



E9P003

Phospho-FOS-T232 Polyclonal Antibody

Catalog Number: E9P0038

Amount: 100ul

Background: The Fos family of nuclear oncogenes includes c-Fos, FosB, Fos-related antigen 1 (FRA1), and Fos-related antigen 2 (FRA2) (1). While most Fos proteins exist as a single isoform, the FosB protein exists as two isoforms: full-length FosB and a shorter form, FosB2 (Delta FosB), that lacks the carboxy-terminal 101 amino acids (1-3). The expression of Fos proteins is rapidly and transiently induced by a variety of extracellular stimuli including growth factors, cytokines, neurotransmitters, polypeptide hormones, and stress. Fos proteins dimerize with Jun proteins (c-Jun, JunB, and JunD) to form Activator Protein-1 (AP-1), a transcription factor that binds to TRE/AP-1 elements and activates transcription. Fos and Jun proteins contain the leucine-zipper motif that mediates dimerization and an adjacent basic domain that binds to DNA. The various Fos/Jun heterodimers differ in their ability to transactivate AP-1 dependent genes. In addition to increased expression, phosphorylation of Fos proteins by Erk kinases in response to extracellular stimuli may further increase transcriptional activity (4-6). Phosphorylation of c-Fos at Ser32 and Thr232 by Erk5 increases protein stability and nuclear localization (5). Phosphorylation of FRA1 at Ser252 and Ser265 by Erk1/2 increases protein stability and leads to overexpression of FRA1 in cancer cells (6). Following growth factor stimulation, expression of FosB and c-Fos in quiescent fibroblasts is immediate, but very short-lived, with protein levels dissipating after several hours (7). FRA1 and FRA2 expression persists longer, and appreciable levels can be detected in asynchronously growing cells (8). Deregulated expression of c-Fos, FosB, or FRA2 can result in neoplastic cellular transformation; however, Delta FosB lacks the ability to transform cells (2,3).

Species: Rabbit

Isotype: IgG

Storage/Stability: Store at -20oC or -80oC. Avoid freeze / thaw cycles. Buffer: PBS with 0.02% sodium azide, 50% glycerol, pH7.3.

Synonyms: p55; AP-1; C-FOS;

Immunogen: A phospho specific peptide corresponding to residues surrounding T232 of human FOS

Purification: Affinity purification

Reactivity: H M R

Applications: WB

Molecular Weight: 42kDa

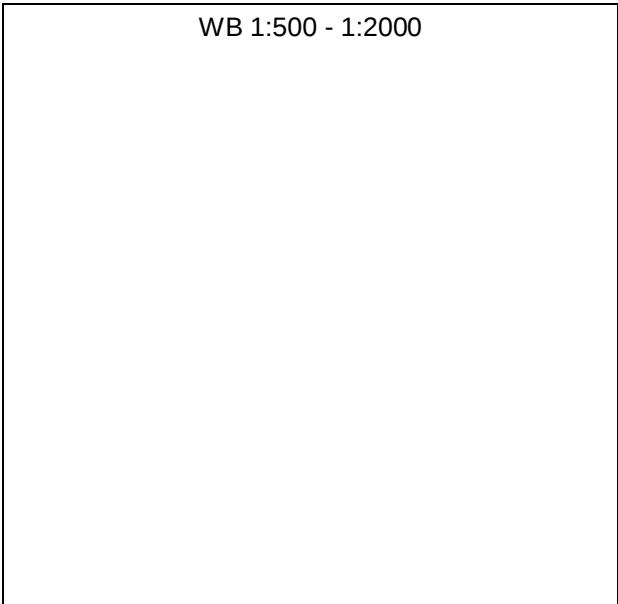
Swiss-Prot No. : P01100

Gene ID: 2353

References: 1. Tulchinsky, E. (2000) *Histol. Histopathol.* 15, 921-928. 2. Dobrzanski, P. et al. (1991) *Mol. Cell. Biol.* 11, 5470-5478. 3. Nakabeppu, Y. and Nathans, D. (1991) *Cell* 64, 751-759. 4. Rosenberger, S.F. et al. (1999) *J. Biol. Chem.* 274, 1124-1130. 5. Sasaki, T. et al. (2006) *Mol. Cell* 24, 63-75. 6. Basbous, J. et al. (2007) *Mol. Cell. Biol.* 27, 3936-3950. 7. Kovary, K. and Bravo, R. (1991) *Mol. Cell. Biol.* 11, 2451-2459. 8. Kovary, K. and Bravo, R. (1992) *Mol. Cell. Biol.* 12, 5015-5023.

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