

PRODUCT INFORMATION

Product name : ISL1 antibody

Product type : Primary antibodies

Description : Mouse monoclonal to ISL1

Immunogen : 1 synthetic peptide (human) conjugated to KLH

Reacts with : Hu, Ms

Tested applications : ELISA, WB & IF

GENE INFORMATION

Gene Symbol : ISL1

Gene Name : ISL LIM homeobox 1

Ensembl ID : ENSG00000016082

Entrez GeneID : 3670

GenBank Accession number : BC031213

Swiss-Prot : P61371

Molecular weight : 39kDa

Function : Binds to one of the cis-acting domain of the insulin gene enhancer.

Expected subcellular localization : Nucleus.

Expected tissue specificity : Expressed in subsets of neurons of the adrenal medulla and dorsal root ganglion, inner nuclear and ganglion cell layers in the retina, the pineal and some regions of the brain.

Summary : This gene encodes a member of the LIM/homeodomain family of transcription factors. The encoded protein binds to the enhancer region of the insulin gene, among others, and may play an important role in regulating insulin gene expression. The encoded protein is central to the development of pancreatic cell lineages and may also be required for motor neuron generation. Mutations in this gene have been associated with maturity-onset diabetes of the young. [provided by RefSeq, Jul 2008].

APPLICATION NOTE

Recommended dilution :

- **ELISA:** Antibody specificity was verified by direct ELISA against the 1 immunogen peptide. A titer of 25000 has been determined. Appropriate specificity controls were run.
- **WB:** Dilution 1/1000
- **IF:** Dilution 1/500

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

Raised in : Mouse

Clonality : Monoclonal

Isotype : IgG

Purity : Purified Antibody

Concentration: 2mg/ml

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

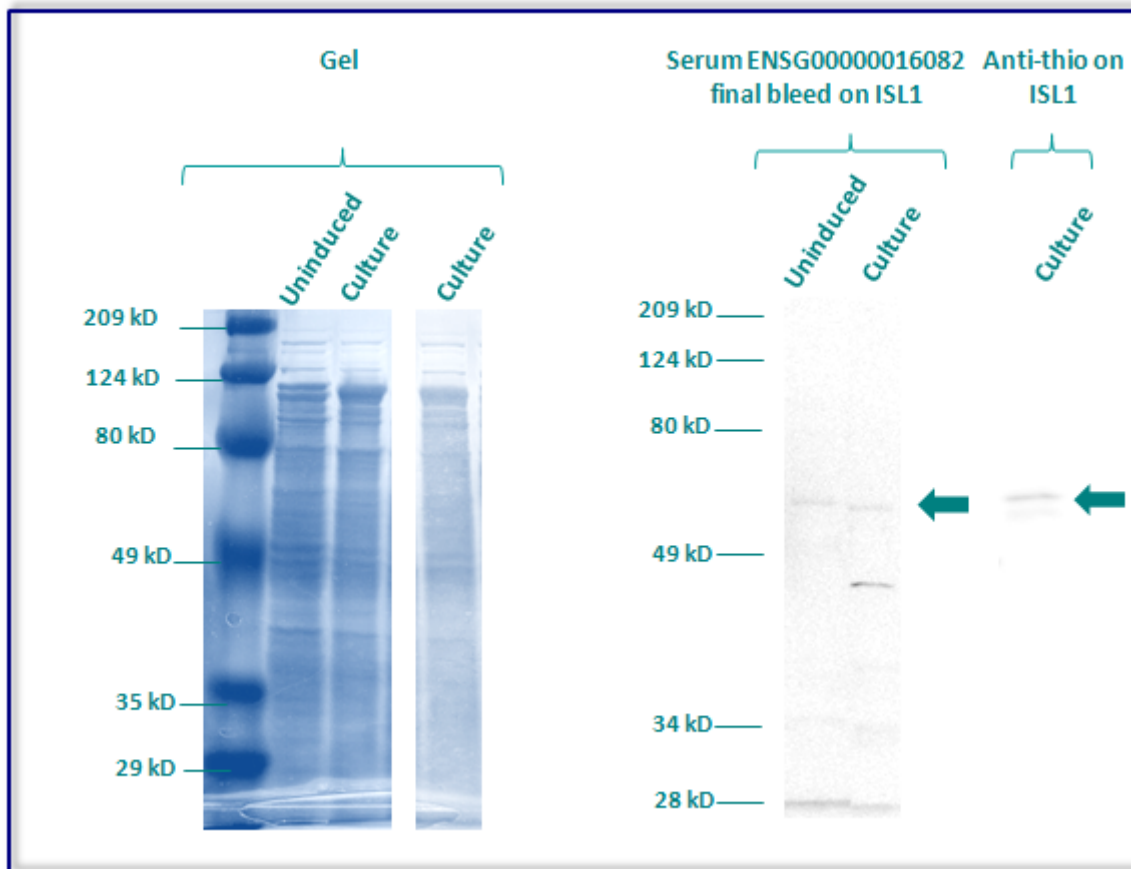
The monoclonal purified antibody ENSG00000016082 has tested at 1/1000 on uninduced (negative control) and induced culture of E.coli (one shot Top10 competent cells).

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 : 3F7G10G8, Isotype : G1; M; kappa

Plasmid name : pBAD-DEST49.

Molecular weight of ISL1 : 53kDa (39kDa + another 14kDa for the tag).



Gel concentration: 10%

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

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

- Dilute the purified antibody ENSG00000016082 at 1:1000
- 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 Insulin gene enhancer protein ISL-1 (ISL1) expression in 2 cells lines (HELA, Capan-2). The monoclonal antibody ENSG00000016082 has been tested at 1/500.

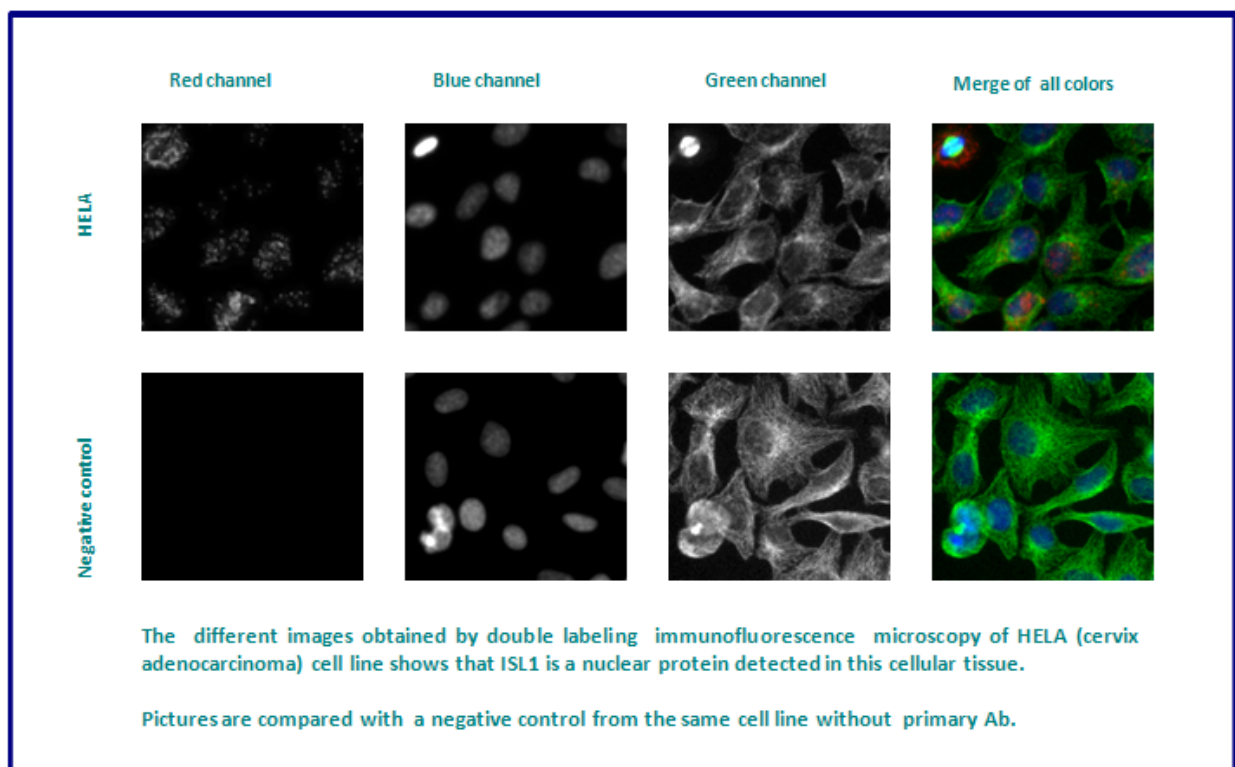
Green staining : cytoskeleton (microtubules/ α -tubuline)

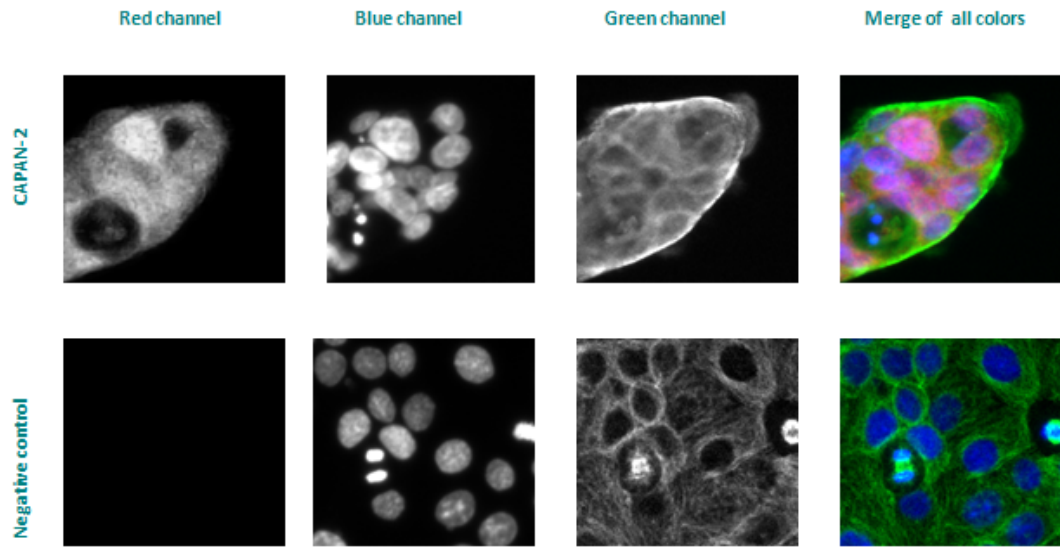
Blue staining : nucleus (Hoechst)

Red staining : anti- ISL1 antibody (purified)

Expected subcellular location : Nucleus

Expected tissue specificity : Expressed in subsets of neurons of the adrenal medulla and dorsal root ganglion, inner nuclear and ganglion cell layers in the retina, the pineal and some regions of the brain





The different images obtained by double labeling immunofluorescence microscopy of CAPAN-2 (Pancreas adenocarcinoma) cell line shows that ISL1 is a nuclear protein detected in this cellular tissue.

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