SANTA CRUZ BIOTECHNOLOGY, INC.

Fc ε RIγ (R-16): sc-33494

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

IgE Fc Receptor I binds to the Fc region of immunoglobulins ε 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 α chain, a β chain, and two disulfide linked γ chains. The γ chains from Fc ε RI are also subunits of other Fc receptors. The γ subunit is thought to be functionally significant in allowing the IgE Fc receptor to reach the cell surface. The cytoplasmic domains of the β and γ subunits each contain a conserved consesus 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.

CHROMOSOMAL LOCATION

Genetic locus: FCER1G (human) mapping to 1q23.3; Fcer1g (mouse) mapping to 1 H3.

SOURCE

Fc ε RIγ (R-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping within a cytoplasmic domain of Fc ε RIγ 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-33494 P, (100 µg 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

Fc ε RIγ (R-16) is recommended for detection of Fc ε RIγ of human and, to a lesser extent, mouse and rat 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).

Fc ε RIγ (R-16) is also recommended for detection of Fc ε RIγ in additional species, including equine, canine and porcine.

Suitable for use as control antibody for Fc ε RIγ siRNA (h): sc-45267, Fc ε RIγ shRNA Plasmid (h): sc-45267-SH and Fc ε RIγ shRNA (h) Lentiviral Particles: sc-45267-V.

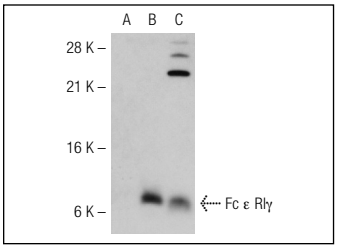
Molecular Weight of Fc ε RIγ: 9 kDa.

Positive Controls: THP-1 cell lysate: sc-2238 or Fc ε RIγ (h): 293T Lysate: sc-115131.

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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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.

DATA



Fc ε RIγ (R-16): sc-33494. Western blot analysis of Fc ε RIγ expression in non-transfected 293T: sc-117752 (**A**), human Fc ε RIγ transfected 293T: sc-115131 (**B**) and THP-1 (**C**) whole cell lysates.

RESEARCH USE

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

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.

MONOS Satisfaction Guaranteed

Try **Fc ε RIγ (E-12): sc-390222** or **Fc ε RIγ (F-1): sc-390221**, our highly recommended monoclonal alternatives to Fc ε RIγ (R-16).