

## Recombinant Mouse Tardbp Protein, Myc/DDK-tagged

Cat. No. Tardbp-6294M Lot. No. (See product label)

### SPECIFICATION

**Product Overview** Purified recombinant protein of mouse full-length TAR DNA binding protein (Tardbp), with C-terminal MYC/DDK tag, expressed in HEK293T cells.

**Species** Mouse

**Source** HEK293

**Description** RNA-binding protein that is involved in various steps of RNA biogenesis and processing. Preferentially binds, via its two RNA recognition motifs RRM1 and RRM2, to GU-repeats on RNA molecules predominantly localized within long introns and in the 3'UTR of mRNAs. In turn, regulates the splicing of many non-coding and protein-coding RNAs including proteins involved in neuronal survival, as well as mRNAs that encode proteins relevant for neurodegenerative diseases. Plays a role in maintaining mitochondrial homeostasis by regulating the processing of mitochondrial transcripts. Regulates also mRNA stability by recruiting CNOT7/CAF1 deadenylase on mRNA 3'UTR leading to poly(A) tail deadenylation and thus shortening. In response to oxidative insult, associates with stalled ribosomes localized to stress granules (SGs) and contributes to cell survival. Participates also in the normal skeletal muscle formation and regeneration, forming cytoplasmic myo-granules and binding mRNAs that encode sarcomeric proteins. Plays a role in the maintenance of the circadian clock periodicity via stabilization of the CRY1 and CRY2 proteins in a FBXL3-dependent manner. Negatively regulates the expression of CDK6. Regulates the expression of HDAC6, ATG7 and VCP in a PPIA/CYPA-dependent manner.

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<b>Molecular Mass</b>	33.3 kDa
<b>Purity</b>	> 80% as determined by SDS-PAGE and Coomassie blue staining
<b>Stability</b>	Stable for 12 months from the date of receipt of the product under proper storage and handling conditions. Avoid repeated freeze-thaw cycles.
<b>Storage</b>	Store at -80 centigrade after receiving vials.
<b>Concentration</b>	>50 µg/mL as determined by microplate BCA method
<b>Storage Buffer</b>	25 mM Tris.HCl, pH 7.3, 100 mM glycine, 10% glycerol.

## GENE INFORMATION

<b>Gene Name</b>	Tardbp TAR DNA binding protein [ <i>Mus musculus</i> (house mouse) ]
<b>Official Symbol</b>	Tardbp
<b>Synonyms</b>	TARDBP; TAR DNA binding protein; TAR DNA-binding protein 43; Tdp43; C85084; TDP-43; 1190002A23Rik
<b>Gene ID</b>	230908
<b>mRNA Refseq</b>	NM_001003899
<b>Protein Refseq</b>	NP_001003899
<b>UniProt ID</b>	Q921F2

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