

ELK1 Antibody
Purified Mouse Monoclonal Antibody
Catalog # AO1080a**Specification**

ELK1 Antibody - Product Information

Application	WB, IHC
Primary Accession	P19419
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Isotype	IgG1

Description

The transcription factor ELK1 is a family member of the ETS oncogene family and of the ternary complex factor (TCF) subfamily, which is located on chromosome Xp11.2 and stimulates transcription. It binds to purine-rich DNA sequences. Proteins of the TCF subfamily form a ternary complex by binding to the serum response factor and the serum response element in the promoter of the c-fos proto-oncogene. The protein encoded by this gene is a nuclear target for the ras-raf-MAPK signaling cascade. Elk1 is phosphorylated by MAP kinase pathways at a cluster of S/T motifs at its C terminus. It appears to be a direct target of activated MAP kinase. Biochemical studies indicate that Elk1 is a good substrate for MAP kinase, the kinetics of Elk1 phosphorylation and activation correlate with MAP kinase activity, and interfering mutants of MAP kinase block Elk1 activation in vivo. More recent studies have shown that Elk1 is also a target of the Stress Activated Kinase SAPK/JNK. Phosphorylation of Elk1 has also been implicated in synaptic plasticity in the adult hippocampus.

Immunogen

Purified recombinant fragment of ELK1 expressed in E. Coli.

Formulation

Ascitic fluid containing 0.03% sodium azide.

ELK1 Antibody - Additional Information

Gene ID 2002

Other Names

ETS domain-containing protein Elk-1, ELK1

Dilution

WB ~ 1/500 - 1/2000

IHC ~ 1:200 ~ 1000

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

ELK1 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

ELK1 Antibody - Protein Information

Name ELK1 ([HGNC:3321](#))

Function

Transcription factor that binds to purine-rich DNA sequences (PubMed:10799319, PubMed:7889942). Forms a ternary complex with SRF and the ETS and SRF motifs of the serum response element (SRE) on the promoter region of immediate early genes such as FOS and IER2 (PubMed:1630903). Induces target gene transcription upon JNK and MAPK- signaling pathways stimulation (PubMed:7889942).

Cellular Location

Nucleus.

Tissue Location

Lung and testis.

ELK1 Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

ELK1 Antibody - Images

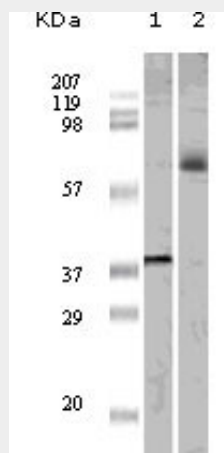


Figure 1: Western blot analysis using ELK1 mouse mAb against truncated ELK1 recombinant protein (1) and K562 cell lysate (2).

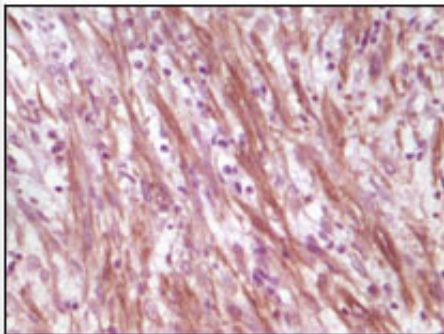


Figure 2: Immunohistochemical analysis of paraffin-embedded human smooth muscle sarcoma, showing cytoplasmic localization using Desmin mouse mAb with DAB staining.

ELK1 Antibody - References

1. Rao, V.N., et al. 1989. *Science*. 244 (4900):66-70.
2. Hsieh, Y.H., et al. 2006. *Biochem. Biophys. Res. Commun.* 339 (1): 217-225.
3. Gille, H., Strahl, T. and Shaw, P.E. 1995. *Curr. Biol.* 5 (10): 1191-1200.
4. Gille, H., et al. 1995. *EMBO J.* 14 (5): 951-962.