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Anti-Complement C1R LC Antibody

Catalog # AP51025

Product Information

Application	WB, IF/IC
Primary Accession	P00736
Reactivity	Human, Mouse, Rat, Mk
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 LC. The exact sequence is proprietary.
Dilution	WB~~ 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

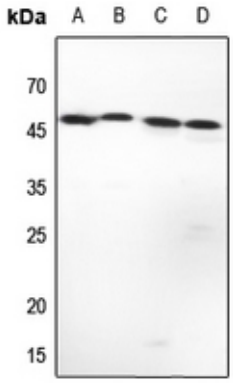
(PubMed:28104818, PubMed:29311313, PubMed:29449492).

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

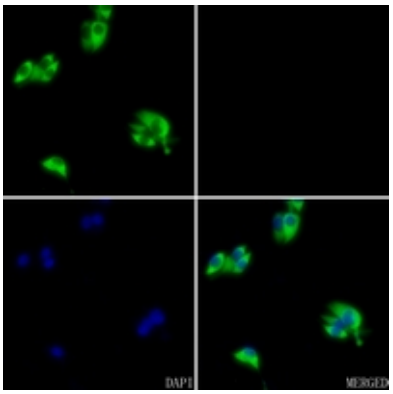
References

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Bechtel S.,et al.BMC Genomics 8:399-399(2007).
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Images



Western blot analysis of Complement C1R LC expression in Hela (A), A549 (B), mouse liver (C), rat liver (D) whole cell lysates. (Predicted band size: 80 kD; Observed band size: 55 kD)



Immunofluorescent analysis of Complement C1R LC staining in C6 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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