

TDP43 Antibody
Rabbit polyclonal antibody
Catalog # AN1197

Specification

TDP43 Antibody - Product Information

| | |
|-------------------|------------------------|
| Application | WB |
| Primary Accession | O13148 |
| Reactivity | Human, Rat |
| Host | Rabbit |
| Clonality | polyclonal |
| Calculated MW | 43 KDa |

TDP43 Antibody - Additional Information

| | |
|-----------|--------|
| Gene ID | 23435 |
| Gene Name | TARDBP |

Other Names

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

Target/Specificity

Synthetic peptide C-terminal to the caspase-cleavage site (between D219 and V220) of human TDP-43.

Dilution

WB~~ 1:1000

Format

Affinity purified

Antibody Specificity

Specific for the ~ 43kDa TDP-43 protein in Western blots of rat brain lysate. Expected molecular weight is dependent upon the TDP-43 species present in sample (full-length vs. truncated TDP-43). Under non-denaturing conditions (for example, by IHC), this antibody detects TDP-43 inclusions in human brain tissue with TDP-43 proteinopathy, but does not detect full-length nuclear TDP-43. Under denaturing conditions (for example, by Western Blot analysis) this antibody detects the C-terminus of full-length and truncated human TDP-43.

Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions

TDP43 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Shipping

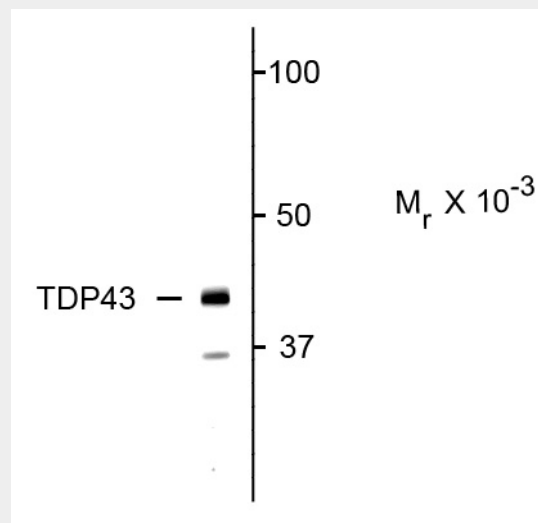
Blue Ice

TDP43 Antibody - Protocols

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

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

TDP43 Antibody - Images



Western blot of neonatal rat brain lysate showing specific immunolabeling of the ~43 kDa TDP43 protein.

TDP43 Antibody - Background

TDP43 (Tar DNA Binding 43, TARDBP) was originally identified as a protein which binds to the "transactivation response" (TAR) sequence found in the long terminal repeat of the HIV-1 virus genome (Ou et al., 1995). UV cross-linking of HeLa cell extract revealed a 43 kDa protein which was cloned and sequenced and shown to contain two copies of the ~90 amino acid RRM domain. RRM is an acronym for RNA Recognition Motif, and this domain is found in many proteins which bind single stranded RNA and some which bind single stranded DNA. Northern blots showed that the protein is ubiquitous in tissue expression. Much interest has been focused on TDP43 recently due to its association with the inclusions seen in frontotemporal lobar degeneration and Amyotrophic Lateral Sclerosis (Neumann et al., 2006). The protein is present in these inclusions in partially degraded, hyperphosphorylated and ubiquitinated forms.

TDP43 Antibody - References

Ou SH, Wu F, Harrich D, García-Martínez LF and Gaynor RB. (1995) Cloning and characterization of a novel cellular protein, TDP-43, that binds to human immunodeficiency virus type 1 TAR DNA sequence motifs. *J Virol.* 69:3584-96.
Neumann, M.; Sampathu, D. M.; Kwong, L. K.; Truax, A. C.; Micsenyi, M. C.; Chou, T. T.; Bruce, J.; Schuck, T.; Grossman, M.; Clark, C. M.; McCluskey, L. F.; Miller, B. L.; Masliah, E.; Mackenzie, I. R.; Feldman, H.; Feiden, W.; Kretschmar, H. A.; Trojanowski, J. Q.; Lee, V. M.-Y. (2006). Ubiquitinated

TDP-43 in frontotemporal lobar degeneration and amyotrophic lateral sclerosis. *Science* 314:130-133.

Forman MS, Trojanowski JQ and Lee VM-Y. (2007). TDP-43: a novel neurodegenerative proteinopathy. *Current Opinions in Neurobiology* 17:548-55.