

▶ Fc ϵ RI β (5-RE9): sc-134340

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. Structurally, the β chain contains four transmembrane regions with long cytoplasmic domains potentially involved in intracellular signaling. The cytoplasmic domains of the β and γ 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. A variant identified at Glu-237 of the β subunit has been implicated as a risk factor for atopic dermatitis and asthma.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: MS4A2 (human) mapping to 11q12.1.

SOURCE

Fc ϵ RI β (5-RE9) is a mouse monoclonal antibody raised against recombinant Fc ϵ RI β protein of human origin.

PRODUCT

Each vial contains 100 μ g IgG_{2a} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

Fc ϵ RI β (5-RE9) is recommended for detection of Fc ϵ RI β of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)] and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for Fc ϵ RI β siRNA (h): sc-45264, Fc ϵ RI β shRNA Plasmid (h): sc-45264-SH and Fc ϵ RI β shRNA (h) Lentiviral Particles: sc-45264-V.

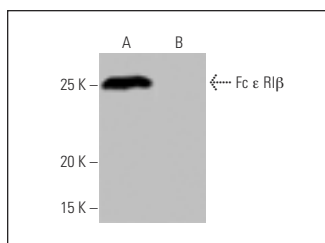
Molecular Weight of Fc ϵ RI β : 33 kDa.

Positive Controls: human Fc ϵ RI β transfected 293T whole cell lysate.

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker[™] Molecular Weight Standards: sc-2035, UltraCruz[®] 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).

DATA



Fc ϵ RI β (5-RE9): sc-134340. Western blot analysis of Fc ϵ RI β expression in human Fc ϵ RI β transfected (A) and non-transfected (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 for detailed protocols and support products.