

# Fc $\epsilon$ R $\gamma$ (FL-86): sc-292848

## BACKGROUND

IgE Fc Receptor I binds to the Fc region of immunoglobulins  $\epsilon$  chain with high affinity, and is responsible for initiating the allergic response. Binding of allergen to receptor-bound IgE leads to cell activation and the release of mediators such as histamines, responsible for the manifestations of allergy. IgE Fc Receptor I also induces the secretion of important lymphokines, effectors of the hypersensitivity response. It is a tetramer of a heavily glycosylated  $\alpha$  chain, a  $\beta$  chain, and two disulfide linked  $\gamma$  chains. The  $\gamma$  chains from Fc  $\epsilon$  RI are also subunits of other Fc receptors. The  $\gamma$  subunit is thought to be functionally significant in allowing the IgE Fc receptor to reach the cell surface. The cytoplasmic domains of the  $\beta$  and  $\gamma$  subunits each contain a conserved consensus sequence, ITAM, (immunoreceptor tyrosine activation motif). Phosphorylation of a pair of conserved tyrosine residues within this motif is required for signal transduction in mast cells and other hemopoietic cell types.

## REFERENCES

- Hackel, W., et al. 1968. Foreign body as cause of a large urethral calculus and diverticulum formation. Z. Urol. Nephrol. 61: 827-829.
- Shimizu, A., et al. 1988. Human and rat mast cell high-affinity immunoglobulin E receptors: characterization of putative  $\alpha$ -chain gene products. Proc. Natl. Acad. Sci. USA 85: 1907-1911.

## CHROMOSOMAL LOCATION

Genetic locus: FCER1G (human) mapping to 1q23.3; Fc $\epsilon$ r1g (mouse) mapping to 1 H3.

## SOURCE

Fc  $\epsilon$  R $\gamma$  (FL-86) is a rabbit polyclonal antibody raised against amino acids 1-86 representing full length Fc R $\gamma$  of human origin.

## PRODUCT

Each vial contains 200  $\mu$ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

## APPLICATIONS

Fc  $\epsilon$  R $\gamma$  (FL-86) is recommended for detection of Fc  $\epsilon$  R $\gamma$  of mouse, rat and human origin by Western Blotting (starting dilution 1:200, 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).

Fc  $\epsilon$  R $\gamma$  (FL-86) is also recommended for detection of Fc  $\epsilon$  R $\gamma$  in additional species, including equine, bovine and porcine.

Suitable for use as control antibody for Fc  $\epsilon$  R $\gamma$  siRNA (h): sc-45267, Fc  $\epsilon$  R $\gamma$  siRNA (m): sc-45268, Fc  $\epsilon$  R $\gamma$  shRNA Plasmid (h): sc-45267-SH, Fc  $\epsilon$  R $\gamma$  shRNA Plasmid (m): sc-45268-SH, Fc  $\epsilon$  R $\gamma$  shRNA (h) Lentiviral Particles: sc-45267-V and Fc  $\epsilon$  R $\gamma$  shRNA (m) Lentiviral Particles: sc-45268-V.

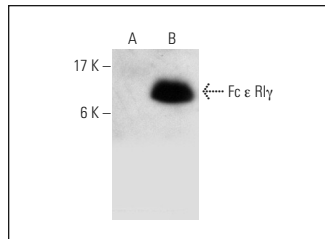
Molecular Weight of Fc  $\epsilon$  R $\gamma$ : 9 kDa.

Positive Controls: Fc  $\epsilon$  R $\gamma$  (h): 293T Lysate: sc-115131.

## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

## DATA



Fc  $\epsilon$  R $\gamma$  (FL-86): sc-292848. Western blot analysis of Fc  $\epsilon$  R $\gamma$  expression in non-transfected: sc-117752 (A) and human Fc  $\epsilon$  R $\gamma$  transfected: sc-115131 (B) 293T whole cell lysates.

## 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.

## PROTOCOLS

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



Try **Fc  $\epsilon$  R $\gamma$  (E-12): sc-390222** or **Fc  $\epsilon$  R $\gamma$  (F-1): sc-390221**, our highly recommended monoclonal alternatives to Fc  $\epsilon$  R $\gamma$  (FL-86).