

Datasheet for ABIN7581892 **anti-GPRC5B antibody (Intracellular)**



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Overview

Quantity:	50 µL
Target:	GPRC5B
Binding Specificity:	AA 302-317, Intracellular
Reactivity:	Mouse
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	This GPRC5B antibody is un-conjugated
Application:	Western Blotting (WB), Immunohistochemistry (IHC)

Product Details

Purpose:	A Rabbit Polyclonal antibody to GPRC5B receptor
Immunogen:	(C)ENPPNYFDTSQPRMRE, corresponding to amino acid residues 302 - 317 of mouse GPRC5B
Sequence:	(C)ENPPNYFDTS QPRMRE
Isotype:	IgG
Specificity:	Intracellular, C-terminus
Predicted Reactivity:	Rat - identical, Human - 15 out of 16 amino acid residues identical
Characteristics:	Anti-GPRC5B Antibody (ABIN7581892) is a highly specific antibody directed against an epitope of the mouse protein. The antibody can be used in western blot and immunohistochemistry applications. It has been designed to recognize GPRC5B from rat, mouse and human samples.
Purification:	Affinity purified on immobilized antigen.

Target Details

Target:	GPRC5B
Alternative Name:	GPRC5B (GPRC5B Products)
Background:	G-Protein Coupled Receptor Family C Group 5 Member B, Retinoic Acid-Induced Gene 2 Protein, RAIG2, GPRC5B is a member of the large G-protein-coupled receptor (GPCR) superfamily of receptors that share a common structure of seven membrane-spanning domains, an extracellular N-terminal domain, an intracellular C-terminal domain, and many conserved residues[1]. The ligand-binding domain of GPCRs is variable and the GPCRs have been divided into three classes based on the ligands that stimulate them, as well by key sequence motifs conserved within phylogenetically related subfamily members. GPRC5B (also known as Retinoic Acid-Induced Gene 2 Protein (RAIG2)) is an orphan GPCR most closely related to the Class C GPCR family, based on homology. Class C GPCRs also includes the metabotropic glutamate, calcium-sensing receptor, GABAB, and pheromone receptors. Molecular biology approaches and knockout mouse studies reveal that GPRC5 family proteins have pivotal roles in cancer progression and control of metabolic homeostasis pathways[2]. GPRC5B is known to be involved in the regulation of brain homeostasis, proteins related to adhesion or signaling, and remarkably, GPRC5B-mediated tyrosine-phosphorylation signaling cascades play a critical role in development of obesity and insulin resistance through dynamic sphingolipid metabolism[3]. GPRC5B contains multiple phosphorylated residues in its carboxyl terminus. Phosphorylation of GPRC5b by the tyrosine kinase Fyn and the subsequent direct interaction with the Fyn Src homology 2 (SH2) domain were found to be critical for the initiation and progression of inflammatory signaling in adipose tissue[4]. For example, a GPRC5B mutant lacking the direct binding site for Fyn failed to activate a positive feedback loop of nuclear factor κB-inhibitor of κB kinase ϵ signaling.
Gene ID:	64297
UniProt:	Q923Z0

Application Details

Application Notes:	Antigen preadsorption control: 1 μ g peptide per 1 μ g antibody Application Dilutions Immunohistochemistry paraffin embedded sections ihc: 1:200 Application Dilutions Western blot wb: 1:200-1:800
Restrictions:	For Research Use only

Handling

Format:	Lyophilized
Reconstitution:	0.2 mL double distilled water (DDW).
Concentration:	1 mg/mL
Buffer:	PBS pH 7.4
Storage:	4 °C, -20 °C
Storage Comment:	Storage before reconstitution: The antibody ships as a lyophilized powder at room temperature. Upon arrival, it should be stored at -20°C. Storage after reconstitution: The reconstituted solution can be stored at 4°C for up to 1 week. For longer periods, small aliquots should be stored at -20°C. Avoid multiple freezing and thawing. Centrifuge all antibody preparations before use (10000 x g 5 min).