SANTA CRUZ BIOTECHNOLOGY, INC.

Factor H (H-300): sc-33156

BACKGROUND

The factor H gene family is a multidomain, multifunctional protein family whose individual members are defined by conserved structural elements, which display diverse yet often overlapping functions. These proteins share a common structural motif, the Short Consensus Repeat (SCR), which is structurally conserved among related genes and between phylogenetically divergent species. The human complement factor H (FH, CFH, HUS, β-1H) gene encodes a 1213 amino acid serum glycoprotein, which is arranged into 20 SCRs, each approximately 60 amino acids long and an 18-residue leader sequence. Factor H controls the function of the alternative complement pathway and acts as a cofactor with factor I (C3b inactivator). In addition, Factor H has functional activity outside of the complement system, where it can bind to the cellular integrin receptor (CD11b/CD18), interact with cell surface glycosaminoglycans, and associate with the surface of certain pathogenic microorganisms. Deficiencies in Factor H is a common characteristic of acute renal disease.

REFERENCES

1. Sim, E., et al. 1983. Monoclonal antibodies against the complement control protein factor H (β 1 H). Biosci. Rep. 3: 1119-1131.
2. Ripoche, J., et al. 1988. The complete amino acid sequence of human complement factor H. Biochem. J. 249: 593-602.
3. Munoz-Canoves, P., et al. 1989. Analysis of complement factor H mRNA expression: dexamethasone and IFN-γ increase the level of H in L cells. Biochemistry 28: 9891-9897.
4. Rougier, N., et al. 1998. Human complement factor H deficiency associated with hemolytic uremic syndrome. J. Am. Soc. Nephrol. 9: 2318-2326.

CHROMOSOMAL LOCATION

Genetic locus: CFH (human) mapping to 1q31.3; Cfh (mouse) mapping to 1 F.

SOURCE

Factor H (H-300) is a rabbit polyclonal antibody raised against amino acids 61-360 mapping within an internal region of Factor H 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.

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.

APPLICATIONS

Factor H (H-300) is recommended for detection of Factor H of human, rat and, to a lesser extent, mouse 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).

Suitable for use as control antibody for Factor H siRNA (h): sc-42877, Factor H siRNA (m): sc-42878, Factor H shRNA Plasmid (h): sc-42877-SH, Factor H shRNA Plasmid (m): sc-42878-SH, Factor H shRNA (h) Lentiviral Particles: sc-42877-V and Factor H shRNA (m) Lentiviral Particles: sc-42878-V.

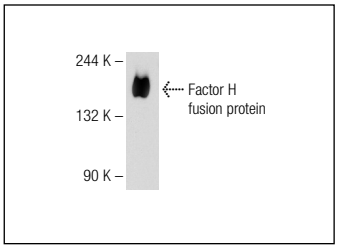
Molecular Weight of Factor H: 150 kDa.

Positive Controls: human PBL tissue extract or human placenta extract: sc-363772.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



Factor H (H-300): sc-33156. Western blot analysis of human recombinant Factor H fusion protein.

SELECT PRODUCT CITATIONS

1. Shi, W.L., et al. 2012. Serum proteomics of methamphetamine addicts and up-regulation of complement factor H related to methamphetamine addiction. Neurosci. Lett. 525: 23-28.