SANTA CRUZ BIOTECHNOLOGY, INC.

Sp110 (M-190): sc-98365

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Sp110 (speckled 110 kDa), also known as IPR1, VODI, 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-γ 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 (mouse) mapping to 1 C5.

SOURCE

Sp110 (M-190) is a rabbit polyclonal antibody raised against amino acids 61-242 mapping near the N-terminus of Sp110 of mouse origin.

PRODUCT

Each vial contains 200 µg IgG 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 (M-190) is recommended for detection of Sp110 of mouse and rat origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (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 (m): sc-76543, Sp110 shRNA Plasmid (m): sc-76543-SH and Sp110 shRNA (m) Lentiviral Particles: sc-76543-V.

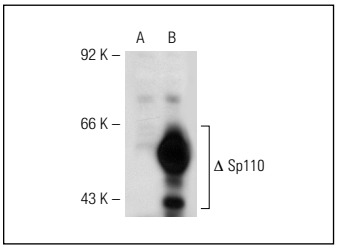
Molecular Weight of Sp110: 110 kDa.

Positive Controls: Sp110 (m): 293T Lysate: sc-123724.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



Sp110 (M-190): sc-98365. Western blot analysis of Sp110 expression in non-transfected: sc-117752 (**A**) and truncated mouse Sp110 transfected: sc-123724 (**B**) 293T whole cell lysates.

RESEARCH USE

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

MONOS Satisfaction Guaranteed

Try **Sp110 (A-7): sc-376345**, our highly recommended monoclonal alternative to Sp110 (M-190).