

Product datasheet for **TA332376**

c Fos (FOS) Rabbit Polyclonal Antibody

Product data:

| | |
|-------------------------|---|
| Product Type: | Primary Antibodies |
| Applications: | IP, WB |
| Recommended Dilution: | WB 1:500 - 1:2000 |
| Reactivity: | Human |
| Host: | Rabbit |
| Isotype: | IgG |
| Clonality: | Polyclonal |
| Immunogen: | A synthetic peptide of human FOS |
| Formulation: | Store at -20°C (regular) and -80°C (long term). Avoid freeze / thaw cycles. Buffer: PBS with 0.02% sodium azide, 50% glycerol, pH7.3. |
| Concentration: | lot specific |
| Purification: | Affinity purification |
| Conjugation: | Unconjugated |
| Storage: | Store at -20°C as received. |
| Stability: | Stable for 12 months from date of receipt. |
| Predicted Protein Size: | 41 kDa |
| Gene Name: | Fos proto-oncogene, AP-1 transcription factor subunit |
| Database Link: | NP_005243 Entrez Gene 2353 Human P01100 |



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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).

Synonyms:

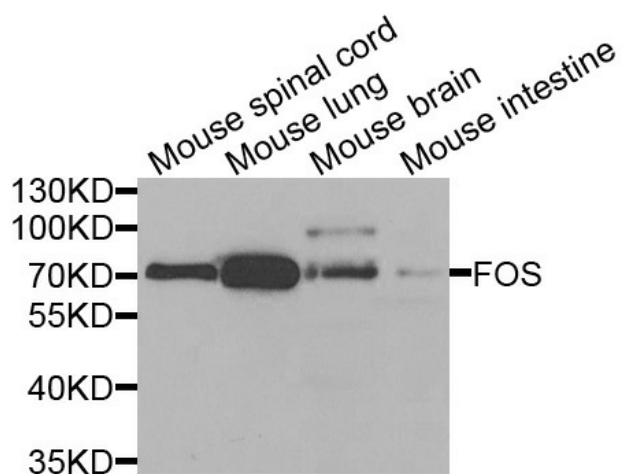
AP-1; C-FOS; p55

Protein Families:

Druggable Genome, Transcription Factors

Protein Pathways:

B cell receptor signaling pathway, Colorectal cancer, MAPK signaling pathway, Pathways in cancer, T cell receptor signaling pathway, Toll-like receptor signaling pathway

Product images:

Western blot analysis of extracts of various cells, using FOS antibody.