

Factor H (Y-20): sc-17949

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, beta-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. Ripoche, J., et al. 1988. The complete amino acid sequence of human complement factor H. *Biochem. J.* 249: 593-602.
2. Rougier, N., et al. 1998. Human complement factor H deficiency associated with hemolytic uremic syndrome. *J. Am. Soc. Nephrol.* 9: 2318-2326.
3. Zipfel, P.F., et al. 1999. The factor H protein family. *Immunopharmacology* 42: 53-60.
4. Male, D.A., et al. 2000. Complement factor H: sequence analysis of 221 kb of human genomic DNA containing the entire fH, fHR-1 and fHR-3 genes. *Mol. Immunol.* 37: 41-52.
5. Online Mendelian Inheritance in Man, OMIM™. 2001. Johns Hopkins University, Baltimore, MD. MIM Number: 134370: World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>

CHROMOSOMAL LOCATION

Genetic locus: CFH (human) mapping to 1q31.3.

SOURCE

Factor H (Y-20) is an affinity purified goat polyclonal antibody raised against a peptide 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.

Blocking peptide available for competition studies, sc-17949 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

Factor H (Y-20) is recommended for detection of Factor H of human 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 shRNA Plasmid (h): sc-42877-SH and Factor H shRNA (h) Lentiviral Particles: sc-42877-V.

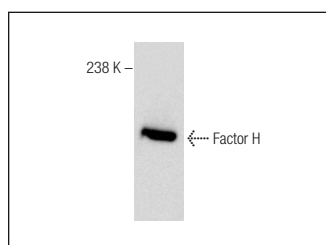
Molecular Weight of Factor H: 150 kDa.

Positive Controls: human plasma extract: sc-364374.

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



Factor H (Y-20): sc-17949. Western blot analysis of Factor H in human plasma.

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.