

## PRODUCT INFORMATION

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**Product name :** EGR2 antibody

**Product type :** Primary antibodies

**Description :** Mouse monoclonal to EGR2

**Immunogen :** 1 synthetic peptide (human) conjugated to KLH

**Reacts with :** Hu, Ms

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

## GENE INFORMATION

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**Gene Symbol :** EGR2

**Gene Name :** early growth response 2

**Ensembl ID :** ENSG00000122877

**Entrez GeneID :** 1959

**GenBank Accession number :** BC035625

**Swiss-Prot :** P11161

**Molecular weight :** 45 & 50.3kDa

**Function :** Sequence-specific DNA-binding transcription factor. Binds to two specific DNA sites located in the promoter region of HOXA4.

E3 SUMO-protein ligase helping SUMO1 conjugation to its coregulators NAB1 and NAB2, whose sumoylation down-regulates EGR2 own transcriptional activity.

**Expected subcellular localization :** Nucleus.

**Summary :** The protein encoded by this gene is a transcription factor with three tandem C2H2-type zinc fingers. Defects in this gene are associated with Charcot-Marie-Tooth disease type 1D (CMT1D), Charcot-Marie-Tooth disease type 4E (CMT4E), and with Dejerine-Sottas syndrome (DSS). Multiple transcript variants encoding two different isoforms have been found for this gene.[provided by RefSeq, Oct 2008].

## **APPLICATION NOTE**

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### **Recommended dilution :**

- **ELISA:** Antibody specificity was verified by direct ELISA against the 1 immunogen peptide. A titer of 15 has been determined. Appropriate specificity controls were run.
- **WB:** Dilution 1/1000
- **IF:** Dilution 1/100

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

**Raised in :** Mouse

**Clonality :** Monoclonal

**Isotype :** IgG

**Purity :** Purified Antibody

**Storage buffer :** Containing a final concentration of PBS/glycerol (V/V), 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

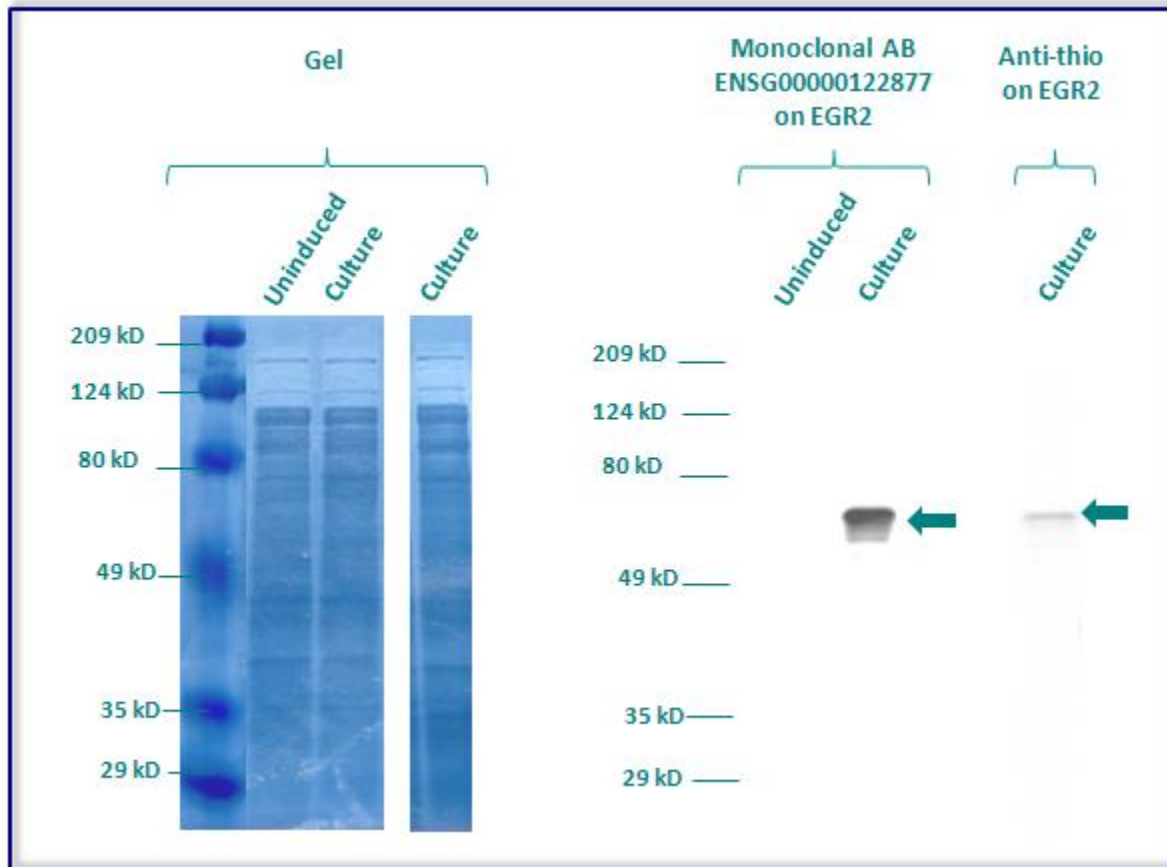
The monoclonal purified antibody ENSG00000122877 has tested at 1/1000 on uninduced (negative control) and induced culture of E.coli (one shot Top10 competent cells).

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

Clone : 4B7A10, Isotype : G1; kappa

Plasmid name : pBAD-DEST49.

Molecular weight of EGR2 : 64.3kDa (50.3kDa + 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 ENSG00000122877 at 1:1000
- 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-Mouse IgG HRP conjugated at 1/10000
- 60 minutes of incubation

## IMMUNOFLUORESCENCE ANALYSIS

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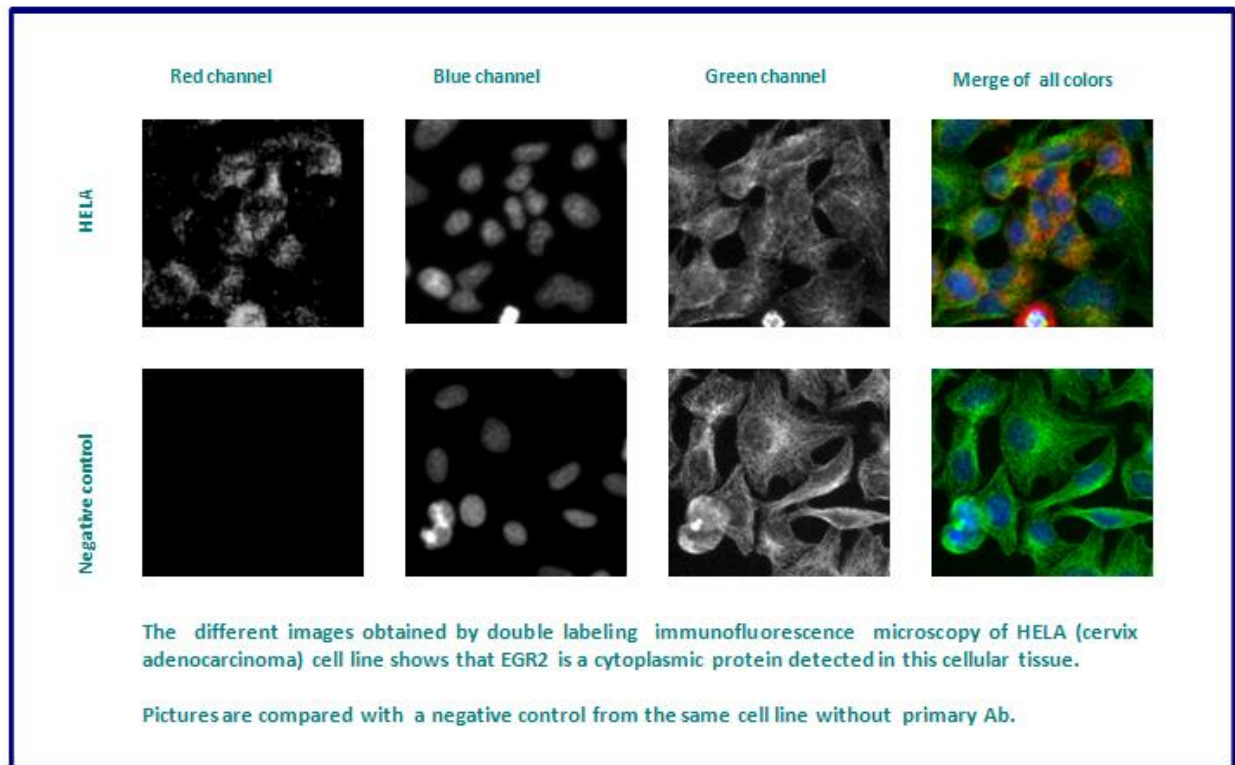
Immunofluorescence analysis of Early growth response protein 2 (EGR2) expression in 2 cells lines (HELA, Capan-2). The monoclonal antibody ENSG00000122877 has been tested at 1/100.

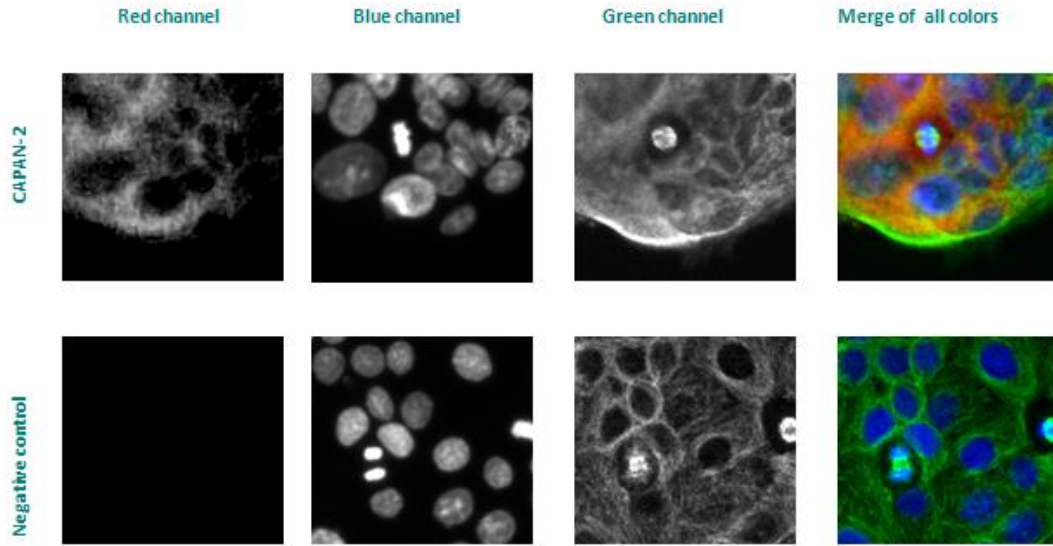
**Green staining :** cytoskeleton (microtubules/ $\alpha$ -tubuline)

**Blue staining :** nucleus (Hoechst)

**Red staining :** anti- EGR2 antibody (purified)

**Expected subcellular location :** Nucleus





The different images obtained by double labeling immunofluorescence microscopy of CAPAN-2 (Pancreas adenocarcinoma) cell line shows that EGR2 is a cytoplasmic protein detected in this cellular tissue.

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