

Factor H (OX23): sc-53066

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, b-1H) gene encodes a 1,213 amino acid serum glycoprotein which is arranged into 20 SCRs, each comprising approximately 60 amino acids 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. Deficiency 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.
5. Zipfel, P.F., et al. 1999. The Factor H protein family. *Immunobiology* 42: 53-60.

CHROMOSOMAL LOCATION

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

SOURCE

Factor H (OX23) is a mouse monoclonal antibody raised against purified complement factor H isolated from plasma of human origin.

PRODUCT

Each vial contains 200 μ g IgG $_1$ kappa light chain 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.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.

APPLICATIONS

Factor H (OX23) 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 μ g per 100-500 μ g of total protein (1 ml of cell lysate)], immunohistochemistry (including paraffin-embedded sections) (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.

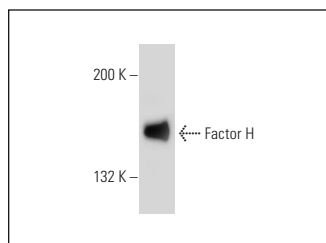
Molecular Weight of Factor H: 150 kDa.

Positive Controls: human placenta extract: sc-363772.

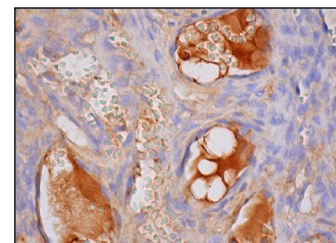
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), 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).

DATA



Factor H (OX23): sc-53066. Western blot analysis of human recombinant Factor H.



Factor H (OX23): sc-53066. Immunoperoxidase staining of formalin fixed, paraffin-embedded human blood vessels showing plasma staining.

SELECT PRODUCT CITATIONS

1. Bennetzen, M.V., et al. 2013. Acetylation dynamics of human nuclear proteins during the ionizing radiation-induced DNA damage response. *Cell Cycle* 12: 1688-1695.

RESEARCH USE

For research use only, not for use in diagnostic procedures.



See **Factor H (C18/3): sc-47685** for Factor H antibody conjugates, including AC, HRP, FITC, PE, Alexa Fluor® 488 and Alexa Fluor® 647.