

HTLV-1 Tax (vC-12): sc-34097

BACKGROUND

HTLV-1 causes two distinct human diseases, HTLV-1-associated myelopathy/tropical spastic paraparesis (HAM/TSP) and adult T cell leukemia/lymphoma (ATL). The glycoproteins encoded by the env gene of HTLV-1 are essential for interaction with an unidentified receptor on the surface of target cells and play a crucial role in the infection process. Encoded by HTLV-1 Tax is a phospho-oncoprotein that functions as a transcriptional activator. Tax has the ability to modulate the expression and function of many cellular genes and has been crucial to understanding the HTLV-1-mediated transformation of cells. In activating cellular gene expression, Tax impinges upon several cellular signal-transduction pathways, including the CREB/ATF and NF κ B pathways. In addition, Tax deregulates the expression of downstream genes, which mediate cell cycle control.

REFERENCES

1. Kitze, B., Usuku, K., Yamano, Y., Yashiki, S., Nakamura, M., Fujiyoshi, T., Izumo, S., Osame, M. and Sonoda, S. 1998. Human CD4⁺ T lymphocytes recognize a highly conserved epitope of human T lymphotropic virus type 1 (HTLV-1) ENV gp21 restricted by HLA DRB1*0101. Clin. Exp. Immunol. 111: 278-285.
2. Jinno, A., Haraguchi, Y., Shiraki, H. and Hoshino, H. 1999. Inhibition of cell-free human T cell leukemia virus type 1 infection at a postbinding step by the synthetic peptide derived from an ectodomain of the gp21 transmembrane glycoprotein. J. Virol. 73: 9683-9689.
3. Tallet, B., Astier-Gin, T., Moynet, D., Londos-Gagliardi, D. and Guillemain, B. 2001. Sequence variations in the amino- and carboxy-terminal parts of the surface envelope glycoprotein of HTLV type 1 induce specific neutralizing antibodies. AIDS Res. Hum. Retroviruses 17: 337-348.
4. Carter, R.S., Geyer, B.C., Xie, M., Acevedo-Suarez, C.A. and Ballard, D.W. 2001. Persistent activation of NF κ B by the Tax transforming protein involves chronic phosphorylation of I κ B kinase subunits IKK β and IKK γ . J. Biol. Chem. 276: 24445-24448.
5. Jeang, K. 2001. Functional activities of the human T cell leukemia virus type I Tax oncoprotein: cellular signaling through NF κ B. Cytokine Growth Factor Rev. 12: 207-217.

SOURCE

HTLV-1 Tax (vC-12) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of Tax of HTLV-1 origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-34097 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

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

APPLICATIONS

HTLV-1 Tax (vC-12) is recommended for detection of Tax of HTLV-1 origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Molecular Weight of HTLV-1 Tax: 40 kDa.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker[™] compatible donkey anti-goat IgG-HRP: sc-2033 (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.

RESEARCH USE

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

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.



Try **HTLV-1 Tax (1A3): sc-57872**, our highly recommended monoclonal alternative to HTLV-1 Tax (vC-12).