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FOS Antibody

Purified Mouse Monoclonal Antibody
Catalog # AO1710a

Product Information

Application	WB, IHC, FC, E
Primary Accession	P01100
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Clone Names	2G2
Isotype	IgG1
Calculated MW	40695
Description	The Fos gene family consists of 4 members: FOS, FOSB, FOSL1, and FOSL2. These genes encode leucine zipper proteins that can dimerize with proteins of the JUN family, thereby forming the transcription factor complex AP-1. As such, the FOS proteins have been implicated as regulators of cell proliferation, differentiation, and transformation. In some cases, expression of the FOS gene has also been associated with apoptotic cell death.
Immunogen	Purified recombinant fragment of human FOS expressed in E. Coli.
Formulation	Ascitic fluid containing 0.03% sodium azide.

Additional Information

Gene ID	2353
Other Names	Proto-oncogene c-Fos, Cellular oncogene fos, G0/G1 switch regulatory protein 7, FOS, G0S7
Dilution	WB~~1/500 - 1/2000 IHC~~1/200 - 1/1000 FC~~1/200 - 1/400 E~~1/10000
Storage	Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	FOS Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	FOS

Synonyms	G0S7
Function	Nuclear phosphoprotein which forms a tight but non-covalently linked complex with the JUN/AP-1 transcription factor. In the heterodimer, FOS and JUN/AP-1 basic regions each seems to interact with symmetrical DNA half sites. On TGF-beta activation, forms a multimeric SMAD3/SMAD4/JUN/FOS complex at the AP1/SMAD-binding site to regulate TGF-beta-mediated signaling. Has a critical function in regulating the development of cells destined to form and maintain the skeleton. It is thought to have an important role in signal transduction, cell proliferation and differentiation. In growing cells, activates phospholipid synthesis, possibly by activating CDS1 and PI4K2A. This activity requires Tyr-dephosphorylation and association with the endoplasmic reticulum.
Cellular Location	Nucleus. Endoplasmic reticulum. Cytoplasm, cytosol. Note=In quiescent cells, present in very small amounts in the cytosol. Following induction of cell growth, first localizes to the endoplasmic reticulum and only later to the nucleus. Localization at the endoplasmic reticulum requires dephosphorylation at Tyr-10 and Tyr- 30

References

Mol Cell Biochem. 2010 Apr;337(1-2):53-63. Cancer Invest. 2009 Oct;27(8):816-24.

Images

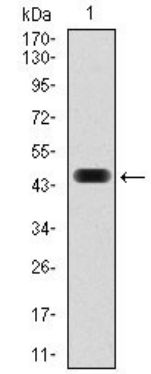

Figure 1: Western blot analysis using FOS mAb against human FOS (AA: 116-298) recombinant protein. (Expected MW is 45.8 kDa)

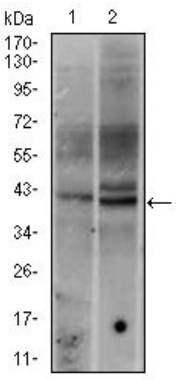

Figure 2: Western blot analysis using FOS mouse mAb against HeLa (1), and HeLa (2) cell lysate.

Figure 3: Immunohistochemical analysis of paraffin-embedded colon cancer tissues using FOS mouse mAb with DAB staining.

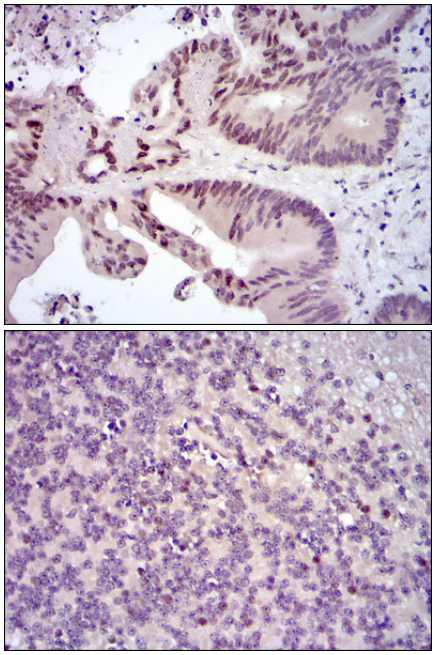

Figure 4: Immunohistochemical analysis of paraffin-embedded cerebellum tissues using FOS mouse mAb with DAB staining.

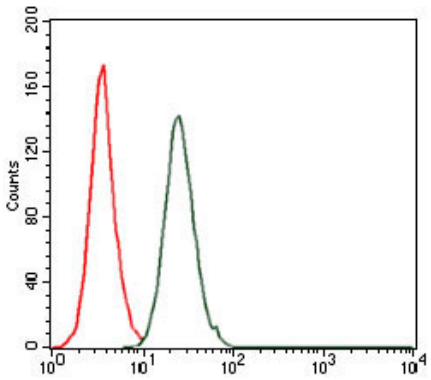

Figure 5: Flow cytometric analysis of HeLa cells using FOS mouse mAb (green) and negative control (red).