

GPRC5B (A-8): sc-518246

BACKGROUND

GPRC5B (G protein-coupled receptor family C group 5 member B, retinoic acid-induced gene 2 protein) is a 403 amino acid protein encoded by the human GPRC5B gene. GPRC5B is an orphan receptor member of the G protein-coupled receptor 3 family. G protein-coupled receptors (GPCRs or GPRs) contain seven transmembrane domains and transduce extracellular signals through heterotrimeric G proteins. Key roles for G protein-coupled receptors include control of protein maturation and cell surface delivery, and providing the correct framework for interactions with both heterotrimeric G proteins and arrestins to allow signal generation and termination. This retinoic acid-inducible G protein-coupled receptor provides evidence for a possible interaction between retinoid and G protein signaling pathways. GPRC5B is highly expressed in kidney, pancreas and testis, and has moderate expression in brain, heart, prostate, small intestine and spleen.

REFERENCES

1. Bräuner-Osborne, H. and Krogsgaard-Larsen, P. 2000. Sequence and expression pattern of a novel human orphan G protein-coupled receptor, GPRC5B, a family C receptor with a short amino-terminal domain. *Genomics* 65: 121-128.
2. Robbins, M.J., et al. 2000. Molecular cloning and characterization of two novel retinoic acid-inducible orphan G protein-coupled receptors (GPRC5B and GPRC5C). *Genomics* 67: 8-18.
3. Robbins, M.J., et al. 2002. Localisation of the GPRC5B receptor in the rat brain and spinal cord. *Brain Res. Mol. Brain Res.* 106: 136-144.
4. Takeda, S., et al. 2002. Identification of G protein-coupled receptor genes from the human genome sequence. *FEBS Lett.* 520: 97-101.
5. Inoue, S., et al. 2004. The RAIG family member, GPRC5D, is associated with hard-keratinized structures. *J. Invest. Dermatol.* 122: 565-573.

CHROMOSOMAL LOCATION

Genetic locus: GPRC5B (human) mapping to 16p12.3.

SOURCE

GPRC5B (A-8) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 348-377 of GPRC5B of human origin.

PRODUCT

Each vial contains 200 µg IgG₃ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

GPRC5B (A-8) is available conjugated to agarose (sc-518246 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-518246 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-518246 PE), fluorescein (sc-518246 FITC), Alexa Fluor® 488 (sc-518246 AF488), Alexa Fluor® 546 (sc-518246 AF546), Alexa Fluor® 594 (sc-518246 AF594) or Alexa Fluor® 647 (sc-518246 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-518246 AF680) or Alexa Fluor® 790 (sc-518246 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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APPLICATIONS

GPRC5B (A-8) is recommended for detection of GPRC5B of human origin by Western Blotting (starting dilution 1:100, 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).

Suitable for use as control antibody for GPRC5B siRNA (h): sc-62409, GPRC5B shRNA Plasmid (h): sc-62409-SH and GPRC5B shRNA (h) Lentiviral Particles: sc-62409-V.

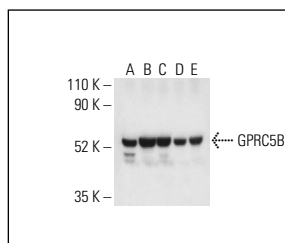
Molecular Weight of GPRC5B: 45 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204, A549 cell lysate: sc-2413 or SH-SY5Y cell lysate: sc-3812.

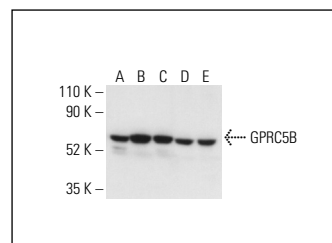
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 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 m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



GPRC5B (A-8): sc-518246. Western blot analysis of GPRC5B expression in Jurkat (A), NCI-H226 (B), HEK293T (C), SH-SY5Y (D) and A549 (E) whole cell lysates. Detection reagent used: m-IgGκ BP-HRP: sc-516102.



GPRC5B (A-8): sc-518246. Western blot analysis of GPRC5B expression in Jurkat (A), NCI-H226 (B), HEK293T (C), SH-SY5Y (D) and A549 (E) whole cell lysates. Detection reagent used: m-IgG₃ BP-HRP: sc-533670.

STORAGE

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

RESEARCH USE

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

PROTOCOLS

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