PRODUCT INFORMATION

Product name：IGHMBP2 antibody

Product type： Primary antibodies

Description： Rabbit polyclonal to IGHMBP2

Immunogen：3 synthetic peptides (human) conjugated to KLH

Reacts with： Hu, Ms

Tested applications： ELISA, WB and IF

GENE INFORMATION

Gene Symbol：IGHMBP2

Gene Name：immunoglobulin mu binding protein 2

Ensembl ID：ENSG00000132740

Entrez Gene ID：3508

GenBank Accession number：L14754

Swiss-Prot：P38935

Molecular weight of IGHMBP2：109.1 kDa

Function：5' to 3' helicase that unwinds RNA and DNA duplices in an ATP-dependent reaction. Acts as a transcription regulator. Required for the transcriptional activation of the flounder liver-type antifreeze protein gene. Exhibits strong binding specificity to the enhancer element B of the flounder antifreeze protein gene intron. Binds to the insulin II gene RIPE3B enhancer region. May be involved in translation. DNA-binding protein specific to 5'-phosphorylated single-stranded guanine-rich sequence related to the immunoglobulin mu chain switch region. Preferentially binds to the 5'-GGGCT-3' motif. Interacts with tRNA-Tyr. Stimulates the transcription of the human neurotropic virus JCV.

Expected subcellular localization：Nucleus. Cytoplasm. Cell projection › axon

Expected tissue specificity：Expressed in all tissues examined

Summary: This gene encodes a helicase superfamily member that binds a specific DNA sequence from the immunoglobulin mu chain switch region. Mutations in this gene lead to spinal muscle atrophy with respiratory distress type 1.

APPLICATION NOTE

Recommended dilution：

- **ELISA: Antibody specificity was verified by direct ELISA against the 3 immunogen peptides. A minimum titer of 1/30000 has been determined. Appropriate specificity controls were run.**
- **WB: 1/5000.**
- **IF: 1/500.**

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, 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.

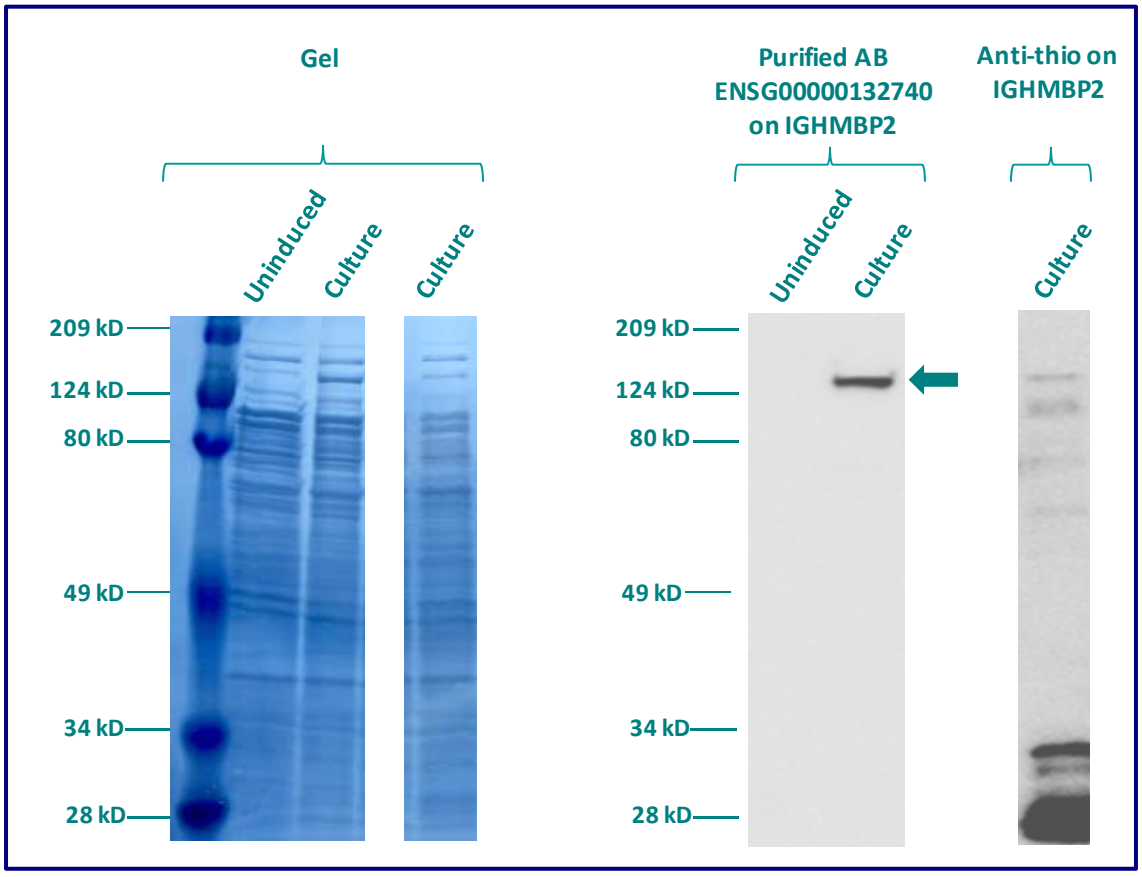
WESTERN BLOT ON RECOMBINANT PROTEIN

The purified antibody ENSG00000132740 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 IGHMBP2 ： 123.1kDa (109.1kDa + another 14kDa for the tag).



Gel concentration: 5%

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

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

- **Dilute the purified antibody ENSG00000132740 at 1:5000**
- **Dilute the anti-thio at 1:5000**

60 minutes of incubation

2nd 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 DNA-binding protein SMUBP-2 (IGHMBP2) expression in 6 cells lines (HELA, 293T/17, Capan-2, SAOS-2, SH-SY5Y, Skin 3,44). The purified Antibody ENSG00000132740 has been tested at 1/500.

Red staining : cytoskeleton (microtubules/α-tubuline)

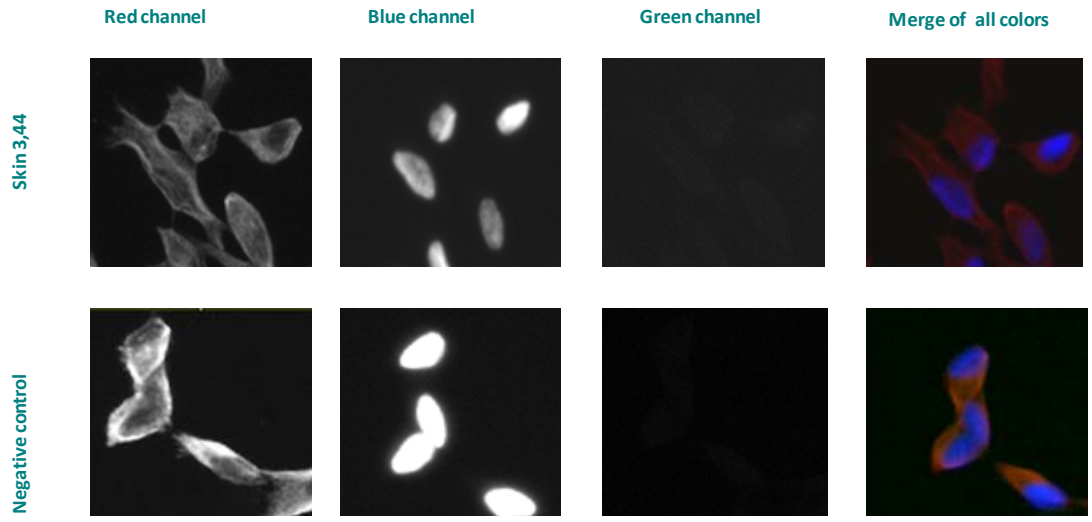
Blue staining : nucleus (Hoechst)

Green staining : anti- IGHMBP2 antibody (purified)

Expected subcellular location : Nucleus. Cytoplasm. Cell projection › axon

Note: Colocalizes with the traslation initiation factor EIF4G2

Expected tissue specificity : Expressed in all tissues examined



The different images obtained by double labeling immunofluorescence microscopy of Skin 3,44 (melanoma) cell line shows that IGHMBP2 is not detected in this cellular tissue under these conditions.

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

Remaining cell lines tested gave a negative result under these conditions.