



POLYCLONAL ANTIBODY

For research use only, Not for diagnostic use

Catalog No. TIP-PTD-P04

Anti phospho TDP-43 (pS410)**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). Immunohistochemical 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 antibody
Immunogen	CMDSKSS(p)GWGM, S(p):phosphoserine 410
Raised in	Rabbit
Myeloma	-
Clone number	-
Isotype	-
Source	Serum
Purification	-
Form	Liquid containing 50% glycerol and 0.05% NaN ₃ .
Concentration	-
Volume	100 µl
Label	Unlabeled
Specificity	Phospho TDP-43
Cross reactivity	Human
Storage	Store below -20°C. (below -70°C for prolonged storage). Aliquot to avoid cycles of freeze/thaw.

Application notes	<ul style="list-style-type: none">• Western blotting: 1/1000 - 1/3000• Immunohistochemistry: 1/1000 - 1/5000• ELISA: 1/1000 - 1/5000
Recommended dilutions	

Other applications have not been tested.

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

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. <i>Ann Neurol.</i> 2008 Jun 10;64(1):60-70. PubMed: 18546284
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ANTIBODY CHARACTERIZATION

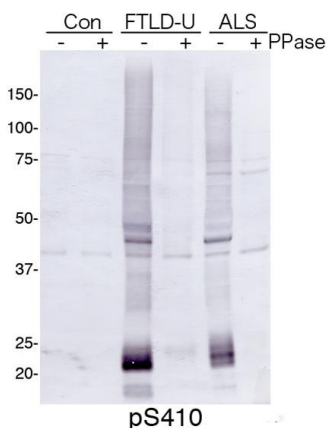


Figure 1 Immunoblot analyses with pAb pS410

Predicted molecular weight: Phosphorylated full-length TDP-43 at 45 kDa, non-phosphorylated TDP-43 at 43 kDa, - 25 kDa fragments and smearing substances in FTLD-U, ALS.

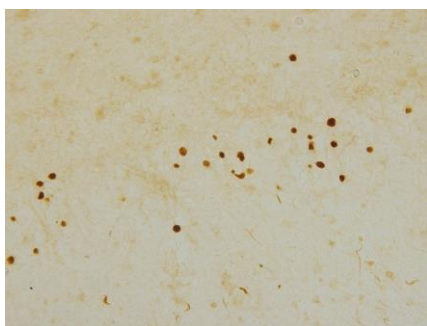


Figure 2 Immunohistochemistry of TDP-43 lesions.

PAb “pS410” recognize neuronal cytoplasmic inclusions (NCIs) and dystrophic neurites (DNs) in dentate gyrus of FTLD-U.

RELATED PRODUCTS:

Product Name	Quantity	Maker	Cat#
Anti TDP-43, phospho Ser409/410 (clone:11-9) Monoclonal Antibody	50 uL	CAC	TIP-PTD-M01
Anti TDP-43, phospho Ser409 Polyclonal Antibody	100 uL	CAC	TIP-PTD-P03
Anti TDP-43, phospho Ser410 Polyclonal Antibody	100 uL	CAC	TIP-PTD-P04
Anti TDP-43, phospho Ser409/410 Polyclonal Antibody	100 uL	CAC	TIP-PTD-P07
Anti TDP-43 N-terminus(3-12) Polyclonal Antibody	100 uL	CAC	TIP-TD-P07
Anti TDP-43 C-terminus(405-414) Polyclonal Antibody	100 uL	CAC	TIP-TD-P09

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