

## Tyk 2 (C-20): sc-169

### BACKGROUND

Tyk 2 belongs to the family of non-receptor Janus tyrosine kinases, which regulate a spectrum of cellular functions occurring downstream of activated cytokine receptors in the lympho-hematopoietic system. Immunological stimuli, such as interferons and cytokines, recruit Stat transcription factors to the cytokine receptor where Tyk 2 is associated. Tyk 2 then phosphorylates proximal Stat factors, which subsequently dimerize, translocate to the nucleus and bind to *cis* elements upstream of target gene promoters to regulating transcription. The canonical JAK/Stat pathway is integral to maintaining a normal immune system by stimulating proliferation, differentiation, survival and host resistance to pathogens. Cytokine induced pro-inflammatory responses are attractive targets for anti-inflammatory therapies, specifically at the level of JAK/Stat signaling.

### CHROMOSOMAL LOCATION

Genetic locus: TYK2 (human) mapping to 19p13.2; Tyk2 (mouse) mapping to 9 A3.

### SOURCE

Tyk 2 (C-20) is available as either rabbit (sc-169) or goat (sc-169-G) affinity purified polyclonal antibody raised against a peptide mapping at the C-terminus of Tyk 2 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-169 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

Available as agarose (sc-169 AC) conjugate for immunoprecipitation, 500 µg/0.25 ml agarose in 1 ml.

### APPLICATIONS

Tyk 2 (C-20) is recommended for detection of Tyk 2 of mouse, rat and 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Tyk 2 (C-20) is also recommended for detection of Tyk 2 in additional species, including porcine.

Suitable for use as control antibody for Tyk 2 siRNA (h): sc-36764, Tyk 2 siRNA (m): sc-36765, Tyk 2 shRNA Plasmid (h): sc-36764-SH, Tyk 2 shRNA Plasmid (m): sc-36765-SH, Tyk 2 shRNA (h) Lentiviral Particles: sc-36764-V and Tyk 2 shRNA (m) Lentiviral Particles: sc-36765-V.

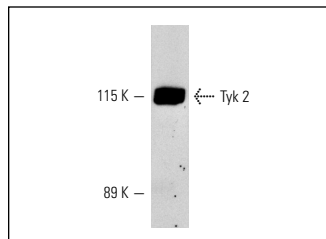
Molecular Weight of Tyk 2: 115/130 kDa.

Positive Controls: NIH/3T3 whole cell lysate: sc-2210, Jurkat whole cell lysate: sc-2204 or A-431 whole cell lysate: sc-2201.

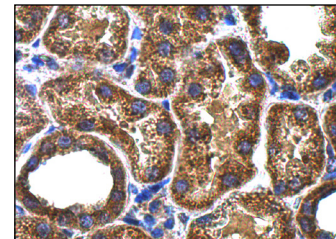
### STORAGE

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

### DATA



Tyk 2 (C-20): sc-169. Western blot analysis of Tyk 2 expression in NIH/3T3 mouse cells.



Tyk 2 (C-20): sc-169. Immunoperoxidase staining of formalin fixed, paraffin-embedded human kidney tissue showing cytoplasmic staining of cells in Glomeruli and Tubules.

### SELECT PRODUCT CITATIONS

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- Welham, M.J., et al. 1995. Interleukin-13 signal transduction in lymphohematopoietic cells. Similarities and differences in signal transduction with interleukin-4 and Insulin. *J. Biol. Chem.* 270: 12286-12296.
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- Ma, D., et al. 2009. Antiviral effect of interferon  $\lambda$  against West Nile virus. *Antiviral Res.* 83: 53-60.
- Caldas-Lopes, E., et al. 2009. Hsp90 inhibitor PU-H71, a multimodal inhibitor of malignancy, induces complete responses in triple-negative breast cancer models. *Proc. Natl. Acad. Sci. USA* 106: 8368-8373.
- Mutocheluh, M., et al. 2011. Kaposi's sarcoma-associated herpesvirus viral interferon regulatory factor-2 inhibits type 1 interferon signalling by targeting interferon-stimulated gene factor-3. *J. Gen. Virol.* 92: 2394-2398.

### RESEARCH USE

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



Try **Tyk 2 (C-8): sc-5271** or **Tyk 2 (H-4): sc-166686**, our highly recommended monoclonal alternatives to Tyk 2 (C-20).