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Anti-Complement C1R HC Antibody

Catalog # AP61043

Product Information

Application	WB, IF/IC
Primary Accession	P00736
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Calculated MW	80119

Additional Information

Gene ID	715
Other Names	Complement C1r subcomponent; Complement component 1 subcomponent r
Target/Specificity	KLH-conjugated synthetic peptide encompassing a sequence within the center region of human Complement C1R HC. The exact sequence is proprietary.
Dilution	WB~~WB (1/500 - 1/1000) IF/IC~~N/A
Format	Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, pH 7.3, 30% glycerol, and 0.01% sodium azide.
Storage	Store at -20 °C.Stable for 12 months from date of receipt

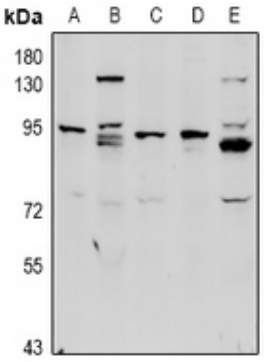
Protein Information

Name	C1R {ECO:0000303|PubMed:3021205, ECO:0000312|HGNC:HGNC:1246}
Function	Serine protease component of the complement C1 complex, a multiprotein complex that initiates the classical pathway of the complement system, a cascade of proteins that leads to phagocytosis and breakdown of pathogens and signaling that strengthens the adaptive immune system (PubMed:17996945, PubMed:19473974, PubMed:29449492). C1R catalyzes the first enzymatic step in the classical complement pathway: it is activated by the C1Q subcomplex of the C1 complex, which associates with IgG or IgM immunoglobulins complexed with antigens to form antigen-antibody complexes on the surface of pathogens (PubMed:29449492, PubMed:34155115). Immunoglobulin-binding promotes the autocatalytic cleavage and activation of C1R (PubMed:11445589, PubMed:11673533, PubMed:17996945, PubMed:20178990, PubMed:6254570, PubMed:6271784). Activated C1R then cleaves and activates C1S, the second protease of the classical complement pathway (PubMed:11445589, PubMed:11673533, PubMed:6271784). It is unclear if C1R activates C1S within single, strained C1 complexes or between neighboring C1 complexes on surfaces

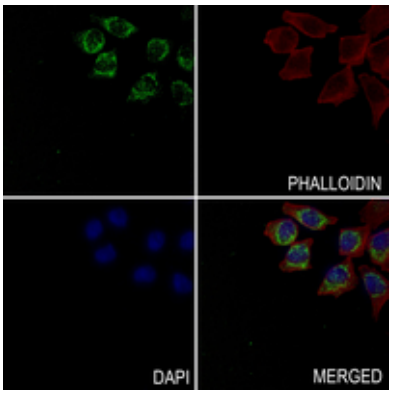
(PubMed:28104818, PubMed:29311313, PubMed:29449492).

Cellular Location Secreted. Cell surface. Note=Recruited to the surface of pathogens by the C1Q subcomplex.

Images



Western blot analysis of Complement C1R HC expression in Hela (A), HepG2 (B), MEF (C), C6 (D), U87MG (E) whole cell lysates. (Predicted band size: 80 kD; Observed band size: 90 kD)



Immunofluorescent analysis of Complement C1R HC staining in MCF7 cells. Formalin-fixed cells were permeabilized with 0.1% Triton X-100 in TBS for 5-10 minutes and blocked with 3% BSA-PBS for 30 minutes at room temperature. Cells were probed with the primary antibody in 3% BSA-PBS and incubated overnight at 4 °C in a hidified chamber. Cells were washed with PBST and incubated with a AF488-conjugated secondary antibody (green) in PBS at room temperature in the dark. Phalloidin - AF594 was used to stain Actin filaments (red). DAPI was used to stain the cell nuclei (blue).

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