) and inositol 1,4,5-trisphosphate (IP3) (By similarity). Acts as a key mechanosensor of fluid shear stress and membrane stretch (PubMed:29677517). 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 (PubMed:18847331). 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 (PubMed:26261299). Also functions as a metastasis suppressor gene in prostate cancer (PubMed:17728215).

Cellular Location
Cell membrane {ECO:0000250|UniProtKB:Q15743}; Multi-pass membrane protein

Tissue Location
Expressed in the lung, testis, heart, brain, spleen, thymus, brown fat, small intestine, colon, peripheral blood leukocytes, macrophages, stomach, ovary and white fat but not in the liver, kidney, and skeletal muscle (PubMed:19479052). Expression in the prostate is weak but detectable (PubMed:19479052). Specifically expressed in endothelial cells of small-diameter resistance arteries (PubMed:29677517).

M Gpr68 Antibody (Center) - 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

M Gpr68 Antibody (Center) - Images

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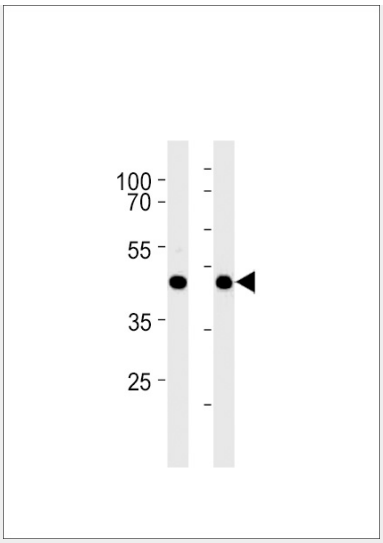

Mouse Gpr68 Antibody (Center) (Cat. #AP20524c) western blot analysis in mouse liver and heart tissue lysates (35ug/lane).This demonstrates the Mouse Gpr68 antibody detected the Mouse Gpr68 protein (arrow).

M Gpr68 Antibody (Center) - Background

Proton-sensing receptor involved in pH homeostasis. May represents an osteoblastic pH sensor regulating cell-mediated responses to acidosis in bone. Mediates its action by association with G proteins that stimulates inositol phosphate (IP) production or Ca(2+) mobilization. The receptor is almost silent at pH 7.8 but fully activated at pH 6.8. Function also as a metastasis suppressor gene in prostate cancer.

M Gpr68 Antibody (Center) - References

Carninci P., et al. Science 309:1559-1563(2005).
Vassilatis D.K., et al. Proc. Natl. Acad. Sci. U.S.A. 100:4903-4908(2003).
Singh L.S., et al. J. Natl. Cancer Inst. 99:1313-1327(2007).
Frick K.K., et al. J. Bone Miner. Res. 24:305-313(2009).
Li H., et al. PLoS ONE 4:E5705-E5705(2009).