

MONOCLONAL ANTIBODY

For research use only. Not for clinical diagnosis.

Catalog No. TIP-PTD-M01

Anti phospho TDP-43 (pS409/410)

BACKGROUND

TDP-43, a heterogeneous nuclear ribonucleoprotein, was identified as a component of ubiquitin-positive and tau-negative inclusions observed in cases of frontotemporal lobar degeneration (FTLD-U) and amyotrophic lateral sclerosis (ALS). Immunochemical analyses using antibodies generated against phospho- and non-phosphopeptides of human TDP-43 revealed that abnormally phosphorylated full-length TDP-43 (45 kDa), C-terminal fragments (~25 kDa) and smearing substances are deposited as intracellular inclusions in affected regions of FTLD-U and ALS cases. These antibodies are powerful tools for biochemical and immunohistochemical analyses of neurodegenerative diseases and for evaluation of cellular or animal models of TDP-43 proteinopathy.

Product type	Primary antibodies
Host	Mouse
Source	Culture supernatant
Form	Liquid
	Supernatant with 0.05% NaN ₃ as a preservative.
Volume	50 µl
Concentration	
Specificity	Phospho TDP-43
Antigen	CMDSKS(p)S(p)GWGM, S(p):phosphoserine 409/410.
Clone	11-9
Isotype	IgG1

Application notes WB, IHC, ELISA

Recommended use

Recommended dilutions

Western blotting, 1/1,000 to 1/3,000

(Predicted molecular weight)

Phosphorylated full-length TDP-43 at 45 kDa, ~25 kDa fragments and smearing substances in FTLD-U, ALS and other related disorders.

Immunohistochemistry, 1/3,000 to 1/10,000

1/5,000 or a higher dilution is recommended for immunohistochemistry.

ELISA, 1/1,000 to 1/5,000

Optimal dilutions/concentrations should be determined by the end user.

Staining Pattern

MAb pS409/410 stains ubiquitin-positive inclusions in FTLD-U and ALS without nuclear staining. This does not stain ghost tangles and granulovacuolar degeneration in AD or other related diseases by immunohistochemistry.

Cross reactivity Human



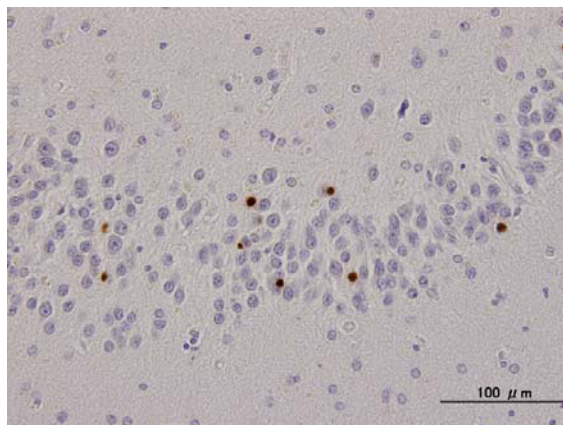
Storage

Store below -20°C (below -70°C for prolonged storage).

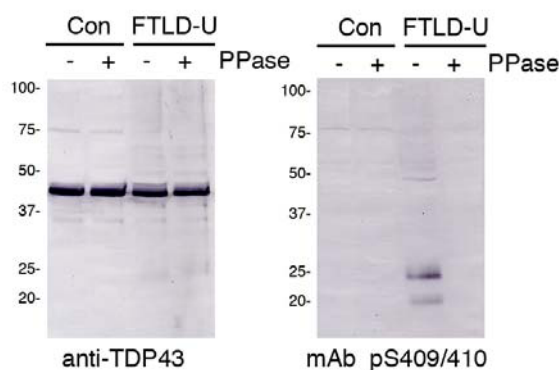
Aliquot to avoid cycles of freeze/thaw.

References

- 1) Inukai Y, Nonaka T, Arai T, et al. Abnormal phosphorylation of Ser409/410 of TDP-43 in FTLD-U and ALS.
FEBS Lett. 582, 2899-2904, 2008



NCIs in dentate gyrus of FTLD-U



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