

Product datasheet for MR211448L3

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OriGene Technologies, Inc.

Trp53bp1 (BC035206) Mouse Tagged Lenti ORF Clone

Product data:

Product Type: Expression Plasmids

Product Name: Trp53bp1 (BC035206) Mouse Tagged Lenti ORF Clone

Tag: Myc-DDK
Symbol: Trp53bp1

Synonyms: m53BP1, 53BP1

Mammalian Cell Puromycin

Selection:

Vector: pLenti-C-Myc-DDK-P2A-Puro (PS100092)

E. coli Selection: Chloramphenicol (34 ug/mL)

ORF Nucleotide The ORF insert of this clone is exactly the same as(MR211448).

Sequence:

Restriction Sites: Sgfl-Mlul

Cloning Scheme:





^{*} The last codon before the Stop codon of the ORF.

ACCN: BC035206 **ORF Size:** 3042 bp





Trp53bp1 (BC035206) Mouse Tagged Lenti ORF Clone - MR211448L3

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.

RefSeq: <u>BC035206</u>, <u>AAH35206</u>

RefSeq Size: 3441 bp
RefSeq ORF: 3044 bp
Locus ID: 27223
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:233333305, 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]