

## 14-3-3 zeta monoclonal antibody

Catalog: MB67053

Host: Mouse

Reactivity: Human, Mouse, Rat

### 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 initially described  $\alpha$  and  $\delta$  isoforms are confirmed to be phosphorylated forms of  $\beta$  and  $\zeta$ , respectively. Through their amino-terminal  $\alpha$  helical region, 14-3-3 proteins form homo- or heterodimers that interact with a wide variety of proteins: transcription factors, metabolic enzymes, cytoskeletal proteins, kinases, phosphatases, and other signaling molecules. The interaction of 14-3-3 proteins with their targets is primarily through a phospho-Ser/Thr motif. However, binding to divergent phospho-Ser/Thr motifs, as well as phosphorylation independent interactions has been observed. 14-3-3 binding masks specific sequences of the target protein, and therefore, modulates target protein localization, phosphorylation state, stability, and molecular interactions. 14-3-3 proteins may also induce target protein conformational changes that modify target protein function. Distinct temporal and spatial expression patterns of 14-3-3 isoforms have been observed in development and in acute response to extracellular signals and drugs, suggesting that 14-3-3 isoforms may perform different functions despite their sequence similarities. Several studies suggest that 14-3-3 isoforms are differentially regulated in cancer and neurological syndromes.

### Product:

Mouse IgG2b kappa. Liquid in PBS, pH 7.3, 30% glycer-

ol, and 0.01% sodium azide.

### Molecular Weight:

~ 25 kDa

### Swiss-Prot:

P63104

### Purification&Purity:

This antibody is purified through a protein G column.

### Applications:

WB (1/500 - 1/1000)

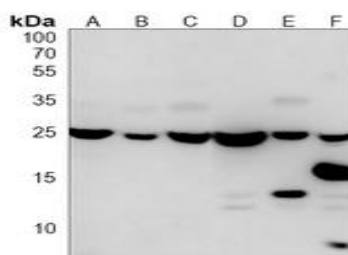
### Storage&Stability:

Store at 4 °C short term. Aliquot and store at -20 °C long term. Avoid freeze-thaw cycles.

### Specificity:

Recognizes endogenous levels of 14-3-3 zeta protein.

### DATA:



Western blot analysis of 14-3-3 zeta expression in A431 (A), HepG2 (B), NIH3T3 (C), PC12 (D), C6 (E), mouse brain (F) whole cell lysates.

### Note:

For research use only, not for use in diagnostic procedure.

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