

Rabbit TP53BP1 Polyclonal Antibody | anti-TP53BP1 antibody

Anti-TP53BP1 Antibody Picoband

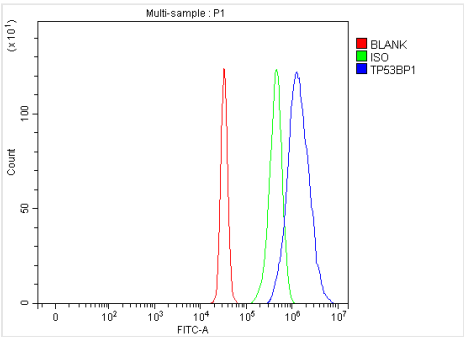
CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA126987	Rabbit	Human, Mouse, Rat	ELISA, Flow Cytometry, Functional Assay, Immunofluorescence, Immunocytochemistry, Western Blot

PRODUCT SYNONYMS

TP53BP1; Polyclonal Antibody; Anti-TP53BP1 Antibody Picoband; heterogeneous nuclear ribonucleoprotein A2/B1; Heterogeneous nuclear ribonucleoproteins A2/B1; hnRNP A2/B1; HNRNPA2B1; HNRPA2B1; anti-TP53BP1 antibody

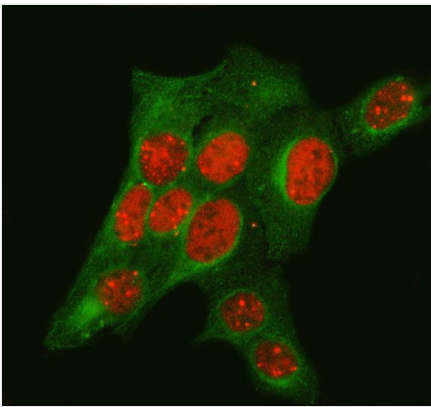
PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Isotype	Rabbit IgG
Specificity	Present in kidney, lung, testis and placenta, very low levels in liver.
Purity/Purification	Immunogen affinity purified.
Form/Format	Lyophilized. Each vial contains 4 mg Trehalose, 0.9 mg NaCl, 0.2 mg Na ₂ HPO ₄ .
Applicable Applications for anti-TP53BP1 antibody	ELISA, FCM/FACS (Flow Cytometry), IF (Immunofluorescence), ICC (Immunocytochemistry), WB (Western Blot)
Immunogen	E coli-derived human TP53BP1 recombinant protein (Position: Q1155-E1945).
Subcellular Localization	Nucleus, nucleoplasm
Reconstitution	Adding 0.2 ml of distilled water will yield a concentration of 500ug/ml.
Cross Reactivity	No cross-reactivity with other proteins.
Protein Function	Heterogeneous nuclear ribonucleoprotein (hnRNP) that associates with nascent pre-mRNAs, packaging them into hnRNP particles. The hnRNP particle arrangement on nascent hnRNA is non- random and sequence-dependent and serves to condense and stabilize the transcripts and minimize tangling and knotting. Packaging plays a role in various processes such as transcription, pre-mRNA processing, RNA nuclear export, subcellular location, mRNA translation and stability of mature mRNAs (PubMed:19099192). Forms hnRNP particles with at least 20 other different hnRNP and heterogeneous nuclear RNA in the nucleus. Involved in transport of specific mRNAs to the cytoplasm in oligodendrocytes and neurons: acts by specifically recognizing and binding the A2RE (21 nucleotide hnRNP A2 response element) or the A2RE11 (derivative 11 nucleotide oligonucleotide) sequence motifs present on some mRNAs, and promotes their transport to the cytoplasm (PubMed:10567417). Specifically binds single-stranded telomeric DNA sequences, protecting telomeric DNA repeat against endonuclease digestion (By similarity). Also binds other RNA molecules, such as primary miRNA (pri-miRNAs): acts as a nuclear 'reader' of the N6-methyladenosine (m6A) mark by specifically recognizing and binding a subset of nuclear m6A-containing pri-miRNAs. Binding to m6A-containing pri- miRNAs promotes pri-miRNA processing by enhancing binding of DGCR8 to pri-miRNA transcripts (PubMed:26321680). Involved in miRNA sorting into exosomes following sumoylation, possibly by binding (m6A)-containing pre-miRNAs (PubMed:24356509). Acts as a regulator of efficiency of mRNA splicing, possibly by binding to m6A- containing pre-mRNAs (PubMed:26321680).
Preparation and Storage	At -20 degree C for one year from date of receipt. After reconstitution, at 4 degree C for one month. It can also be aliquotted and stored frozen at -20 degree C for six months.Avoid repeated freezing and thawing.



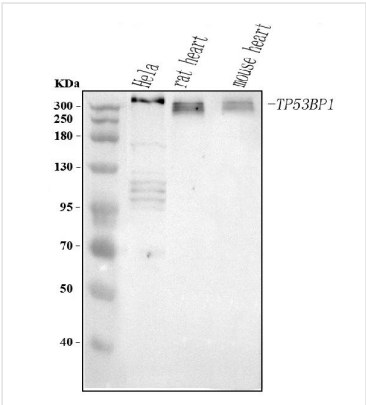
FCM/FACS (Flow Cytometry)

Figure 3. Flow Cytometry analysis of HepG2 cells using anti-TP53BP1 antibody (AAA126987).Overlay histogram showing HepG2 cells stained with AAA126987 (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-TP53BP1 Antibody (AAA126987, 1ug/1x10⁶ cells) for 30 min at 20 degree C. DyLight488 conjugated goat anti-rabbit IgG was used as secondary antibody for 30 minutes at 20 degree C. Isotype control antibody (Green line) was rabbit IgG (1ug/1x10⁶) used under the same conditions. Unlabelled sample (Red line) was also used as a control.



IF (Immunofluorescence)

Figure 2. IF analysis of TP53BP1 using anti-TP53BP1 antibody (AAA126987) and anti-Beta Tubulin antibody (M01857-3).TP53BP1 was detected in immunocytochemical section of U2OS cell. 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 5ug/mL rabbit anti-TP53BP1 Antibody (AAA126987) and mouse anti-Beta Tubulin antibody (M01857-3) overnight at 4 degree C. Cy3 Conjugated Goat Anti-Rabbit IgG (BA1032) and DyLight488 Conjugated Goat Anti-Mouse IgG (BA1126) were used as secondary antibody at 1:500 dilution and incubated for 30 minutes at 37 degree C. Visualize using a fluorescence microscope and filter sets appropriate for the label used.



WB (Western Blot)

Figure 1. Western blot analysis of TP53BP1 using anti-TP53BP1 antibody (AAA126987).Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel)/90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 30 ug of sample under reducing conditions.Lane 1: human HeLa whole cell lysates,Lane 2: rat heart tissue lysates,Lane 3: mouse heart 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-TP53BP1 antigen affinity purified polyclonal antibody (#AAA126987) at 0.5ug/mL overnight at 4 degree C, 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 is developed using an Enhanced Chemiluminescent detection (ECL) kit with Tanon 5200 system. A specific band was detected for TP53BP1 at approximately 300-350 kDa. The expected band size for TP53BP1 is at 210 kDa.

ADDITIONAL INFORMATION

Related Product Information for anti-TP53BP1 antibody	The brand Picoband indicates this is a premium antibody that guarantees superior quality, high affinity, and strong signals with minimal background in Western blot applications. Only our best-performing antibodies are designated as Picoband, ensuring unmatched performance.
Product Categories/Family for anti-TP53BP1 antibody	Primary Antibodies; DNA/RNA; Epigenetics and Nuclear Signaling; RNA Processing

References	1. Iwabuchi, K., Bartel, P. L., Li, B., Marraccino, R., Fields, S. Two cellular proteins that bind to wild-type but not mutant p53. Proc. Nat. Acad. Sci. 91: 6098-6102, 1994. 2. Iwabuchi, K., Li, B., Massa, H. F., Trask, B. J., Date, T., Fields, S. Stimulation of p53-mediated transcriptional activation by the p53-binding proteins, 53BP1 and 53BP2. J. Biol. Chem. 273: 26061-26068, 19983. Wang, B., Matsuoka, S., Carpenter, P. B., Elledge, S. J. 53BP1, a mediator of the DNA damage checkpoint. Science 298: 1435-1438, 2002.
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NCBI AND UNIPROT INFORMATION

NCBI GI #	213972634
NCBI GeneID	7158
NCBI Accession #	NP_001135451.1
NCBI GenBank Nucleotide #	NM_001141979.1
UniProt Accession #	Q12888; Q2M1Z7; Q4LE46; Q5FWZ3; Q7Z3U4
Molecular Weight	213,574 Da
NCBI Official Full Name	tumor suppressor p53-binding protein 1 isoform 2
NCBI Official Synonym Full Names	tumor protein p53 binding protein 1
NCBI Official Symbol	TP53BP1
NCBI Official Synonym Symbols	p202; 53BP1
NCBI Protein Information	tumor suppressor p53-binding protein 1; p53BP1; tumor protein 53-binding protein, 1; tumor protein p53-binding protein, 1
UniProt Protein Name	Tumor suppressor p53-binding protein 1
UniProt Gene Name	TP53BP1
UniProt Synonym Gene Names	53BP1; p53-binding protein 1; p53BP1
UniProt Entry Name	TP53B_HUMAN

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.