

# IL-17F (D-2): sc-514191

## BACKGROUND

The proinflammatory cytokine Interleukin 17 (IL-17) is produced by activated T cells to elicit potent cellular responses. IL-17 is secreted as a disulfide-linked homodimeric glycoprotein. A human IL-17 homolog IL-17E is a ligand for EV127/IL-17BR, which is also known as IL-17 receptor homolog 1. IL-17E mRNA is detected at very low levels in several peripheral tissues. IL-17E induces the activation of NF $\kappa$ B and stimulates the production of the proinflammatory chemokine IL-8. In addition, IL-17E has catabolic activity on human articular cartilage. IL-17E is a unique pleiotropic cytokine that may be an important mediator of inflammatory and immune responses. Another homolog of IL-17, IL-17F, is a secreted cytokine expressed only in activated CD4<sup>+</sup> T cells and activated monocytes. IL-17F stimulates the production of other cytokines such as IL-6, IL-8 and granulocyte colony-stimulating factor, and regulates cartilage matrix turnover.

## REFERENCES

1. Fossiez, F., et al. 1996. T cell interleukin-17 induces stromal cells to produce proinflammatory and hematopoietic cytokines. *J. Exp. Med.* 183: 2593-2603.
2. Lee, J., et al. 2001. IL-17E, a novel proinflammatory ligand for the IL-17 receptor homolog IL-17R $\alpha$ 1. *J. Biol. Chem.* 276: 1660-1664.
3. Starnes, T., et al. 2001. Cutting edge: IL-17F, a novel cytokine selectively expressed in activated T cells and monocytes, regulates angiogenesis and endothelial cell cytokine production. *J. Immunol.* 167: 4137-4140.
4. Pan, G., et al. 2001. Forced expression of murine IL-17E induces growth retardation, jaundice, a Th2-biased response, and multiorgan inflammation in mice. *J. Immunol.* 167: 6559-6567.

## CHROMOSOMAL LOCATION

Genetic locus: Il17f (mouse) mapping to 1 A4.

## SOURCE

IL-17F (D-2) is a mouse monoclonal antibody raised against amino acids 27-77 mapping near the N-terminus of IL-17F of mouse origin.

## PRODUCT

Each vial contains 200  $\mu$ g IgG<sub>2a</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

IL-17F (D-2) is available conjugated to agarose (sc-514191 AC), 500  $\mu$ g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-514191 HRP), 200  $\mu$ g/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-514191 PE), fluorescein (sc-514191 FITC), Alexa Fluor<sup>®</sup> 488 (sc-514191 AF488), Alexa Fluor<sup>®</sup> 546 (sc-514191 AF546), Alexa Fluor<sup>®</sup> 594 (sc-514191 AF594) or Alexa Fluor<sup>®</sup> 647 (sc-514191 AF647), 200  $\mu$ g/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor<sup>®</sup> 680 (sc-514191 AF680) or Alexa Fluor<sup>®</sup> 790 (sc-514191 AF790), 200  $\mu$ g/ml, for Near-Infrared (NIR) WB, IF and FCM.

## PROTOCOLS

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

## APPLICATIONS

IL-17F (D-2) is recommended for detection of IL-17F of mouse and rat 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).

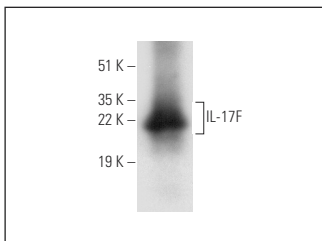
Suitable for use as control antibody for IL-17F siRNA (m): sc-146204, IL-17F shRNA Plasmid (m): sc-146204-SH and IL-17F shRNA (m) Lentiviral Particles: sc-146204-V.

Positive Controls: mouse small intestine extract: sc-364252.

## 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<sup>™</sup> Molecular Weight Standards: sc-2035, UltraCruz<sup>®</sup> 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<sup>®</sup> Mounting Medium: sc-24941 or UltraCruz<sup>®</sup> Hard-set Mounting Medium: sc-359850.

## DATA



IL-17F (D-2): sc-514191. Western blot analysis of IL-17F expression in mouse small intestine tissue extract.

## SELECT PRODUCT CITATIONS

1. Takeoka, S., et al. 2020. Calcipotriol and betamethasone dipropionate exhibit different immunomodulatory effects on imiquimod-induced murine psoriasisiform dermatitis. *J. Dermatol.* 47: 155-162.

## 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.

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