

# CREG (30R): sc-100695

## BACKGROUND

The adenovirus E1A protein both activates and represses gene expression to promote cellular proliferation and inhibit differentiation. CREG (cellular repressor of E1A-stimulated genes) is a cellular protein that antagonizes transcriptional activation and cellular transformation by E1A. CREG was initially isolated in a yeast two-hybrid screen due to its interaction with the TATA-binding protein, TBP. Binding sites for E2F, a key transcriptional regulator of cell cycle progression, are required for repression of the adenovirus E2 promoter by CREG, and CREG was shown to inhibit activation by E2F. CREG is broadly expressed in adult tissues and is regulated during embryonic development. CREG is a secreted glycoprotein which enhances differentiation of mouse embryonic stem cells and human NTERA-2 cells. CREG activity may contribute to the transcriptional control of cell growth and differentiation.

## REFERENCES

- Whyte, P., et al. 1989. Cellular targets for transformation by the adenovirus E1A proteins. *Cell* 56: 67-75.
- Stein, R.W., et al. 1990. Analysis of E1A-mediated growth regulation functions: binding of the 300-kilodalton cellular product correlates with E1A enhancer repression function and DNA synthesis-inducing activity. *J. Virol.* 64: 4421-4427.
- Weintraub, S.J., et al. 1995. Mechanism of active transcriptional repression by the retinoblastoma protein. *Nature* 375: 812-815.
- Veal, E., et al. 1998. A cellular repressor of E1A-stimulated genes that inhibits activation by E2F. *Mol. Cell. Biol.* 18: 5032-5041.
- Veal, E., et al. 2000. The secreted glycoprotein CREG enhances differentiation of NTERA-2 human embryonal carcinoma cells. *Oncogene* 19: 2120-2128.

## CHROMOSOMAL LOCATION

Genetic locus: CREG1 (human) mapping to 1q24.2.

## SOURCE

CREG (30R) is a mouse monoclonal antibody raised against recombinant CREG of human origin.

## PRODUCT

Each vial contains 100 µg IgG<sub>1</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

## STORAGE

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

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) for detailed protocols and support products.

## APPLICATIONS

CREG (30R) is recommended for detection of CREG of human 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), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for CREG siRNA (h): sc-106745, CREG shRNA Plasmid (h): sc-106745-SH and CREG shRNA (h) Lentiviral Particles: sc-106745-V.

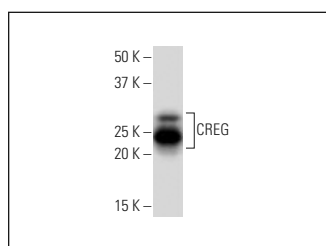
Molecular Weight of CREG: 24 kDa.

Positive Controls: HL-60 whole cell lysate: sc-2209.

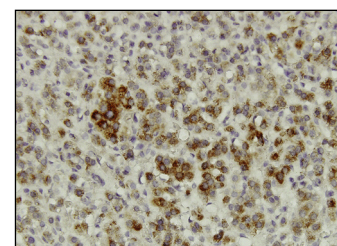
## RECOMMENDED SUPPORT REAGENTS

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. 4) Immunohistochemistry: use m-IgGκ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

## DATA



CREG (30R): sc-100695. Western blot analysis of CREG expression in HL-60 whole cell lysate.



CREG (30R): sc-100695. Immunoperoxidase staining of formalin-fixed, paraffin-embedded human adrenal gland tissue showing cytoplasmic localization.

## SELECT PRODUCT CITATIONS

- Liu, J., et al. 2021. CREG1 promotes lysosomal biogenesis and function. *Autophagy* 17: 4249-4265.
- Wu, M., et al. 2022. Hepatocyte-specific deletion of cellular repressor of E1A-stimulated genes 1 exacerbates alcohol-induced liver injury by activating stress kinases. *Int. J. Biol. Sci.* 18: 1612-1626.

## RESEARCH USE

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