SANTA CRUZ BIOTECHNOLOGY, INC.

Adenovirus-2/5 E1A (13 S-5): sc-430

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.

SOURCE

Adenovirus-2/5 E1A (13 S-5) is a rabbit polyclonal antibody raised against full length Adenovirus 13 S E1A fusion protein.

PRODUCT

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

Available as agarose conjugate for immunoprecipitation, sc-430 AC, 500 µg/ 0.25 ml agarose in 1 ml.

APPLICATIONS

Adenovirus-2/5 E1A (13 S-5) is recommended for detection of E1A antigens of Adenovirus-2 and Adenovirus-5 origin 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)], 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 SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

SELECT PRODUCT CITATIONS

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4. Woo, R.A., et al. 2004. Activated oncogenes promote and cooperate with chromosomal instability for neoplastic transformation. Genes Dev. 18: 1317-1330.
5. Nemethova, M., et al. 2004. Transactivation of E2F-regulated genes by polyomavirus large T antigen: evidence for a two-step mechanism. Mol. Cell. Biol. 24: 10986-10994 .
6. Royds, J.A., et al. 2006. p53 promotes adenoviral replication and increases late viral gene expression. Oncogene 25: 1509-1520.
7. Ullman, A. and Reich, N. 2007. Adenovirus E4 ORF3 protein inhibits the interferon-mediated antiviral response. J. Virol. 81: 4744-4752.
8. Kadeppagari, R.K., et al. 2009. Adenovirus transforming protein E1A induces c-Myc in quiescent cells by a novel mechanism. J. Virol. 83: 4810-4822.
9. Radhakrishnan, S., et al. 2010. Efficacy of oncolytic mutants targeting pRb and p53 pathways is synergistically enhanced when combined with cytotoxic drugs in prostate cancer cells and tumor xenografts. Hum. Gene Ther. 21: 1311-1325.
10. Oberg, D., et al. 2010. Improved potency and selectivity of an oncolytic E1ACR2 and E1B19K deleted adenoviral mutant in prostate and pancreatic cancers. Clin. Cancer Res. 16: 541-553.
11. Bhattacharyya, M., et al. 2011. An oncolytic adenovirus defective in pRb-binding (dl922-947) can efficiently eliminate pancreatic cancer cells and tumors *in vivo* in combination with 5-FU or gemcitabine. Cancer Gene Ther. 18: 734-743.
12. Puig-Saus, C., et al. 2012. Adenovirus i-leader truncation bioselected against cancer-associated fibroblasts to overcome tumor stromal barriers. Mol. Ther. 20: 54-62.

RESEARCH USE

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