

# Factor H (1H10): sc-81575

## BACKGROUND

The Factor H gene family is a multi-domain, 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 1,213 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

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3. Munoz-Canoves, P., et al. 1989. Analysis of complement Factor H mRNA expression: Dexamethasone and IFN- $\gamma$  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.
6. 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.
7. 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/>
8. SWISS-PROT/TrEMBL (P06909). World Wide Web URL: <http://www.expasy.ch/sprot/sprot-top.html>

## CHROMOSOMAL LOCATION

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

## SOURCE

Factor H (1H10) is a mouse monoclonal antibody raised against a synthetic peptide corresponding the region surrounding the 402-His variant of Factor H of human origin.

## PRODUCT

Each vial contains 200  $\mu$ g IgG $_1$  kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

## APPLICATIONS

Factor H (1H10) is recommended for detection of the 402-His variant of Factor H of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) and immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ g of total protein (1 ml of cell lysate)].

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.

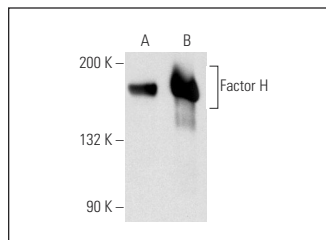
Molecular Weight of Factor H: 150 kDa.

Positive Controls: human plasma extract: sc-364374, K-562 whole cell lysate: sc-2203 or human PBL whole cell lysate.

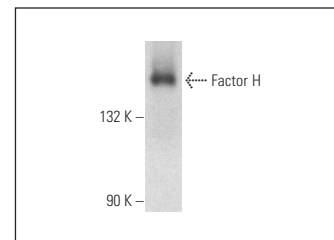
## RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG $\kappa$  BP-HRP: sc-516102 or m-IgG $\kappa$  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. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml).

## DATA



Factor H (1H10): sc-81575. Western blot analysis of Factor H expression in human PBL whole cell lysate (A) and human recombinant Factor H (B).



Factor H (1H10): sc-81575. Western blot analysis of Factor H expression in K-562 whole cell lysate.

## 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](http://www.scbt.com) for detailed protocols and support products.



See **Factor H (C18/3): sc-47685** for Factor H antibody conjugates, including AC, HRP, FITC, PE, and Alexa Fluor® 488, 546, 594, 647, 680 and 790.