

Adenovirus-2/5 E1A (A-3): sc-25292

BACKGROUND

The early region (E1) of the adenovirus genome, responsible for transforming activity, is localized within the leftmost 11% of the viral genome and consists of 2 transcriptional units, E1A and E1B. Region E1A is sufficient for partial transformation and immortalization of primary cells, whereas the E1B function is normally required for complete transformation. In addition to their essential role in transformation, E1A gene products are necessary for normal levels of transcription of the other early regions of the adenovirus genome during productive infection and are able to either activate or repress the transcription of specific cellular genes. E1A oncogene proteins form specific complexes with cellular proteins. These include the Rb protein, which is the product of the retinoblastoma gene, and the human cyclin A protein. E1A immunoprecipitates also contain the cyclin dependent kinase Cdk2.

REFERENCES

1. Gallimore, P.H., et al. 1974. Viral DNA in transformed cells. II. A study of the sequences of Adenovirus and DNA in nine lines of transformed rat cells using specific fragments of the viral genome. *J. Mol. Biol.* 89: 49-72.
2. Jones, N. and Shenk, T. 1979. An Adenovirus type 5 early gene function regulates expression of other early viral genes. *Proc. Natl. Acad. Sci. USA* 76: 3665-3669.
3. Berk, A.J., et al. 1979. Pre-early Adenovirus-5 gene product regulates synthesis of early viral messenger RNAs. *Cell* 17: 935-944.
4. Harlow, E., et al. 1985. Monoclonal antibodies specific for Adenovirus E1A proteins: extensive heterogeneity in the E1A products. *J. Virol.* 3: 533-546.
5. Whyte, P., et al. 1988. Association between an oncogene and an anti-oncogene: the Adenovirus E1A protein binds to the retinoblastoma susceptibility gene product. *Nature* 334: 124-129.
6. Giordano, A., et al. 1991. Cell cycle regulation of Histone H1 kinase activity associated with the adenoviral protein E1A. *Science* 253: 1271-1275.
7. Tsai, L.H., et al. 1991. Isolation of the human Cdk2 gene that encodes the cyclin A- and Adenovirus E1A-associated p33 kinase. *Nature* 353: 174-177.

SOURCE

Adenovirus-2/5 E1A (A-3) is a mouse monoclonal antibody raised against full length Adenovirus 13 S E1A fusion protein.

PRODUCT

Each vial contains 200 µg IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

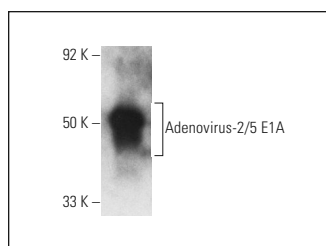
Adenovirus-2/5 E1A (A-3) is recommended for detection of E1A antigens of Adenovirus-2 and Adenovirus-5 by Western Blotting (starting dilution 1:100, dilution range 1:100-1:500), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Molecular Weight of Adenovirus-2/5 E1A: 48-54 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™ 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-IgGκ BP-FITC: sc-516140 or m-IgGκ 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



Adenovirus-2/5 E1A (A-3): sc-25292. Western blot analysis of polyhistidine-tagged recombinant Adenovirus-2/5 E1A.

SELECT PRODUCT CITATIONS

1. Carpenter, B.L., et al. 2015. Synthesis, characterization, and antimicrobial efficacy of photomicrobicidal cellulose paper. *Biomacromolecules* 16: 2482-2492.

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.

PROTOCOLS

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