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C9 Antibody (Center)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP13782c

Product Information

Application	WB, IHC-P, E
Primary Accession	P02748
Other Accession	NP_001728.1
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB33918
Calculated MW	63173
Antigen Region	191-220

Additional Information

Gene ID	735
Other Names	Complement component C9, Complement component C9a, Complement component C9b, C9
Target/Specificity	This C9 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 191-220 amino acids from the Central region of human C9.
Dilution	WB~~1:1000 IHC-P~~1:100~500 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	C9 Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

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: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).

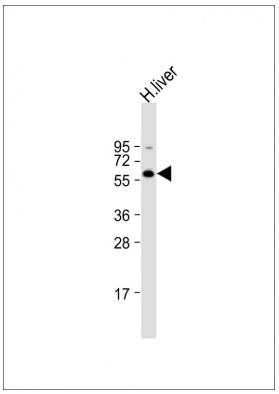
Background

This gene encodes the final component of the complement system. It participates in the formation of the Membrane Attack Complex (MAC). The MAC assembles on bacterial membranes to form a pore, permitting disruption of bacterial membrane organization. Mutations in this gene cause component C9 deficiency. [provided by RefSeq].

References

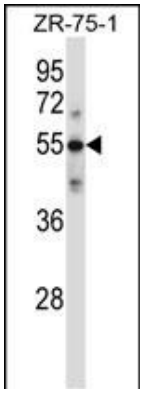
Bailey, S.D., et al. Diabetes Care 33(10):2250-2253(2010)
Han, S., et al. Hum. Immunol. 71(7):727-730(2010)
Rajaraman, P., et al. Cancer Epidemiol. Biomarkers Prev. 19(5):1356-1361(2010)
Bunkenborg, J., et al. Proteomics 4(2):454-465(2004)
Hofsteenge, J., et al. J. Biol. Chem. 274(46):32786-32794(1999)

Images

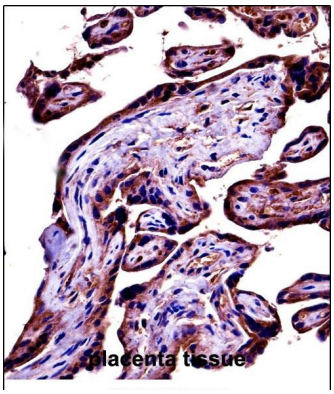


Anti-C9 Antibody (Center) at 1:1000 dilution + human liver lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 63 kDa Blocking/Dilution buffer: 5% NFDM/TBST.

C9 Antibody (Center) (Cat. #AP13782c) western blot analysis in ZR-75-1 cell line lysates (35ug/lane).This



demonstrates the C9 antibody detected the C9 protein (arrow).



C9 Antibody (Center) (AP13782c)immunohistochemistry analysis in formalin fixed and paraffin embedded human placenta tissue followed by peroxidase conjugation of the secondary antibody and DAB staining.This data demonstrates the use of C9 Antibody (Center) for immunohistochemistry. Clinical relevance has not been evaluated.