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Product datasheet for MC225093

Trp53bp1 (NM_013735) Mouse Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Trp53bp1 (NM_013735) 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:

>MC225093 representing NM_013735
Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGCCAGGGGAGCAGATGGACCCTACTGGAAGTCAATTGGATTCAGATTTCTCTCAGCAAGACACTCCTT
GCCTGATAATAGAAGATTCTCAGCCTGAAAGCCAGGTTCTGGAAGAAGATGCAGGCTCTCACTTCAGCGT
GCTATCTCGACACCTTCCTAATCTGCAGATGCACAAAGAGAACCCCGTGTTGGATATTGTATCAAATCCG
GAACAATCTGCTGTAGAACAAGGAGACAGTAATAGCTCATTCAATGAACATCTGAAAGAAAAGAAAGCTT
CAGATCCTGTGGAGTCTTCTCATTTGGGTACCAGTGGTTCCATCAGTCAGGTCATTGAACGGTTACCTCA
GCCAAACAGGACAAGCAGTGCTCTGGCAGTGACAGTAGAAGCTGCTTCTCTCCCAGAGGAGGAGAAGGAA
GAAGAGGAGTTAGAGGAGGAGAAGGAAGGGGTGGGAGCAAACGCTCCCGGTGCTGACTCCCTTGCTGCTG
AAGATTCTGCTTCATCACAGTTGGGCTTTGGAGTTCTGGAACTGTCCCAGAGCCAGGATGTTGAAGAACA
TACAGTGCCATATGATGTCAACCAAGAGCATCTGCAGTTGGTGACCACTAACTCGGGTTCTAGCCCGCTA
TCTGATGTGGATGCGAGCACTGCAATTAAATGTGAAGAACAGCCCACTGAAGATATTGCCATGATAGAAC
AGCCCAGCAAAGACATCCCTGTTACAGTACAGCCCGGTAAAGGTATCCATGTGGTAGAAGAACAAAATCT
ACCACTTGTAAGGTCCGAAGACCGGCCGTCCAGTCCTCAAGTTTCTGTTGCTGCTGTGGAAACAAAGGAA
CAGGTACCTGCCCGGGAGCTGCTGGAAGAGGGGCCGCAGGTTCAGCCGTCATCAGAGCCTGAGGTTTCCT
CAACCCAGGAGGACTTGTTTGACCAGAGTAGTAAAACAGCTTCTGATGGTTGTTCTACTCCTTCAAGGGA
GGAAGGTGGGTGCTCTCCGGTTTCCACACCTGCTACCACCCTGCAGCTCCTGCAGCTCTCTGGTCAGAAG
CCCCTTGTTCAGGAGAGTCTTTCCACGAATTCCTCAGATCTTGTTGCTCCTTCCCCTGATGCTTTCCGAT
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AGTGATACCTGTAGGAGGGGAGCCTTTCCAGAAGCTTCATGATGACGAAGCAATGGAGACAGAAAAACCC
CTTCTCCCGTCTCAGCCTGCTGTGTCACCGCAAGCATCAACACCAGTGTCTCGGAGCACGCCAGTTTTCA
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GGAAGAACCATCAGATGATGTGAAGAAAGGTGGAGGTTTACATAGCTCATCTCTTACTGTTGAGTGTTCC
AAGACTTCAGAGAGTGAACCAAAGAATTTCACTGATGACCTTGGGCTCTCCATGACAGGGGATTCTTGCA

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AACTGATGCTTTCTACAAGTGAGTATAGTCAGTCCTCAAAGATGGAGAGCTTGGGTTCTCCCAGGACTGA
GGAAGACAGAGAGAACACACAGATTGACGATACTGAACCTTTGTCTCCAGTTAGCAATTCTAAACTTCCT
GCTGACAGTGAGAATGTCCTGGTGACTCCATCGCAGGACGACCAGGTAGAAATGAGTCAGAATGTAGATA
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TCCAGTGTCTTAGATCAGGAGGAAGCTATGGACACTAAAGAACACCATCCAGAGGAAGGGTTTTCGGGAT
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AAGTTCTAGTGAAACTCCATTTCATTTCACTTTGCCTAAAGAAGGTGATATTATCCCACCATTGACTGGC
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ACTATCCAGAAAGCACCATAGCAACCAGTGATGTCACATCTGAAAGCATGGTGGAGATCAATGATCCTCT
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CAGCTCACACCACACATCCAGTGGAACAAGTCTCTCAGCCATACACAGCAGTGGCAGCTCAGGGCGAGGA
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GCCCAGGAAAACTGAGTCCTAGAAAAGGGATCAGTCAGACAGGGGCACCGGTGTGTGAGGAAGATGGTGA
TGCAGGCCTTGGCATCAGACAGGGAGGGAAGGCTCCAGTTACACCTCGTGGGCGTGGGCGAAGGGGCCGC
CCACCTTCTCGGACCACTGGAACCAGAGAAACAGTTGTCTCTGGTCCGTTGGGCGTAGAAGATATTTCAC
CTAGCATGTCACCAGATGACAAGTCCTTCACCCGCATTATGCCTCGTGTGCCAGATTCTACCAAACGGAC
GGATGCCAGTTCTAGTACTTTGCGGCGGAGTGATTCTCCAGAGATTCCTTTTCAGGCTGCTACTGGTTCC
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CCAATGGCTACTTTTACTCTGGGAAGATCACCCGAGATGTGGGGGCTGGGAAGTACAAGCTGCTCTTTGA
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TCACCCCCACTGCCGCCAGTAGCAGCAGCACAACGCCCACACGTAAAGCCACGGAGAGTCCCCGTGCTTC
CACGGGAGTCCCATCAGGCAAAAGGAAACTTCCGACTTCTGAAGAGGAACGCTCTCCTGCTAAGCGAGGT
CGAAAGTCTGCCACCGTGAAACCTGGAACAGTGGGGGCAGCAGAGTTTGTGAGTCCCTGTGAGACTGGAG
ACAACATAGGTGAGCCTTCTGTCCTAGAAGAGCCAAGAGGGCCTTTGCCCCTCAACAAGACCTTGTTTCT

GGGCTATGCCTTTCTCCTCACCATGGCTACAACTAGTGACAAGCTGGCCAGTCGCTCTAAGCTGCTAGAT
GGTCCTACAGGAAGCAGTGAAGAAGAGGAGGAATTTTTAGAAATTCCTCCTTTCAACAAGCAGTATACAG
AATGCCAGCTTCGAGCAGGAGCTGGGTATATCCTTGAAGACTTCAATGAAGCCCAGTGTAACACAGCCTA
CCAGTGTCTCCTAATTGCGGACCAGCACTGTCGAACCCGGAAGTACTTCCTGTGCCTTGCCAGTGGCATT
CCTTGTGTGTCTCATGTCTGGGTCCATGACAGTTGCCATGCCAACCAACTTCAAAACTATCGTAATTATC
TGCTGCCTGCTGGGTATAGCCTTGAAGAGCAACGAATTCTGGATTGGCAACCCCGTGAAAACCCTTTCCA
GAATCTGAAGGTCCTCTTGGTGTCAGATCAACAACAGAACTTCTTGGAGCTCTGGTCTGAGATCCTTATG
ACTGGAGGGGCAGCCTCTGTGAAGCAGCACCATTCAAGTGCCCACAACAAAGACATTGCTTTAGGGGTAT
TTGATGTGGTGGTGACAGACCCCTCATGCCCAGCCTCGGTGCTCAAGTGTGCTGAAGCCTTGCAACTGCC
TGTGGTATCACAAGAATGGGTGATCCAGTGCCTCATTGTTGGGGAGAGAATTGGATTCAAGCAGCATCCA
AAATATAAACATGATTATGTTTCTCACTAA

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Restriction Sites: SgfI-MluI

ACCN: NM_013735

Insert Size: 5910 bp

OTI Disclaimer: 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).

Components: 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).

Reconstitution Method:
1. Centrifuge at 5,000xg for 5min.
2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.
3. Close the tube and incubate for 10 minutes at room temperature.
4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.
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.

RefSeq: NM_013735.4, NP_038763.3

RefSeq Size: 9652 bp

RefSeq ORF: 5910 bp

Locus ID: 27223

UniProt ID: P70399

Cytogenetics: 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 (1) represents the longer transcript and encodes the longer isoform (a). This variant is supported by the 5'-partial mRNA AJ414734.1, with inference of the first exon from other transcript alignments.