

## PRODUCT INFORMATION

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**Product name :** MYT1 antibody

**Product type :** Primary antibodies

**Description :** Rabbit polyclonal to MYT1

**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 :** MYT1

**Gene Name :** myelin transcription factor 1

**Ensembl ID :** ENSG00000196132

**Entrez GeneID :** 4661

**GenBank Accession number :** M96980.1

**Omim ID :** 600379

**Swiss-Prot :** Q01538

**Molecular weight of MYT1 :** 122.329kDa

**Function :** Binds to the promoter regions of proteolipid proteins of the central nervous system. May play a role in the development of neurons and oligodendrogalia in the CNS. May regulate a critical transition point in oligodendrocyte lineage development by modulating oligodendrocyte progenitor proliferation relative to terminal differentiation and up-regulation of myelin gene transcription.

**Expected subcellular localization :** Nucleus.

**Expected tissue specificity :** Mostly in developing nervous system. Expressed in neural progenitors and oligodendrocyte lineage cells. More highly expressed in oligodendrocyte progenitors than in differentiated oligodendrocytes.

**Summary :** The protein encoded by this gene is a member of a family of neural specific, zinc finger-containing DNA-binding proteins. The protein binds to the promoter regions of proteolipid proteins of the central nervous system and plays a role in the developing nervous system. [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.

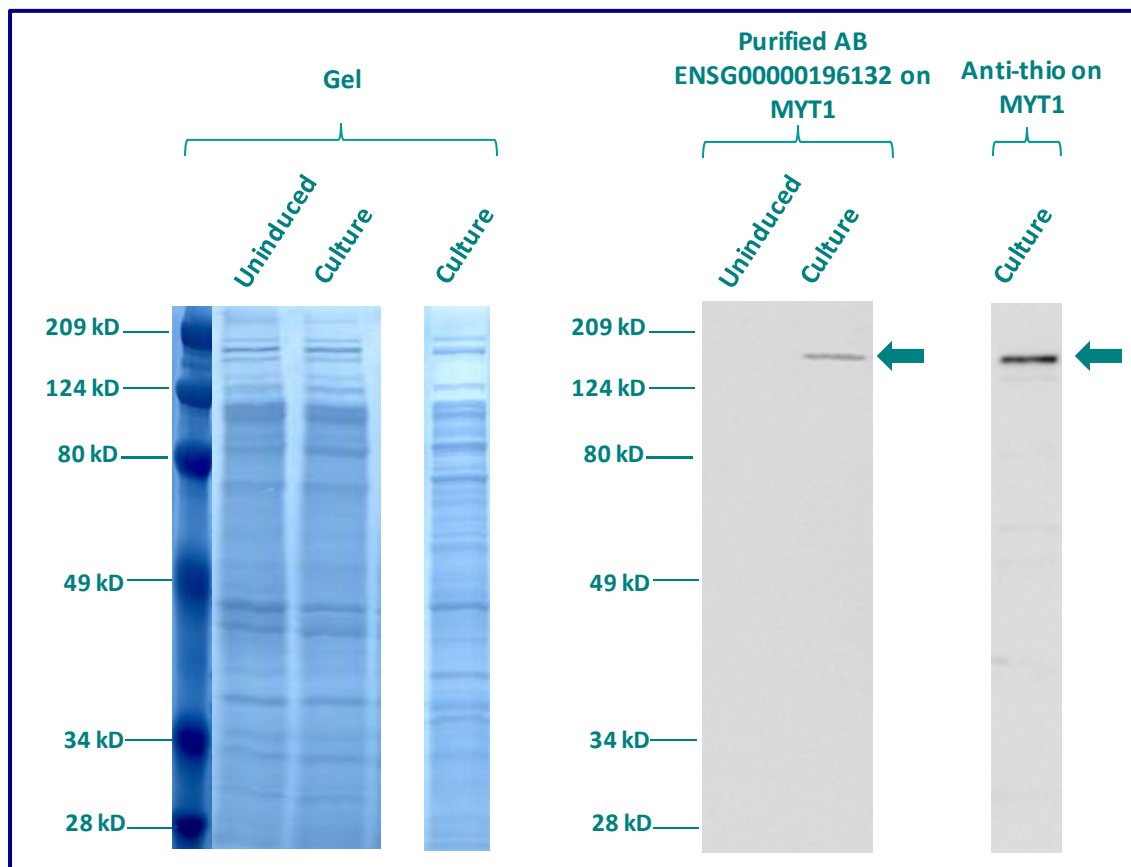
## WESTERN BLOT ON RECOMBINANT PROTEIN

The purified antibody ENSG00000196132 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 MYT1 : 136.3kDa (122.3kDa + 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 ENSG00000196132 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 Myelin transcription factor 1 (MYT1) expression in 5 cell lines (HELA, 293T/17, Capan-2, SH-SY5Y, Skin 3,44). The purified Antibody ENSG00000196132 has been tested at 1/5000.

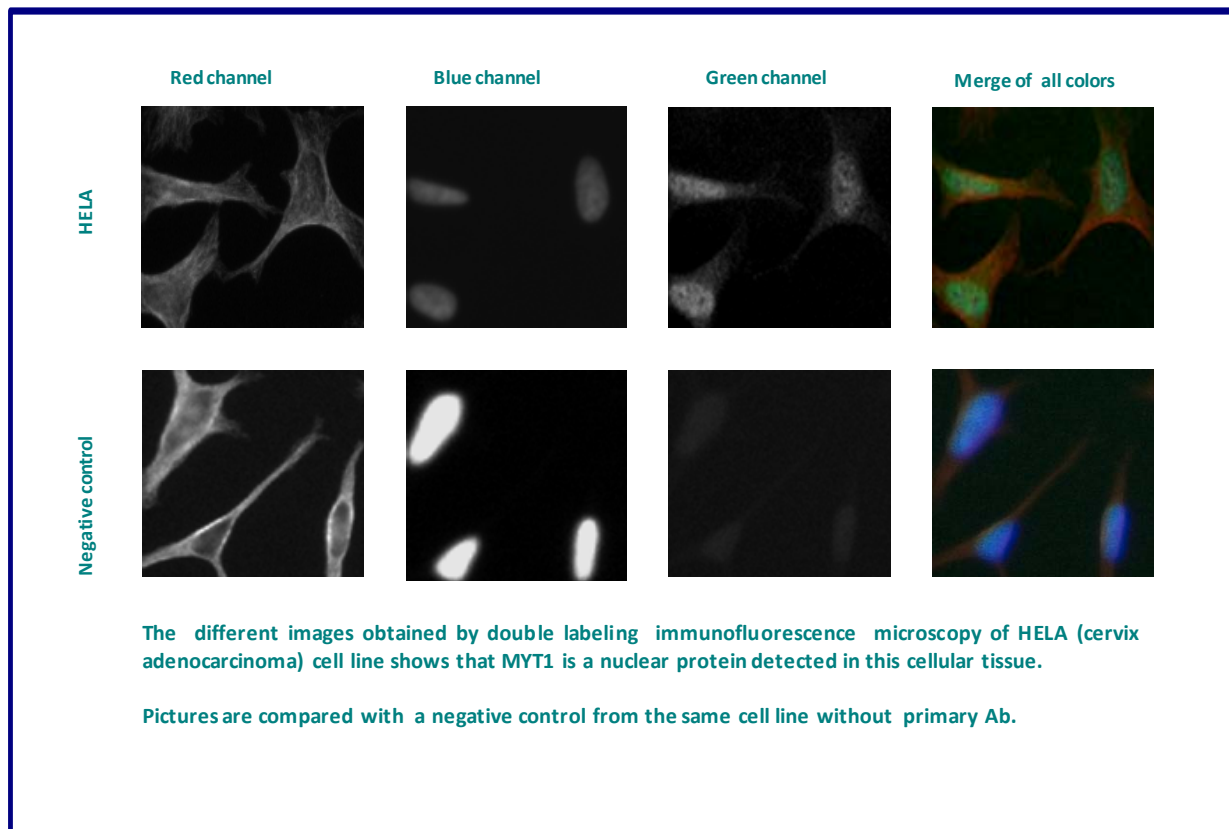
**Red staining** : cytoskeleton (microtubules/ $\alpha$ -tubuline)

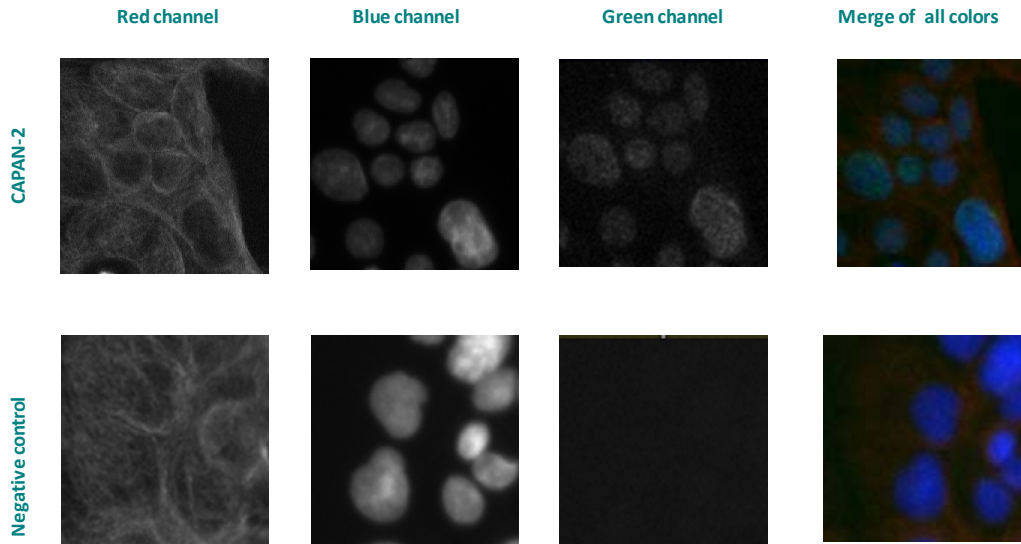
**Blue staining** : nucleus (Hoechst)

**Green staining** : anti- MYT1 antibody (purified)

**Expected subcellular location** : Nucleus

**Expected tissue specificity** : Mostly in developing nervous system. Expressed in neural progenitors and oligodendrocyte lineage cells. More highly expressed in oligodendrocyte progenitors than in differentiated oligodendrocytes.





The different images obtained by double labeling immunofluorescence microscopy of CAPAN- 2 (Pancreas adenocarcinoma) cell line shows that MYT1 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 etsted gave a positive result with a nuclear disposition.