SANTA CRUZ BIOTECHNOLOGY, INC.

C4BPβ (S-20): sc-17216

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Complement component 4-binding protein (C4BP) is a plasma glycoprotein that inhibits the classical pathway of complement activation, which is mediated through antibody targeting of foreign antigen. Structurally, C4BP is a disulfide linked, multimeric protein that is composed of seven α chains and one β chain. C4BP functions as a cofactor for C3β inactivator in the cleavage of C3β, and accelerates the decay of C4βC2α (C3 convertase) by acting as a cofactor in the cleavage of C4β by factor I. Streptococcal strains that express Ig-binding cell surface molecules, which are members of the M protein family, can bind to overlapping C4β binding sites in C4BP and therefore, interfere with the classical pathway of complement activation. Bacteria-bound C4BP may be an evolved mechanism that downregulates complement activation in the bacterial host microenvironment, thereby reducing the occurances of bacterial opsonization and phagocytosis.

CHROMOSOMAL LOCATION

Genetic locus: C4BPB (human) mapping to 1q32; C4bpb (mouse) mapping to 1 E4.

SOURCE

C4BPβ (S-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of C4BPβ 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-17216 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

C4BPβ (S-20) is recommended for detection of C4BPβ of human 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).

C4BPβ (S-20) is also recommended for detection of C4BPβ in additional species, including equine.

Suitable for use as control antibody for C4BPβ siRNA (h): sc-42741, C4BPβ shRNA Plasmid (h): sc-42741-SH and C4BPβ shRNA (h) Lentiviral Particles: sc-42741-V.

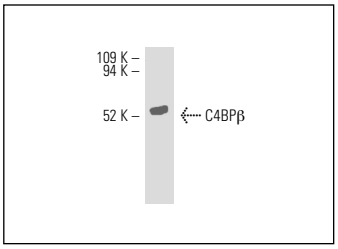
Molecular Weight of C4BPβ: 52 kDa.

Positive Controls: rat ovary extract: sc-2399.

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



C4BPβ (S-20): sc-17216. Western blot analysis of C4BPβ expression in rat ovary tissue extract.

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.