

# GPR110 (H-54): sc-292423

## BACKGROUND

G protein-coupled receptors (GPRs), also known as seven transmembrane receptors, heptahelical receptors or 7TM receptors, comprise a superfamily of proteins that play a role in many different stimulus-response pathways. G protein-coupled receptors translate extracellular signals into intracellular signals (G protein activation) and they respond to a variety of signaling molecules, such as hormones and neurotransmitters. GPR110 (G protein-coupled receptor 110), also known as PGR19, is a 911 amino acid protein that belongs to the G protein-coupled receptor 2 family and LN-TM7 subfamily. Characterized as an adhesion GPCR, GPR110 is a multipass membrane-bound protein with a long amino-terminus that contains multiple domains. One of these domains is the GPCR proteolytic site (GPS), which is essential for proteolytic cleavage of the amino-terminus and for cell surface expression.

## REFERENCES

1. Fredriksson, R., Lagerström, M.C., Höglund, P.J. and Schiöth, H.B. 2002. Novel human G protein-coupled receptors with long N-terminals containing GPS domains and Ser/Thr-rich regions. *FEBS Lett.* 531: 407-414.
2. Bjarnadóttir, T.K., Fredriksson, R., Höglund, P.J., Gloriam, D.E., Lagerström, M.C. and Schiöth, H.B. 2004. The human and mouse repertoire of the adhesion family of G protein-coupled receptors. *Genomics* 84: 23-33.
3. Bjarnadóttir, T.K., Geirardsdóttir, K., Ingemansson, M., Mirza, M.A., Fredriksson, R. and Schiöth, H.B. 2007. Identification of novel splice variants of adhesion G protein-coupled receptors. *Gene* 387: 38-48.
4. Lagerström, M.C. and Schiöth, H.B. 2008. Structural diversity of G protein-coupled receptors and significance for drug discovery. *Nat. Rev. Drug Discov.* 7: 339-357.
5. Cotton, M. and Claing, A. 2009. G protein-coupled receptors stimulation and the control of cell migration. *Cell. Signal.* 21: 1045-1053.
6. Ho, M.K., Su, Y., Yeung, W.W. and Wong, Y.H. 2009. Regulation of transcription factors by heterotrimeric G proteins. *Curr. Mol. Pharmacol.* 2: 19-31.
7. Woehler, A. and Ponimaskin, E.G. 2009. G protein—mediated signaling: same receptor, multiple effectors. *Curr. Mol. Pharmacol.* 2: 237-248.

## CHROMOSOMAL LOCATION

Genetic locus: GPR110 (human) mapping to 6p12.3; Gpr110 (mouse) mapping to 17 B3.

## SOURCE

GPR110 (H-54) is a rabbit polyclonal antibody raised against amino acids 817-870 mapping near the C-terminus of GPR110 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.

## RESEARCH USE

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

## APPLICATIONS

GPR110 (H-54) is recommended for detection of GPR110 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

GPR110 (H-54) is also recommended for detection of GPR110 in additional species, including equine, canine and porcine.

Suitable for use as control antibody for GPR110 siRNA (h): sc-95206, GPR110 siRNA (m): sc-145693, GPR110 shRNA Plasmid (h): sc-95206-SH, GPR110 shRNA Plasmid (m): sc-145693-SH, GPR110 shRNA (h) Lentiviral Particles: sc-95206-V and GPR110 shRNA (m) Lentiviral Particles: sc-145693-V.

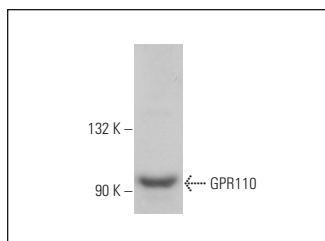
Molecular Weight of GPR110: 101 kDa.

Positive Controls: mouse skeletal muscle extract: sc-364250.

## 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.

## DATA



GPR110 (H-54): sc-292423. Western blot analysis of GPR110 expression in mouse skeletal muscle tissue extract.

## 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](http://www.scbt.com) or our catalog for detailed protocols and support products.