

## PRODUCT INFORMATION

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**Product name :** EPAS1 antibody

**Product type :** Primary antibodies

**Description :** Rabbit polyclonal to EPAS1

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

**Reacts with :** Human, Mouse

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

## GENE INFORMATION

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**Gene Symbol :** EPAS1

**Gene Name :** endothelial PAS domain protein 1

**Ensembl ID :** ENSG00000116016

**Entrez GeneID :** 2034

**GenBank Accession number :** U81984

**Omim ID :** 603349

**Swiss-Prot :** Q99814

**Molecular weight of EPAS1 :** 96.4kDa

**Function :** Transcription factor involved in the induction of oxygen regulated genes. Binds to core DNA sequence 5'-[AG]CGTG-3' within the hypoxia response element (HRE) of target gene promoters. Regulates the vascular endothelial growth factor (VEGF) expression and seems to be implicated in the development of blood vessels and the tubular system of lung. May also play a role in the formation of the endothelium that gives rise to the blood brain barrier. Potent activator of the Tie-2 tyrosine kinase expression. Activation seems to require recruitment of transcriptional coactivators such as CREBPB and probably EP300. Interaction with redox regulatory protein APEX seems to activate CTAD

**Expected subcellular localization :** Nucleus

**Summary :** This gene encodes a transcription factor involved in the induction of genes regulated by oxygen, which is induced as oxygen levels fall. The encoded protein contains a basic-helix-loop-helix domain protein dimerization domain as well as a domain found in proteins in signal transduction pathways which respond to oxygen levels. Mutations in this gene are associated with erythrocytosis familial type 4. [provided by RefSeq, Nov 2009]

## **APPLICATION NOTE**

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### **Recommended dilution :**

- **ELISA:** Antibody specificity was verified by direct ELISA against the 3 immunogen peptides. A minimum titer of 1/15000 is determined. Appropriate specificity controls were run.
- **WB:** 1/7000.
- **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, 50% glycerol containing a final concentration of 0.1% BSA and 0.01% Thimerosal.

**Form :** Liquid

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

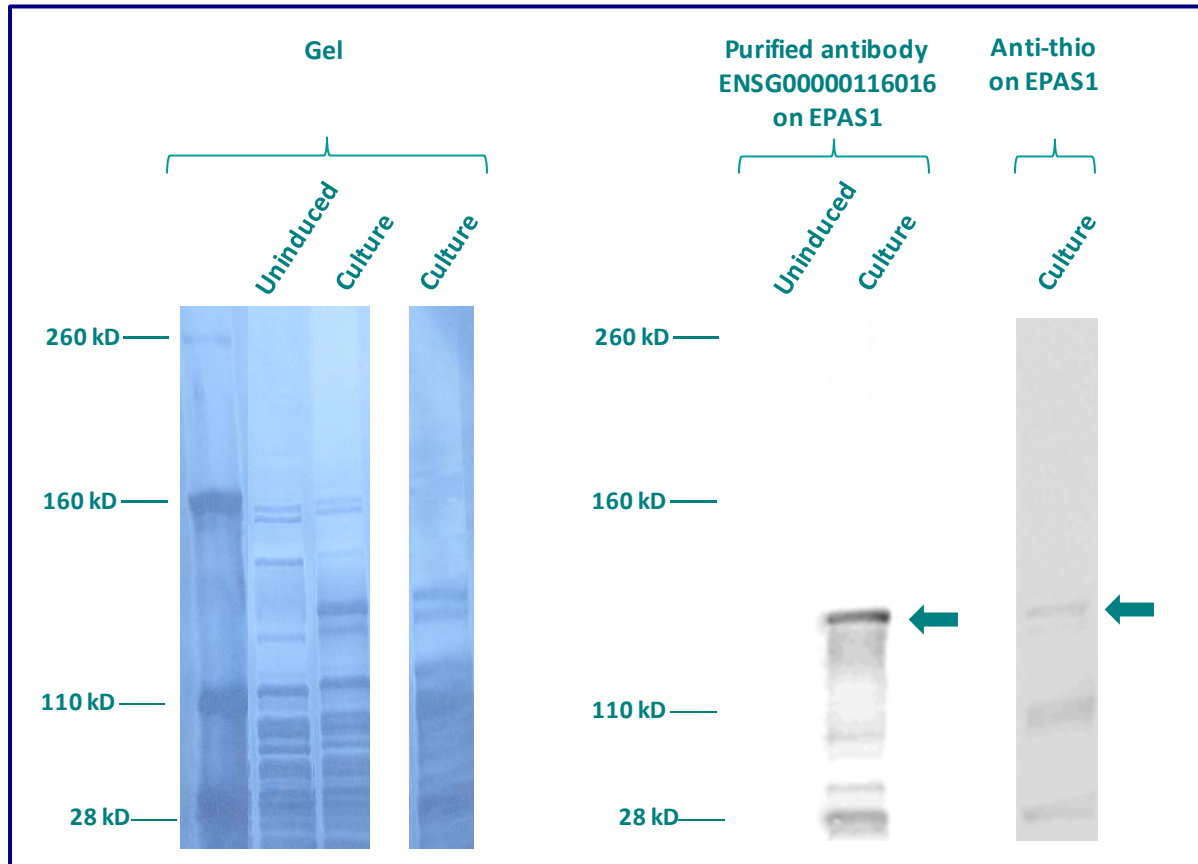
## WESTERN BLOT ON RECOMBINANT PROTEIN

The purified antibody ENSG00000116016 has been tested at 1/15000 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.

Plasmid name : pBAD-DEST49.

Molecular weight of EPAS1 : 110.5kDa ( 96.5kDa + 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 ENSG00000116016 at 1: 7000
- 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 Endothelial PAS domain-containing protein 1 (EPAS1) expression in 3 cells lines (HELA, SAOS-2, Skin 3,44). The purified Antibody ENSG00000116016 has been tested at 1/5000.

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

Blue staining : nucleus (Hoechst)

Green staining : anti- EPAS1 antibody (purified)

Expected subcellular location : Nucleus

Expected tissue specificity : Expressed in most tissues, with highest levels in placenta, lung and heart. Selectively expressed in endothelial cells

