

## PRODUCT INFORMATION

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**Product name :** LHX5 antibody

**Product type :** Primary antibodies

**Description :** Rabbit polyclonal to LHX5

**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 :** LHX5

**Gene Name :** LIM homeobox 5

**Ensembl ID :** ENSG00000089116

**Entrez GeneID :** 64211

**GenBank Accession number :** AF291181

**Swiss-Prot :** Q9H2C1

**Molecular weight of LHX5 :** 44.4kDa

**Function :** Plays an essential role in the regulation of neuronal differentiation and migration during development of the central nervous system.

**Expected subcellular localization :** Nucleus

**Summary :** This gene encodes a protein belonging to a large protein family, members of which carry the LIM domain, a unique cysteine-rich zinc-binding domain. The encoded protein may function as a transcriptional regulator and be involved in the control of differentiation and development of the forebrain. In mice, this protein is essential for the regulation of precursor cell proliferation and the control of neuronal differentiation and migration during hippocampal development. This protein is involved in learning and motor functions in adult mice. [provided by RefSeq, Jul 2008]

## **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 1/2500 is determined. Appropriate specificity controls were run.
- **WB (cell lysate):** 1/125.
- **IF:** 1/100.

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

**Raised in :** Rabbit

**Clonality :** Polyclonal

**Isotype :** IgG

**Purity :** Crude serum, Final bleed

**Storage buffer :** 50% glycerol containing a final concentration of 0.1% BSA and 0.01% Thimerosal.

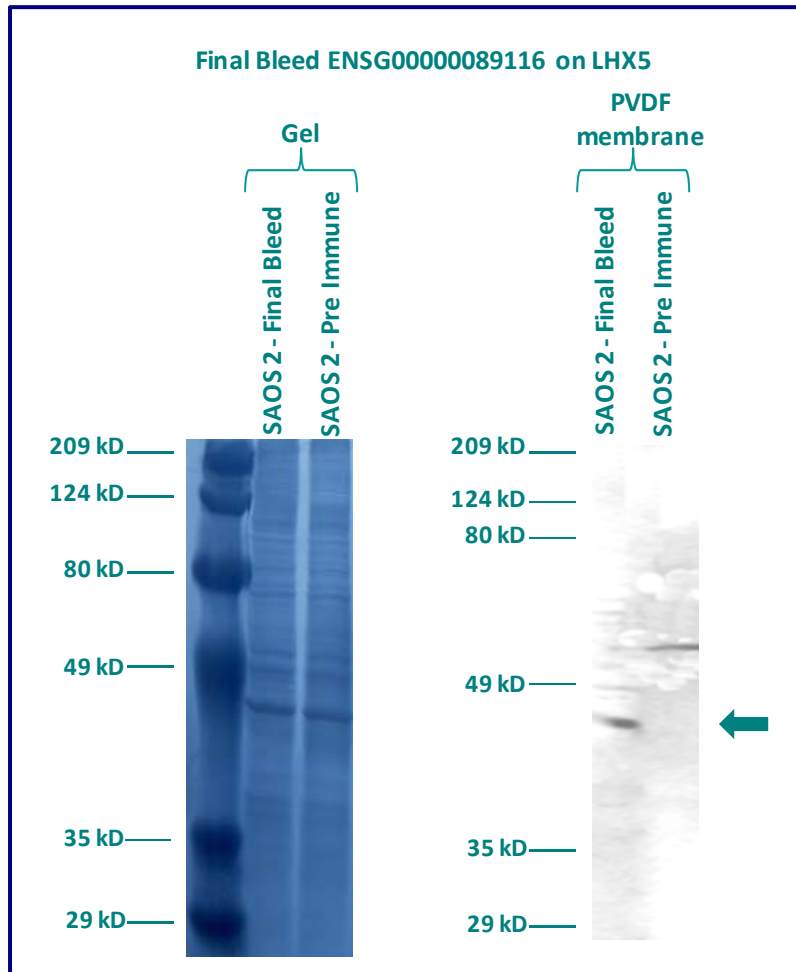
**Form :** Liquid

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

## WESTERN BLOT ON CELL LYSATE

The final bleed ENSG00000089116 has been tested at a concentration of 1/250 on total protein extract of SAOS 2 cell line.

Molecular weight of LHX5 : 44.4kDa



**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 crude serum ENSG00000089116 at 1: 250
- 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 LIM/homeobox protein Lhx5 (LHX5) expression in 6 cell lines (HELA, 293T/17, Capan-2, SAOS-2, SH-SY5Y, Skin 3,44). The crude serum ENSG00000089116 has been tested at 1/500.

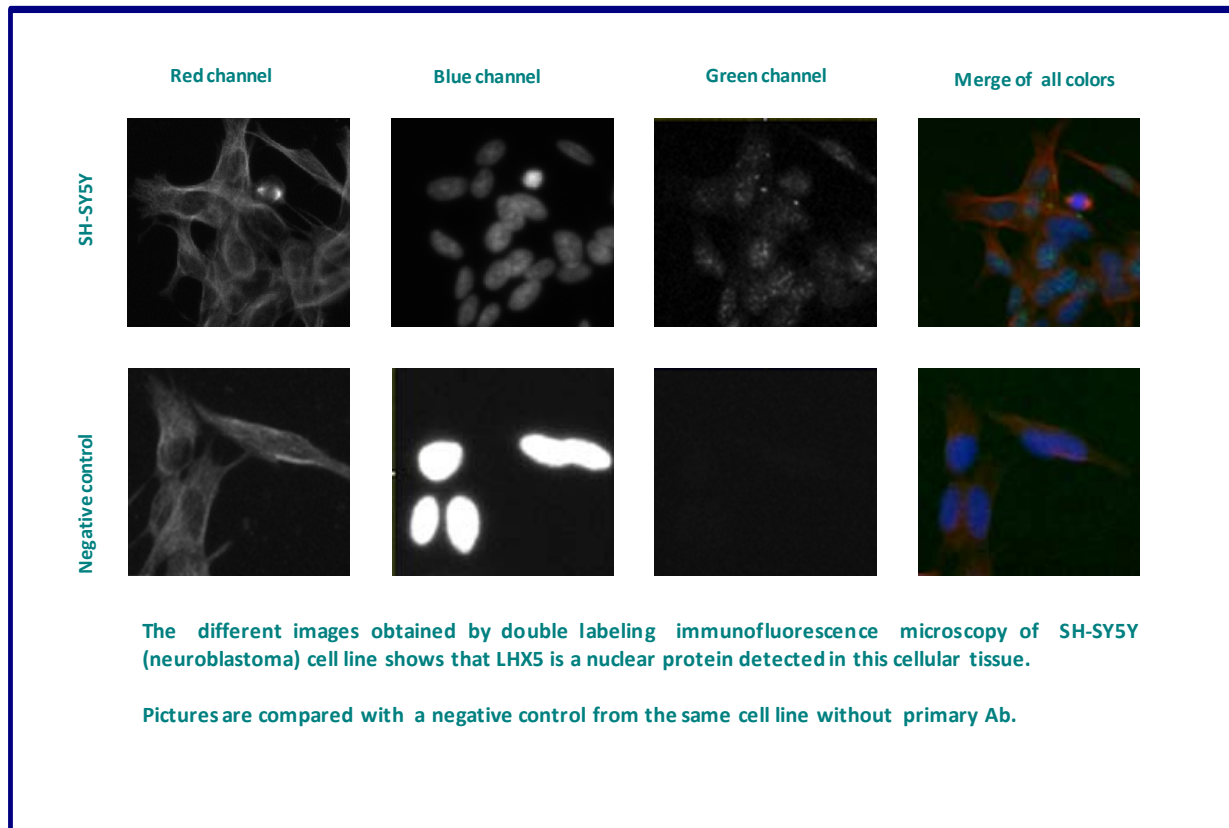
**Red staining** : cytoskeleton (microtubules/ $\alpha$ -tubuline)

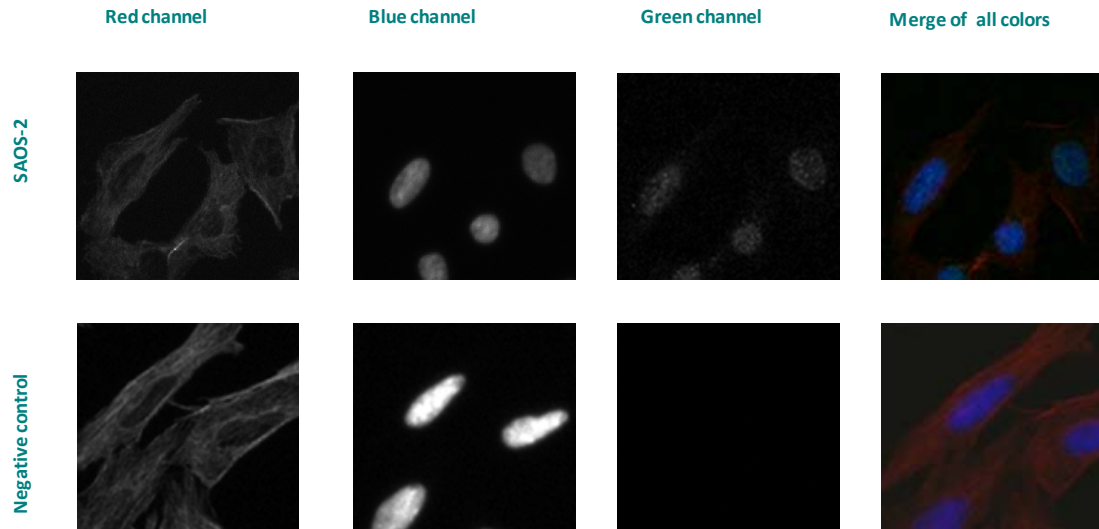
**Blue staining** : nucleus (Hoechst)

**Green staining** : anti- LHX5 antibody

**Expected subcellular location** : Nucleus

**Expected tissue specificity** : Expressed in fetal brain and in various regions of the adult central nervous system including the spinal cord, the thalamus, and the cerebellum





The different images obtained by double labeling immunofluorescence microscopy of SAOS-2 (osteosarcoma) cell line shows that LHX5 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 distribution.