Anti-GPR30 Antibody

ER1910-05

Product Type:	Rabbit polyclonal IgG, primary antibodies
Species reactivity:	Human, Mouse, Rat
Applications:	WB, IHC-P, IF-Cell, IF-Tissue, FC
Molecular Wt:	42 KDa

Description: 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.

Immunogen: KLH conjugated synthetic peptide derived from human GPR30 251-375/375

Positive control: Ubiquitously expressed, but is most abundant in placenta.

Subcellular location: Cell membrane. Endoplasmic reticulum membrane. Golgi apparatus membrane.

Database links: SwissProt: Q99527 Human

Recommended Dilutions:

WB	1:500-2000
IHC-P	1:100-500
IF-cell	1:100
IF-tissue	1:100-500
FC	1μg/Test: 1:5000-10000

Storage Buffer: 0.01M TBS(pH7.4) with 1% BSA, 0.03% Proclin300 and 50% Glycerol.

Storage Instruction: Store at -20℃ for one year. Avoid repeated freeze/thaw cycles.

Purity: Protein A affinity purified.

Images

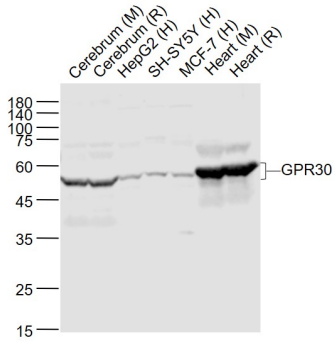

Fig1: Sample:
Lane 1: Cerebrum (Mouse) Lysate at 40 ug
Lane 2: Cerebrum (Rat) Lysate at 40 ug
Lane 3: HepG2 (Human) Cell Lysate at 30 ug
Lane 4: SH-SY5Y (Human) Cell Lysate at 30 ug
Lane 5: MCF-7 (Human) Cell Lysate at 30 ug
Lane 6: Heart (Mouse) Lysate at 40 ug
Lane 7: Heart (Rat) Lysate at 40 ug
Primary: Anti-GPR30 (ER1910-05) at 1/1000 dilution
Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution
Predicted band size: 55 kD
Observed band size: 55 kD

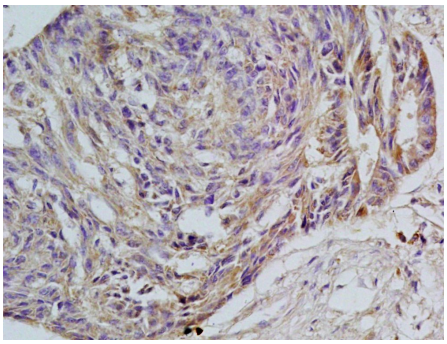

Fig2: Tissue/cell: human rectal carcinoma; 4% Paraformaldehyde-fixed and paraffin-embedded;
Antigen retrieval: citrate buffer (0.01M, pH 6.0), Boiling bathing for 15min; Block endogenous peroxidase by 3% Hydrogen peroxide for 30min; Blocking buffer (normal goat serum,C-0005) at 37℃ for 20 min;
Incubation: Anti-GPR30 Polyclonal Antibody, Unconjugated(ER1910-05) 1:200, overnight at 4°C, followed by conjugation to the secondary antibody(SP-0023) and DAB(C-0010) staining

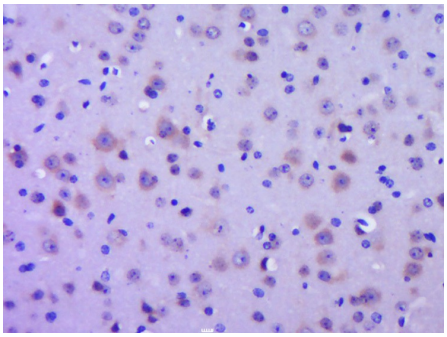

Fig3: Paraformaldehyde-fixed, paraffin embedded (Mouse brain); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (GPR30) Polyclonal Antibody, Unconjugated (ER1910-05) at 1:400 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructionsand DAB staining.

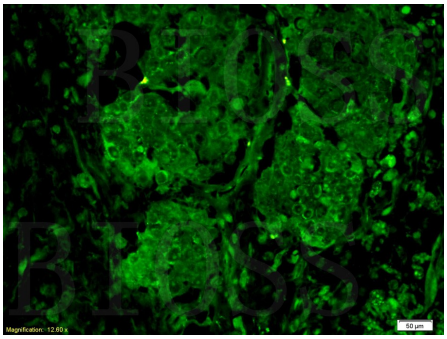

Fig4: Tissue/cell: human colon carcinoma;4% Paraformaldehyde-fixed and paraffin-embedded;
Antigen retrieval: citrate buffer (0.01M, pH 6.0), Boiling bathing for 15min; Blocking buffer (normal goat serum,C-0005) at 37℃ for 20 min;
Incubation: Anti-GPR30 Polyclonal Antibody, Unconjugated(ER1910-05) 1:200, overnight at 4℃; The secondary antibody was Goat Anti-Rabbit IgG, Cy3 conjugated(bs-0295G-Cy3)used at 1:200 dilution for 40 minutes at 37℃.

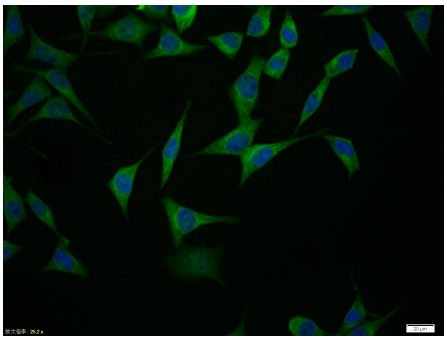

Fig5: Tissue/cell:SH-SY5Y cell; 4% Paraformaldehyde-fixed; Triton X-100 at room temperature for 20 min; Blocking buffer (normal goat serum,C-0005) at 37°C for 20 min; Antibody incubation with (GPR30) polyclonal Antibody, Unconjugated (ER1910-05) 1:100, 90 minutes at 37°C; followed by a FITC conjugated Goat Anti-Rabbit IgG antibody at 37°C for 90 minutes, DAPI (blue, C02-04002) was used to stain the cell nuclei.

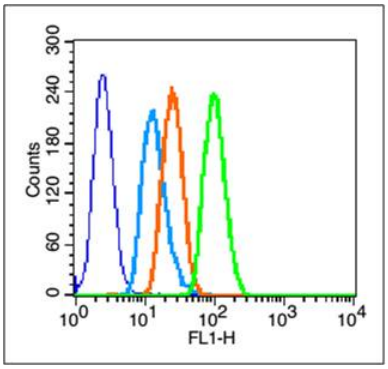

Fig6: Blank control (blue line): A431 cells (blue).
Primary Antibody (green line): Rabbit Anti-GPR30 antibody (ER1910-05)
Dilution: 1μg /10^6 cells;
Isotype Control Antibody (orange line): Rabbit IgG .
Secondary Antibody (white blue line): Goat anti-rabbit IgG-FITC
Dilution: 1μg /test.
Protocol
The cells were fixed with 70% methanol (Overnight at 4℃) and then permeabilized with 90% ice-cold methanol for 20 min at -20℃. Cells stained with Primary Antibody for 30 min at room temperature. The cells were then incubated in 1 X PBS/2%BSA/10% goat serum to block non-specific protein-protein interactions followed by the antibody for 15 min at room temperature. The secondary antibody used for 40 min at room temperature. Acquisition of 20,000 events was performed.

Note: All products are "FOR RESEARCH USE ONLY AND ARE NOT INTENDED FOR DIAGNOSTIC OR THERAPEUTIC USE".