



Adenovirus-2 E1A (13S): sc-4021

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 two 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

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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., Lee, F., Harrison, T., Williams, J. and Sharp, P.A. 1979. Pre-early Adenovirus 5 gene product regulates synthesis of early viral messenger RNAs. *Cell* 17: 935-944.
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5. Whyte, P. Buchkovich, K.J., Horowitz, J.M., Friend, S.H., Raybuck, M., Weinberg, R.A. and Harlow, E. 1988. Association between an oncogene and an anti-oncogene: the Adenovirus E1A protein binds to the retinoblastoma susceptibility gene product. *Nature* 334: 124-129.
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SOURCE

Adenovirus-2 E1A (13S) is expressed in *E. coli* as a 48-54 kDa polyhistidine tagged fusion protein corresponding to the full length Adenovirus-2 E1A transforming protein.

STORAGE

Store at -20° C; stable for one year from the date of shipment.

PRODUCT

Adenovirus-2 E1A (13S) is purified from bacterial lysates (> 98%) by Ni affinity chromatography; supplied as 50 µg in 1X PBS containing 5 mM DTT and 50% glycerol.

APPLICATIONS

Adenovirus-2 E1A (13S) is recommended for detection of Adenovirus-2 E1A by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000).

Molecular Weight of Adenovirus-2 E1A: 48-54 kDa.

SELECT PRODUCT CITATIONS

1. Fernandes, E.R. and Rooney, R.J. 1997. The Adenovirus E1A-regulated transcription factor E4F is generated from the human homolog of nuclear factor phiAP3. *Mol. Cell. Biol.* 17: 1890-1903.

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.