

## PRODUCT INFORMATION

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**Product name :** ELK4 antibody

**Product type :** Primary antibodies

**Description :** Rabbit polyclonal to ELK4

**Immunogen :** 3 synthetic peptides (human) conjugated to KLH

**Reacts with :** Hu, Ms

**Tested applications :** ELISA, WB and IF

## GENE INFORMATION

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**Gene Symbol :** ELK4

**Gene Name :** ELK4, ETS-domain protein (SRF accessory protein 1)

**Ensembl ID :** ENSG00000158711

**Entrez GeneID :** 2005

**GenBank Accession number :** M85165

**Omim ID :** 600246

**Swiss-Prot :** P28324

**Molecular weight of ELK4 :** 46.9kDa [Isoform1] and 44.7 [Isoform2].

**Function :** Forms a ternary complex with the serum response factor (SRF). Requires DNA-bound SRF for ternary complex formation and makes extensive DNA contacts to the 5' side of SRF, but does not bind DNA autonomously.

**Expected subcellular localization :** Nucleus.

**Summary :** This gene is a member of the Ets family of transcription factors and of the ternary complex factor (TCF) subfamily. Proteins of the TCF subfamily form a ternary complex by binding to the 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 phosphorylated by the kinases, MAPK1 and MAPK8. Several transcript variants have been described for this gene. [provided by RefSeq]

## **APPLICATION NOTE**

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### **Recommended dilution :**

- **ELISA:** Antibody specificity was verified by direct ELISA against the 3 immunogen peptides. A titer of 1/11000 has been determined. Appropriate specificity controls were run.
- **WB:** 1/5000.
- **IF:** 1/1000.

**Optimal dilutions/concentration should be determined by the end user.**

**Raised in :** Rabbit

**Clonality :** Polyclonal

**Isotype :** IgG

**Purity :** Purified antibody

**Storage buffer :** 0.5 X PBS, containing a final concentration of 50% Glycerol, 0.1% BSA and 0.01% Thimerosal.

**Form :** Liquid

**Storage instruction :** Store at -20°C or -80°C. Avoid repeated freeze / thaw cycles.

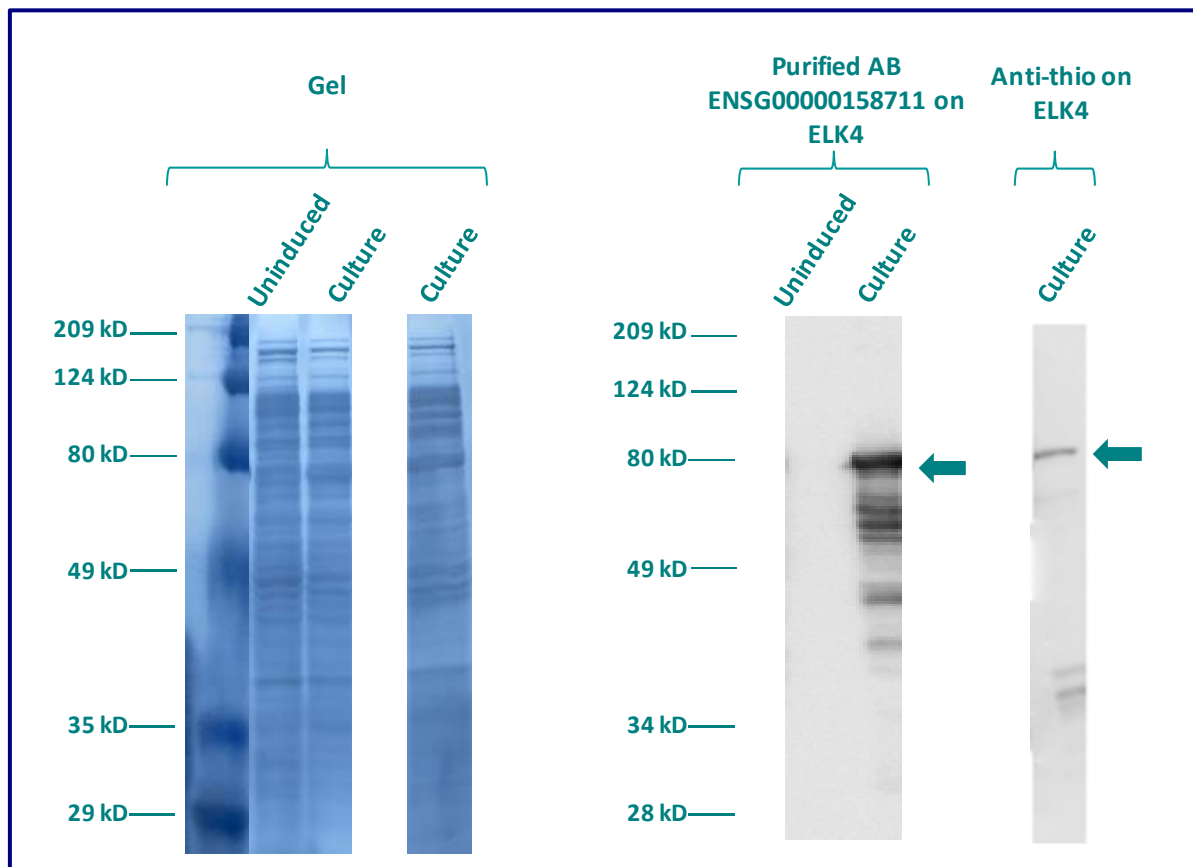
## WESTERN BLOT ON RECOMBINANT PROTEIN

The purified antibody ENSG00000158711 has been tested at 1/5000 on uninduced (negative control) and induced culture of E.coli (one shot Top10 competent cells).

An anti-thio (positive control) has been tested at 1/5000 on uninduced (negative control) and induced culture of E.coli (one shot Top10 competent cells) as a positive control.

Plasmid name : pBAD-DEST49.

Molecular weight of ELK4 : 60.9kDa (46.9kDa + another 14kDa for the tag).



Gel concentration: 10%

Blocking: in 5% non-fat milk-PBST solution

1<sup>st</sup> Antibody: The antibodies are diluted in blocking buffer.

- Dilute the purified antibody ENSG00000158711 at 1:5000
- Dilute the anti-thio at 1:5000

60 minutes of incubation

2<sup>nd</sup> Antibody: The antibody is diluted in blocking buffer.

- Dilute the anti-Rabbit IgG HRP conjugated at 1/10000
- 60 minutes of incubation

## IMMUNOFLUORESCENCE ANALYSIS

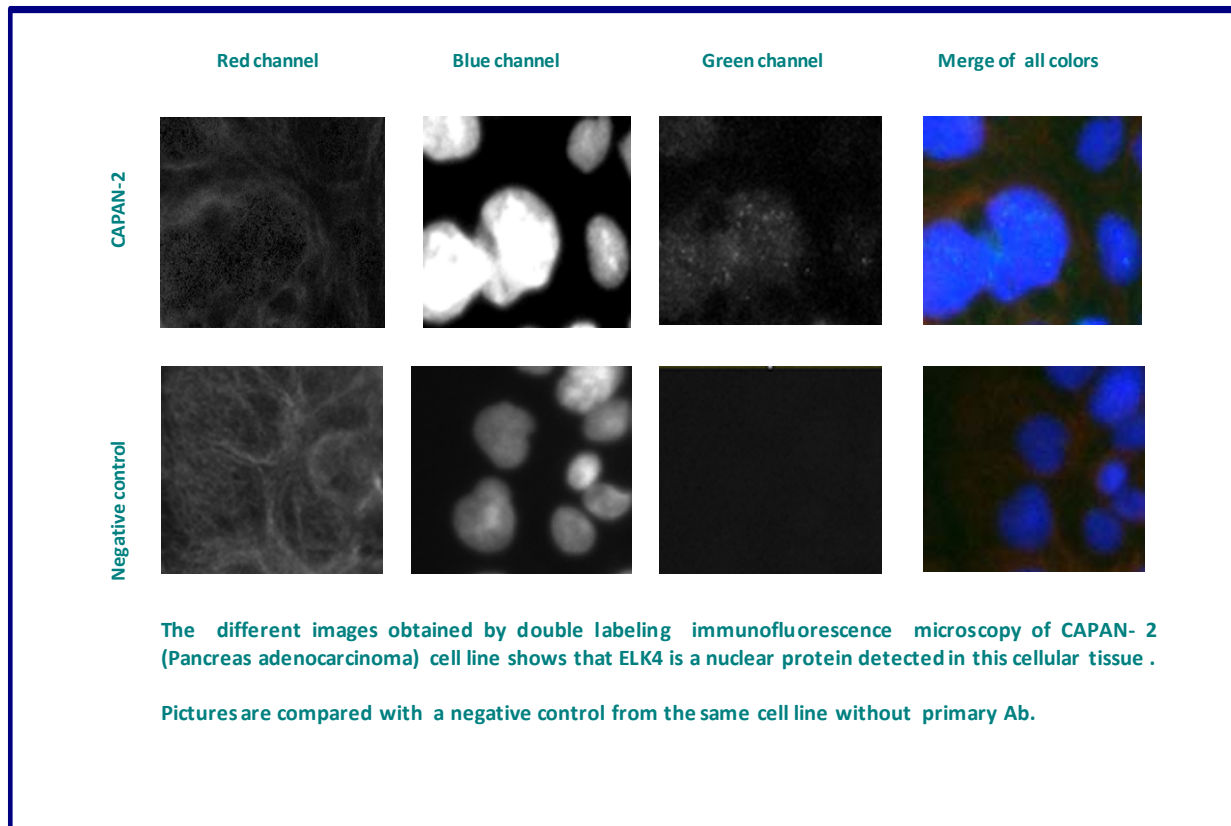
Immunofluorescence analysis of ETS domain-containing protein Elk-4 (ELK4) expression in 4 cells lines (HELA, Capan-2, SH-SY5Y, Skin 3,44). The purified Antibody ENSG00000158711 has been tested at 1/5000.

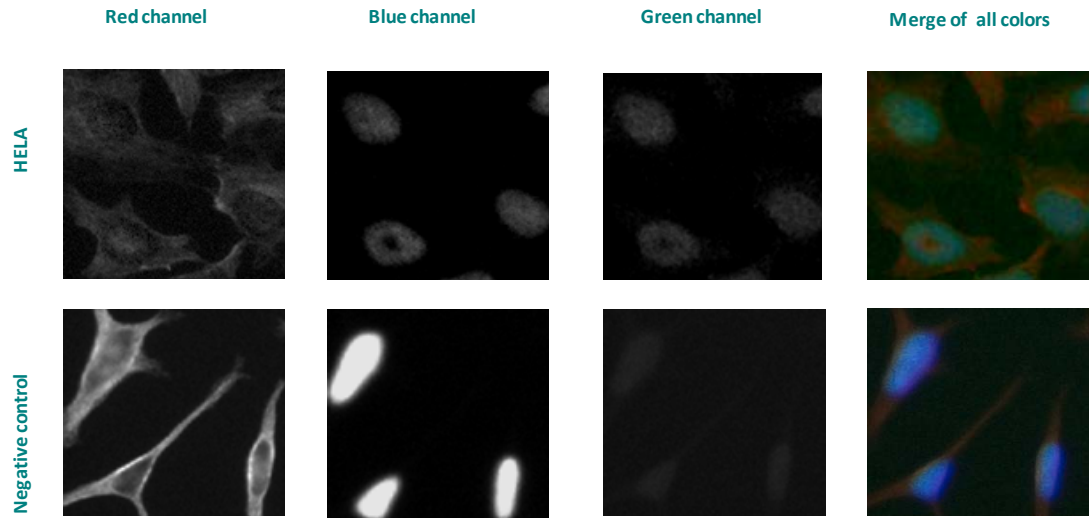
**Red staining** : cytoskeleton (microtubules/ $\alpha$ -tubuline)

**Blue staining** : nucleus (Hoechst)

**Green staining** : anti- ELK4 antibody (purified)

**Expected subcellular location** : Nucleus





The different images obtained by double labeling immunofluorescence microscopy of HELA (cervix adenocarcinoma) cell line shows that ELK4 is a nuclear protein detected in this cellular tissue .

Pictures are compared with a negative control from the same cell line without primary Ab.

Remaining cell lines tested gave a positive result with a nuclear distribution.