



POLYCLONAL ANTIBODY

For research use only. Not for clinical diagnosis.

Catalog No. TIP-PTD-P02

Anti phospho TDP-43 (pS409/410-2)

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	Rabbit
Source	Serum
Form	Liquid
Volume	100 µl
Concentration	Antiserum with 0.05% NaN ₃ as a preservative.
Specificity	Phospho TDP-43
Antigen	CMDSKS(p)S(p)GWGM, S(p):phosphoserine 409/410
Isotype	

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, unphosphorylated TDP-43 at 43 kDa, ~25 kDa fragments and smearing substances in FTLD-U and ALS.

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

pS409/410-2 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.

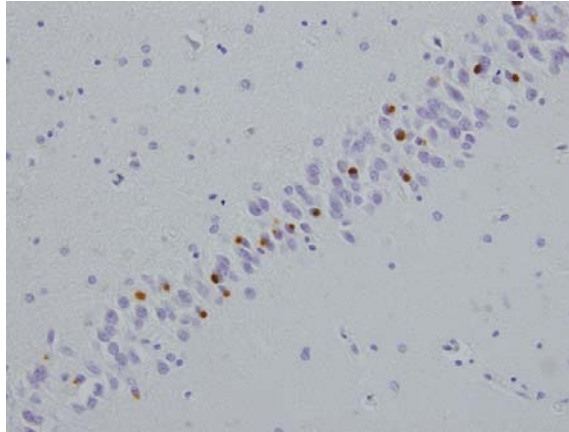
Cross reactivity Human

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

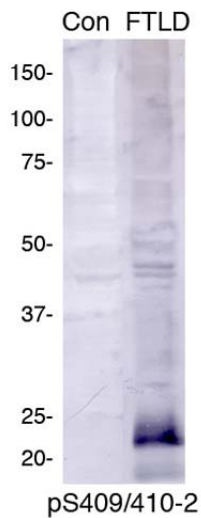


References

- 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.



NCIs in dentate gyrus of FTLD-U



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