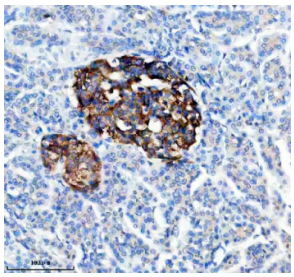
TRIM58 Antibody / Tripartite motif containing protein 58 (FY12113)

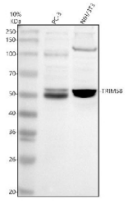
Catalog No.	Formulation	Size
FY12113	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml	100 ug

Bulk quote request

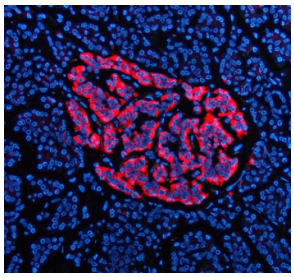
Availability	1-2 days
Species Reactivity	Human, Mouse, Rat
Format	Lyophilized
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit IgG
Purity	Immunogen affinity purified
Buffer	Each vial contains 4 mg Trehalose, 0.9 mg NaCl, 0.2 mg Na2HPO4.
UniProt	Q8NG06
Applications	Western Blot : 0.25-0.5ug/ml Immunohistochemistry : 2-5ug/ml Immunofluorescence : 5ug/ml ELISA : 0.1-0.5ug/ml
Limitations	This TRIM58 antibody is available for research use only.



IHC analysis of TRIM58 using anti-TRIM58 antibody. TRIM58 was detected in a paraffin-embedded section of human pancreas tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/ml rabbit anti-TRIM58 antibody overnight at 4oC. Peroxidase Conjugated Goat Anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37oC. The tissue section was developed using an HRP secondary and DAB substrate.



Western blot analysis of TRIM58 using anti-TRIM58 antibody. Electrophoresis was performed on a 10% SDS-PAGE gel at 80V (Stacking gel) / 120V (Resolving gel) for 2 hours. Lane 1: human PC-3 whole cell lysates, Lane 2: mouse NIH/3T3 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-TRIM58 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. The expected band size for TRIM58 is at 55 kDa and is often observed as a 50-55 kDa doublet due to phosphorylation.



IF analysis of TRIM58 using anti-TRIM58 antibody (red). TRIM58 was detected in a paraffin-embedded section of human pancreas tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 5 ug/ml rabbit anti-TRIM58 antibody overnight at 4oC. Cy3 Conjugated Goat Anti-Rabbit IgG was used as secondary antibody at 1:500 dilution and incubated for 30 minutes at 37oC. The section was counterstained with DAPI (blue). Visualize using a fluorescence microscope and filter sets appropriate for the label used.

Description

TRIM58 antibody targets tripartite motif containing protein 58, an E3 ubiquitin ligase encoded by the TRIM58 gene on chromosome 1q44. TRIM58 is a member of the tripartite motif-containing family of proteins, which share a characteristic structure consisting of a RING domain, one or two B-box domains, and a coiled-coil region. This protein family is involved in diverse cellular processes such as protein ubiquitination, innate immunity, cell cycle regulation, and signal transduction. TRIM58, in particular, has been studied for its role in erythropoiesis and red blood cell maturation.TRIM58 functions as an E3 ubiquitin ligase, tagging specific substrate proteins with ubiquitin for degradation by the proteasome. During erythropoiesis, TRIM58 promotes the enucleation of developing erythroblasts, a critical step in red blood cell maturation. It achieves this by targeting proteins involved in cytoskeletal organization and nuclear expulsion. Loss of TRIM58 activity disrupts terminal erythropoiesis and can contribute to anemia-related pathologies.Emerging studies suggest that TRIM58 may also act as a tumor suppressor. Downregulation of TRIM58 has been reported in hepatocellular carcinoma, lung cancer, and colorectal cancer, where it may contribute to uncontrolled proliferation by failing to degrade oncogenic proteins. Restoring TRIM58 expression in cancer models can inhibit growth and promote apoptosis, highlighting the relevance of this protein in oncology research. TRIM58 antibody is therefore a versatile reagent for studying red blood cell development, cancer biology, and ubiquitination pathways.Experimental applications include western blotting, immunocytochemistry, immunoprecipitation, and ELISA. In hematology research, TRIM58 antibody has been used to monitor erythroid differentiation stages, correlating expression levels with enucleation efficiency. In cancer studies, antibodies against TRIM58 help determine expression levels across tumor versus normal tissues, providing insights into diagnostic and therapeutic approaches.By studying TRIM58, researchers gain a deeper understanding of ubiquitin ligase networks and their impact on development and disease. Given its unique role in erythropoiesis and potential tumor suppressor function, TRIM58 remains a protein of growing biomedical interest. The availability of this reagent from NSJ Bioreagents supports both fundamental and translational investigations.

Application Notes

Optimal dilution of the TRIM58 antibody should be determined by the researcher.

Immunogen

E.coli-derived human TRIM58 recombinant protein (Position: E8-Y347) was used as the immunogen for the TRIM58 antibody.

Storage

After reconstitution, the TRIM58 antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.