

# HTLV-1 p24 (6G9): sc-53891

## BACKGROUND

Human T-lymphotropic virus (HTLV) is a single-stranded RNA retrovirus that causes T cell leukemia and T cell lymphoma in human adults and may be involved in a few demyelinating diseases. HTLV-1 is a member of the HTLV family that is associated with several kinds of diseases, including HTLV-1-associated myelopathy, infection with *Strongyloides stercoralis* and a virus cancer link to leukemia. HTLV-1 transmission probably occurs via sexual contact, childbirth and exposure to contaminated blood. HTLV-1 p19 and p24 are major core viral proteins encoded by the gag gene. Differential antibody responsiveness to p19 gag can be used in the serological discrimination between HTLV-1 and HTLV-2.

## REFERENCES

- Greaves, M.F., et al. 1984. Human T cell leukemia virus (HTLV) in the United Kingdom. *Int. J. Cancer* 33: 795-806.
- Lal, R.B., et al. 1991. Differential antibody responsiveness to p19 gag results in serological discrimination between human T-lymphotropic virus type I and type II. *J. Med. Virol.* 35: 232-236.
- Ebersold, A., et al. 1993. Production and characterization of a monoclonal antibody directed against HTLV-1 p19: use in a specific capture enzyme immunoassay. *Hybridoma* 12: 185-195.
- Takahashi, H. 1993. Molecular characterization of human T cell lymphotropic virus type II. *Hokkaido Igaku Zasshi* 68: 485-495.
- Zrein, M., et al. 1998. Assessment of a new immunoassay for serological confirmation and discrimination of human T cell lymphotropic virus infections. *Clin. Diagn. Lab. Immunol.* 5: 45-49.
- Ding, Y.S., et al. 1998. Substrates and inhibitors of human T cell leukemia virus type I protease. *Biochemistry* 37: 17514-17518.
- Xie, L. and Green, P.L. 2005. Envelope is a major viral determinant of the distinct *in vitro* cellular transformation tropism of human T cell leukemia virus type 1 (HTLV-1) and HTLV-2. *J. Virol.* 79: 14536-14545.

## SOURCE

HTLV-1 p24 (6G9) is a mouse monoclonal antibody raised against HTLV-1 infected cells.

## PRODUCT

Each vial contains 200 µg IgG<sub>1</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

HTLV-1 p24 (6G9) is available conjugated to agarose (sc-53891 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-53891 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-53891 PE), fluorescein (sc-53891 FITC), Alexa Fluor<sup>®</sup> 488 (sc-53891 AF488), Alexa Fluor<sup>®</sup> 546 (sc-53891 AF546), Alexa Fluor<sup>®</sup> 594 (sc-53891 AF594) or Alexa Fluor<sup>®</sup> 647 (sc-53891 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor<sup>®</sup> 680 (sc-53891 AF680) or Alexa Fluor<sup>®</sup> 790 (sc-53891 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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## APPLICATIONS

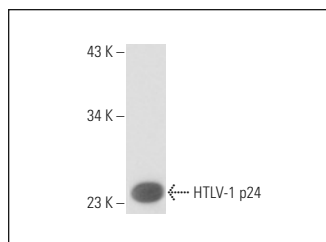
HTLV-1 p24 (6G9) is recommended for detection of HTLV-1 p24 by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)] and immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500).

Molecular Weight of HTLV-1 p24: 44 kDa.

## 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<sup>™</sup> Molecular Weight Standards: sc-2035, UltraCruz<sup>®</sup> 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-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz<sup>®</sup> Mounting Medium: sc-24941 or UltraCruz<sup>®</sup> Hard-set Mounting Medium: sc-359850.

## DATA



HTLV-1 p24 (6G9): sc-53891. Western blot analysis of HTLV-1 recombinant p24 core protein.

## SELECT PRODUCT CITATIONS

- Jinno-Oue, A., et al. 2013. Inhibitory effect of chondroitin sulfate type E on the binding step of human T-cell leukemia virus type 1. *AIDS Res. Hum. Retroviruses* 29: 621-629.
- Lockbaum, G.J., et al. 2021. Inhibiting HTLV-1 protease: a viable antiviral target. *ACS Chem. Biol.* 16: 529-538.
- Herrmann, D., et al. 2022. Molecular determinants of human T-cell leukemia virus type 1 Gag targeting to the plasma membrane for assembly. *J. Mol. Biol.* 434: 167609.

## 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.