

## Product datasheet for **MC229683**

### Trp53bp1 (NM\_001290830) Mouse Untagged Clone

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** Trp53bp1 (NM\_001290830) Mouse Untagged Clone  
**Tag:** Tag Free  
**Symbol:** Trp53bp1  
**Synonyms:** 53BP1; m53BP1; p53BP1; Tp53bp1  
**Vector:** pCMV6-Entry (PS100001)  
**E. coli Selection:** Kanamycin (25 ug/mL)  
**Cell Selection:** Neomycin  
**Fully Sequenced ORF:** >MC229683 representing NM\_001290830  
 Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**GCGATCGCC**

ATGCCAGGGGAGCAGATGGACCCTACTGGAAGTCAATTGGATTTCAGATTTCTCTCAGCAAGACACTCCTT  
 GCCTGATAATAGAAGATTCTCAGCCTGAAAGCCAGGTTCTGGAAGAAGATGCAGGCTCTCACTTCAGCGT  
 GCTATCTCGACACCTTCTAATCTGCAGATGCACAAAGAGAACCCTGTTGGATATTGTATCAAATCCG  
 GAACAATCTGCTGTAGAACAAGGAGACAGTAATAGCTCATTCAATGAACATCTGAAAGAAAAGAAAGCTT  
 CAGATCCTGTGGAGTCTTCTCATTGGGTACCAGTGGTCCATCAGTCAGGTCATTGAACGGTTACCTCA  
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 AGCCCAGCAAAGACATCCCTGTTACAGTACAGCCCGTAAAGGTATCCATGTGGTGAAGAACAATAATCT  
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AACTGATGCTTTCTACAAGTGAGTATAGTCAGTCCTCAAAGATGGAGAGCTTGGGTTCTCCCAGGACTGA  
 GGAAGACAGAGAGAACACACAGATTGACGATACTGAACCTTTGTCTCCAGTTAGCAATTCTAAACTTCT  
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 CTTTTACTCTGGGAAGATCACCCGAGATGTGGGGCTGGGAAGTACAAGCTGCTCTTTGATGATGGGTAC  
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 TGAGCCTTCTGTCTAGAAAGAGCCAAGAGGGCCTTTGCCCTCAACAAGACCTTGTTTCTGGGCTATGCC  
 TTTCTCTCACCATGGCTACAAC TAGTGACAAGCTGGCCAGTCTGCTAAGCTGTAGATGGTCTACAG  
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TCGAGCAGGAGCTGGGTATATCCTTGAAGACTTCAATGAAGCCCAGTGTAAACACAGCCTACCAGTGTCTC
CTAATTGCGGACCAGCACTGTGCAACCCGGAAGTACTTCTGTGCCTTGCCAGTGGCATTCTTGTGTGT
CTCATGTCTGGGTCCATGACAGTTGCCATGCCAACCAACTTCAAAACTATCGTAATTATCTGCTGCCTGC
TGGGTATAGCCTTGAAGAGCAACGAATTCTGGATTGGCAACCCCGTAAAAACCCTTCCAGAATCTGAAG
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CAGCCTCTGTGAAGCAGCACCATTCAAGTGCCCAACAAGACATTGCTTTAGGGGTATTTGATGTGGT
GGTGACAGACCCCTCATGCCAGCCTCGGTGCTCAAGTGTGCTGAAGCCTTGAAGCCTTGAAGCCTTGAAG
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ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA
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<b>Restriction Sites:</b>	Sgfl-MluI
<b>ACCN:</b>	NM_001290830
<b>Insert Size:</b>	5760 bp
<b>OTI Disclaimer:</b>	Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).
<b>OTI Annotation:</b>	Clone contains native stop codon, and expresses the complete ORF without any c-terminal tag.
<b>Components:</b>	The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.</li></ol>
<b>RefSeq:</b>	<u><a href="#">NM_001290830.1</a></u> , <u><a href="#">NP_001277759.1</a></u>
<b>RefSeq Size:</b>	9502 bp
<b>RefSeq ORF:</b>	5760 bp
<b>Locus ID:</b>	27223
<b>UniProt ID:</b>	<u><a href="#">P70399</a></u>
<b>Cytogenetics:</b>	2 E5

**Gene Summary:**

Double-strand break (DSB) repair protein involved in response to DNA damage, telomere dynamics and class-switch recombination (CSR) during antibody genesis (PubMed:15159415, PubMed:15077110, PubMed:20453858, PubMed:23333305, PubMed:26308889, PubMed:20362325). 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:23333305, PubMed:20362325). In response to DSBs, phosphorylation by ATM promotes interaction with RIF1 and dissociation from NUDT16L1/TIRR, leading to recruitment to DSBs sites. 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. Required for immunoglobulin class-switch recombination (CSR) during antibody genesis, a process that involves the generation of DNA DSBs (PubMed:15159415, PubMed:15077110). Participates to the repair and the orientation of the broken DNA ends during CSR (PubMed:26308889). In contrast, it is not required for classic NHEJ and V(D)J recombination (PubMed:15159415). Promotes NHEJ of dysfunctional telomeres (By similarity).

[UniProtKB/Swiss-Prot Function]

Transcript Variant: This variant (2) lacks an alternate in-frame exon in the central coding region, compared to variant 1, resulting in an isoform (b) that is shorter than isoform a.