

TP53BP1 / 53BP1 Antibody (C-Terminus)
Rabbit Polyclonal Antibody
Catalog # ALS11872

Specification

TP53BP1 / 53BP1 Antibody (C-Terminus) - Product Information

Application	IHC
Primary Accession	O12888
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Calculated MW	214kDa KDa

TP53BP1 / 53BP1 Antibody (C-Terminus) - Additional Information

Gene ID 7158

Other Names

Tumor suppressor p53-binding protein 1, 53BP1, p53-binding protein 1, p53BP1, TP53BP1

Target/Specificity

Human 53BP1

Reconstitution & Storage

Short term 4°C, long term aliquot and store at -20°C, avoid freeze thaw cycles.

Precautions

TP53BP1 / 53BP1 Antibody (C-Terminus) is for research use only and not for use in diagnostic or therapeutic procedures.

TP53BP1 / 53BP1 Antibody (C-Terminus) - Protein Information

Name TP53BP1 ([HGNC:11999](#))

Function

Double-strand break (DSB) repair protein involved in response to DNA damage, telomere dynamics and class-switch recombination (CSR) during antibody genesis (PubMed: [12364621](http://www.uniprot.org/citations/12364621), PubMed: [17190600](http://www.uniprot.org/citations/17190600), PubMed: [21144835](http://www.uniprot.org/citations/21144835), PubMed: [22553214](http://www.uniprot.org/citations/22553214), PubMed: [23333306](http://www.uniprot.org/citations/23333306), PubMed: [27153538](http://www.uniprot.org/citations/27153538), PubMed: [28241136](http://www.uniprot.org/citations/28241136), PubMed: [31135337](http://www.uniprot.org/citations/31135337), PubMed: [37696958](http://www.uniprot.org/citations/37696958)). Plays a key role in the repair of double-strand DNA breaks (DSBs) in response to DNA damage by promoting non-homologous end joining (NHEJ)-mediated repair of DSBs and specifically counteracting the

function of the homologous recombination (HR) repair protein BRCA1 (PubMed:22553214, PubMed:23333306, PubMed:23727112, PubMed:27153538, PubMed:31135337). In response to DSBs, phosphorylation by ATM promotes interaction with RIF1 and dissociation from NUDT16L1/TIRR, leading to recruitment to DSBs sites (PubMed:28241136). Recruited to DSBs sites by recognizing and binding histone H2A monoubiquitinated at 'Lys-15' (H2AK15Ub) and histone H4 dimethylated at 'Lys-20' (H4K20me2), two histone marks that are present at DSBs sites (PubMed:17190600, PubMed:23760478, PubMed:27153538, PubMed:28241136). Required for immunoglobulin class- switch recombination (CSR) during antibody genesis, a process that involves the generation of DNA DSBs (PubMed:23345425). Participates in the repair and the orientation of the broken DNA ends during CSR (By similarity). In contrast, it is not required for classic NHEJ and V(D)J recombination (By similarity). Promotes NHEJ of dysfunctional telomeres via interaction with PAXIP1 (PubMed:23727112).

Cellular Location

Nucleus. Chromosome. Chromosome, centromere, kinetochore {ECO:0000250|UniProtKB:P70399}. Note=Localizes to the nucleus in absence of DNA damage (PubMed:28241136). Following DNA damage, recruited to sites of DNA damage, such as double strand breaks (DSBs): recognizes and binds histone H2A monoubiquitinated at 'Lys-15' (H2AK15Ub) and histone H4 dimethylated at 'Lys-20' (H4K20me2), two histone marks that are present at DSBs sites (PubMed:17190600, PubMed:23333306, PubMed:23760478, PubMed:24703952, PubMed:28241136, PubMed:31135337, PubMed:37696958). Associated with kinetochores during mitosis (By similarity). {ECO:0000250|UniProtKB:P70399, ECO:0000269|PubMed:17190600, ECO:0000269|PubMed:23333306, ECO:0000269|PubMed:23760478, ECO:0000269|PubMed:28241136, ECO:0000269|PubMed:37696958}

Volume

100 µl

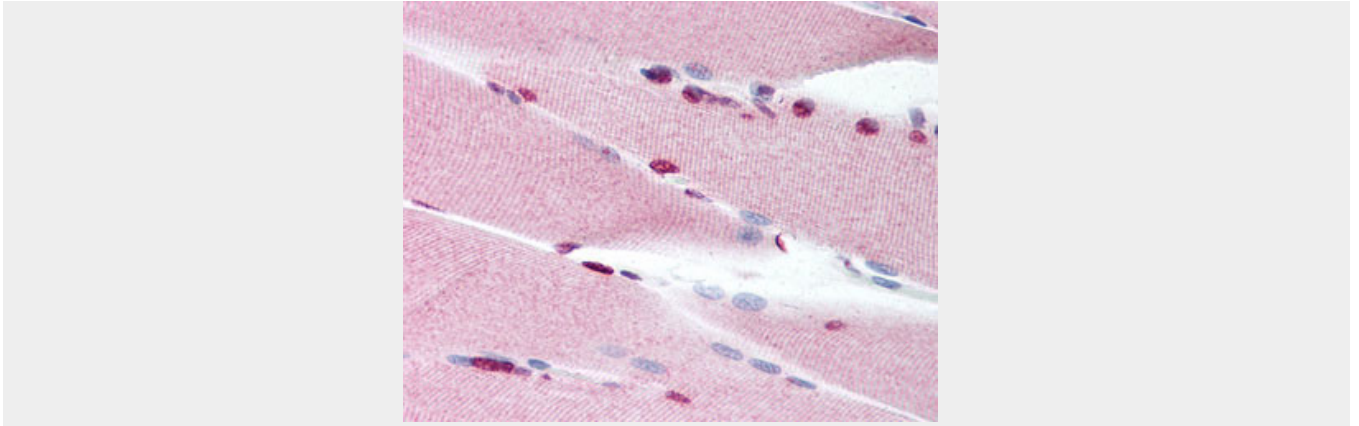
TP53BP1 / 53BP1 Antibody (C-Terminus) - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

TP53BP1 / 53BP1 Antibody (C-Terminus) - Images





Anti-TP53BP1 / 53BP1 antibody IHC of human skeletal muscle.

TP53BP1 / 53BP1 Antibody (C-Terminus) - Background

Plays a key role in the response to DNA damage. May have a role in checkpoint signaling during mitosis. Enhances TP53- mediated transcriptional activation.

TP53BP1 / 53BP1 Antibody (C-Terminus) - References

- Iwabuchi K.,et al.J. Biol. Chem. 273:26061-26068(1998).
- Nakajima D.,et al.Submitted (MAR-2005) to the EMBL/GenBank/DDBJ databases.
- Bechtel S.,et al.BMC Genomics 8:399-399(2007).
- Zody M.C.,et al.Nature 440:671-675(2006).
- Iwabuchi K.,et al.Proc. Natl. Acad. Sci. U.S.A. 91:6098-6102(1994).