

# IFN- $\kappa$ (C-20): sc-26218

## BACKGROUND

Type I interferons (IFNs) include IFN- $\alpha$ , IFN- $\beta$ , IFN- $\gamma$ , IFN- $\delta$ , IFN- $\omega$  and IFN- $\kappa$ . IFN- $\alpha$  and - $\beta$ . These cytokines induce potent anti-viral activity. IFN- $\alpha$  and - $\beta$  exert a variety of other biological effects, including anti-tumor and immunomodulatory activities. IFN- $\omega$  is a component of natural mixtures of IFN species produced by virus-induced leukocytes or Burkitt's lymphoma cells. IFN- $\kappa$  is selectively expressed in epidermal keratinocytes. IFN- $\kappa$  is upregulated in response to IFN- $\gamma$ , IFN- $\beta$  viral infection and double-stranded RNA. IFN- $\kappa$  may play a role in regulating immune cell function. In both monocytes and dendritic cells, IFN- $\kappa$  induction stimulates the release of several cytokines. The gene encoding human IFN- $\kappa$  maps to the short arm of chromosome 9.

## REFERENCES

- Adolf, G.R. 1987. Antigenic structure of human interferon  $\omega$ 1 (interferon  $\alpha$  II1): comparison with other human interferons. *J. Gen. Virol.* 68: 1669-1676.
- Hussain, M., Gill, D.S., and Liao, M.J. 1996. Identification of interferon- $\alpha$  7, - $\alpha$  14, and - $\alpha$  21 variants in the genome of a large human population. *J. Interferon Cytokine Res.* 16: 853-859.
- Mire-Sluis, A.R., Page, L.A., Meager, A., Igaki, J., Lee, J., Lyons, S., and Thorpe, R. 1996. An anti-cytokine bioactivity assay for interferons- $\alpha$ - $\beta$  and - $\omega$ . *J. Immunol. Methods* 195: 55-61.
- LaFleur, D.W., Nardelli, B., Tsareva, T., Mather, D., Feng, P., Semenuk, M., Taylor, K., Buergin, M., Chinchilla, D., Roshke, V., Chen, G., Ruben, S.M., Pitha, P.M., Coleman, T.A., and Moore, P.A. 2001. Interferon- $\kappa$  a novel type I interferon expressed in human keratinocytes. *J. Biol. Chem.* 276: 39765-39771.
- Nardelli, B., Zaritskaya, L., Semenuk, M., Cho, Y.H., LaFleur, D.W., Shah, D., Ullrich, S., Girolomoni, G., Albanesi, C., and Moore, P.A. 2002. Regulatory effect of IFN- $\kappa$ , a novel type I IFN, on cytokine production by cells of the innate immune system. *J. Immunol.* 169: 4822-4830.

## CHROMOSOMAL LOCATION

Genetic locus: IFNK (human) mapping to 9p21.2.

## SOURCE

IFN- $\kappa$  (C-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of IFN- $\kappa$  of human origin.

## PRODUCT

Each vial contains 100  $\mu$ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-26218 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## STORAGE

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

## APPLICATIONS

IFN- $\kappa$  (C-20) is recommended for detection of IFN- $\kappa$  of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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 IFN- $\kappa$  siRNA (h): sc-39608, IFN- $\kappa$  shRNA Plasmid (h): sc-39608-SH and IFN- $\kappa$  shRNA (h) Lentiviral Particles: sc-39608-V.

## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (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) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

## RESEARCH USE

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

## PROTOCOLS

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