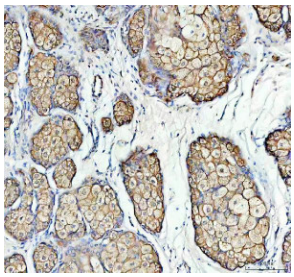
P2RY5 Antibody / Lysophosphatidic Acid Receptor Antibody (RQ4219)

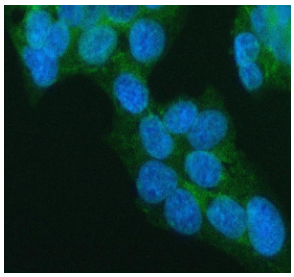
Catalog No.	Formulation	Size
RQ4219	0.5mg/ml if reconstituted with 0.2ml sterile DI water	100 ug

Bulk quote request

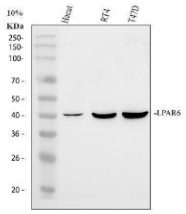
Availability	1-3 business days
Species Reactivity	Human
Format	Antigen affinity purified
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit IgG
Purity	Antigen affinity purified
Buffer	Lyophilized from 1X PBS with 2% Trehalose
UniProt	P43657
Applications	Western Blot : 0.5-1ug/ml Flow Cytometry : 1-3ug/million cells Immunohistochemistry (FFPE) : 2-5ug/ml Immunofluorescence : 5ug/ml
Limitations	This P2RY5 Antibody / Lysophosphatidic Acid Receptor Antibody is available for research use only.



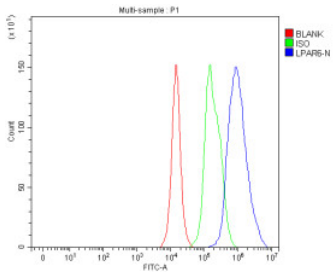
P2RY5 Antibody Human Ovarian Teratoma IHC. Immunohistochemical analysis of FFPE human ovarian teratoma tissue using P2RY5 Antibody. Heat-induced epitope retrieval was performed in pH 8.0 EDTA buffer prior to incubation with the primary antibody at 2 ug/mL overnight at 4Â°C. An HRP-conjugated goat anti-rabbit secondary antibody with DAB chromogen was used for visualization. Distinct membranous and cytoplasmic staining is observed in epithelial cells within the teratoma, consistent with LPAR6/P2RY5 expression. These results demonstrate that P2RY5 Antibody, a Lysophosphatidic Acid Receptor Antibody, specifically detects endogenous receptor expression in FFPE human tissue.



P2RY5 Antibody HepG2 Cell IF. Immunofluorescent staining of HepG2 cells using P2RY5 Antibody. Cells underwent enzyme-mediated antigen retrieval for 15 minutes before incubation with the primary antibody at 5 ug/mL overnight at 4Â°C. A Fluoro488-conjugated goat anti-rabbit secondary antibody was used for detection, and nuclei were counterstained with DAPI (blue). Green fluorescence is predominantly localized to the cell membrane and cytoplasm, consistent with the expected distribution of the membrane-associated LPAR6/P2RY5 receptor. These results demonstrate that P2RY5 Antibody, a Lysophosphatidic Acid Receptor Antibody, specifically detects endogenous receptor expression in cultured human cells.



P2RY5 Antibody Human Cell WB. Western blot analysis of human HaCaT, RT4, and T47D cell lysates using P2RY5 Antibody. Lane 1: HaCaT whole cell lysate. Lane 2: RT4 whole cell lysate. Lane 3: T47D whole cell lysate. Samples (30 ug/lane) were separated on a 10% SDS-PAGE gel under reducing conditions, transferred to a nitrocellulose membrane, and detected with P2RY5 Antibody at 0.5 ug/mL followed by an HRP-conjugated secondary antibody and ECL detection. A specific band is observed at approximately 39 kDa, consistent with the predicted molecular weight of LPAR6/P2RY5. These results demonstrate that P2RY5 Antibody, a Lysophosphatidic Acid Receptor Antibody, specifically detects endogenous receptor expression in multiple human cell lines.



P2RY5 Antibody PC-3 Cell FACS. Flow cytometric analysis of fixed PC-3 cells using P2RY5 Antibody. Cells were fixed with 4% paraformaldehyde, blocked with normal goat serum, and incubated with P2RY5 Antibody at 1 ug per 1 Ã— 10^6 cells for 30 minutes. A Fluoro488-conjugated goat anti-rabbit secondary antibody was used for detection. Red: unstained cells. Green: rabbit IgG isotype control. Blue: P2RY5 Antibody. The clear rightward shift of the blue histogram relative to the isotype control demonstrates specific detection of endogenous LPAR6/P2RY5 expression in human PC-3 cells. These results show that P2RY5 Antibody, a Lysophosphatidic Acid Receptor Antibody, is suitable for flow cytometric analysis of receptor expression.

Description

P2RY5 Antibody recognizes the G protein-coupled receptor historically known as P2RY5, which is now officially designated LPAR6 (Lysophosphatidic Acid Receptor 6). Although initially classified as a purinergic receptor based on sequence similarity, subsequent research established that P2RY5 functions as a lysophosphatidic acid receptor that responds to the bioactive lipid lysophosphatidic acid rather than extracellular nucleotides. As a member of the lysophosphatidic acid receptor family, LPAR6 regulates signaling pathways involved in epithelial biology, tissue development, and cellular communication. Expression has been reported in hair follicles, skin, and numerous epithelial tissues, while altered receptor expression has also been investigated in developmental disorders and multiple forms of cancer.

Activation of P2RY5 initiates intracellular signaling through heterotrimeric G proteins, influencing cytoskeletal organization, cell adhesion, proliferation, migration, and differentiation. The receptor has received particular attention for its essential role in hair follicle development, where lysophosphatidic acid generated by the enzyme autotaxin activates signaling pathways required for normal hair shaft formation. Loss-of-function mutations in LPAR6/P2RY5 are a well-established cause of inherited woolly hair and autosomal recessive hypotrichosis. Beyond hair biology, receptor signaling contributes to epithelial homeostasis, wound repair, and maintenance of tissue architecture. Consequently, P2RY5 Antibody is widely used to investigate receptor expression, localization, and function in studies of development, skin biology, and lipid-mediated GPCR signaling.

Growing evidence also suggests that LPAR6 participates in tumor biology through regulation of cancer cell proliferation, migration, invasion, and interactions with the tumor microenvironment. Expression has been examined in hepatocellular

carcinoma, breast cancer, colorectal cancer, melanoma, and other epithelial malignancies, although its biological role appears to vary depending on tissue context. These findings have generated interest in the receptor as both a potential biomarker and a therapeutic target. Because P2RY5 is an integral membrane G protein-coupled receptor, reliable antibody validation is particularly important for accurately evaluating protein expression and localization. A high-quality P2RY5 Antibody supports research investigating GPCR signaling networks, lipid-mediated signal transduction, developmental biology, and disease-associated receptor regulation.

NSJ Bioreagents provides P2RY5 Antibody products for research applications to support consistent detection of this biologically important receptor. Whether studying hair follicle development, epithelial differentiation, lipid signaling pathways, GPCR biology, inherited hypotrichosis, or cancer-associated mechanisms, a well-validated Lysophosphatidic Acid Receptor Antibody enables reliable characterization of receptor expression and localization. As research continues to uncover new functions of LPAR6/P2RY5 in normal physiology and disease, P2RY5 Antibody remains an important tool for investigating receptor biology and downstream signaling mechanisms.

Explore our complete GPCR Antibodies page to discover additional antibodies against G protein-coupled receptors involved in lipid signaling, chemokine responses, neurotransmission, sensory perception, and numerous other signaling pathways that complement P2RY5 Antibody research.

Application Notes

Optimal dilution of the P2RY5 Antibody / Lysophosphatidic Acid Receptor Antibody should be determined by the researcher.

Immunogen

Amino acids DTIQNSIKMKNWSVRRSDFRFSEVHGAENFIQHNLQTLK were used as the immunogen for the P2RY5 antibody.

Storage

After reconstitution, the P2RY5 antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.

Alternate Names

P2RY5 antibody, LPAR6 antibody, Lysophosphatidic Acid Receptor antibody, Lysophosphatidic Acid Receptor 6 antibody, GPR87B antibody, Hair Growth Receptor antibody

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