



**POLYCLONAL ANTIBODY**

*For research use only. Not for clinical diagnosis.*

**Catalog No. TIP-PTD-P05**

# Anti phospho TDP-43 (pS403/404)

## 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>	Rabbit
<b>Source</b>	Serum
<b>Form</b>	Liquid
<b>Volume</b>	100 µl
<b>Concentration</b>	Antiserum with 0.05% NaN <sub>3</sub> as a preservative.
<b>Specificity</b>	Phospho TDP-43
<b>Antigen</b>	NGGFGS(p)S(p)MDSKC, S(p):phosphoserine 403/404
<b>Isotype</b>	

**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, 1/1,000 to 1/5,000

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

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

### Staining Pattern

pS403/404 stains ubiquitin-positive inclusions in FTLD-U and ALS without nuclear staining. This stains granulovacuolar degeneration in some cases of AD or other related diseases only very weakly.

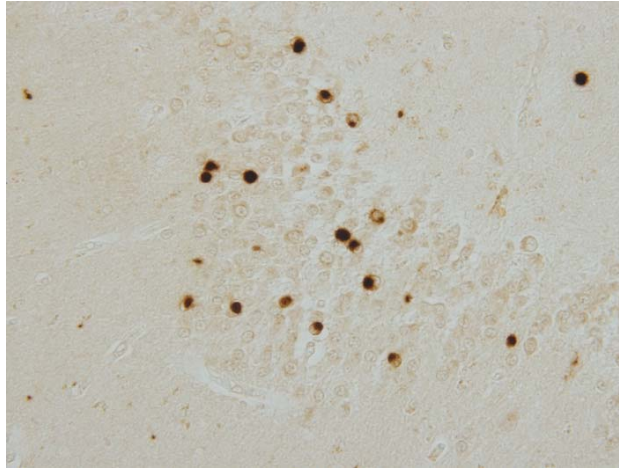
**Cross reactivity** Human

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

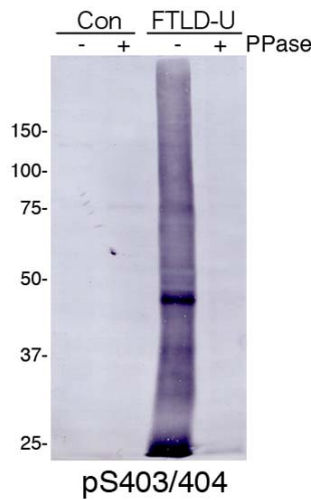


References

- 1) Hasegawa M, Arai T, Nonaka T, Kametani F, Yoshida M, Hashizume Y, Beach TG, Buratti E, Baralle F, Morita M, Nakano I, Oda T, Tsuchiya K, Akiyama H. Phosphorylated TDP-43 in frontotemporal lobar degeneration and amyotrophic lateral sclerosis. *Ann Neurol*. 2008 Jun 10;64(1):60-70.



NICs in dentate gyrus of FTDLD-U



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