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Anti-Complement C9 Antibody

Catalog # AP51027

Product Information

Application	WB, IHC, IF/IC
Primary Accession	P02748
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Calculated MW	63173

Additional Information

Gene ID	735
Other Names	Complement component C9
Target/Specificity	KLH-conjugated synthetic peptide encompassing a sequence within the center region of human Complement C9. The exact sequence is proprietary.
Dilution	WB~~WB (1/500 - 1/1000) IHC~~1:100~500 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

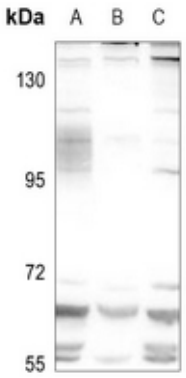
Name	C9 {ECO:0000303|PubMed:4018030, ECO:0000312|HGNC:HGNC:1358}
Function	Pore-forming component of the membrane attack complex (MAC), a multiprotein complex activated by the complement cascade, which inserts into a target cell membrane and forms a pore, leading to target cell membrane rupture and cell lysis (PubMed:22832194, PubMed:26841837, PubMed:26841934, PubMed:27052168, PubMed:30552328, PubMed:6177822, PubMed:9212048, PubMed:9634479). The MAC is initiated by proteolytic cleavage of C5 into complement C5b in response to the classical, alternative, lectin and GZMK complement pathways (PubMed:39914456, PubMed:39814882, PubMed:9212048, PubMed:9634479). The complement pathways consist in a cascade of proteins that leads to phagocytosis and breakdown of pathogens and signaling that strengthens the adaptive immune system (PubMed:9212048, PubMed:9634479). Constitutes the pore- forming subunit of the MAC complex: during MAC assembly, C9 associates with the C5b8 intermediate complex, and polymerizes to complete the pore (PubMed:26841934, PubMed:30111885, PubMed:30552328, PubMed:34752492, PubMed:4055801, PubMed:6177822).

Cellular Location	Secreted. Target cell membrane; Multi-pass membrane protein. Note=Secreted as soluble monomer (PubMed:26841934, PubMed:30111885, PubMed:4055801, PubMed:9634479) Oligomerizes at target membranes, forming a pre-pore (PubMed:26841934, PubMed:30111885, PubMed:31061395, PubMed:4055801, PubMed:9634479). A conformation change then leads to the formation of a 100 Angstrom diameter pore (PubMed:26841934, PubMed:30111885, PubMed:31061395, PubMed:4055801, PubMed:9634479).
Tissue Location	Plasma (at protein level).

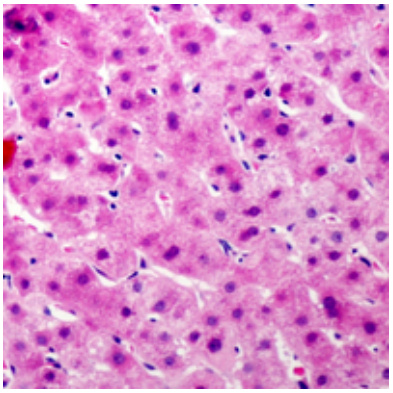
References

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Marazziti D.,et al.Biochemistry 27:6529-6534(1988).
Witzel-Schloemp K.,et al.Immunogenetics 48:144-147(1998).
DiScipio R.G.,et al.J. Biol. Chem. 260:14802-14809(1985).

Images

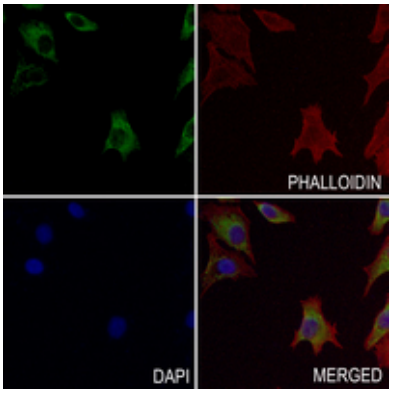


Western blot analysis of Complement C9 expression in PC12 (A), Raw264.7 (B), Hela (C) whole cell lysates. (Predicted band size: 63 kD; Observed band size: 65 kD)



Immunohistochemical analysis of Complement C9 staining in human liver cancer formalin fixed paraffin embedded tissue section. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0). The section was then incubated with the antibody at room temperature and detected using an HRP conjugated compact polymer system. AEC was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.

Immunofluorescent analysis of Complement C9 staining in HepG2 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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