

# Sp110 (Q-18): sc-79731

## BACKGROUND

Sp110 (speckled 110 kDa), also known as IPR1, VOD1, IFI41 (interferon-induced protein 41, 30 kDa) or IFI75 (interferon-induced protein 75, 52 kDa), is a phosphoprotein belonging to the SP-100/SP140 family of nuclear body components. Sp110 contains an HSR domain, a PHD-type zinc finger, a SAND domain and a bromodomain, and is believed to function as a transcriptional co-activator of nuclear hormone receptors. Induced by IFN- $\gamma$  and all-*trans* retinoic acid, Sp110 participates in immunoprotective mechanisms against pathogens. Mutations in the gene encoding SP110 can lead to hepatic venoocclusive disease with immunodeficiency (VODI), a disease characterized by T and B cell immunodeficiency, absent tissue plasma cells, absent lymph node germinal centers and severe hypogammaglobulinemia. Due to alternative splicing events, five isoforms exist for Sp110. Isoform 3, also known as Sp110b, interacts with the Hep C core protein.

## REFERENCES

1. Bloch, D.B., et al. 2000. Sp110 localizes to the PML-SP-100 nuclear body and may function as a nuclear hormone receptor transcriptional co-activator. *Mol. Cell. Biol.* 20: 6138-6146.
2. Regad, T. and Chelbi-Alix, M.K. 2001. Role and fate of PML nuclear bodies in response to interferon and viral infections. *Oncogene* 20: 7274-7286.
3. Watashi, K., et al. 2003. Modulation of retinoid signaling by a cytoplasmic viral protein via sequestration of Sp110b, a potent transcriptional co-repressor of retinoic acid receptor, from the nucleus. *Mol. Cell. Biol.* 23: 7498-7509.
4. Hu, Y., et al. 2004. From mice to humans: identification of commonly deregulated genes in mammary cancer via comparative SAGE studies. *Cancer Res.* 64: 7748-7755.
5. Nicewonger, J., et al. 2004. Epstein-Barr virus (EBV) SM protein induces and recruits cellular Sp110b to stabilize mRNAs and enhance EBV lytic gene expression. *J. Virol.* 78: 9412-9422.
6. Warren, E.H., et al. 2006. An antigen produced by splicing of noncontiguous peptides in the reverse order. *Science* 313: 1444-1447.

## CHROMOSOMAL LOCATION

Genetic locus: SP110 (human) mapping to 2q37.1.

## SOURCE

Sp110 (Q-18) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of Sp110 of human origin.

## PRODUCT

Each vial contains 200  $\mu$ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-79731 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## RESEARCH USE

For research use only, not for use in diagnostic procedures.

## APPLICATIONS

Sp110 (Q-18) is recommended for detection of Sp110 of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

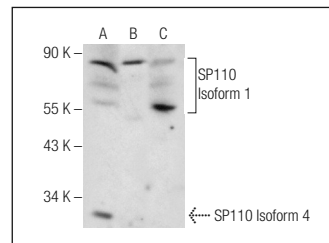
Suitable for use as control antibody for Sp110 siRNA (h): sc-76542, Sp110 shRNA Plasmid (h): sc-76542-SH and Sp110 shRNA (h) Lentiviral Particles: sc-76542-V.

Molecular Weight of Sp110 isoforms 1/5: 78/62 kDa.

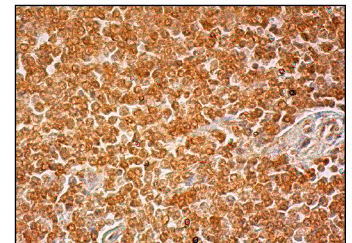
Molecular Weight of Sp110 isoforms IFI75/Sp110b/IFI41: 46/62/29 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204, Daudi whole cell lysate:

## DATA



Sp110 (Q-18): sc-79731. Western blot analysis of Sp110 expression in Jurkat (A) and Daudi (B) whole cell lysates and HL-60 nuclear extract (C).



Sp110 (Q-18): sc-79731. Immunoperoxidase staining of formalin fixed, paraffin-embedded human spleen tissue showing nuclear staining of cells in white pulp.

## STORAGE

Store at 4° C, \*\*DO NOT FREEZE\*\*. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.



Try **Sp110 (B-10): sc-376741** or **Sp110 (JR-16): sc-100770**, our highly recommended monoclonal alternatives to Sp110 (Q-18).