# SANTA CRUZ BIOTECHNOLOGY, INC.

# PSIP1 (26): sc-136227



# BACKGROUND

PSIP1 (PC4 and SFRS1 interacting protein 1), also known as CLL-associated antigen KW-7, PSIP2, LEDGF (lens epithelium-derived growth factor), PAIP, DFS70 (dense fine speckles 70 kDa protein) or transcriptional coactivator p75/p52, is a 530 amino acid nuclear protein that associates with chromatin throughout the cell cycle. Functioning as a transcriptional coactivator that complexes with the human immunodeficiency virus type 1 (HIV-1) integrase, PSIP1 is essential for the nuclear localization and chromosomal association of viral proteins. As the primary integrase-to-chromatin tethering factor for HIV-1, PSIP1 is responsible for the cellular trafficking of lentiviral integrases. During apoptosis, PSIP1 is cleaved at three sites by caspase-3 and caspase-7, contributing to the pathogenesis of atopic disorders.

# REFERENCES

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- 2. Singh, D.P., et al. 2000. Lens epithelium-derived growth factor (LEDGF/p75) and p52 are derived from a single gene by alternative splicing. Gene 242: 265-273.
- 3. Krackhardt, A.M., et al. 2002. Identification of tumor-associated antigens in chronic lymphocytic leukemia by SEREX. Blood 100: 2123-2131.
- 4. Wu, X., et al. 2002. Caspase cleavage of the nuclear autoantigen LEDGF/p75 abrogates its pro-survival function: implications for autoimmunity in atopic disorders. Cell Death Differ. 9: 915-925.
- 5. Cherepanov, P., et al. 2003. HIV-1 integrase forms stable tetramers and associates with LEDGF/p75 protein in human cells. J. Biol. Chem. 278: 372-381.
- 6. Cherepanov, P., et al. 2004. Identification of an evolutionarily conserved domain in human lens epithelium-derived growth factor/transcriptional co-activator p75 (LEDGF/p75) that binds HIV-1 integrase. J. Biol. Chem. 279: 48883-48892.
- 7. Llano, M., et al. 2004. Lens epithelium-derived growth factor/p75 prevents proteasomal degradation of HIV-1 integrase. J. Biol. Chem. 279: 55570-55577.
- 8. Llano, M., et al. 2004. LEDGF/p75 determines cellular trafficking of diverse lentiviral but not murine oncoretroviral integrase proteins and is a component of functional lentiviral preintegration complexes. J. Virol. 78: 9524-9537.
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#### **CHROMOSOMAL LOCATION**

Genetic locus: PSIP1 (human) mapping to 9p22.3.

# SOURCE

PSIP1 (26) is a mouse monoclonal antibody raised against amino acids 85-188 of PSIP1 of human origin.

# PRODUCT

Each vial contains 200  $\mu$ g lgG<sub>1</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

# **APPLICATIONS**

PSIP1 (26) is recommended for detection of PSIP1 of human 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)] and immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500).

Suitable for use as control antibody for PSIP1 siRNA (h): sc-44991, PSIP1 shRNA Plasmid (h): sc-44991-SH and PSIP1 shRNA (h) Lentiviral Particles: sc-44991-V.

Molecular Weight of PSIP1 p52 isoform: 38 kDa.

Molecular Weight of PSIP1 p75 isoform: 60 kDa.

Positive Controls: K-562 whole cell lysate: sc-2203, HEL 92.1.7 cell lysate: sc-2270 or NTERA-2 cl.D1 whole cell lysate: sc-364181.

# **RECOMMENDED SUPPORT REAGENTS**

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-lgG $\kappa$  BP-HRP: sc-516102 or m-lgG $\kappa$  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-IgGk BP-FITC: sc-516140 or m-IgGk BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

#### DATA



PSIP1 (26): sc-136227. Western blot analysis of PSIP1 expression in K-562 (A), HEL 92.1.7 (B) and NTERA-2 cl.D1 (C) whole cell lysates and human testis tissue extract (D). Detection reagent used: m-lgG $\kappa$  BP-HRP: sc-516102.

# **STORAGE**

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

# **RESEARCH USE**

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