SANTA CRUZ BIOTECHNOLOGY, INC.

p-Adenovirus-2 E1A (Ser 89)-R: sc-16712-R

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

The early region (E1) of the Adenovirus genome, which is responsible for transforming activity, is localized within the leftmost 11% of the viral genome and consists of two transcriptional units, E1A and E1B. Human Adenovirus early region 1A (E1A) products act as transcriptional regulators and function by altering DNA synthesis and inducing cell transformation. Adenovirus E1A proteins are phosphorylated nuclear oncoproteins that derive transforming activity largely through interactions with cellular proteins, including the tumor suppressor p105/Rb-1, cyclin A, a regulatory subunit associated with p34Cdc2, and the related protein kinase p33Cdk2. Both Ser 89 and Ser 219 are the major E1A phosphorylation sites that are phosphorylated *in vitro* by p34Cdc2. Phosphorylation of Ser 89 does not affect E1A-mediated repression of the simian virus 40 enhancer or trans-activation of E3 promoter significantly, but it has an effect on transformation of primary rat kidney cells.

REFERENCES

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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.
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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.
8. Bell, S.A., et al. 2006. Equine Adenovirus 1 infection of hospitalised and healthy foals and horses. Equine Vet. J. 38: 379-381.
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SOURCE

p-Adenovirus-2 E1A (Ser 89)-R is a rabbit polyclonal antibody raised against a short amino acid sequence containing phosphorylated Ser 89 of Adenovirus-2 E1A of human origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-16712 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

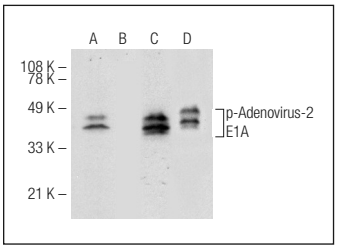
p-Adenovirus-2 E1A (Ser 89)-R is recommended for detection of Ser 89 phosphorylated E1A of Adenovirus-2 origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 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 p-Adenovirus-2 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 B Blocking Reagent: sc-2335 (use 50 mM NaF, sc-24988, as diluent), Western Blotting Luminol Reagent: sc-2048 and Lambda Phosphatase: sc-200312A. 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.

DATA



Western blot analysis of Adenovirus-2 E1A phosphorylation in untreated (**A**,**C**) and lambda protein phosphatase (sc-200312A) treated (**B**,**D**) HEK293 whole cell lysates. Antibodies tested include p-Adenovirus-2 E1A (Ser 89)-R: sc-16712-R (**A**,**B**) and Adenovirus-2 E1A (SPM229): sc-52982 (**C**,**D**).

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 or our catalog for detailed protocols and support products.