

Fc ϵ RI β (C-15): sc-33493

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: FCER1B (human) mapping to 11q12.1; Fc ϵ r1b (mouse) mapping to 19 A.

SOURCE

Fc ϵ RI β (C-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping within a C-terminal cytoplasmic domain of Fc ϵ RI β of mouse origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-33493 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Fc ϵ RI β (C-15) is recommended for detection of Fc ϵ RI β of mouse and, to a lesser extent, human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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 RI β (C-15) is also recommended for detection of Fc ϵ RI β in additional species, including canine.

Suitable for use as control antibody for Fc ϵ RI β siRNA (m): sc-45265, Fc ϵ RI β siRNA (h): sc-45264, Fc ϵ RI β shRNA Plasmid (m): sc-45265-SH, Fc ϵ RI β shRNA Plasmid (h): sc-45264-SH, Fc ϵ RI β shRNA (m) Lentiviral Particles: sc-45265-V and Fc ϵ RI β shRNA (h) Lentiviral Particles: sc-45264-V.

Molecular Weight of Fc ϵ RI β : 33 kDa.

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) 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.

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 or our catalog for detailed protocols and support products.



Try **Fc ϵ RI β (F-1): sc-393789** or **Fc ϵ RI β (H-5): sc-398863**, our highly recommended monoclonal alternatives to Fc ϵ RI β (C-15).