

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human Complement Factor H-related 4/CFHR4 in direct ELISAs and Western blots. In direct ELISAs, no cross-reactivity with recombinant human (rh) CFHR1, rhCFHR2, or rhCFHR5 is observed.
Source	Monoclonal Mouse IgG ₁ Clone # 640212
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	<i>S. frugiperda</i> insect ovarian cell line Sf 21-derived recombinant human Complement Factor H-related 4/CFHR4 Glu20-Glu331 Accession # Q92496
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied either lyophilized or as a 0.2 µm filtered solution in PBS.

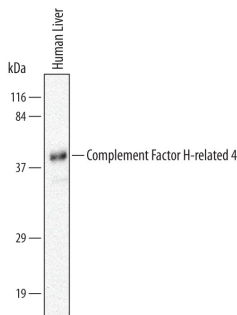
APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. *General Protocols* are available in the *Technical Information* section on our website.

	Recommended Concentration	Sample
Western Blot	2 µg/mL	See Below
Immunocytochemistry	8-25 µg/mL	See Below
Intracellular Staining by Flow Cytometry	0.25 µg/mL	See Below
CyTOF-ready	Ready to be labeled using established conjugation methods. No BSA or other carrier proteins that could interfere with conjugation.	

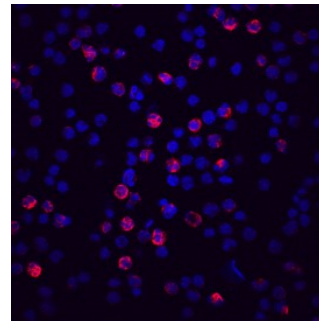
DATA

Western Blot



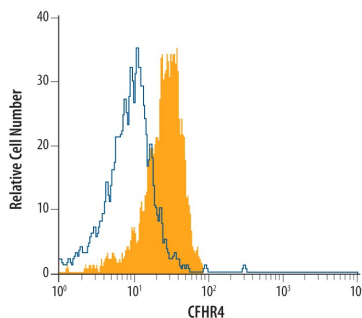
Detection of Human Complement Factor H-related 4/CFHR4 by Western Blot. Western blot shows lysates of human liver tissue. PVDF Membrane was probed with 2 µg/mL of Human Complement Factor H-related 4/CFHR4 Monoclonal Antibody (Catalog # MAB5980) followed by HRP-conjugated Anti-Mouse IgG Secondary Antibody (Catalog # HAF007). A specific band was detected for Complement Factor H-related 4/CFHR4 at approximately 45 kDa (as indicated). This experiment was conducted under non-reducing conditions and using Immunoblot Buffer Group 1.

Immunocytochemistry



Complement Factor H-related 4/CFHR4 in Human PBMCs. Complement Factor H-related 4/CFHR4 was detected in immersion fixed human peripheral blood mononuclear cells (PBMC) using Human Complement Factor H-related 4 Monoclonal Antibody (Catalog # MAB5980) at 10 µg/mL for 3 hours at room temperature. Cells were stained using the NorthernLights™ 557-conjugated Anti-Mouse IgG Secondary Antibody (red; Catalog # NL007) and counterstained with DAPI (blue). Specific staining was localized to cytoplasm. View our protocol for [Fluorescent ICC Staining of Cells on Coverslips](#).

Intracellular Staining by Flow Cytometry



Detection of Complement Factor H-related 4/CFHR4 in HepG2 Human Cell Line by Flow Cytometry. HepG2 human hepatocellular carcinoma cell line was stained with Human Complement Factor H-related 4/CFHR4 Monoclonal Antibody (Catalog # MAB5980, filled histogram) or isotype control antibody (Catalog # MAB002, open histogram), followed by Allophycocyanin-conjugated Anti-Mouse IgG F(ab')₂ Secondary Antibody (Catalog # F0101B). To facilitate intracellular staining, cells were fixed with PFA and permeabilized with saponin.

PREPARATION AND STORAGE

Reconstitution	Sterile PBS to a final concentration of 0.5 mg/mL.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
Stability & Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. <ul style="list-style-type: none">● 12 months from date of receipt, -20 to -70 °C as supplied.● 1 month, 2 to 8 °C under sterile conditions after reconstitution.● 6 months, -20 to -70 °C under sterile conditions after reconstitution.

BACKGROUND

FHR4 (Complement factor H-related protein 4; also FHR4B and CFHR4) is a 45 kDa glycoprotein member of the factor H-related protein family. It is synthesized by hepatocytes and circulates in plasma. FHR4(B) binds to C3b and C3d. It also binds to native (pentameric) C-reactive protein (pCRP), and is suggested to promote pCRP binding to necrotic cells surfaces, thus promoting cell clearance. Mature human CFHR is 312 amino acids (aa) in length. It contains five Sushi/SCR domains, the first of which (aa 23-85) is associated with pCRP binding. There is a circulating, 86 kDa alternative splice form termed FHR4A that shows an insertion of 247 aa after Asp92. This is considered the dominant isoform, and appears to show the same activity as CFHR. Over aa 41-331, human CFHR shares 61% aa identity with a related molecule found in rat.