

Factor B (h2): 293T Lysate: sc-170756

BACKGROUND

The complement component proteins, C3, C4 and C5, are potent anaphylatoxins that are released during complement activation. Binding of these proteins to their respective G protein-coupled receptors, C3aR, C1r and C5aR, induces proinflammatory events, such as cellular degranulation, smooth muscle contraction, arachidonic acid metabolism, cytokine release, leukocyte activation and cellular chemotaxis. Complement Factor B, also designated Properdin Factor B or PBF2, is part of the alternate pathway of the complement system and is cleaved by Factor D into two fragments: Ba and Bb. Bb combines with complement Factor 3b to produce the C3 or C5 convertase and plays a role in the differentiation and proliferation of preactivated B lymphocytes, lysis of erythrocytes, stimulation of lymphocyte blastogenesis and rapid spreading of peripheral blood monocytes. Ba is important in inhibiting the proliferation of preactivated B lymphocytes. Adipsin, also designated complement Factor D, is a serine protease that cleaves complement Factor B and may be involved in obesity. Factor H controls the function of the alternative complement pathway. FHR-1 (complement Factor H related protein-1) may play a role in lipid metabolism.

REFERENCES

1. Woods, D.E., et al. 1982. Isolation of cDNA clones for the human complement protein Factor B, a class III major histocompatibility complex gene product. *Proc. Natl. Acad. Sci. USA* 79: 5661-5665.
2. Campbell, R.D., et al. 1983. Molecular cloning and characterization of the gene coding for human complement protein Factor B. *Proc. Natl. Acad. Sci. USA* 80: 4464-4468.
3. Mole, J.E., et al. 1984. Complete primary structure for the zymogen of human complement Factor B. *J. Biol. Chem.* 259: 3407-3412.
4. Wu, L.C., et al. 1987. Cell-specific expression of the human complement protein Factor B gene: evidence for the role of two distinct 5'-flanking elements. *Cell* 48: 331-342.
5. Kolb, W.P., et al. 1989. Ba and Bb fragments of factor B activation: fragment production, biological activities, neoepitope expression and quantitation in clinical samples. *Complement Inflamm.* 6: 175-204.
6. Niemann, M.A., et al. 1991. The principal site of glycation of human complement Factor B. *Biochem. J.* 274: 473-480.
7. Jing, H., et al. 2000. New structural motifs on the Chymotrypsin fold and their potential roles in complement Factor B. *EMBO J.* 19: 164-173.

CHROMOSOMAL LOCATION

Genetic locus: CFB (human) mapping to 6p21.33.

PRODUCT

Factor B (h2): 293T Lysate represents a lysate of human Factor B transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

APPLICATIONS

Factor B (h2): 293T Lysate is suitable as a Western Blotting positive control for human reactive Factor B antibodies. Recommended use: 10-20 µl per lane.

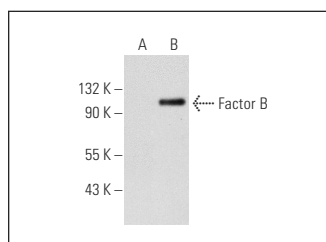
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

Factor B (D22/3): sc-47681 is recommended as a positive control antibody for Western Blot analysis of enhanced human Factor B expression in Factor B transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

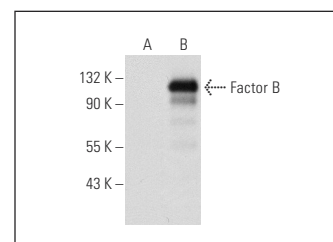
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ 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.

DATA



Factor B (D22/3): sc-47681. Western blot analysis of Factor B expression in non-transfected: sc-117752 (A) and human Factor B transfected: sc-170756 (B) 293T whole cell lysates.



Factor B (986): sc-57506. Western blot analysis of Factor B expression in non-transfected: sc-117752 (A) and human Factor B transfected: sc-170756 (B) 293T whole cell lysates.

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.