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TARDBP Antibody (N-term) Blocking peptide

Synthetic peptide
Catalog # BP13763a

Specification

TARDBP Antibody (N-term) Blocking peptide - Product Information

Primary Accession Q13148

TARDBP Antibody (N-term) Blocking peptide - Additional Information

Gene ID 23435

Other Names
TAR DNA-binding protein 43, TDP-43, TARDBP, TDP43

Target/Specificity
The synthetic peptide sequence used to generate the antibody AP13763a was selected from the N-term region of TARDBP. A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.

Format
Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions
This product is for research use only. Not for use in diagnostic or therapeutic procedures.

TARDBP Antibody (N-term) Blocking peptide - Protein Information

Name TARDBP {ECO:0000303|PubMed:18396105, ECO:0000312|HGNC:HGNC:11571}

Function
RNA-binding protein that is involved in various steps of RNA biogenesis and processing (PubMed:23519609). 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 (PubMed:23519609, PubMed:24240615, PubMed:24464995). 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 (PubMed:21358640, PubMed:29438978). Plays a role in maintaining mitochondrial homeostasis by regulating the processing of mitochondrial transcripts (PubMed:<a href="http://www.uniprot.org/citations/28794432"

target="_blank">28794432). Regulates also mRNA stability by recruiting CNOT7/CAF1 deadenylase on mRNA 3'UTR leading to poly(A) tail deadenylation and thus shortening (PubMed:30520513). In response to oxidative insult, associates with stalled ribosomes localized to stress granules (SGs) and contributes to cell survival (PubMed:23398327, PubMed:19765185). Participates also in the normal skeletal muscle formation and regeneration, forming cytoplasmic myo-granules and binding mRNAs that encode sarcomeric proteins (PubMed:30464263). Plays a role in the maintenance of the circadian clock periodicity via stabilization of the CRY1 and CRY2 proteins in a FBXL3-dependent manner (PubMed:27123980). Negatively regulates the expression of CDK6 (PubMed:19760257). Regulates the expression of HDAC6, ATG7 and VCP in a PPIA/CYPA-dependent manner (PubMed:25678563).

Cellular Location
Nucleus. Cytoplasm. Cytoplasm, Stress granule Mitochondrion. Note=Continuously travels in and out of the nucleus (PubMed:18957508). Localizes to stress granules in response to oxidative stress (PubMed:19765185). A small subset localizes in mitochondria (PubMed:28794432).

Tissue Location
Ubiquitously expressed. In particular, expression is high in pancreas, placenta, lung, genital tract and spleen

TARDBP Antibody (N-term) Blocking peptide - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Blocking Peptides

TARDBP Antibody (N-term) Blocking peptide - Images

TARDBP Antibody (N-term) Blocking peptide - Background

HIV-1, the causative agent of acquired immunodeficiencysyndrome (AIDS), contains an RNA genome that produces achromosomally integrated DNA during the replicative cycle.Activation of HIV-1 gene expression by the transactivator Tat isdependent on an RNA regulatory element (TAR) located downstream ofthe transcription initiation site. The protein encoded by this geneis a transcriptional repressor that binds to chromosomallyintegrated TAR DNA and represses HIV-1 transcription. In addition,this protein regulates alternate splicing of the CFTR gene. Asimilar pseudogene is present on chromosome 20. [provided byRefSeq].

TARDBP Antibody (N-term) Blocking peptide - References

Kim, S.H., et al. J. Biol. Chem. 285(44):34097-34105(2010)Geser, F., et al. Arch. Neurol. 67(10):1238-1250(2010)Mackenzie, I.R., et al. Lancet Neurol 9(10):995-1007(2010)Shan, X., et al. Proc. Natl. Acad. Sci. U.S.A. 107(37):16325-16330(2010)McKee, A.C., et al. J. Neuropathol. Exp. Neurol. 69(9):918-929(2010)