

## PRODUCT INFORMATION

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**Product name :** SIX1 antibody

**Product type :** Primary antibodies

**Description :** Rabbit polyclonal to SIX1

**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 :** SIX1

**Gene Name :** SIX homeobox 1

**Ensembl ID :** ENSG00000126778

**Entrez GeneID :** 6495

**GenBank Accession number :** X91868

**Omim ID :** 601205

**Swiss-Prot :** Q15475

**Molecular weight of SIX1 :** 32.2 kDa

**Function :** May be involved in limb tendon and ligament development

**Expected subcellular localization :** Nucleus

**Expected tissue specificity :** Specifically expressed in skeletal muscle

**Summary :** The protein encoded by this gene is a homeobox protein that is similar to the *Drosophila* 'sine oculis' gene product. This gene is found in a cluster of related genes on chromosome 14 and is thought to be involved in limb development. Defects in this gene are a cause of autosomal dominant deafness type 23 (DFNA23) and branchiootoc syndrome type 3 (BOS3). [provided by RefSeq]

## **APPLICATION NOTE**

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### **Recommended dilution :**

- **ELISA:** Antibody specificity was verified by direct ELISA against the 3 immunogen peptides. A titer of 1/40000 has been determined. Appropriate specificity controls were run.
- **WB:** 1/5000.
- **IF:** 1/1000.

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

**Raised in :** Rabbit

**Clonality :** Polyclonal

**Isotype :** IgG

**Purity :** Purified polyclonal 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

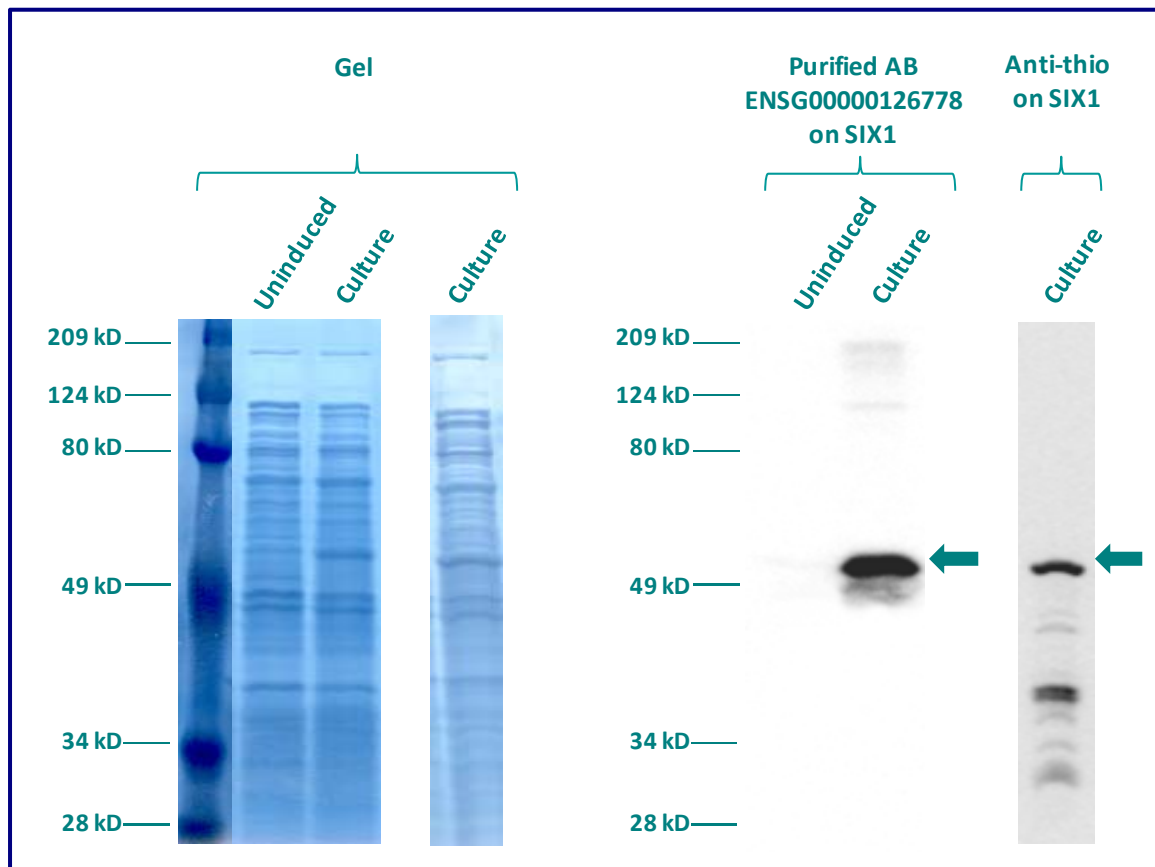
## WESTERN BLOT ON RECOMBINANT PROTEIN

The purified antibody ENSG00000126778 has been tested at 1/5000 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 SIX1 : 46.2kDa (32.2kDa + 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 serum ENSG00000126778 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-Rabbit IgG HRP conjugated at 1/10000
- 60 minutes of incubation

## IMMUNOFLUORESCENCE ANALYSIS

Immunofluorescence analysis of Homeobox protein SIX1 (SIX1) expression in 2 cells lines (HELA, Capan-2). The purified Antibody ENSG00000126778 has been tested at 1/5000.

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

Blue staining : nucleus (Hoechst)

Green staining : anti- SIX1 antibody (purified)

Expected subcellular location : Nucleus

Expected tissue specificity : Specifically expressed in skeletal muscle

