

BACKGROUND

Fos is an oncogenic transcription factor that functions as a component of dimeric leucine zipper protein complexes, known as activator protein 1 (AP1), which includes members of the *jun* family. AP1 binds to DNA and regulate gene expression of a diverse range of genes involved in everything from proliferation and differentiation to defense against invasion and cell damage. Fos was originally derived from the Finkel-Biskis-Jenkins murine osteogenic sarcoma virus (FBJ-MSV), which induces bone tumors in mice. The cellular homolog of the viral gene, *c-fos*, is a founding member of the class known as cellular immediate-early genes.¹ Stable expression of *c-fos* in mice has been demonstrated in developing bones and teeth, haematopoietic cells, germ cells and in the central nervous system, but in many cell types it can be induced rapidly and transiently by a great variety of extracellular stimuli associated with mitogenesis, differentiation, cell death, and depolarization of neurons.² In addition, phosphorylation by MAPK, PKA, PKC or cdc2 alters the activity and stability of c-Fos. c-Fos is thought to function in coupling short-term signals, elicited by cell surface stimuli, to long-term alterations in the cell phenotype by regulating the expression of specific target genes.³ Gene disruption studies have indicated that *c-fos* plays a particular role in bone development by regulating the maturation of osteoclasts.⁴ It has been proposed that *c-fos* has an important role in signal transduction, cell proliferation and differentiation.

References:

1. Kovacs, K.J.: Neurochem. Int. 33:287-97, 1998
2. Sheng, M. & Greenberg, M.E.: Neuron. 1990:477-85, 1990
3. Price, M.A. et al: EMBO J. 15:6552-63, 1996
4. Wagner, E.F.: Ann. Rheum. Dis. 61 (Suppl 2):ii40-2, 2002

TECHNICAL INFORMATION

Source:

c-Fos Antibody is a rabbit antibody raised against a short peptide from human c-Fos sequence.

Specificity and Sensitivity:

This antibody detects endogenous levels of c-Fos proteins without cross-reactivity with other related proteins.

Storage Buffer: PBS and 30% glycerol

Storage:

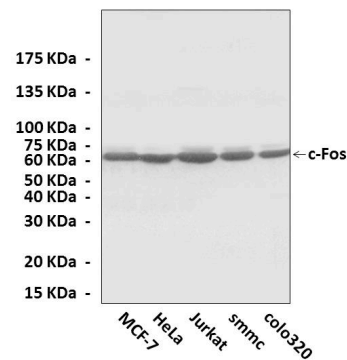
Store at -20°C for at least one year. Store at 4°C for frequent use. Avoid repeated freeze-thaw cycles.

APPLICATIONS

Application:	*Dilution:
WB	1:1000
IP	n/d
IHC	1:50-200
ICC	n/d
FACS	n/d

**Optimal dilutions must be determined by end user.*

QUALITY CONTROL DATA



Western Blot detection of c-Fos proteins in various cell lysates tissue lysate using c-Fos Antibody.

