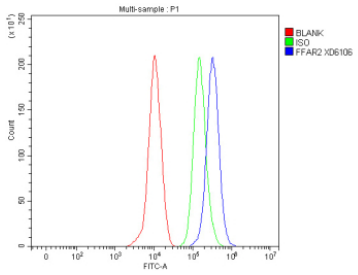
FFAR2 Antibody / Free fatty acid receptor 2 (FY13446)

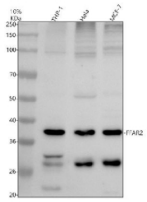
Catalog No.	Formulation	Size
FY13446	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml	100 ug

Bulk quote request

Availability	1-2 days
Species Reactivity	Human
Format	Lyophilized
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit IgG
Purity	Immunogen affinity purified
Buffer	Each vial contains 4 mg Trehalose, 0.9 mg NaCl and 0.2 mg Na2HPO4.
UniProt	O15552
Localization	Cell membrane, cytoplasm
Applications	Western Blot : 0.25-0.5ug/ml Flow Cytometry : 1-3ug/million cells ELISA : 0.1-0.5ug/ml
Limitations	This FFAR2 antibody is available for research use only.



Flow cytometry analysis of fixed human ThP-1 cells with FFAR2 antibody at 1ug/million cells (blocked with goat sera); Red=cells alone, Green=isotype control, Blue= FFAR2 antibody.



Western blot analysis of FFAR2 using anti-FFAR2 antibody. Proteins from whole cell lysates were separated by 10% SDS-PAGE and transferred to a nitrocellulose membrane. Lane 1: human THP-1 whole cell lysates; Lane 2: human HeLa whole cell lysates; Lane 3: human MCF-7 whole cell lysates. A predominant band is detected at approximately 37 kDa, corresponding to the predicted molecular weight of FFAR2. Additional lower bands in the 26â€“30 kDa range can be observed in some samples, which are consistent with truncated, partially processed, or differentially glycosylated forms of the receptor commonly reported for GPCR family members.

Description

FFAR2 antibody targets Free fatty acid receptor 2, encoded by the FFAR2 gene. Free fatty acid receptor 2 is a G protein-coupled receptor primarily localized to the plasma membrane, where it functions as a sensor for short-chain fatty acids produced by microbial fermentation. These metabolites, including acetate and propionate, serve as signaling molecules that link dietary intake and gut microbiota activity to host cellular responses. FFAR2 is highly expressed in immune cells and intestinal tissues, positioning it as an important mediator of metabolic and inflammatory signaling.

Functionally, Free fatty acid receptor 2 couples to intracellular G proteins to regulate downstream pathways that influence cytokine production, chemotaxis, and cellular activation. Through these signaling cascades, FFAR2 contributes to immune homeostasis and modulation of inflammatory responses. The receptor also plays a role in metabolic regulation by influencing energy balance and insulin sensitivity, reflecting its broader involvement in host physiology. An FFAR2 antibody is useful for examining receptor expression patterns and signaling-related changes in diverse experimental systems.

FFAR2 expression is particularly notable in neutrophils, monocytes, and other immune cell populations, as well as in epithelial cells lining the gastrointestinal tract. This distribution supports its role in integrating signals from the gut environment with systemic immune function. FFAR2 can interact functionally with other receptors and signaling proteins, forming part of a network that translates extracellular metabolic cues into coordinated cellular responses.

From a disease perspective, altered FFAR2 activity has been investigated in inflammatory disorders, metabolic disease, and conditions associated with dysbiosis of the gut microbiome. Changes in short-chain fatty acid signaling through FFAR2 may influence susceptibility to chronic inflammation and metabolic imbalance. As a result, Free fatty acid receptor 2 is an active area of research interest in studies exploring immune-metabolic crosstalk.

At the molecular level, Free fatty acid receptor 2 contains the characteristic seven-transmembrane architecture of G protein-coupled receptors. Ligand binding and receptor activation can be influenced by cellular context and receptor conformation without changes to the underlying amino acid sequence. FFAR2 antibody reagents support research applications focused on receptor biology, immune signaling, and metabolic regulation, with NSJ Bioreagents providing antibodies intended for research use.

Application Notes

Optimal dilution of the FFAR2 antibody should be determined by the researcher.

Immunogen

E.coli-derived human Ubiquitin-fold modifier conjugating enzyme 1 recombinant protein (amino acids M1-Q167) was used as the immunogen for the FFAR2 antibody.

Storage

After reconstitution, the FFAR2 antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.