



# GPR137B (K-13): sc-104279

## 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. GPRs translate extracellular signals into intracellular signals (a process called G-protein activation) and they respond to a variety of signaling molecules, such as hormones and neurotransmitters. GPR137B (G protein-coupled receptor 137B), also known as TM7SF1 (transmembrane 7 superfamily member 1 protein), is a 399 amino acid multi-pass membrane protein that is expressed in kidney, heart, brain and placenta. It is suggested that GPR137B is upregulated in the course of kidney development.

## REFERENCES

1. Sawzdargo, M., et al. 1997. A cluster of four novel human G protein-coupled receptor genes occurring in close proximity to CD22 gene on chromosome 19q13.1. *Biochem. Biophys. Res. Commun.* 239: 543-547.
2. Spangenberg, C., et al. 1998. Cloning and characterization of a novel gene (TM7SF1) encoding a putative seven-pass transmembrane protein that is upregulated during kidney development. *Genomics* 48: 178-185.
3. Lee, D.K., et al. 2001. Discovery and mapping of ten novel G protein-coupled receptor genes. *Gene* 275: 83-91.
4. Stehlik, C., et al. 2004. VIGR—a novel inducible adhesion family G-protein coupled receptor in endothelial cells. *FEBS Lett.* 569: 149-155.
5. Bates, B., et al. 2006. Characterization of Gpr101 expression and G-protein coupling selectivity. *Brain Res.* 1087: 1-14.
6. Amisten, S., et al. 2008. Gene expression profiling for the identification of G protein-coupled receptors in human platelets. *Thromb. Res.* 122: 47-57.
7. Lange, A., et al. 2009. Detergent fractionation with subsequent subtractive suppression hybridization as a tool for identifying genes coding for plasma membrane proteins. *Exp. Dermatol.* E-published.

## CHROMOSOMAL LOCATION

Genetic locus: GPR137B (human) mapping to 1q42.3; Gpr137b (mouse) mapping to 13 A1.

## SOURCE

GPR137B (K-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping within a cytoplasmic domain of GPR137B of human origin.

## 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.

## PRODUCT

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

Blocking peptide available for competition studies, sc-104279 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

GPR137B (K-13) is recommended for detection of GPR137B of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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).

Suitable for use as control antibody for GPR137B siRNA (h): sc-88641, GPR137B siRNA (m): sc-145703, GPR137B shRNA Plasmid (h): sc-88641-SH, GPR137B shRNA Plasmid (m): sc-145703-SH, GPR137B shRNA (h) Lentiviral Particles: sc-88641-V and GPR137B shRNA (m) Lentiviral Particles: sc-145703-V.

Molecular Weight of GPR137B: 46 kDa.

## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (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) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

## RESEARCH USE

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