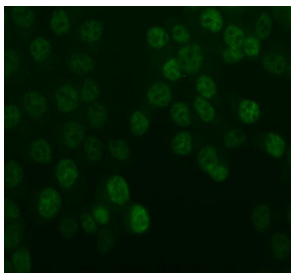
UBE2T Antibody / Ubiquitin-conjugating enzyme E2 T / HSPC150 (FY12094)

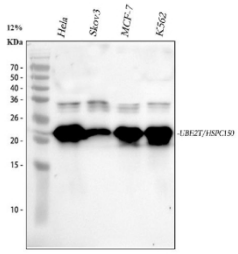
Catalog No.	Formulation	Size
FY12094	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml	100 ug

Bulk quote request

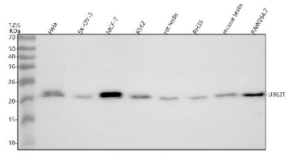
Availability	1-2 days
Species Reactivity	Human, Mouse, Rat
Format	Lyophilized
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit IgG
Purity	Immunogen affinity purified
Buffer	Each vial contains 4 mg Trehalose, 0.9 mg NaCl, 0.2 mg Na2HPO4.
UniProt	Q9NPD8
Applications	Western Blot : 0.25-0.5ug/ml Flow Cytometry : 1-3ug/million cells ELISA : 0.1-0.5ug/ml Immunofluorescence : 5ug/ml
Limitations	This UBE2T antibody is available for research use only.



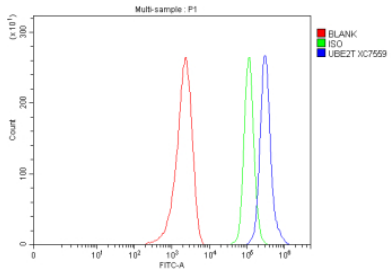
IF analysis of UBE2T using anti-UBE2T antibody (green). UBE2T was detected in an immunocytochemical section of MCF-7 cells. Enzyme antigen retrieval was performed using IHC enzyme antigen retrieval reagent for 15 mins. The cells were blocked with 10% goat serum. And then incubated with 1:100 rabbit anti-UBE2T antibody overnight at 4oC. DyLight 488 Conjugated Goat Anti-Rabbit IgG was used as secondary antibody at 1:500 dilution and incubated for 30 minutes at 37oC. Visualize using a fluorescence microscope and filter sets appropriate for the label used.



Western blot analysis of HSPC150/UBE2T using anti-UBE2T antibody. Electrophoresis was performed on a 10% SDS-PAGE gel at 80V (Stacking gel) / 120V (Resolving gel) for 2 hours. Lane 1: human Hela whole cell lysates, Lane 2: human Skov3 whole cell lysates, Lane 3: human MCF-7 whole cell lysates, Lane 4: human K562 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-UBE2T antibody at 1:1000 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 specific band was detected for UBE2T at approximately 23 kDa. The expected band size for UBE2T is at 23 kDa.



Western blot analysis of UBE2T using anti-UBE2T antibody. Electrophoresis was performed on a 12% SDS-PAGE gel at 80V (Stacking gel) / 120V (Resolving gel) for 2 hours. Lane 1: human Hela whole cell lysates, Lane 2: human SK-OV-3 whole cell lysates, Lane 3: human MCF-7 whole cell lysates, Lane 4: human K562 whole cell lysates, Lane 5: rat testis tissue lysates, Lane 6: rat RH35 whole cell lysates, Lane 7: mouse testis tissue lysates, Lane 8: mouse RAW264.7 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-UBE2T 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 specific band was detected for UBE2T at approximately 23 kDa. The expected band size for UBE2T is at 23 kDa.



Flow Cytometry analysis of MCF-7 cells using anti-UBE2T 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-UBE2T 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

UBE2T antibody detects Ubiquitin-conjugating enzyme E2 T, encoded by the UBE2T gene. Ubiquitin-conjugating enzyme E2 T is a member of the E2 family of enzymes that catalyze the transfer of ubiquitin to target proteins, particularly in the context of the Fanconi anemia DNA repair pathway. UBE2T antibody provides researchers with a critical reagent for studying ubiquitin signaling, DNA repair, and cancer.

Ubiquitin-conjugating enzyme E2 T functions as the cognate E2 for FANCL, the E3 ligase of the Fanconi anemia core complex. Research using UBE2T antibody has shown that it is required for monoubiquitination of FANCD2 and FANCI, a critical step in the repair of DNA interstrand crosslinks. This activity ensures faithful DNA replication and genome stability.

Studies with UBE2T antibody have revealed that loss of UBE2T function causes Fanconi anemia, a rare genetic disorder characterized by bone marrow failure, congenital abnormalities, and cancer predisposition. Patient mutations in UBE2T impair its ubiquitin conjugating activity, preventing activation of FANCD2 and disrupting DNA repair. These findings emphasize the clinical importance of UBE2T in genome maintenance.

Beyond Fanconi anemia, dysregulation of Ubiquitin-conjugating enzyme E2 T has been associated with cancer progression. Research using UBE2T antibody has shown that overexpression promotes proliferation, survival, and resistance to DNA-damaging therapies in breast, lung, and liver cancers. This suggests potential as both a biomarker and therapeutic target.

UBE2T antibody is widely applied in western blotting, immunohistochemistry, and functional repair assays. Western blotting detects monoubiquitination of FANCD2, immunohistochemistry demonstrates tumor-associated expression, and repair assays confirm participation in crosslink repair. These applications make UBE2T antibody indispensable in DNA repair and cancer biology.

By providing validated UBE2T antibody reagents, NSJ Bioreagents supports studies into ubiquitination, DNA repair, and disease. Detection of Ubiquitin-conjugating enzyme E2 T provides researchers with insight into how ubiquitin pathways regulate genome stability and cancer progression.

Application Notes

Optimal dilution of the UBE2T antibody should be determined by the researcher.

Immunogen

E.coli-derived human UBE2T recombinant protein (Position: R9-Q145) was used as the immunogen for the UBE2T antibody.

Storage

After reconstitution, the UBE2T antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.