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GPER1 / GPR30 Antibody (Extracellular Domain)

Rabbit Polyclonal Antibody

Catalog # ALS10757

Specification

GPER1 / GPR30 Antibody (Extracellular Domain) - Product Information

Application	**IHC**
Primary Accession	Q99527
Reactivity	**Human**
Host	**Rabbit**
Clonality	**Polyclonal**
Calculated MW	**42kDa KDa**

GPER1 / GPR30 Antibody (Extracellular Domain) - Additional Information

Gene ID 2852

Other Names
G-protein coupled estrogen receptor 1, Chemoattractant receptor-like 2, Flow-induced endothelial G-protein coupled receptor 1, FEG-1, G protein-coupled estrogen receptor 1, G-protein coupled receptor 30, GPCR-Br, IL8-related receptor DRY12, Lymphocyte-derived G-protein coupled receptor, LYGPR, Membrane estrogen receptor, mER, GPER1, CEPR, CMKRL2, DRY12, GPER, GPR30

Target/Specificity
Human GPR30. BLAST analysis of the peptide immunogen showed no homology with other human proteins.

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

Precautions
GPER1 / GPR30 Antibody (Extracellular Domain) is for research use only and not for use in diagnostic or therapeutic procedures.

GPER1 / GPR30 Antibody (Extracellular Domain) - Protein Information

Name GPER1 (HGNC:4485)

Function
G-protein coupled estrogen receptor that binds to 17-beta- estradiol (E2) with high affinity, leading to rapid and transient activation of numerous intracellular signaling pathways. Stimulates cAMP production, calcium mobilization and tyrosine kinase Src inducing the release of heparin-bound epidermal growth factor (HB-EGF) and subsequent transactivation of the epidermal growth factor receptor (EGFR), activating downstream signaling pathways such as PI3K/Akt and ERK/MAPK. Mediates pleiotropic functions among others in the cardiovascular, endocrine, reproductive, immune and central nervous systems. Has a role in cardioprotection by reducing cardiac hypertrophy and perivascular fibrosis in a RAMP3-dependent manner. Regulates arterial blood pressure by stimulating vasodilation and reducing vascular smooth muscle and microvascular

endothelial cell proliferation. Plays a role in blood glucose homeostasis contributing to the insulin secretion response by pancreatic beta cells. Triggers mitochondrial apoptosis during pachytene spermatocyte differentiation. Stimulates uterine epithelial cell proliferation. Enhances uterine contractility in response to oxytocin. Contributes to thymic atrophy by inducing apoptosis. Attenuates TNF-mediated endothelial expression of leukocyte adhesion molecules. Promotes neuritogenesis in developing hippocampal neurons. Plays a role in acute neuroprotection against NMDA-induced excitotoxic neuronal death. Increases firing activity and intracellular calcium oscillations in luteinizing hormone-releasing hormone (LHRH) neurons. Inhibits early osteoblast proliferation at growth plate during skeletal development. Inhibits mature adipocyte differentiation and lipid accumulation. Involved in the recruitment of beta-arrestin 2 ARRB2 at the plasma membrane in epithelial cells. Functions also as a receptor for aldosterone mediating rapid regulation of vascular contractibility through the PI3K/ERK signaling pathway. Involved in cancer progression regulation. Stimulates cancer-associated fibroblast (CAF) proliferation by a rapid genomic response through the EGFR/ERK transduction pathway. Associated with EGFR, may act as a transcription factor activating growth regulatory genes (c-fos, cyclin D1). Promotes integrin alpha-5/beta-1 and fibronectin (FN) matrix assembly in breast cancer cells.

Cellular Location
Nucleus. Cytoplasm. Cytoplasm, perinuclear region. Cytoplasm, cytoskeleton. Cell membrane; Multi-pass membrane protein. Basolateral cell membrane; Multi-pass membrane protein. Cytoplasmic vesicle membrane; Multi-pass membrane protein Early endosome. Recycling endosome. Golgi apparatus membrane; Multi-pass membrane protein. Golgi apparatus, trans-Golgi network. Endoplasmic reticulum membrane; Multi-pass membrane protein. Cell projection, dendrite. Cell projection, dendritic spine membrane; Multi-pass membrane protein. Cell projection, axon. Postsynaptic density Mitochondrion membrane; Multi-pass membrane protein. Note=Colocalized with BSN to the active zone of presynaptic density. Colocalized with DLG4/PSD95 and neurabin-2 PPP1R9B in neuronal synaptosomes (By similarity). Endocytosed in a agonist- and arrestin-independent manner. Colocalized with RAMP3 and clathrin-coated pits at the plasma membrane. Colocalized with transferrin receptor at the plasma membrane and perinuclear region. Accumulated and colocalized with RAB11 proteins in recycling endosomes and trans-Golgi network (TGN), but does neither recycle back to the cell surface nor traffics to late endosome or lysosome. Colocalized with calnexin in the endoplasmic reticulum. Traffics to intracellular sites via cytokeratin intermediate filaments like KRT7 and KRT8 after constitutive endocytosis in epithelial cells. Colocalized with EGFR in the nucleus of agonist-induced cancer-associated fibroblasts (CAF).

Tissue Location
Expressed in placenta, endothelial and epithelial cells, non laboring and laboring term myometrium, fibroblasts and cancer-associated fibroblasts (CAF), prostate cancer cells and invasive adenocarcinoma (at protein level). Ubiquitously expressed, but is most abundant in placenta. In brain regions, expressed as a 2.8 kb transcript in basal forebrain, frontal cortex, thalamus, hippocampus, caudate and putamen.

Volume
50 µl

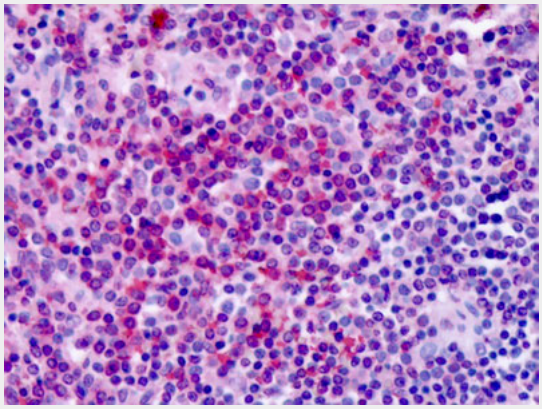
GPER1 / GPR30 Antibody (Extracellular Domain) - Protocols

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

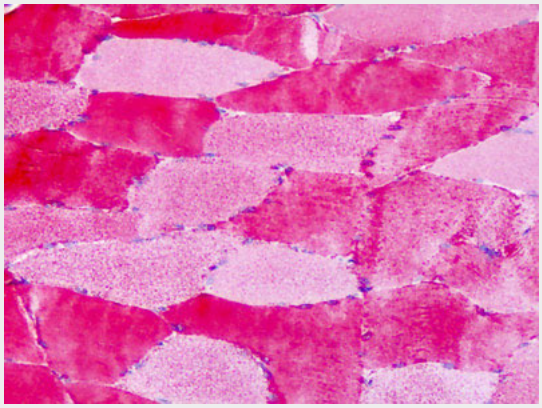
- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation

- Flow Cytomety
- Cell Culture

GPER1 / GPR30 Antibody (Extracellular Domain) - Images



Anti-GPR30 antibody IHC of human spleen.



Anti-GPR30 antibody IHC of human skeletal muscle.

GPER1 / GPR30 Antibody (Extracellular Domain) - Background

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GPER1 / GPR30 Antibody (Extracellular Domain) - References

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