



**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.

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

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**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**

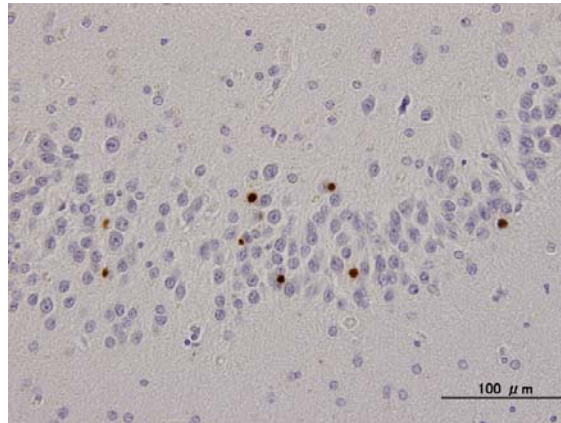
MAb pS409/410 stains ubiquitin-positive inclusions in FTLD-U and ALS without nuclear staining. This does not stain ghost tangles and granulovacuolar degeneration in AD or other related diseases by immunohistochemistry.

**Cross reactivity** Human

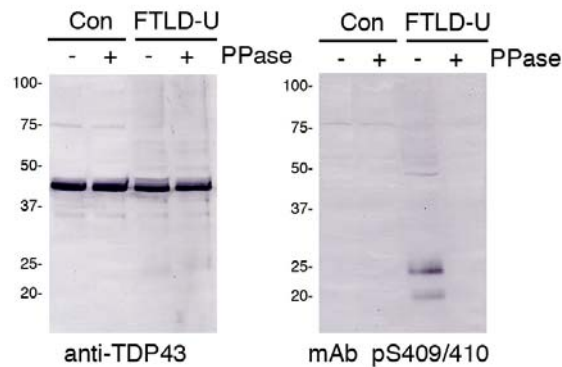


**Storage** Store below -20°C (below -70°C for prolonged storage).  
Aliquot to avoid cycles of freeze/thaw.

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



NCIs in dentate gyrus of FTL-DU



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COSMO BIO Co., LTD.  
Inspiration for Life Science

TOYO 2CHOME, KOTO-KU, TOKYO, 135-0016, JAPAN

URL: <http://www.cosmobio.co.jp>

e-mail: [export@cosmobio.co.jp](mailto:export@cosmobio.co.jp)

[Outside Japan] Phone : +81-3-5632-9617

[国内連絡先] Phone : +81-3-5632-9610

FAX : +81-3-5632-9618

FAX : +81-3-5632-9619