

Product datasheet for **MR211448**

Trp53bp1 (BC035206) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Trp53bp1 (BC035206) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Trp53bp1
Synonyms:	m53BP1, 53BP1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>MR211448 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTGTAAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGTGGAGATCAATGATCCTCTACTTGGGAATGAAAAAGGGGATTCTGAGTCTGCCCCAGAAATGGATG
GAAACTGTCTCTGAAATGAACTGGTTAGTCTGAGACAGAGGCCAGTGAAGAATCTTGCAATTTAG
CCTGGAAAAGCCTACAAGTCTGAGAGAAAAATGGATCTACTGCCATTGCAGAGCCTGTTGCCAGTCTC
CAGAAGCCGGTGCCTGTGTTGGCTGCATCTATGAAGCCAGCAAGAGAAGGAGGCTCAAAGTGAGGCTC
CTCCCTCTGCACCCGACAGGGCGAATTTGCTCCATTTTCCAAGTCTCAAGAAGAAGACAAAGAAAGACC
AGATGTTACCCCAAACCTCAGGCAGAGTGAACAGCCTGTGAAGCCTGTTGGGCCTGTCATGGACGATGCT
GCTCCCGAGGACTCAGCTTCTCCTGTTTCGCAGCAGAGGGCCTCACAGGAGCCCTTCAGTCTGCAGAGG
ACGTGATGGAACAGACCTGCTGGAAGGACTGGCTGCTAACAGGACAGACCTAGTAAGATGTTGATGGA
CAGGCCCAACCCAGAGTAACATCGGGATCCAGACCGTGGACCATTCCTGTGTGCCCCAGAAACTGTCTCG
GCAGCAACGCAGACTGTGAAGAGTGTGTGTGAGCAGGGGACCAGTACAGCGGAGCAGAACTCTGGGAAAC
AAGATGCCACTGTGCAGACTGAGAGGGGAGTGGAGAGAACTGCCAGTGTCCCGTGGACGACACAGA
GTCCCTCCACAGCCAGGGGGAAGAGGAATTTGAAATGCCCCAGCCTCCGCATGGCCATGTCTTGCATCGC
CACATGAGAACCATTGAGAAGTCCGTACACTCGTCACCCGCGTCATCACAGATGTTTATTATGTGGATG
GGACAGAAGTGGAAAGGAAAGTAACGGAGGAGACTGAAGAACCAATCGTAGAGTGTGAGGAATGTGAAAC
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AGGAGGCCAGGAAAAGTGAATCCTAGAAAAGGGATCAGTCAGACAGGGGCACCGGTGTGTGAGGAAGAT
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TTCACCTAGCATGTACCAGATGACAAGTCCTTACCCGCATTATGCCTCGTGTGCCAGATTCTACCAAA



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CGGACGGATGCCAGTTCTAGTACTTTGCGGCGGAGTGATTCTCCAGAGATTCTTTTCAGGCTGCTACTG
GTTCTCTGATGGCTTGATTCTCATCTTCAGGAAACAGCTTTGTGGGTCTCCGTGTTGTAGCTAAGTG
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TCATGACTGGAGGGGAGCCTCTGTGAAGCAGCACCATTCAAGTGCCCAACAAGACATTGCTTTAGG
GGTATTTGATGTGGTGGTACAGACCCCTCATGCCAGCCTCGGTGCTCAAGTGTGCTGAAGCCTTGCA
CTGCCTGTGGTATCACAAGAATGGGTGATCCAGTGCCTCATTGTTGGGGAGAGAATTGGATTCAAGCAGC
ATCCAAAATATAACATGATTATGTTTCTCAC

ACGCGTACGCGGCGGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>MR211448 protein sequence
Red=Cloning site Green=Tags(s)

MVEINDPLLNEKGDSESAPEMDGKLSLKMKLVPETEASEESLQFSLEKPTTAERKNGSTAIAEPVASL
QKPVVPVFGCIYEAAQKEKAQSEAPPSAPDRANLLHFPSAQEEDKERPDVTPNLRQSEQPVKPVGPVMDDA
APEDSASPVSQQRASQEPFSPAEDVMETDLEGLAANQDRPSKMLMDRPTQSNIGIQTVDHSLCAPETVS
AATQTVKSVCEQGTSTAEQNSGKQDATVQTERGSGEKPASAPVDDTESLHSQGEFEFEMPQPPHGHVLR
HMRTIREVRTLVRVITDYYYVDGTEVERKVTEETEEPIVEQCCECEVSPSQTGGSSGDLGDISSFSK
ASSSHTSSGTSLSAIHSSGSSGRGAGPLKGKASGTEAADFALPSSRGGPGKLSRKGISQTGAPVCEED
GDAGLGIRQGGKAPVTPRGRGRGRPPSRTTGTRETVVSGPLGVEDISPSMSPDDKSFTRIMPRVPDSTK
RTDASSSTLRRSDSPEIPFQAATGSSDGLDSSSSGNSFVGLRVVAKWSSNGYFYSGKITRDVGAGKYKLL
FDDGYECDVLGKDILLCDPIPLDTEVTALSEDEYFSAGVVKGHRKESGELYYSIEKEGQRKWKYKMAVIL
SLEQGNRLREQYGLGPYEAVTPLTKAADISLDNLVEGKRKRNSNISSPVTPTAASSSSTTPTRKATESPR
ASTGVPSGKRKLPTSEERSPAKRGRKSATVKPGTVGAAEFVSPCETGDNIGEPSVLEEPRGPLPLNKT
FLGYAFLLTMATTSKLSASRKLDDGPTGSSEEEEFLEIPPFNKQYTECQLRAGAGYILEDNFNEAQNT
AYQCLLIADQHCRTRKYFLCLASGIPCVSHVWVHDSCHANQLQNYRNYLLPAGYSLEEQRILDWQPRENP
FQNLKVLVSDQQNFLELWSEILMTGGAASVKQHHSSAHNKDIALGVFDVVVTDPSCPASVLKCAEALQ
LPVVSQEWVIQCLIVGERIGFKQHPKYKHVYVSH

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites:

SgfI-MluI

Cloning Scheme:


ACCN: BC035206

ORF Size: 3042 bp

OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. [More info](#)

OTI Annotation: This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

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.

Note: Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.

RefSeq: [BC035206](#), [AAH35206](#)

RefSeq Size: 3441 bp

RefSeq ORF: 3044 bp

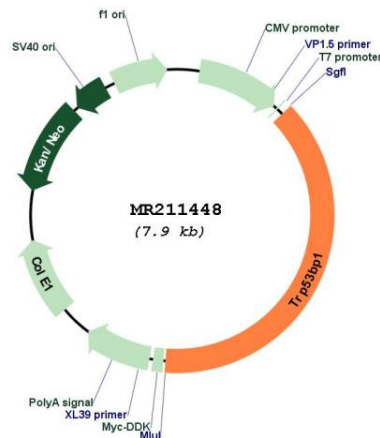
Locus ID: 27223

Cytogenetics: 2 E5

MW: 109.7 kDa

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]

Product images:



Circular map for MR211448