

C1R Antibody

Purified Rabbit Polyclonal Antibody (Pab) Catalog # AP51025

Product Information

Application WB Primary Accession P00736

Reactivity Human, Mouse, Rat

HostRabbitClonalityPolyclonalCalculated MW80119

Additional Information

Gene ID 715

Other Names Complement C1r subcomponent, Complement component 1 subcomponent

r, Complement C1r subcomponent heavy chain, Complement C1r

subcomponent light chain, C1R

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

Format 0.01M PBS, pH 7.2, 0.09% (W/V) Sodium azide, Glycerol 50%

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:<u>6271784</u>). It is unclear if C1R activates C1S within single, strained C1 complexes or between neighboring C1 complexes on surfaces (PubMed:<u>28104818</u>, PubMed:<u>29311313</u>, PubMed:<u>29449492</u>).

Cellular Location

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

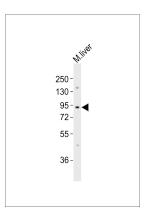
Background

C1r B chain is a serine protease that combines with C1q and C1s to form C1, the first component of the classical pathway of the complement system.

References

Leytus S.P., et al. Biochemistry 25:4855-4863(1986). Journet A., et al. Biochem. J. 240:783-787(1986). Nakagawa M., et al. Ann. Hum. Genet. 67:207-215(2003). Bechtel S., et al. BMC Genomics 8:399-399(2007). Scherer S.E., et al. Nature 440:346-351(2006).

Images



Anti-Complement C1R LC Antibody at 1:1000 dilution + mouse liver lysates Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L),Peroxidase conjugated at 1/10000 dilution Predicted band size : 80 kDa Blocking/Dilution buffer: 5% NFDM/TBST.

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