

## PRODUCT INFORMATION

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**Product name :** MEF2D antibody

**Product type :** Primary antibodies

**Description :** Mouse monoclonal to MEF2D

**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 :** MEF2D

**Gene Name :** myocyte enhancer factor 2D

**Ensembl ID :** ENSG00000116604

**Entrez GeneID :** 4209

**GenBank Accession number :** BC054520

**Swiss-Prot :** Q14814

**Molecular weight :** 55.9, 56.1, 55.3, 55.1, 50.7 & 49.9 kDa

**Function :** Transcriptional activator which binds specifically to the MEF2 element, 5'-YTA[AT]4TAR-3', found in numerous muscle-specific, growth factor- and stress-induced genes. Mediates cellular functions not only in skeletal and cardiac muscle development, but also in neuronal differentiation and survival. Plays diverse roles in the control of cell growth, survival and apoptosis via p38 MAPK signaling in muscle-specific and/or growth factor-related transcription. Plays a critical role in the regulation of neuronal apoptosis

**Expected subcellular localization :** Nucleus. Note: Translocated by HDAC4 to nuclear dots.

## **APPLICATION NOTE**

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### **Recommended dilution :**

- **ELISA:** Antibody specificity was verified by direct ELISA against the 1 immunogen peptide. A titer of 45000 has been determined. Appropriate specificity controls were run.
- **WB:** Dilution 1/5000
- **IF:** Dilution 1/500

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

**Raised in :** Mouse

**Clonality :** Monoclonal

**Isotype :** IgG

**Purity :** Purified Antibody

**Concentration:** 2mg/ml

**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

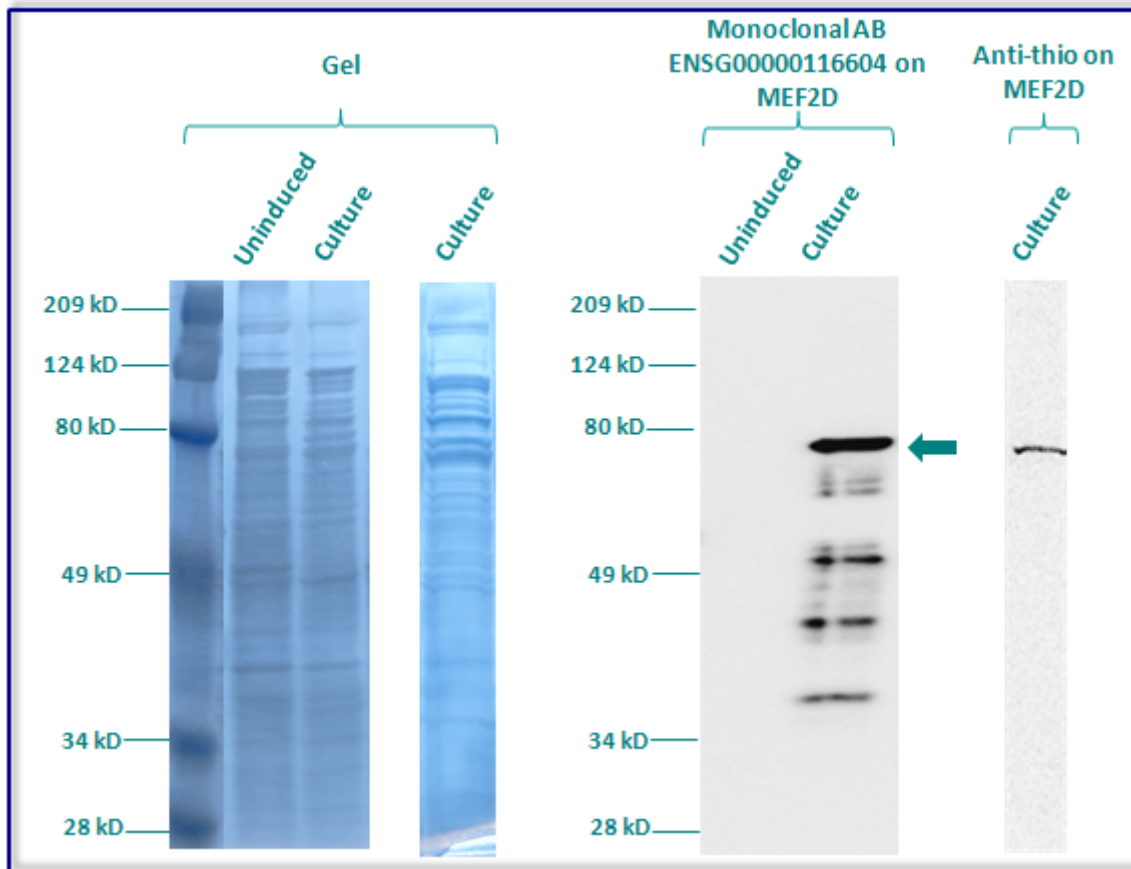
The monoclonal purified antibody ENSG00000116604 has tested at 1/5000 on uninduced (negative control) and induced culture of E.coli (one shot Top10 competent cells).

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 : 5C3H11H6, Isotype : G2a; kappa

Plasmid name : pBAD-DEST49.

Molecular weight of MEF2D : 69.9kDa (55.9kDa + 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 ENSG00000116604 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-Mouse IgG HRP conjugated at 1/10000

60 minutes of incubation

## IMMUNOFLUORESCENCE ANALYSIS

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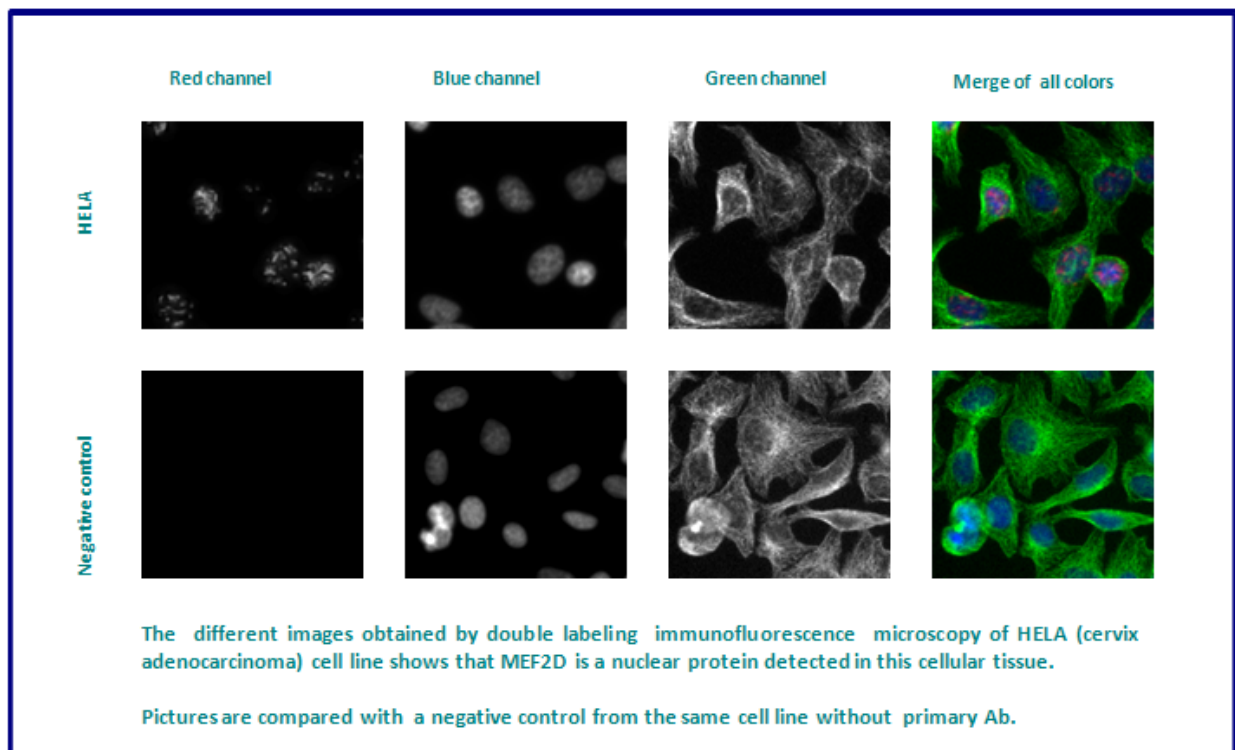
Immunofluorescence analysis of Myocyte-specific enhancer factor 2D (MEF2D) expression in 4 cell lines (HELA, Capan-2, SH-SY5Y, Skin 3,44). The monoclonal antibody ENSG00000116604 has been tested at 1/500.

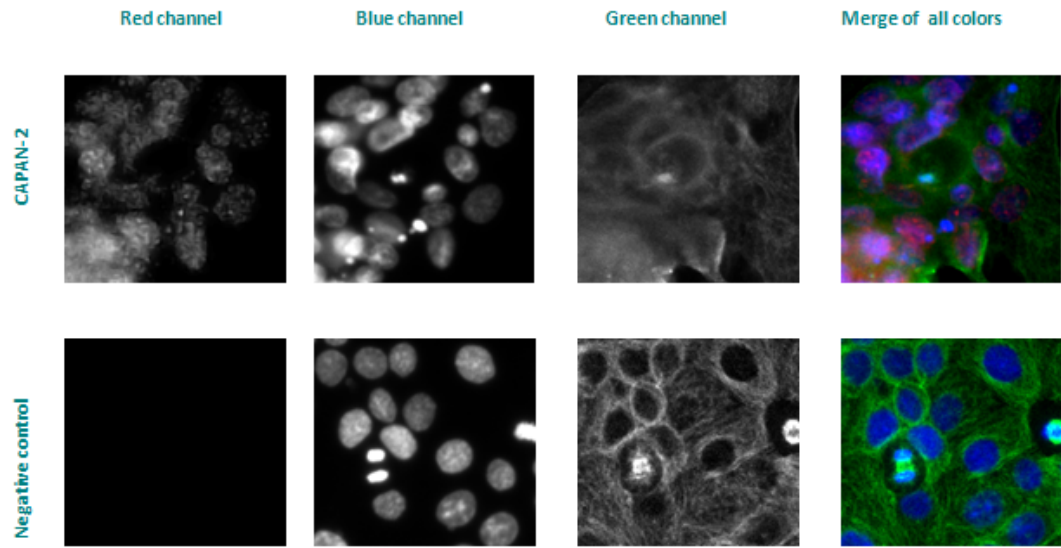
Green staining : cytoskeleton (microtubules/ $\alpha$ -tubuline)

Blue staining : nucleus (Hoechst)

Red staining : anti- MEF2D antibody (purified)

Expected subcellular location : Nucleus





The different images obtained by double labeling immunofluorescence microscopy of CAPAN-2 (Pancreas adenocarcinoma) cell line shows that MEF2D 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.