

## Product datasheet

### TAU CLEAVED BY CASPASE-6 RABBIT POLYCLONAL ANTIBODY

**SKU:** MM-0141

50 µL

#### OVERVIEW

**Clonality:**  
Polyclonal

**Host:**  
Rabbit

**Reactivity:**  
Human

**Application:**  
ICC, IHC, IP, WB

**Target:**  
Tau cleaved by caspase-6

**Target background:**

The tau protein is a microtubule-associated protein mainly expressed in neurons, which plays a crucial role in the neuronal cytoskeleton stabilization. The main role of tau proteins is to stabilize microtubules. Tau proteins are abundant in neurons of the central nervous system and are less common elsewhere, but are also expressed at very low levels in astrocytes and oligodendrocytes. Defects in tau proteins can result in dementias, such as Alzheimer's disease (AD). AD is a neurodegenerative pathology which is characterized by the presence of two types of neuropathological hallmarks: neurofibrillary tangles (NFTs) and senile plaques. NFTs are intraneuronal aggregations mainly composed of abnormally phosphorylated Tau. In neuropil threads (NPTs), NFTs, and neuritic plaques (NPs) of severe AD brains, highly abundant amounts of active caspase-6 and tau cleaved by caspase-6 (Tau $\Delta$ Csp6) have been found. Caspases are a family of cytosolic aspartate-specific cysteine proteases. Sequential activation of caspases plays a central role in the execution phase of cell apoptosis. Caspase-6 has been associated with increasing  $\beta$ -amyloid peptide in primary cultures of human neurons. Caspase-6 has also been demonstrated to be active in NPTs, NFTs, and NPs in the hippocampus and temporal cortex in sporadic AD. Caspase-6 activation has been suggested to be an early event in AD and to precede the development of lesions.

**Target alias:**

Microtubule-associated protein tau, Neurofibrillary tangle protein, Paired helical filament-tau, MAPT, MAPTL, MTBT1, TAU

**Specificity:**

The antibody recognizes the sequence (KSPVVSGD) in the human tau protein. It is expected that other species displaying the same amino acid in the tau protein will be recognized by the antibody

**Clone ID:**

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**Preservative:**

None

**Format:**

Lyophilized serum

**Recommend starting dilution:**

If reconstituted with deionized water in 50  $\mu$ l: WB 1:100-1:500; IP 1:100-1:500; IHC 1:2000-1:10000. Optimal dilution has to be determined by the user.

**Limitations:**

Research Use Only

### References:

- 1.-Albrecht S - Caspase-6 activation in familial alzheimer disease brains carrying amyloid precursor protein or presenilin i or presenilin II mutations.
- 2.-Albrecht S - Activation of caspase-6 in aging and mild cognitive impairment.
- 3.-Guo H - Active caspase-6 and caspase-6-cleaved tau in neuropil threads, neuritic plaques, and neurofibrillary tangles of Alzheimer's disease.

### Storage:

Lyophilized antibodies can be kept at 4°C for up to 3 months and should be kept at -20°C for long-term storage (2 years). To avoid freeze-thaw cycles, reconstituted antibodies should be aliquoted before freezing for long-term (1 year) storage (-80°C) or kept at 4°C for short-term usage (2 months). For maximum recovery of product, centrifuge the original vial prior to removing the cap. Further dilutions can be made with the assay buffer. After the maximum long-term storage period (2 years lyophilized or 1 year reconstituted) antibodies should be tested in your assay with a standard sample to verify if you have noticed any decrease in their efficacy.

### Image:

