

# c-Rel (B-4): sc-365694

## BACKGROUND

c-Rel is the cellular cognate of v-Rel, the avian reticuloendotheliosis virus strain T transforming gene. v-Rel encodes a phosphoprotein that is located in the cytoplasm of transformed spleen cells and in the nucleus of non-transformed fibroblasts, in contrast to the c-Rel protein, which is cytoplasmic. c-Rel has been shown to represent a constituent of the  $\kappa$ B site binding transcription factor NF $\kappa$ B, which plays a crucial role in the expression of immunoglobulin  $\kappa$  light chain gene. In contrast to c-Rel, v-Rel is truncated in its C-terminal transactivation domain and does not appear to function as a transcriptional transactivator. It has thus been postulated that v-Rel may interfere with the normal transcription of NF $\kappa$ B regulated genes and thus cause transformation by a mechanism analogous to v-ErbA, which binds to the thyroid hormone-responsive region in certain erythroid genes needed for differentiation, but cannot be activated by thyroid hormone.

## REFERENCES

- Theilen, G., et al. 1966. Biological studies with RE virus (strain T) that induces reticuloendotheliosis in turkeys, chickens, and Japanese quail. *J. Natl. Cancer Inst.* 37: 747-749.
- Franklin, R.B., et al. 1974. Isolation and characterization of reticuloendotheliosis virus transformed bone marrow cells. *Intervirology* 3: 342-352.
- Gilmore, T.D., et al. 1986. Different localization of the product of the v-rel oncogene in chicken fibroblasts and spleen cells correlates with transformation by REV-T. *Cell* 44: 791-800.
- Sassone-Corsi, P., et al. 1988. Transcriptional autoregulation of the proto-oncogene fos. *Nature* 334: 314-319.
- Hannink, M., et al. 1989. Transactivation of gene expression by nuclear and cytoplasmic rel proteins. *Mol. Cell. Biol.* 9: 4323-4336.

## CHROMOSOMAL LOCATION

Genetic locus: REL (human) mapping to 2p16.1; Rel (mouse) mapping to 11 A3.2.

## SOURCE

c-Rel (B-4) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 489-524 within the C-terminus of c-Rel of mouse origin.

## PRODUCT

Each vial contains 200  $\mu$ g IgG<sub>3</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin. Also available as TransCruz reagent for Gel Supershift and ChIP applications, sc-365694 X, 200  $\mu$ g/0.1 ml.

Blocking peptide available for competition studies, sc-365694 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

## STORAGE

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

## APPLICATIONS

c-Rel (B-4) is recommended for detection of c-Rel p75 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ g 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).

Suitable for use as control antibody for c-Rel siRNA (h): sc-29857, c-Rel siRNA (m): sc-29858, c-Rel shRNA Plasmid (h): sc-29857-SH, c-Rel shRNA Plasmid (m): sc-29858-SH, c-Rel shRNA (h) Lentiviral Particles: sc-29857-V and c-Rel shRNA (m) Lentiviral Particles: sc-29858-V.

c-Rel (B-4) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

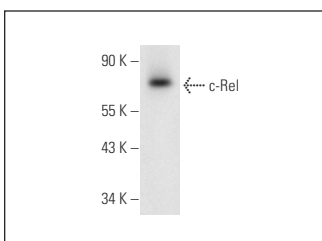
Molecular Weight of c-Rel: 75 kDa.

Positive Controls: RAW 264.7 whole cell lysate: sc-2211, MM-142 cell lysate: sc-2246 or SP2/0 whole cell lysate: sc-364795.

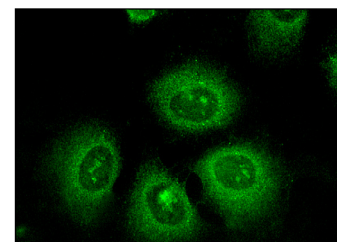
## RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG $\kappa$  BP-HRP: sc-516102 or m-IgG $\kappa$  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-IgG $\kappa$  BP-FITC: sc-516140 or m-IgG $\kappa$  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



c-Rel (B-4): sc-365694. Western blot analysis of c-Rel expression in SP2/0 whole cell lysate.



c-Rel (B-4): sc-365694. Immunofluorescence staining of methanol-fixed HeLa cells showing cytoplasmic localization.

## RESEARCH USE

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



See **c-Rel (B-6): sc-6955** for c-Rel antibody conjugates, including AC, HRP, FITC, PE, and Alexa Fluor® 488, 546, 594, 647, 680 and 790.