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). 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 NGGFGS(p)S(p)MDSKC, S(p):phosphoserine 403/404
Raised in Rabbit
Myeloma -
Clone number -
Isotype -
Source Serum
Purification -
Form Liquid. Antiserum with 0.05% NaN₃ as a preservative.
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
• 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
**Figure 1  Immunoblot analyses with pAb pS403/404**

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.

**Figure 2  Immunohistochemistry of TDP-43 lesions.**

PAb “pS403/404” recognize neuronal cytoplasmic inclusions (NCIs) in dentate gyrus of FTLD-U.

Note: PAb 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.

**RELATED PRODUCTS:**

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<th>Product Name</th>
<th>Quantity</th>
<th>Maker</th>
<th>Cat#</th>
</tr>
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<td>Anti TDP-43, phospho Ser409/410 (clone:11-9) Monoclonal Antibody</td>
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<td>CAC</td>
<td>TIP-PTD-M01</td>
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<td>CAC</td>
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