

GPR30 (H-300): sc-134576

BACKGROUND

G protein-coupled receptors (GPCRs), also designated seven transmembrane (7TM) receptors and heptahelical receptors, are a protein family which interact with G proteins (heterotrimeric GTPases) to synthesize intracellular second messengers such as diacylglycerol, cyclic AMP, inositol phosphates and calcium ions. Their diverse biological functions range from vision and olfaction to neuronal and endocrine signaling and are involved in many pathological conditions. G protein receptor 30 (GPR30), also designated chemokine receptor-like 2 (CMKRL2), is a 375 amino acid protein orphan GPCR. GPR30 is an intracellular transmembrane estrogen receptor localized to the endoplasmic reticulum which binds estrogen and estrogen derivatives.

REFERENCES

1. Filardo, E.J., et al. 2002. Estrogen action via the G protein-coupled receptor, GPR30: stimulation of adenylyl cyclase and cAMP-mediated attenuation of the epidermal growth factor receptor-to-MAPK signaling axis. *Mol. Endocrinol.* 16: 70-84.
2. Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 601805. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
3. Visser, J.E., et al. 2004. The motor disorder of classic Lesch-Nyhan disease. *Nucleosides Nucleotides Nucleic Acids* 23: 1161-1164.
4. Hasbi, A., et al. 2005. A G protein-coupled receptor for estrogen: the end of the search? *Mol. Interv.* 5: 158-161.
5. Kakinuma, N., et al. 2005. Cloning of novel LERGU mRNAs in GPR30 3' untranslated region and detection of 2 bp-deletion polymorphism in gastric cancer. *Cancer Sci.* 96: 191-196.
6. Thomas, P., et al. 2005. Identity of an estrogen membrane receptor coupled to a G protein in human breast cancer cells. *Endocrinology* 146: 624-632.

CHROMOSOMAL LOCATION

Genetic locus: GPER (human) mapping to 7p22.3; Gpr30 (mouse) mapping to 5 G2.

SOURCE

GPR30 (H-300) is a rabbit polyclonal antibody raised against amino acids 76-375 mapping at the C-terminus of GPR30 of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

STORAGE

Store at 4° C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.

APPLICATIONS

GPR30 (H-300) is recommended for detection of GPR30 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000). GPR30 (H-300) is also recommended for detection of GPR30 in additional species, including canine and bovine.

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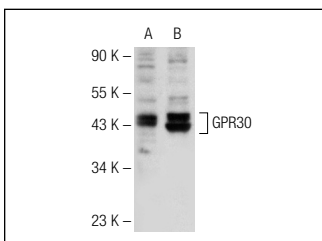
Suitable for use as control antibody for GPR30 siRNA (h): sc-60743, GPR30 siRNA (m): sc-60744, GPR30 siRNA (r): sc-156143, GPR30 shRNA Plasmid (h): sc-60743-SH, GPR30 shRNA Plasmid (m): sc-60744-SH, GPR30 shRNA Plasmid (r): sc-156143-SH, GPR30 shRNA (h) Lentiviral Particles: sc-60743-V, GPR30 shRNA (m) Lentiviral Particles: sc-60744-V and GPR30 shRNA (r) Lentiviral Particles: sc-156143-V.

Molecular Weight of GPR30: 38 kDa.

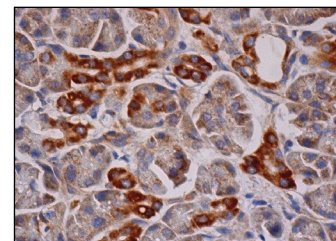
RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941. 4) Immunohistochemistry: use ImmunoCruz™: sc-2051 or ABC: sc-2018 rabbit IgG Staining Systems.

DATA



GPR30 (H-300): sc-134576. Western blot analysis of GPR30 expression in SK-BR-3 (A) and MCF7 (B) whole cell lysates.



GPR30 (H-300): sc-134576. Immunoperoxidase staining of formalin fixed, paraffin-embedded human pancreas tissue showing cytoplasmic staining of exocrine glandular cells and pancreatic duct cells.

RESEARCH USE

For research use only, not for use in diagnostic procedures.