POLYCLONAL ANTIBODY

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 antibody
Immunogen: CMDSKS(p)S(p)GWGM, S(p):phosphoserine 409/410
Raised in: Rabbit
Myeloma: -
Clone number: -
Isotype: -
Source: Serum
Purification: -
Form: Liquid. Antiserum with 0.05% NaN₃ as a preservative.
Concentration: -
Volume: 100 uL
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
Recommended dilutions
- Western blotting: 1/1000 - 1/3000
- Immunohistochemistry: 1/1000 - 1/5000
- ELISA: 1/1000 - 1/5000

Other applications have not been tested. Optimal dilutions/concentrations should be determined by the end user.

References

www.cosmobio.co.jp
ANTIBODY CHARACTERIZATION

Figure 1  Immunoblot analyses with pAb pS409/410-2,
Predicted molecular weight: Phosphorylated full-length TDP-43 at 45 kDa,
unphosphorlated TDP-43 at 43 kDa, -25 kDa fragments and smearing substances
in FTLD-U and ALS.

Figure 2  Immunohistochemistry of TDP-43 lesions.
PAb “pS409/410-2” recognize neuronal cytoplasmic inclusions (NCIs) in dentate gyrus
of FTLD-U and 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.

RELATED PRODUCTS:

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<th>Product Name</th>
<th>Quantity</th>
<th>Maker</th>
<th>Cat#</th>
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<td>50 uL</td>
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<td>TIP-PTD-M01</td>
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