ARG57743
anti-GPER1 / GPCR30 antibody

Package: 50 µg
Store at: -20°C

Summary

Product Description	Rabbit Polyclonal antibody recognizes GPER1 / GPCR30
Tested Reactivity	Hu, Mk
Predict Reactivity	Ms, Rat
Tested Application	WB
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Target Name	GPER1 / GPCR30
Species	Human
Immunogen	Synthetic peptide around the C-terminus of Human GPER1 / GPCR30. (ENVFISVHLLQRTQ)
Conjugation	Un-conjugated
Alternate Names	Flow-induced endothelial G-protein coupled receptor 1; Membrane estrogen receptor; G-protein coupled receptor 30; GPER; Chemoattractant receptor-like 2; CEPR; LyGPR; LERGU; LERGU2; LYGPR; IL8-related receptor DRY12; FEG-1; G-protein coupled estrogen receptor 1; mER; GPCR-Br; GPR30; Lymphocyte-derived G-protein coupled receptor; CMKRL2; G protein-coupled estrogen receptor 1; DRY12

Application Instructions

Application table

Application	Dilution
WB	0.5 - 1 µg/ml

Application Note: * The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.

Properties

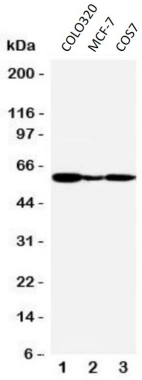
Form	Liquid
Purification	Affinity purification with immunogen.
Buffer	PBS, 0.025% Sodium azide and 2.5% BSA.
Preservative	0.025% Sodium azide
Stabilizer	2.5% BSA
Concentration	0.5 mg/ml
Storage instruction	For continuous use, store undiluted antibody at 2-8°C for up to a week. For long-term storage, aliquot and store at -20°C or below. Storage in frost free freezers is not recommended. Avoid repeated freeze/thaw cycles. Suggest spin the vial prior to opening. The antibody solution should be gently mixed

	before use.
Note	For laboratory research only, not for drug, diagnostic or other use.

Bioinformation

Gene Symbol	GPER1
Gene Full Name	G protein-coupled estrogen receptor 1
Background	This gene is a member of the G-protein coupled receptor 1 family and encodes a multi-pass membrane protein that localizes to the endoplasmic reticulum. The protein binds estrogen, resulting in intracellular calcium mobilization and synthesis of phosphatidylinositol 3,4,5-trisphosphate in the nucleus. This protein therefore plays a role in the rapid nongenomic signaling events widely observed following stimulation of cells and tissues with estrogen. Alternate transcriptional splice variants which encode the same protein have been characterized. [provided by RefSeq, Jul 2008]
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. [UniProt]
Calculated Mw	42 kDa (unglycosylated); ~ 60 kDa (glycosylated)
PTM	Ubiquitinated; ubiquitination occurs at the plasma membrane and leads to proteasome-mediated degradation. Glycosylated. [UniProt]

Images



ARG57743 anti-GPER1 / GPCR30 antibody WB image

Western blot: 1) COLO320, 2) MCF-7 and 3) COS7 cell lysates stained with ARG57743 anti-GPER1 / GPCR30 antibody.