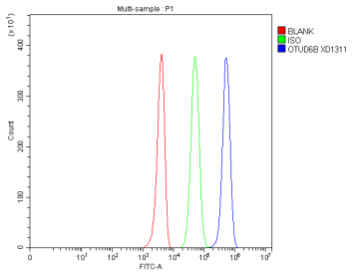
OTUD6B Antibody / OTU domain-containing deubiquitinase 6B (FY13392)

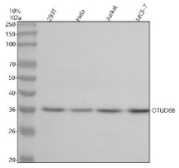
Catalog No.	Formulation	Size
FY13392	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml	100 ug

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, 0.2 mg Na2HPO4.
UniProt	Q8N6M0
Applications	Western Blot : 0.25-0.5ug/ml Flow Cytometry : 1-3ug/million cells ELISA : 0.1-0.5ug/ml
Limitations	This OTUD6B antibody is available for research use only.



Flow Cytometry analysis of human 293T cells using anti-OTUD6B antibody. Overlay histogram showing 293T cells stained with (Blue line). To facilitate intracellular staining, cells were fixed with 4% paraformaldehyde and permeabilized with permeabilization buffer. The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-OTUD6B 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 OTUD6B using anti-OTUD6B antibody. Lane 1: human 293T whole cell lysates, Lane 2: human Hela whole cell lysates, Lane 3: human Jurkat whole cell lysates, Lane 4: human MCF-7 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-OTUD6B 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. The expected molecular weight of OTUD6B is ~34 kDa.

Description

OTUD6B antibody detects OTU domain-containing deubiquitinase 6B, a cysteine protease encoded by the OTUD6B gene located on chromosome 8q21.3. OTUD6B belongs to the ovarian tumor (OTU) domain-containing deubiquitinase family, which removes ubiquitin moieties from target proteins to regulate their stability, localization, and signaling activity. OTUD6B plays an important role in cellular protein homeostasis, DNA damage repair, and immune signaling by fine-tuning ubiquitin-mediated pathways. It is expressed in most tissues, with highest levels in brain, liver, and testis, reflecting its broad regulatory functions.

Structurally, OTUD6B contains an N-terminal OTU catalytic domain characterized by a conserved cysteine, histidine, and aspartate catalytic triad responsible for cleaving ubiquitin from substrates. It also includes regions for substrate recognition and potential regulatory phosphorylation sites. OTUD6B belongs to the OTU-type deubiquitinase family, which exhibits linkage-specific cleavage of polyubiquitin chains. Co-localization studies show OTUD6B primarily in the cytoplasm but also associated with the nucleus under stress conditions, suggesting roles in both cytosolic and nuclear signaling pathways.

Functionally, OTUD6B regulates protein degradation and signaling by removing ubiquitin from specific substrates targeted for proteasomal or lysosomal turnover. It modulates the stability of signaling mediators such as AKT, p53, and components of the mTOR pathway. OTUD6B also contributes to endoplasmic reticulum stress responses and DNA damage repair by reversing ubiquitination on repair factors. In immune cells, OTUD6B helps maintain homeostasis by controlling NF-?B activation and cytokine signaling. Known biochemical activities include cleavage of Lys48- and Lys63-linked ubiquitin chains, thereby influencing protein degradation and signaling transduction.

Deficiency or mutation of OTUD6B has been associated with intellectual developmental disorders, craniofacial abnormalities, and growth retardation, collectively known as OTUD6B-related neurodevelopmental syndrome. Dysregulation of OTUD6B expression has also been linked to tumor progression through effects on apoptosis and metabolic control. Pathway associations include ubiquitin-dependent protein catabolism, mTOR signaling, and cellular stress response. During development, OTUD6B supports cell growth and neuronal maturation by regulating key ubiquitinated targets involved in metabolism and transcription.

The OTUD6B antibody from NSJ Bioreagents is an excellent reagent for research on deubiquitination mechanisms, proteostasis, and signal transduction regulation.

Application Notes

Optimal dilution of the OTUD6B antibody should be determined by the researcher.

Immunogen

E.coli-derived human OTUD6B recombinant protein (Position: E66-S293) was used as the immunogen for the OTUD6B antibody.

Storage

After reconstitution, the OTUD6B antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.