

PRODUCT INFORMATION

Product name : ZEB1 antibody

Product type : Primary antibodies

Description : Mouse monoclonal to ZEB1

Immunogen : 1 synthetic peptide (human) conjugated to KLH

Reacts with : Hu, Ms

Tested applications : ELISA, WB & IF

GENE INFORMATION

Gene Symbol : ZEB1

Gene Name : zinc finger E-box binding homeobox 1

Ensembl ID : ENSG00000148516

Entrez GeneID : 6935

GenBank Accession number : AK091478

Swiss-Prot : P37275

Molecular weight : 124.1kDa

Function : Acts as a transcriptional repressor. Inhibits interleukin-2 (IL-2) gene expression. Enhances or represses the promoter activity of the ATP1A1 gene depending on the quantity of cDNA and on the cell type. Represses E-cadherin promoter and induces an epithelial-mesenchymal transition (EMT) by recruiting SMARCA4/BRG1. Represses BCL6 transcription in the presence of the corepressor CTBP1. Positively regulates neuronal differentiation. Represses RCOR1 transcription activation during neurogenesis. Represses transcription by binding to the E box (5'-CANNTG-3'). Promotes tumorigenicity by repressing stemness-inhibiting microRNAs.

Expected subcellular localization : Nucleus.

Expected tissue specificity : Colocalizes with SMARCA4/BRG1 in E-cadherin-negative cells from established lines, and stroma of normal colon as well as in de-differentiated epithelial cells at the invasion front of colorectal carcinomas (at protein level). Expressed in heart and skeletal muscle, but not in liver, spleen, or pancreas.

Summary : This gene encodes a zinc finger transcription factor. The encoded protein likely plays a role in transcriptional repression of interleukin 2. Mutations in this gene have been associated with posterior polymorphous corneal dystrophy-3 and late-onset Fuchs endothelial corneal dystrophy. Alternatively spliced transcript variants encoding different isoforms have been described.[provided by RefSeq, Mar 2010]

APPLICATION NOTE

Recommended dilution :

- **ELISA:** Antibody specificity was verified by direct ELISA against the 1 immunogen peptide. A titer of 57000 has been determined. Appropriate specificity controls were run.
- **WB:** Dilution 1/5000
- **IF:** Dilution 1/1000

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

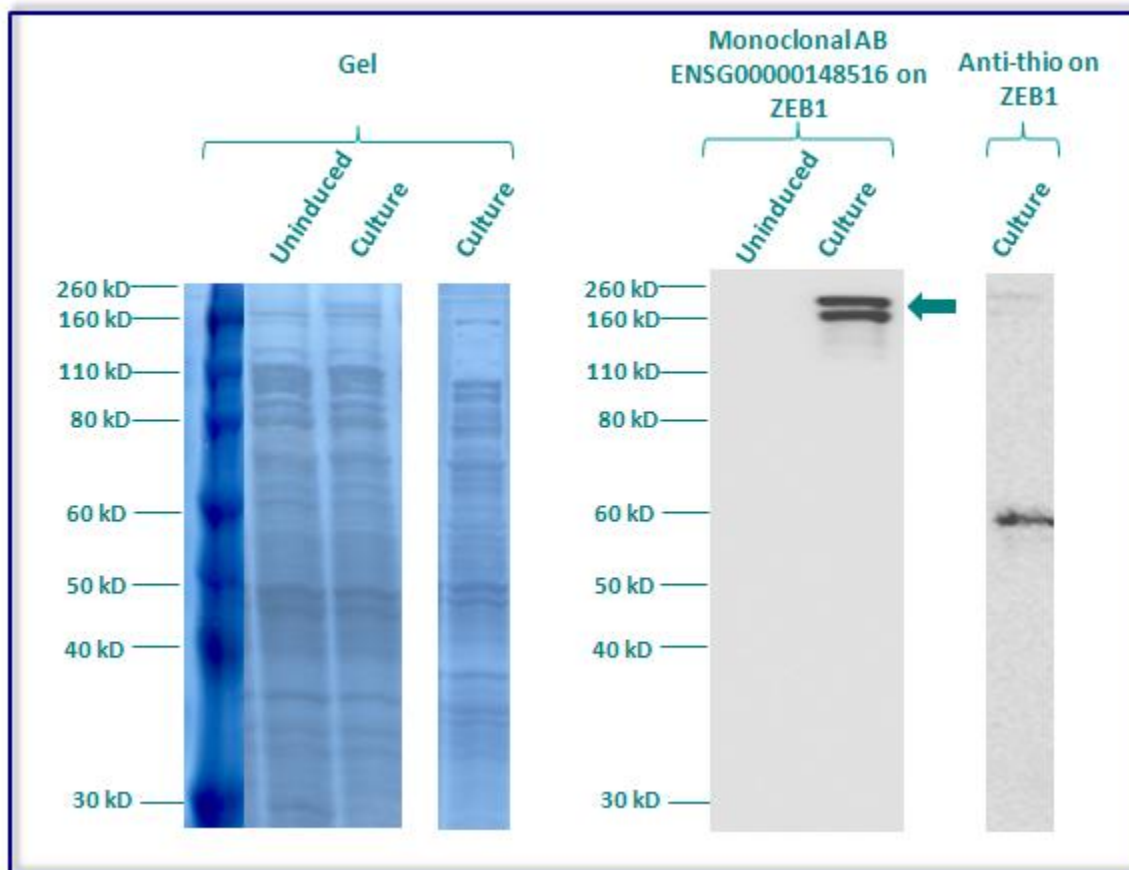
The monoclonal purified antibody ENSG00000148516 has tested at 1/5000 on uninduced (negative control) and induced culture of E.coli (one shot Top10 competent cells).

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 : 2F2E12E12, Isotype : G1; kappa

Plasmid name : pBAD-DEST49.

Molecular weight of ZEB1 : 138kDa (124kDa + another 14kDa for the tag).



NOTE: THE PURIFIED MONOCLONAL ANTIBODY DOES NOT DETECT THE PROTEIN IN THE FOLLOWING CELL LYSATES (HeLa, SAOS 2, SH-SY5Y, SKIN 3.44 & 293T17) AT A DILUTION OF 1:250.

Gel concentration: 10%

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

1st Antibody: The antibodies are diluted in blocking buffer.

- Dilute the purified antibody ENSG00000148516 at 1:5000
- Dilute the anti-thio at 1:5000

60 minutes of incubation

2nd Antibody: The antibody is diluted in blocking buffer.

- Dilute the anti-Mouse IgG HRP conjugated at 1/10000

60 minutes of incubation

IMMUNOFLUORESCENCE ANALYSIS

Immunofluorescence analysis of Zinc finger E-box-binding homeobox 1 (ZEB1) expression in 2 cells lines (HELA, Capan-2). The monoclonal antibody ENSG00000148516 has been tested at 1/1000.

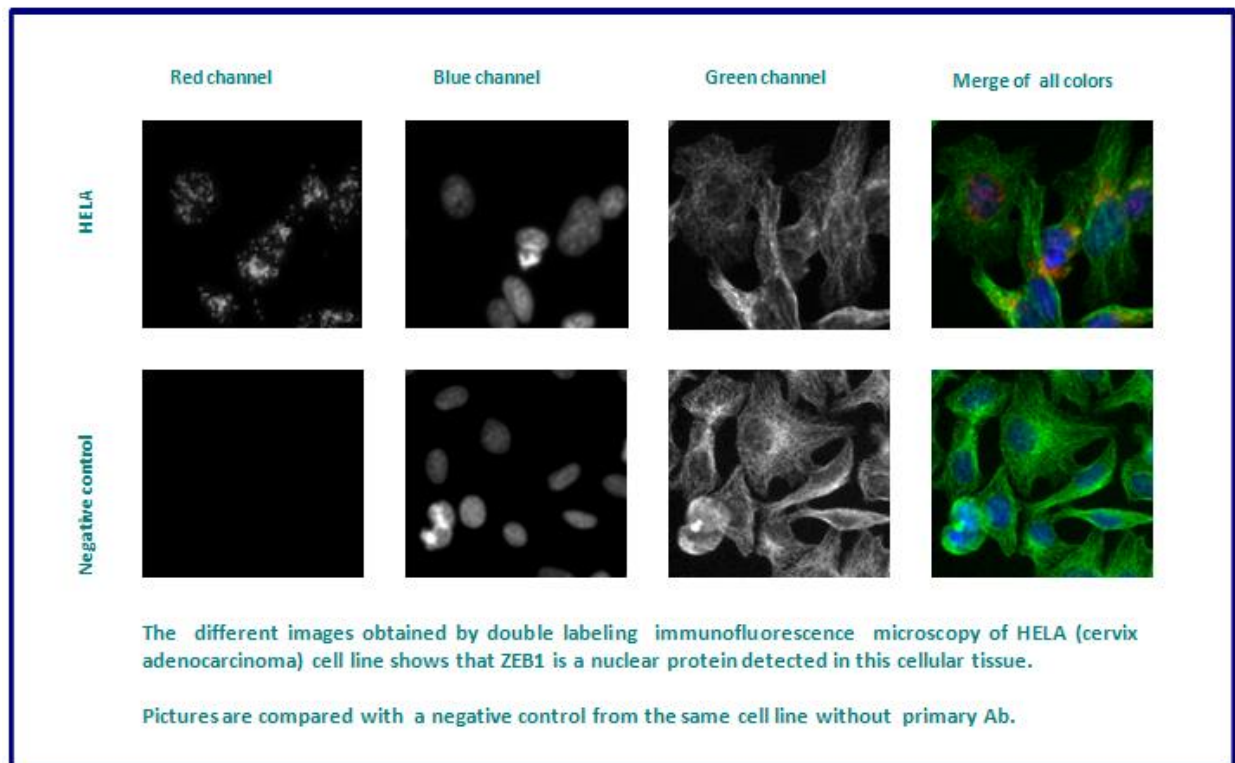
Green staining : cytoskeleton (microtubules/ α -tubuline)

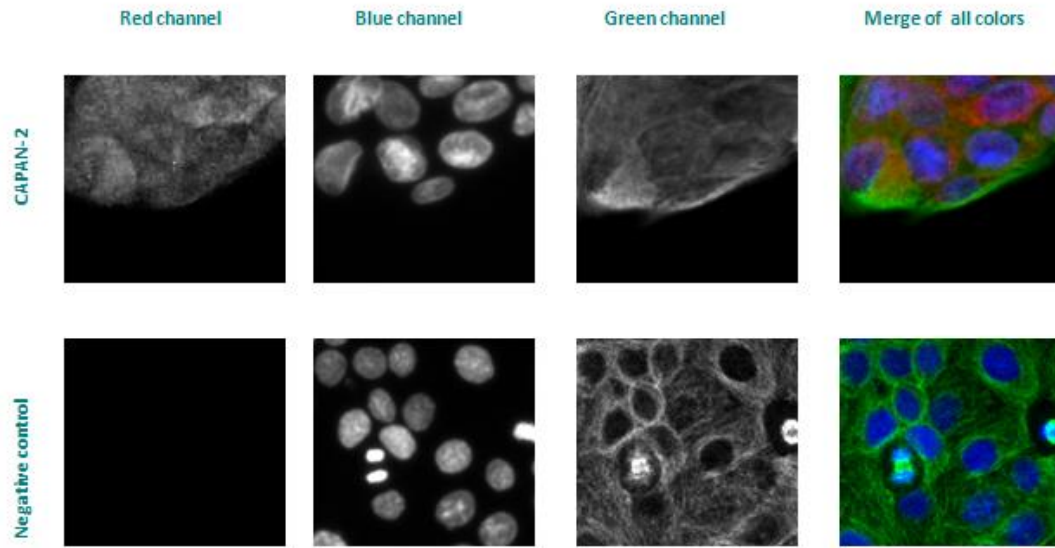
Blue staining : nucleus (Hoechst)

Red staining : anti-ZEB1 antibody (purified)

Expected subcellular location : Nucleus

Expected tissue specificity : Colocalizes with SMARCA4/BRG1 in E-cadherin-negative cells from established lines, and stroma of normal colon as well as in de-differentiated epithelial cells at the invasion front of colorectal carcinomas (at protein level). Expressed in heart and skeletal muscle, but not in liver, spleen, or pancreas





The different images obtained by double labeling immunofluorescence microscopy of CAPAN- 2 (Pancreas adenocarcinoma) cell line shows that ZEB1 is a nuclear protein detected in this cellular tissue.

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