

# Sp110 (JR-16): sc-100770

## 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.

## CHROMOSOMAL LOCATION

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

## SOURCE

Sp110 (JR-16) is a mouse monoclonal antibody raised against recombinant Sp110 of human origin.

## PRODUCT

Each vial contains 100  $\mu$ g IgG<sub>2a</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

## STORAGE

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

## APPLICATIONS

Sp110 (JR-16) 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 isoform 1: 78 kDa.

Molecular Weight of IFI75: 46 kDa.

Molecular Weight of Sp110b: 62 kDa.

Molecular Weight of IFI41: 29 kDa.

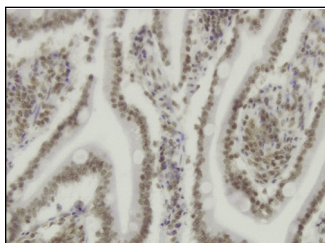
Molecular Weight of IFI5: 62 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204.

## RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG $\kappa$  BP-HRP: sc-516102 or m-IgG $\kappa$  BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgG $\kappa$  BP-FITC: sc-516140 or m-IgG $\kappa$  BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850. 4) Immunohistochemistry: use m-IgG $\kappa$  BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

## DATA



Sp110 (JR-16): sc-100770. Immunoperoxidase staining of formalin-fixed, paraffin-embedded human small intestine tissue showing nuclear localization.

## SELECT PRODUCT CITATIONS

1. Marquardsen, F.A., et al. 2017. Detection of Sp110 by flow cytometry and application to screening patients for veno-occlusive disease with immunodeficiency. *J. Clin. Immunol.* 37: 707-714.

## RESEARCH USE

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

## PROTOCOLS

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