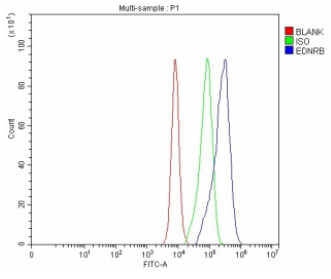
EDNRB Antibody / Endothelin receptor type B (FY12286)

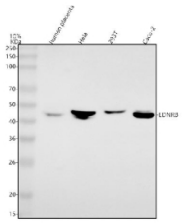
Catalog No.	Formulation	Size
FY12286	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml	100 ug

Bulk quote request

Availability	1-2 days
Species Reactivity	Human
Format	Lyophilized
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit IgG
Purity	Immunogen affinity purified
Buffer	Each vial contains 4 mg Trehalose, 0.9 mg NaCl, 0.2 mg Na2HPO4.
UniProt	P24530
Applications	Western Blot : 0.25-0.5ug/ml ELISA : 0.1-0.5ug/ml
Limitations	This EDNRB antibody is available for research use only.



Flow Cytometry analysis of CACO-2 cells using anti-EDNRB antibody. Overlay histogram showing CACO-2 cells stained with (Blue line). The cells were fixed with 4% paraformaldehyde and blocked with 10% normal goat serum. And then incubated with rabbit anti-EDNRB antibody (1 ug/million cells) for 30 min at 20oC. DyLight 488 conjugated goat anti-rabbit IgG (5-10 ug/million cells) was used as secondary antibody for 30 minutes at 20oC. Isotype control antibody (Green line) was rabbit IgG (1 ug/million cells) used under the same conditions. Unlabelled sample without incubation with primary antibody and secondary antibody (Red line) was used as a blank control.



Western blot analysis of EDNRB using anti-EDNRB antibody. Lane 1: human placenta tissue lysates, Lane 2: human Hela whole cell lysates, Lane 3: human 293T whole cell lysates, Lane 4: human Caco-2 whole cell lysates. After electrophoresis, proteins were transferred to a nitrocellulose membrane at 150 mA for 50-90 minutes. Blocked the membrane with 5% non-fat milk/TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-EDNRB antibody at 0.5 ug/ml overnight at 4oC, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:5000 for 1.5 hour at RT. The signal was developed using enhanced chemiluminescent. Expected molecular weight of EDNRB is ~49â€“59 kDa (predicted), but the receptor consistently migrates around ~45 kDa on SDS-PAGE, often appearing as a single or doublet band depending on glycosylation state. This pattern is well-documented in peer-reviewed studies.

Description

EDNRB antibody detects Endothelin receptor type B, encoded by the EDNRB gene on chromosome 13q22.3. EDNRB antibody is commonly used in vascular biology, developmental biology, and oncology. EDNRB is a G protein-coupled receptor (GPCR) for endothelins, which are potent vasoactive peptides regulating vascular tone, cell proliferation, and migration. EDNRB plays essential roles in cardiovascular development, neural crest cell migration, and gastrointestinal innervation.

Structurally, EDNRB is a ~45 kDa protein with seven transmembrane helices characteristic of GPCRs. It couples to G proteins to activate intracellular signaling cascades, including phospholipase C, MAPK, and calcium mobilization pathways. EDNRB binds endothelins 1, 2, and 3, with particularly high affinity for endothelin-3. Expression is found in endothelial cells, smooth muscle, melanocytes, and enteric neurons.

Functionally, EDNRB regulates vasodilation and vasoconstriction, contributes to melanocyte development, and guides neural crest migration. In the gastrointestinal tract, EDNRB signaling supports formation of the enteric nervous system. Loss of EDNRB function impairs neural crest cell survival and migration, leading to developmental abnormalities. Researchers use EDNRB antibody to study GPCR signaling, vascular biology, and neurodevelopment.

Clinically, mutations in EDNRB cause Hirschsprung disease and Waardenburg syndrome type IV, both involving neural crest defects. Dysregulated EDNRB expression is also linked to melanoma and other cancers, where it promotes proliferation and invasion. Because endothelin signaling influences vascular remodeling, EDNRB is studied in pulmonary hypertension and cardiovascular disease. NSJ Bioreagents provides EDNRB antibody to support vascular biology, developmental genetics, and oncology research.

Experimentally, EDNRB antibody is used in western blotting to detect the ~45 kDa receptor, in immunohistochemistry to study expression in vascular and neural tissues, and in immunofluorescence to examine GPCR localization. Co-immunoprecipitation with EDNRB antibody helps identify receptor complexes and signaling partners.

Application Notes

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

Immunogen

E.coli-derived human EDNRB recombinant protein (Position: E27-Y439) was used as the immunogen for the EDNRB antibody.

Storage

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