

### OriGene Technologies, Inc.

9620 Medical Center Drive, Ste 200 Rockville, MD 20850 UNITED STATES Phone: +1-888-267-4436 Fax: +1-301-340-8606 techsupport@origene.com

#### OriGene Technologies GmbH

Schillerstr. 5 32052 Herford GERMANY Phone: +49-5221-34606-0 Fax: +49-5221-34606-11 info-de@origene.com

# AM09060PU-N Monoclonal Antibody to 14-3-3 theta - Purified

Alternate names: 14-3-3 protein T-cell, 14-3-3 protein tau, Protein HS1, YWHAQ

Quantity: 0.1 ml
Concentration: 1.0 mg/ml

Background: The 14-3-3 family of proteins plays a key regulatory role in signal transduction,

checkpoint control, apoptotic and nutrient-sensing pathways. 14-3-3 proteins are highly conserved and ubiquitously expressed. There are at least seven isoforms, beta, gamma, epsilon, sigma, zeta, tau and eta that have been identified in mammals. The 14-3-3 tau, a subtype of the 14-3-3 family of proteins, was found in T Cells, brain and testes. This 14-3-3 tau is upregulated in patients with amyotrophic lateral sclerosis.

 Uniprot ID:
 P27348

 NCBI:
 NP 006817

GenelD: <u>10971</u>

Host / Isotype: Mouse / IgG1

Recommended Isotype

**Controls:** 

SM10P (for use in human samples), AM03095PU-N

Clone: AT1A1

Immunogen: Recombinant human 14-3-3 tau (aa 1-245) purified from *E. coli* 

**Format:** State: Liquid purified Ig fraction

Purification: Protein-G affinity chromatography

Buffer System: PBS, pH 7.4 containing 0.02% Sodium Azide and 10% Glycerol

Applications: ELISA.

Western blot (1/1,000-1/2,000).

Immunohistochemistry on Paraffin Sections (10 µg/ml).

This YWHAQ antibody was validated for use in immunohistochemistry on a panel of 21 formalin-fixed, paraffin-embedded (FFPE) human tissues after heat induced antigen retrieval in pH 6.0 citrate buffer. After incubation with the primary antibody, slides were incubated with biotinylated secondary antibody, followed by alkaline

phosphatase-streptavidin and chromogen.

Flow cytometry.
Immunofluorescence.

Other applications not tested. Optimal dilutions are dependent on conditions and

should be determined by the user.

**Specificity:** The antibody recognizes Human 14-3-3 protein theta (tau) at aa 1-245.

Other species not tested.

Storage: Store undiluted at 2-8°C for up to two weeks or (in aliquots) at -20°C for longer.

Avoid repeated freezing and thawing. Shelf life: one year from despatch.



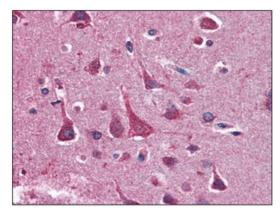
#### **General Readings:**

1. Liu YC, Elly C, Yoshida H, Bonnefoy-Berard N, Altman A. Activation-modulated association of 14-3-3 proteins with Cbl in T cells. J Biol Chem. 1996 Jun 14;271(24):14591-5. PubMed PMID: 8663231.

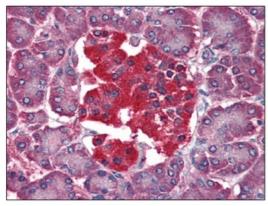
2. Xiao B, Smerdon SJ, Jones DH, Dodson GG, Soneji Y, Aitken A, et al. Structure of a 14-3-3 protein and implications for coordination of multiple signalling pathways. Nature. 1995 Jul 13;376(6536):188-91. PubMed PMID: 7603573.

#### **Pictures:**

Immunohistochemistry: AM09060PU-N 14-3-3 tau antibody staining of Formalin-Fixed, Paraffin-Embedded Human Brain, Cortex.



Immunohistochemistry: AM09060PU-N 14-3-3 tau antibody staining of Formalin-Fixed, Paraffin-Embedded Human Pancreas.



Cell lysates of Jurkat (20ug) were resolved by SDS-PAGE, transferred to NC membrane and probed with anti-human 14-3-3 tau (1:1000). Proteins were visualized using a goat anti-mouse secondary antibody conjugated to HRP and an ECL detection system.

## Jurkat

75 **–** 

50 -

37 –

25 -

20 -



ICC/IF analysis of 14 - 3 - 3 tau in HeLa cells line, stained with DAPI (Blue) for nucleus staining and monoclonal anti human 14 - 3 - 3 tau antibody (1: 100) with goat anti mouse IgG - Alexa fluor 488 conjugate (Green).

Flow cytometry analysis of 14 - 3 - 3 tau in A549 cell line, staining at 2-5 ug for 1x10<sup>6</sup> cells. The secondary antibody used goat anti mouse IgG Alexa fluor 488 conjugate.

