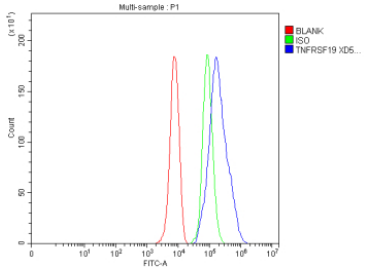
TNFRSF19 Antibody / Tumor necrosis factor receptor superfamily member 19 (FY12977)

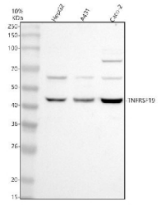
Catalog No.	Formulation	Size
FY12977	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml	100 ug

Bulk quote request

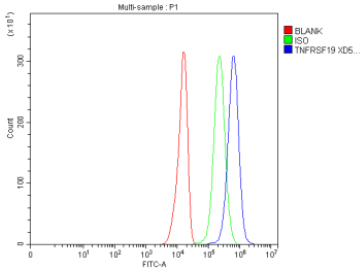
Availability	1-2 days
Species Reactivity	Human
Format	Lyophilized
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit IgG
Purity	Immunogen affinity purified
Buffer	Each vial contains 4 mg Trehalose, 0.9 mg NaCl, 0.2 mg Na2HPO4.
UniProt	Q9NS68
Applications	Western Blot : 0.25-0.5ug/ml Flow Cytometry : 1-3ug/million cells ELISA : 0.1-0.5ug/ml
Limitations	This TNFRSF19 antibody is available for research use only.



Flow Cytometry analysis of HepG2 cells using anti-TNFRSF19 antibody. Overlay histogram showing HepG2 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-TNFRSF19 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 TNFRSF19 using anti-TNFRSF19 antibody. Electrophoresis was performed on a 10% SDS-PAGE gel at 80V (Stacking gel) / 120V (Resolving gel) for 2 hours. Lane 1: human HepG2 whole cell lysates, Lane 2: human whole cell lysates, Lane 3: 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-TNFRSF19 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 an ECL Plus Western Blotting Substrate. A main band is detected at ~46 kDa as expected, with consistent higher bands at ~55-65 kDa and ~90-100 kDa. These upper species are consistent with differential N-glycosylation and disulfide-linked receptor dimers commonly observed for TNF receptor family members.



Flow Cytometry analysis of U251 cells using anti-TNFRSF19 antibody. Overlay histogram showing U251 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-TNFRSF19 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.

Description

TNFRSF19 antibody detects Tumor necrosis factor receptor superfamily member 19, a transmembrane receptor that mediates signaling involved in development, apoptosis, and immune regulation. The UniProt recommended name is Tumor necrosis factor receptor superfamily member 19 (TNFRSF19), also known as TROY. This receptor is a member of the TNF receptor family, sharing structural similarity with other death-domain-containing receptors but functioning in both survival and differentiation signaling contexts.

Functionally, TNFRSF19 antibody identifies a 417-amino-acid receptor that participates in multiple signaling pathways including NF-kappaB, JNK, and MAPK cascades. TNFRSF19 binds members of the TNF ligand family and modulates downstream transcriptional programs controlling apoptosis, cell fate determination, and inflammation. In the nervous system, TNFRSF19 plays a crucial role in axon guidance, myelination, and neuronal survival. It is expressed in developing neural tissues, keratinocytes, and various epithelial cells.

The TNFRSF19 gene is located on chromosome 13q12.11 and encodes a single-pass type I membrane protein with an extracellular cysteine-rich domain, a transmembrane segment, and an intracellular death domain-like region. This structure allows TNFRSF19 to act as both a receptor and signaling adaptor. It interacts with TRAF2 and TRADD adaptor proteins to regulate NF-kappaB activation and cell survival. In developmental processes, TNFRSF19 coordinates Wnt and BMP signaling, influencing neural crest differentiation and epidermal homeostasis.

In cancer biology, TNFRSF19 exhibits dual roles depending on cellular context. Its overexpression has been linked to glioma and pancreatic cancer progression through activation of pro-survival pathways, while in other cancers, its expression suppresses metastasis by promoting apoptosis. TNFRSF19 also participates in immune regulation, influencing macrophage activation and inflammatory cytokine production.

TNFRSF19 antibody is widely used in studies of apoptosis, neurobiology, and immune signaling. It is suitable for immunoblotting, immunohistochemistry, and flow cytometry to detect receptor localization and expression levels. In developmental biology, TNFRSF19 serves as a marker for neural crest derivatives and epithelial differentiation. Its detection provides insight into the balance between cell survival and programmed death in both normal and disease contexts.

Structurally, TNFRSF19 shares conserved cysteine-rich motifs with other TNF receptor family members that mediate ligand binding and receptor trimerization. Its cytoplasmic domain associates with adaptor proteins to propagate intracellular signaling. NSJ Bioreagents provides TNFRSF19 antibody reagents validated for research in signal transduction, developmental biology, and oncology.

Application Notes

Optimal dilution of the TNFRSF19 antibody should be determined by the researcher.

Immunogen

E.coli-derived human TNFRSF19 recombinant protein (Position: E68-L423) was used as the immunogen for the TNFRSF19 antibody.

Storage

After reconstitution, the TNFRSF19 antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.