DB082: 14-3-3 (N19)

Background:

14-3-3 family of proteins is composed of seven isotypes, beta, gamma, zeta, epsilon, tau, eta, and sigma, that play critical roles in cell signaling events that control cell cycle progression, transcriptional alterations, and apoptosis (1-4). 14-3-3 proteins were the first signaling molecules to be identified as specific phosphoserine/threonine binding proteins (1). 14-3-3 can serve as a direct regulator of its target by altering the function of the protein (3). 14-3-3 protein targets include the signalling intermediates Raf, MEKK, PI-3 kinase and IRS-1, cell cycle proteins CDK2, Wee1, and Cdc25, and apoptosis proteins BAD and ASK-1 (3,4).

Origin:

14-3-3 (N19) is provided as an affinity purified rabbit polyclonal antibody, raised against a peptide mapping to the amino terminal domain of human 14-3-3.

Product Details:

Each vial contains 200 µg/ml of affinity purified rabbit IgG, 14-3-3 (N19) DB082, in 1 ml PBS containing 0.1 % sodium azide and 0.2% gelatin.

Competition Studies:

A blocking peptide is also available, DB082P, for use in competition studies. Each vial contains 100 µg of peptide in 0.5 ml PBS with 0.1% sodium azide and 100 µg BSA.

Specificity:

14-3-3 (N19) is recommended to detect mouse, rat and human 14-3-3 western blotting, immunoprecipitation, and immunohistochemistry (included paraffin embedded tissues). Recommended western blotting starting dilution 1:400. Broadly reactive among the 14-3-3 family.

Storage:

Store this product at 4º C, do not freeze. The product is stable for one year from the date of shipment.

References:

1. Yaffe MB. 2002. How do 14-3-3 proteins work?- - Gatekeeper phosphorylation and the molecular anvil hypothesis. FEBS Lett. 513(1):53-57.
2. Liu MY, Cai S, Espejo A, Bedford MT, Walker CL. 2002. 14-3-3 interacts with the tumor suppressor tuberin at Akt phosphorylation sites. Cancer Res. 62(22): 6475-6480.
3. Tzivion G, Shen YH, Zhu J. 2001. 14-3-3 proteins; bringing new definitions to scaffolding. Oncogene 20(44):6331-6338.
4. Fu H, Subramanian RR, Masters SC. 2000. 14-3-3 proteins: structure, function, and regulation. Annu Rev Pharmacol Toxicol. 40:617-647.

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