**BACKGROUND**

G protein-coupled receptors (GPRs or GPCRs), also known as seven transmembrane receptors, also include heptahelical receptors, or 7TM receptors, are members of the largest protein family and play a role in many different stimulus-response pathways. G protein-coupled receptors mediate extracellular signals into intracellular signals (G protein-activation). They respond to a great variety of signaling molecules, including hormones, neurotransmitters and other proteins and peptides. GPR proteins are integral 7-pass membrane proteins with some conserved amino acid regions. G protein-coupled receptor 56 (GPR56), also designated TM7XN1 protein, contains one GPS domain. GPR56 plays an important role in cell-cell interactions and is widely expressed, with highest levels detected in brain, heart and thyroid gland. Defects in the gene encoding for GPR56 can cause bilateral frontoparietal polymicrogyria (BFPP) which is characterized by disorganized cortical lamination.

**REFERENCES**


**CHROMOSOMAL LOCATION**

Genetic locus: GPR56 (human) mapping to 16q21.

**SOURCE**

GPR56 (G-6) is a mouse monoclonal antibody raised against amino acids 289-381 mapping within an internal region of GPR56 of human origin.

**PRODUCT**

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

GPR56 (G-6) is available conjugated to agarose (sc-390192 AC), 500 µg/0.25 mg agarose in 1 ml, for IP; to HRP (sc-390192 HRP), 200 µg/ml, for WB, IHC(§) and ELISA; to either phycoerythrin (sc-390192 PE), fluorescein (sc-390192 FITC), Alexa Fluor® 488 (sc-390192 AF488), Alexa Fluor® 546 (sc-390192 AF546), Alexa Fluor® 594 (sc-390192 AF594) or Alexa Fluor® 647 (sc-390192 AF647), 200 µg/ml, for WB (RGB), IF, IHC(§) and FCM; and to either Alexa Fluor® 680 (sc-390192 AF680) or Alexa Fluor® 790 (sc-390192 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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**APPLICATIONS**

GPR56 (G-6) is recommended for detection of GPR56 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 GPR56 siRNA (h): sc-60749, GPR56 shRNA Plasmid (h): sc-60749-SH and GPR56 shRNA (h) Lentiviral Particles: sc-60749-V.

Molecular Weight of GPR56: 65 kDa.

Positive Controls: GPR56 (h): 293T Lysate: sc-158567, IMR-32 cell lysate: sc-2409 or human brain tissue extract: sc-364375.

**RECOMMENDED SUPPORT REAGENTS**

To ensure optimal results, the following support reagents are recommended:
1) Western Blotting: use m-IgG HRP: sc-516102 or m-IgG 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/0.2 ml). 3) Immunofluorescence: use m-IgG HRP: sc-516140 or m-IgG HRP (Cruz Marker): sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

**DATA**

GPR56 (G-6): sc-390192. Western blot analysis of GPR56 expression in IMR-32 whole cell lysate (A) and human brain tissue extract (B).

GPR56 (G-6): sc-390192. Western blot analysis of GPR56 expression in non-transfected: sc-117752 (A) and human GPR56 transfected: sc-158567 (B) 293T whole cell lysates.

**SELECT PRODUCT CITATIONS**


**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.