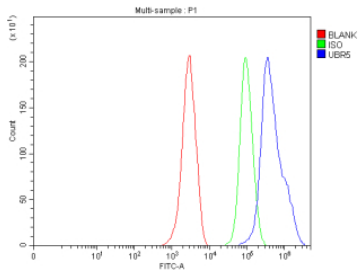
UBR5 Antibody / hHYD (FY12562)

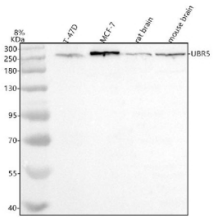
Catalog No.	Formulation	Size
FY12562	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml	100 ug

Bulk quote request

Availability	1-2 days
Species Reactivity	Human, Mouse, Rat
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	O95071
Applications	Western Blot : 0.25-0.5ug/ml Flow Cytometry : 1-3ug/million cells ELISA : 0.1-0.5ug/ml
Limitations	This UBR5 antibody is available for research use only.



Flow Cytometry analysis of MCF-7 cells using anti-UBR5 antibody. Overlay histogram showing MCF-7 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-UBR5 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 UBR5 using anti-UBR5 antibody. Electrophoresis was performed on a 8% SDS-PAGE gel at 80V (Stacking gel) / 120V (Resolving gel) for 2 hours. Lane 1: human T-47D whole cell lysates, Lane 2: human MCF-7 whole cell lysates, Lane 3: rat brain tissue lysates, Lane 4: mouse brain tissue 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-UBR5 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 prominent band is detected at ~280 kDa, slightly lower than the canonical ~300 kDa UBR5 reported in the literature. The ~280 kDa signal is compatible with a documented shorter UBR5 isoform (~2,552 aa, ~283 kDa) and with common high-molecular-weight migration variability.

Description

UBR5 antibody detects E3 ubiquitin-protein ligase UBR5, a large multidomain enzyme that catalyzes ubiquitination of specific substrate proteins, regulating DNA damage repair, transcription, and cell cycle control. UBR5 belongs to the HECT-type E3 ligase family and plays a critical role in maintaining genomic integrity and proteostasis. The UBR5 antibody is widely used in studies of ubiquitin signaling, cancer biology, and DNA repair mechanisms.

UBR5 is encoded by the UBR5 gene located on human chromosome 8q22.3. The protein is approximately 300 kilodaltons and contains a C-terminal HECT domain responsible for ubiquitin transfer, an N-terminal UBR box involved in substrate recognition, and several WW domains that mediate protein-protein interactions. UBR5 localizes to both the nucleus and cytoplasm, functioning in proteasomal degradation and signaling complex assembly.

The UBR5 antibody detects a 300 kilodalton band in western blot analysis and shows both nuclear and cytoplasmic staining under immunofluorescence. UBR5 ubiquitinates regulators of the DNA damage response such as BRCA1 and p53, coordinating checkpoint activation and repair. It also targets transcription factors and signaling intermediates, integrating stress responses with transcriptional control.

UBR5 is essential for embryonic development and cell viability. Its dysregulation is associated with multiple cancers, including breast, ovarian, and colorectal carcinoma, where it functions as either an oncogene or tumor suppressor depending on context. Overexpression enhances proliferation and metastasis, while depletion sensitizes cells to DNA-damaging agents and promotes apoptosis.

As a master regulator of ubiquitin signaling, UBR5 links proteolytic control with cell fate decisions. NSJ Bioreagents provides a validated UBR5 antibody optimized for western blot and flow cytometry, supporting research into ubiquitination pathways, DNA damage responses, and oncogenic signaling networks.

Application Notes

Optimal dilution of the UBR5 antibody should be determined by the researcher.

Immunogen

E.coli-derived human UBR5 recombinant protein (Position: K31-K761) was used as the immunogen for the UBR5 antibody.

Storage

After reconstitution, the UBR5 antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.