

For Research Use Only

TDP-43 (N-terminal) Recombinant antibody

Catalog Number: 80001-1-RR

Featured Product

2 Publications



Basic Information

Catalog Number:

80001-1-RR

Size:

100ul, Concentration: 250 ug/ml by Nanodrop;

Source:

Rabbit

Isotype:

IgG

GenBank Accession Number:

BC001487

GeneID (NCBI):

23435

UNIPROT ID:

Q13148

Full Name:

TAR DNA binding protein

Calculated MW:

43 kDa

Observed MW:

43 kDa

Purification Method:

Protein A purification

CloneNo.:

11N20

Recommended Dilutions:

WB: 1:5000-1:50000

IHC: 1:500-1:4000

IF-P: 1:300-1:1200

FC (Intra): 0.40 ug per 10⁶ cells in a 100 µl suspension

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Applications

Tested Applications:

WB, IHC, IF-P, FC (Intra), ELISA

Cited Applications:

WB, IHC, IF, IP

Species Specificity:

Human, mouse, rat

Cited Species:

human, mouse

Note-IHC: suggested antigen retrieval with TE buffer pH 9.0; (*) Alternatively, antigen retrieval may be performed with citrate buffer pH 6.0

Positive Controls:

WB: HeLa cells, HAP1 cells, K-562 cells, Neuro-2a cells, C6 cells

IHC: human gliomas tissue, spinal cord slides from ALS patients, frontal cortex from FTLD-TDP type B, mouse brain tissue, rat brain tissue

IF-P: rat brain tissue, HAP1 cells

FC (Intra): HeLa cells,

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Background Information

The TARDBP gene encodes the TDP-43 protein, initially found to repress HIV-1 transcription by binding TAR DNA. TDP-43 has since been shown to bind RNA as well as DNA, and have multiple functions in transcriptional repression, translational regulation and pre-mRNA splicing. For instance, it is reported to regulate alternate splicing of the CTFR gene. In 2006 Neumann et al. found that hyperphosphorylated, ubiquitinated and/or cleaved forms of TDP-43, collectively known as pathological TDP-43, play a major role in the disease mechanisms of ubiquitin-positive, tau- and alpha-synuclein-negative frontotemporal dementia (FTLD-U) and in amyotrophic lateral sclerosis (ALS). Proteintech's 80001-1-RR is a rabbit recombinant TDP-43 antibody recognizing N-terminal TDP-43. It recognizes the intact 43 kDa protein as well as all posttranslationally modified and truncated forms in multiple applications. Various forms of TDP-43 exist, including 18-35 kDa of cleaved C-terminal fragments, 45-50 kDa phospho-protein, 55 kDa glycosylated form, 75 kDa hyperphosphorylated form, and 90-300 kDa cross-linked form. (PMID: 17023659, 19823856, 21666678, 22193176) Recently TDP-43 has been reported to be overexpressed in triple negative breast cancer (TNBC) and it may be a potential target for TNBC diagnosis and drug design. (PMID: 29581274).

80001-1-RR can be used in WB, IHC, IHF. For the ICC (IF with cells) experiment, the results will be better with ethanol fixed cell and dilution 1:50 or 1:100. Another antibody with CatNo. 80002-1-RR is recommended for IF or ICC experiment.

Notable Publications

Author	Pubmed ID	Journal	Application
Dana M Niedowicz	39438022	Brain Pathol	IHC
Donovan Worrall	37359785	F1000Res	WB,IP,IF

Storage

Storage:

Store at -20°C. Stable for one year after shipment.

Storage Buffer:

PBS with 0.02% sodium azide and 50% glycerol, pH7.3

Aliquoting is unnecessary for -20°C storage

*** 20ul sizes contain 0.1% BSA

For technical support and original validation data for this product please contact:
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