**Qty:** 50 µg/100 µl

Mouse anti-Phospho-Tau 396

**Catalog No.** 35-5300

**Lot No.**

# Mouse anti-Phospho-Tau 396

## FORM
This monoclonal antibody is supplied as a 100 µl aliquot at a concentration of 0.5 mg/ml in PBS, pH 7.4, containing 0.1% sodium azide. This antibody is highly purified from mouse ascites by protein A chromatography.

**CLONE:** PHF13.6 **ISOTYPE:** Mouse $IgG_{2b}$

## IMMUNOGEN
Purified human PHF-Tau preparation.

## SPECIFICITY
This antibody is specific for PHF-Tau phosphorylated on serine 396. This antibody did not recognize PHF-Tau phoshorylated at other sites, including Ser 400, Thr 403, or Ser 404. [2]

## REACTIVITY
Reactivity is confirmed with human PHF-Tau.

| Sample | ELISA (native) | Western Blotting |
|---|---|---|
| Human | +++ | +++ |

(Excellent +++, Good++, Poor +, No reactivity 0, Not applicable N/A, Not Determined ND)

## USAGE
Working concentrations for specific applications should be determined by the investigator. Appropriate concentrations will be affected by several factors, including secondary antibody affinity, antigen concentration, sensitivity of detection method, temperature and length of incubations, etc. The suitability of this antibody for applications other than those listed below has not been determined. The following concentration ranges are recommended starting points for this product.

**ELISA:** 3-5 µg/ml
**Western Blotting:** 1-3 µg/ml

## STORAGE
Store at 2-8°C for up to one month. Store at –20°C for long-term storage. Avoid repeated freezing and thawing.

(cont'd)

## BACKGROUND

Alzheimer's disease (AD) is characterized by senile plaques, largely composed of extracellular deposits of Aβ peptide, and neurofibrillary tangles (NFT) which are composed of intracellular filamentous aggregates of hyperphosphorylated tau proteins.[1] These tangles represent dense accumulations of distinct paired helical filaments (PHF), in which the major component is a microtubule-associated tau protein. NFTs are biochemically and structurally distinct from the amyloid fibrils in senile plaques.[2] Currently in development are diagnostic antibodies specific to PHF-tau because of the elevated tau levels found in the cerebrospinal fluid of AD patients.[2] Also, the identification of a number of neurodegenerative diseases that are characterized by tau tangles suggests that tangle formation may initiate as well as contribute to the final step in the progressive brain degeneration that characterizes AD. Therefore future AD therapies may be developed to combine targeting amyloid β deposits with strategies for eliminating tangles.[3]

This monoclonal antibody recognizes phosphorylation dependent epitopes of ser-396 on PHF-τ as well as fetal tau, but does not recognize autopsy-derived normal adult tau. [2] Phosphoamino ser-396 is one of the two major immunodominant residues of PHF-τ. PHF-13 does not recognize unphosphorylated peptide 390-408 or the same peptide phosphorylated at Ser400, Thr403, or Ser404. PHF-13 specifically recognizes the Ser396 phosphorylated peptide and all diphosphorylated peptides containing phosphorylated Ser396.

## REFERENCES


1. Lewis J. et al. *Science* Vol. 293: 1487-1491, (2001).
2. Hoffmann R., Lee, VMY. Leight S et al. *Biochemistry* 36:8114-8124, (1997).
3. Lee, V. *Science*. 293: 1146-1447 (2001).


## RELATED PRODUCTS

| *Product* | *Clone/PAD** | *Cat. No.* |
|---|---|---|
| Mouse anti-Phosphorylated Tau (Thr231) | PHF-6 | 32-4800 |
| Mouse anti-Tau | T46 | 32-5000 |
| Mouse anti-Tau | T14 | 13-1400 |
| Mouse anti- Amyloid β-Precursor Protein | LN27 | 13-0200 |
| Rabbit anti- Amyloid β-Precursor Protein | CT695 | 51-2700 |
| Mouse anti-Amyloid β-Peptide | AMY-33 | 13-0100 |
| Rabbit anti- Amyloid β-Peptide | ----- | 71-5800 |
| Rabbit anti-Presenilin-1 | PS-1N | 71-1300 |
| Rabbit anti-Presenilin-1 | PS-1L | 51-4200 |
| Mouse anti-Ubiquitin | Ubi-1 | 13-1600 |
| Protein A | Sepharose® 4B | 10-1041 |
| rec-Protein G | Sepharose® 4B | 10-1241 |

*PAD: Polyclonal Antibody Designation

| Conjugate | ZyMAX™ Goat x Rabbit IgG (H+L) | ZyMAX™ Goat x Mouse IgG (H+L) |
|---|---|---|
| Purified | 81-6100 | 81-6500 |
| FITC | 81-6111 | 81-6511 |
| TRITC | 81-6114 | 81-6514 |
| Cy™3 | 81-6115 | 81-6515 |
| Cy™5 | 81-6116 | 81-6516 |
| HRP | 81-6120 | 81-6520 |
| AP | 81-6122 | 81-6522 |
| Biotin | 81-6140 | 81-6540 |



**For Research Use Only**

JG020403