

## PRODUCT INFORMATION

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**Product name :** DPF1 antibody

**Product type :** Primary antibodies

**Description :** Rabbit polyclonal to DPF1

**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 :** DPF1

**Gene Name :** D4, zinc and double PHD fingers family 1

**Ensembl ID :** ENSG00000011332

**Entrez GeneID :** 8193

**GenBank Accession number :** U43843

**Swiss-Prot :** Q92782

**Molecular weight of DPF1 :** 46.8, 42.5 & 37.9 kDa

**Function :** May have an important role in developing neurons by participating in regulation of cell survival, possibly as a neurospecific transcription factor. Belongs to the neuron-specific chromatin remodeling complex (nBAF complex). During neural development a switch from a stem/progenitor to a post-mitotic chromatin remodeling mechanism occurs as neurons exit the cell cycle and become committed to their adult state. The transition from proliferating neural stem/progenitor cells to post-mitotic neurons requires a switch in subunit composition of the npBAF and nBAF complexes. As neural progenitors exit mitosis and differentiate into neurons, npBAF complexes which contain ACTL6A/BAF53A and PHF10/BAF45A, are exchanged for homologous alternative ACTL6B/BAF53B and DPF1/BAF45B or DPF3/BAF45C subunits in neuron-specific complexes (nBAF). The npBAF complex is essential for the self-renewal/proliferative capacity of the multipotent neural stem cells. The nBAF complex along with CREST plays a role regulating the activity of genes essential for dendrite growth.

**Expected subcellular localization :** Cytoplasm. Nucleus.

## **APPLICATION NOTE**

### **Recommended dilution :**

- **ELISA:** Antibody specificity was verified by direct ELISA against the 3 immunogen peptides. A minimum titer of 1/3000 has been determined. Appropriate specificity controls were run.
- **WB (recombinant protein):** 1/1500.
- **WB (cell lysate):** 1/125.
- **IF:** 1/500.

**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.

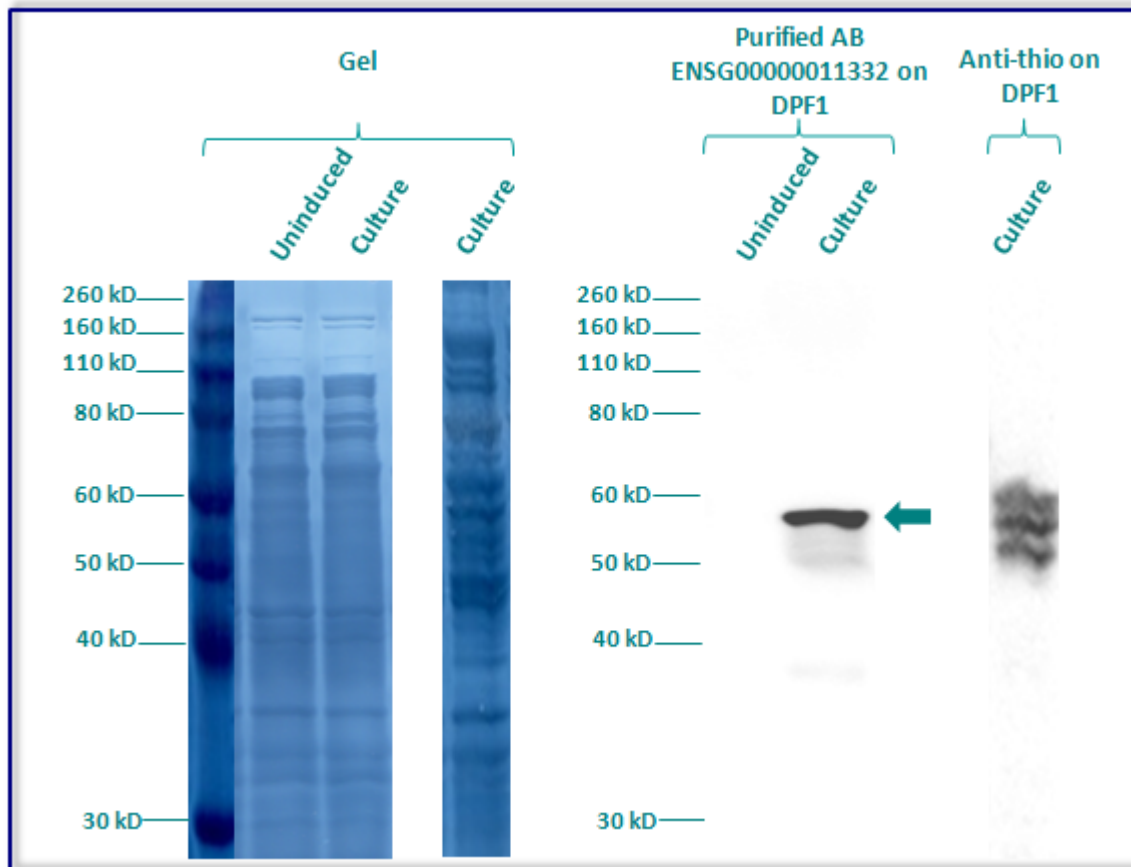
## WESTERN BLOT ON RECOMBINANT PROTEIN

The purified antibody ENSG00000011332 has been tested at 1/3000 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 DPF1 : 54kDa (40kDa + 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 ENSG00000011332 at 1:1500
- Dilute the anti-thio at 1:5000

60 minutes of incubation

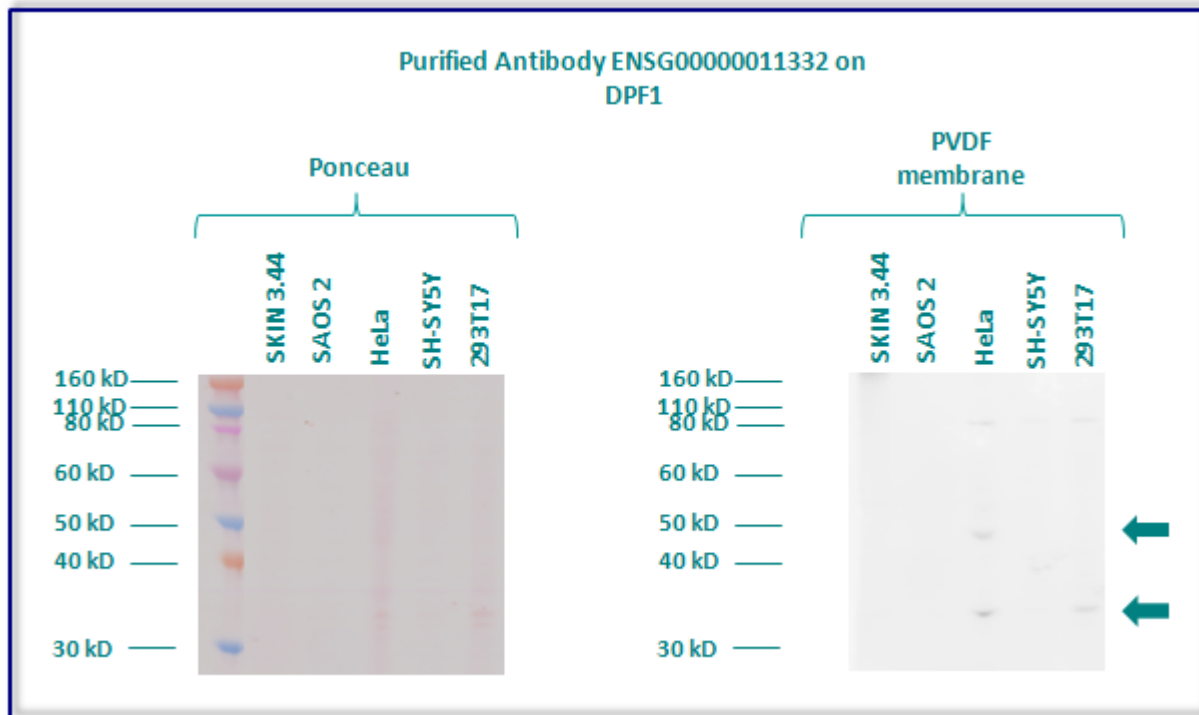
2<sup>nd</sup> Antibody: The antibody is diluted in blocking buffer.

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

## WESTERN BLOT ON CELL LYSATE

The purified antibody ENSG00000011332 has been tested at a concentration of 1/250 on total protein extract of various cell lines (SKIN 3.44, SAOS 2, HeLa, SH-SY5Y & 293T17).

Molecular weight of DPF1 : 46.8, 42.5 & 37.9kDa



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 ENSG00000011332 at 1:125  
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

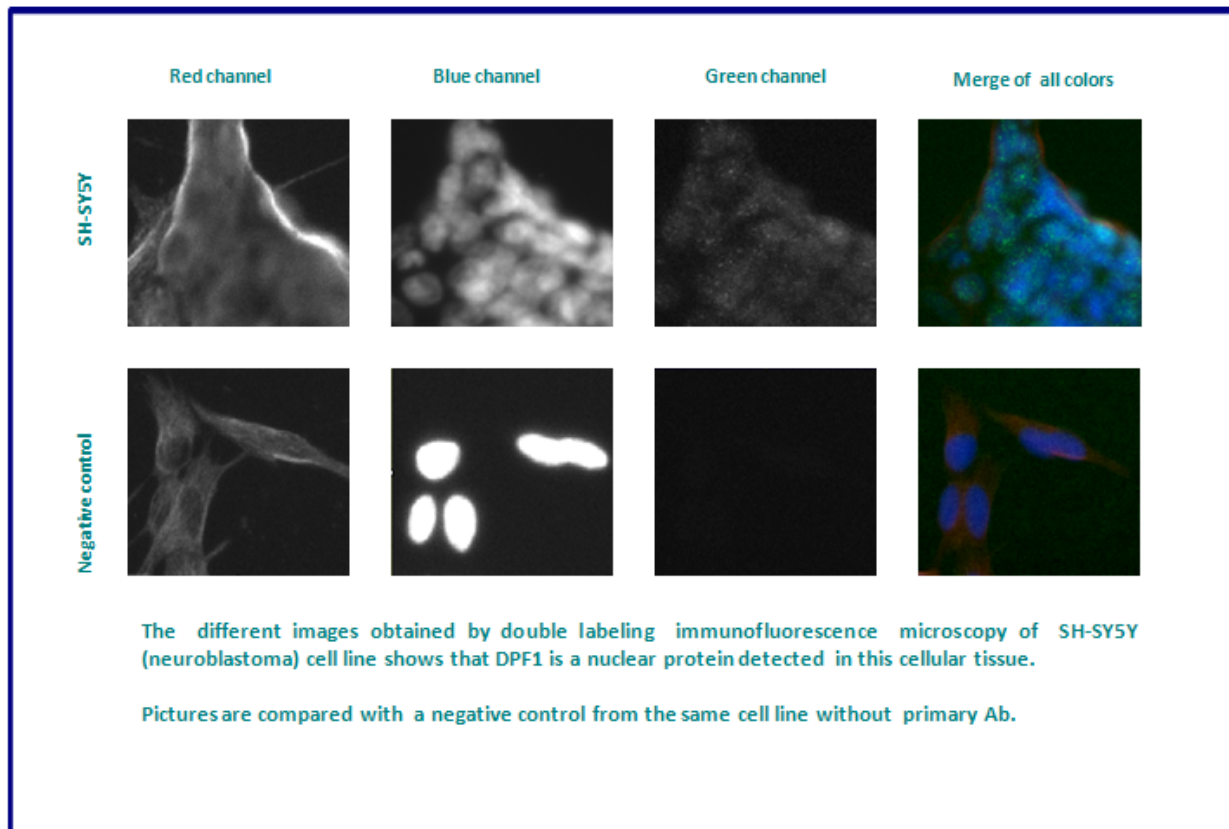
Immunofluorescence analysis of Zinc finger protein neuro-d4 (DPF1) expression in 4 cells lines (HELA, 293T/17, Capan-2, SH-SY5Y). The purified antibody ENSG00000011332 has been tested at 1/1000.

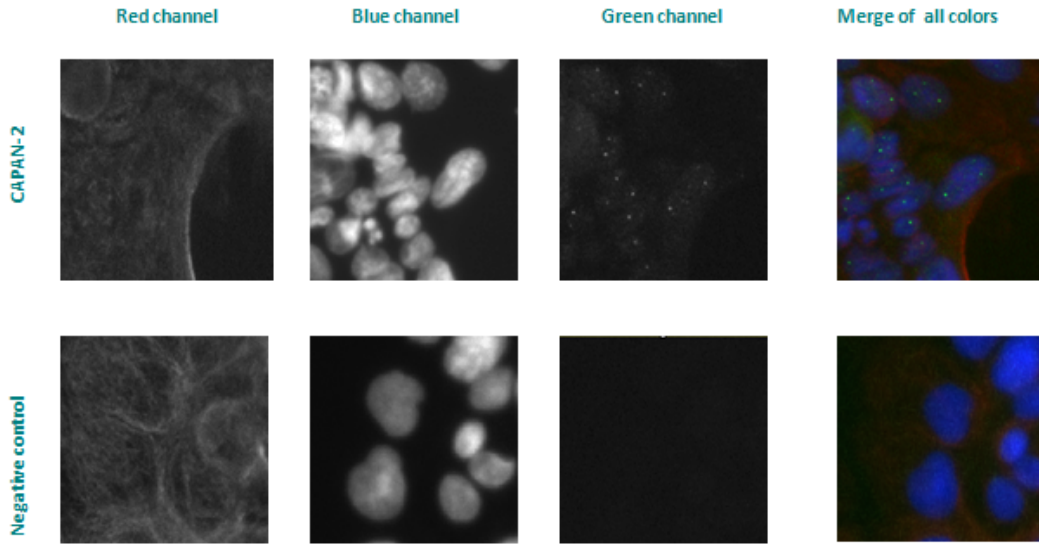
**Red staining :** cytoskeleton (microtubules/ $\alpha$ -tubuline)

**Blue staining :** nucleus (Hoechst)

**Green staining :** anti- DPF1 antibody (purified)

**Expected subcellular location :** Cytoplasm. Nucleus





The different images obtained by double labeling immunofluorescence microscopy of CAPAN-2 (Pancreas adenocarcinoma) cell line shows that DPF1 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 distributions.