14-3-3 theta/tau. Mouse Monoclonal Antibody

mouse anti 14-3-3 theta/tau, theta tau

Background

At least seven isoforms comprise the highly conserved 14-3-3 family of homo- and heterodimeric proteins that are abundantly expressed in all eukaryotic cells. Although more than seven isoforms of 14-3-3 have been described, some redundancies have appeared upon sequencing. The 14 -3-3s are thought to be key regulators of signal transduction events mediated through their binding to serine-phosphorylated proteins. By interacting with Cdc25C, 14-3-3 regulates entry into the cell cycle and, through interaction with Bad, prevents apoptosis. Other proteins that have been shown to bind to 14-3-3s include members of the protein kinase C family, Cbl, IRS-1, polyoma middle-T antigen, nitrate reductase, S-raf and the IGF-1 receptor. Detection of 14-3-3 proteins in cerebrospinal fluid has been shown to be quite useful in the differential diagnosis of Creutzfeldt-Jakob disease and other prion diseases.

Ordering Information

Catalog Number
X1010

Size
100 µg

Form
Unconjugated

Host/Clone
Mouse Clone 3B9

Formulation
Provided as sterile filtered solution containing 20 mM sodium phosphate, 150 mM sodium chloride, 50% glycerol at pH 7.5 and 3 mM sodium azide

Concentration
See vial for concentration

Isotype
IgG1

Applications
Enzyme Immunoassay, Western Blot

Species Reactivity
Human, Mouse, Rat, Bovine

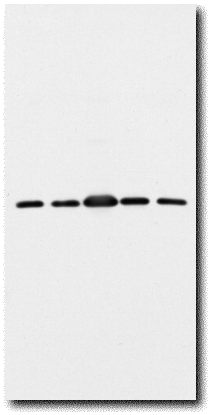
Accession Number

Human	P27348

Immunogen

Recombinant 14-3-3θ/τ protein

At right is a typical western blot (10% SDS-PAGE) of 3T3 (lane 1), PC12 (lane 2), MDBK (lane 3), Jurkat (lane 4) and normal human fibroblasts (lane 5).



For research use only. Not for use in human diagnostics or therapeutics.

Exalpha Biologicals, Inc. 2 Shaker Road, Bldg. B101 Shirley, MA 01464
Tel: 978.425.1370 www.exalpha.com info@exalpha.com

Positive Control/Tissue Expression

3T3, PC12, Jurkat

Comments

Clone 3B9 anti-14-3-3θ/τ reacts specifically with the θ/τ isoform and does not react with 14-3-3ζ .Optimal concentration should be evaluated by serial dilutions.

Purification

Protein A/G Chromatography

Ship Conditions

Room Temperature

Storage Customer

Product should be stored at -20ºC. Aliquot to avoid freeze/thaw cycles

Stability

Products are stable for one year from purchase when stored properly

References

1. Umahara, T., et al. 'Structure-oriented review of 14-3-3 protein isoforms in geriatric neuroscience.' Geriatr. Gerontol. Int. 2012, epub.

2. Choi, M.R., et al. 'Effect of fluoxetine on the expression of tryptophan hydroxylase and 14-3-3 protein in the dorsal raphe nucleus and hippocampus of rat.' J. Chem. Neuronat., 2012, 43, 96-102

3. Obsil, T., et al. 'Structural basis of 14-3-3 protein function.' Semin. Cell Dev. Biol. 2011, 22, 663-672.

Product Specific References

1. Kakinuma, N., et al. 'Kank regulates RhoA-dependent formation of actin stress fibers and cell migration via 14-3-3 in PI3K–Akt signaling.' J. Cell Biol. 2008, 181, 537-549
2. Patel, A., et al. 'Host protein interactions with enteropathogenic Escherichia coli (EPEC): 14-3-3τ binds Tir and has a role in EPEC-induced actin polymerization.' Cellular Microbiology, 2006, 8, 55-71

For research use only. Not for use in human diagnostics or therapeutics.

Exalpha Biologicals, Inc. 2 Shaker Road, Bldg. B101 Shirley, MA 01464
Tel: 978.425.1370 www.exalpha.com info@exalpha.com