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14-3-3 beta/alpha (M) Antibody, Rabbit Polyclonal

Cat#: R1557-2

Quantity: 100 ul

Predicted | Observed M.W.: 28 | 32 kDa

Lot#: Refer to vial

Application: WB

Uniprot ID: P31946

Background:

14-3-3 proteins are a group of highly conserved proteins that are involved in many vital cellular processes such as metabolism, protein trafficking, signal transduction, apoptosis and cell cycle regulation. 14-3-3 proteins are phospho-serine/phospho-threonine binding proteins that have a diverse array of partners including transcription factors, biosynthetic enzymes, cytoskeletal proteins, signalling molecules, apoptosis factors and tumour suppressors. The 14-3-3 family consists of 7 isoforms; beta, gamma, epsilon, sigma, zeta, tau and eta. 14-3-3 proteins are ubiquitously expressed and self assemble into homo- and heterodimers, with the exception of 14-3-3 sigma, which exclusively forms homodimers and is found in cells of epithelial origin only. Each monomer contains an independent ligand-binding site, thus the 14-3-3 dimer can interact with two target proteins simultaneously. 14-3-3 proteins are highly rigid structures and ligand binding can induce conformational changes that alter the stability and/or catalytic activity of the ligand. Furthermore, 14-3-3 protein binding can physically occlude sequence-specific or structural motifs on the target that prevent molecular interactions and/or modulate the accessibility of a target protein to modifying enzymes such as kinases, phosphatases and proteases. In addition, 14-3-3 proteins can act as a scaffold molecule to anchor target proteins within close proximity of one another. 14-3-3 proteins represent an integration point for proliferative, survival, apoptotic and stress signalling pathways. 14-3-3 beta/alpha is a family member of 14-3-3 proteins, which has been implicated as a negative regulator of osteogenesis. 14-3-3 beta/alpha also blocks the nuclear translocation of the phosphorylated form of SRPK2 and antagonizes its stimulatory effect on cyclin D1 expression resulting in blockage of neuronal apoptosis elicited by SRPK2.

Other Names:

14-3-3 protein beta/alpha, Protein 1054, Protein kinase C inhibitor protein 1, KCIP-1, YWHAB

Source and Purity:

Rabbit polyclonal antibodies were produced by immunizing animals with a GST-fusion protein containing the middle region of human 14-3-3 beta/alpha. Antibodies were purified by affinity purification using immunogen.

Storage Buffer and Condition:

Supplied in 1 x PBS (pH 7.4), 100 ug/ml BSA, 40% Glycerol, 0.01% NaN₃. Store at -20 °C. Stable for 6 months from date of receipt.

Species Specificity:

Human, Mouse

Tested Applications:

WB: 1:1,000-1:3,000 (detect endogenous protein*)

*: The apparent protein size on WB may be different from the calculated M.W. due to modifications.

Product Data:

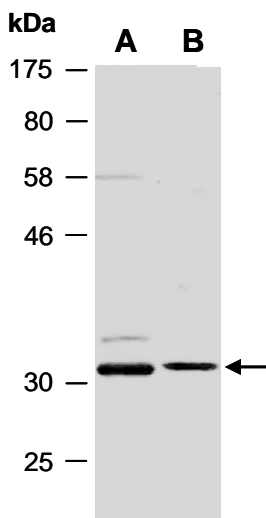


Fig 1. Western blot of total cell extracts from (A) mouse brain, (B) mouse thymus; using anti-14-3-3 beta/alpha (M) (R1557-2) at RT for 2 h.