SANTA CRUZ BIOTECHNOLOGY, INC.

SV40 T Ag (Pab 430): sc-53449

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The Power to Question

BACKGROUND

Simian virus SV40 has provided an important model for studies of cellular mechanisms involved in a malignant transformation. The major SV40 translational products include the Large T antigen and the Small T antigen, both of which are encoded by the early region of the SV40 viral genome. The Large T antigen complexes with the p53 suppressor gene, resulting in its functional inactivation, thus promoting cell transformation. In addition, SV40 Large T antigen binds DNA polymerase and the transcription factor AP-2. It also forms complexes with a second tumor supressor gene-encoded protein, Rb 105. Binding of SV40 T antigen is specific for the "pocket" domain of Rb p105, which is also the binding site for the E2F cellular transcription factor.

REFERENCES

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4. Gurney, E.G., Tamowski, S. and Deppert, W. 1986. Antigenic binding sites of monoclonal antibodies specific for simian virus 40 large T antigen. J. Virol. 57: 1168-1172.
5. Mitchell, P.J., Wang, C. and Tjian, R. 1987. Positive and negative regulation of transcription *in vitro:* enhancer-binding protein AP-2 is inhibited by SV40 T antigen. Cell 50: 847-861.
6. DeCaprio, J.A., Ludlow, J.W., Figge, J., Shew, J.Y., Huang, C.M., Lee, W.H., Marsillo, E., Paucha, E. and Livingston, D.M. 1988. SV40 large T antigen forms a specific complex with the product of the retinoblastoma susceptibility gene. Cell 54: 275-283.
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SOURCE

SV40 T Ag (Pab 430) is an affinity purified mouse monoclonal antibody raised against a peptide mapping raised against SV40 transformed cells of mouse origin of SV40 T Ag of SV40 origin.

PRODUCT

Each vial contains 200 µg IgG_3 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

RESEARCH USE

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

APPLICATIONS

SV40 T Ag (Pab 430) is recommended for detection of Large T antigen of SV40 origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) and immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)].

Molecular Weight of small SV40 T Ag: 21 kDa.

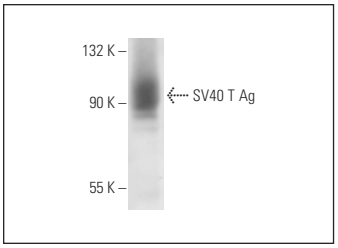
Molecular Weight of large SV40 T Ag: 94 kDa.

Positive Controls: GM637 whole cell lysate: sc-364361.

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ 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).

DATA



SV40 T Ag (Pab 430): sc-53449. Western blot analysis of SV40 T Ag expression in GM637 whole cell lysate.

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 for detailed protocols and support products.

CONJUGATES

See **SV40 T Ag (Pab 101): sc-147** for SV40 T Ag antibody conjugates, including AC, HRP, FITC, PE, and Alexa Fluor® 488, 546, 594, 647, 680 and 790.