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Anti-Complement C7 Picoband Antibody

Catalog # ABO12891

Product Information

Application	WB, E
Primary Accession	P10643
Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Format	Lyophilized
Description	Rabbit IgG polyclonal antibody for Complement C7 detection. Tested with WB, Direct ELISA in Human;Mouse;Rat.
Reconstitution	Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Additional Information

Gene ID	730
Other Names	Complement component C7, C7
Calculated MW	93518
Application Details	Western blot, 0.1-0.5 □g/ml Direct ELISA, 0.1-0.5 □g/ml
Subcellular Localization	Secreted.
Source	Eukaryota
Contents	Each vial contains 4mg Trehalose, 0.9mg NaCl, 0.2mg Na_2HPO_4, 0.05mg NaN_3.
Immunogen	E. coli-derived human Complement C7 recombinant protein (Position: R233-D453).
Cross Reactivity	No cross reactivity with other proteins.
Storage	At -20˚C; for one year. After r˚Constitution, at 4˚C; for one month. It˚Can also be aliquotted and stored frozen at -20˚C; for a longer time. Avoid repeated freezing and thawing.

Protein Information

Name	C7 {ECO:0000303|PubMed:3335508, ECO:0000312|HGNC:HGNC:1346}
Function	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:27052168, PubMed:30552328, PubMed:3335508). The MAC is initiated by proteolytic cleavage of C5 into complement C5b in response to the classical, alternative, lectin and GZMK complement pathways (PubMed:22832194, PubMed:30552328, PubMed:3335508, PubMed:39914456, PubMed:39814882). 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:22832194, PubMed:30552328, PubMed:3335508). C7 serves as a membrane anchor (PubMed:30552328). During MAC assembly, associates with C5b and C6 to form the C5b-7 complex, a key lipophilic precursor of the MAC complex, which associates with the outer leaflet and reduces the energy for membrane bending (PubMed:30552328, PubMed:32569291).

Cellular Location

Secreted. Target cell membrane Note=Secreted as soluble protein (PubMed:3335508). Inserts into the cell membrane of target cells (PubMed:30552328, PubMed:31061395)

Background

This gene encodes a serum glycoprotein that forms a membrane attack complex together with complement components C5b, C6, C8, and C9 as part of the terminal complement pathway of the innate immune system. The protein encoded by this gene contains a cholesterol-dependent cytolysin/membrane attack complex/perforin-like (CDC/MACPF) domain and belongs to a large family of structurally related molecules that form pores involved in host immunity and bacterial pathogenesis. This protein initiates membrane attack complex formation by binding the C5b-C6 subcomplex and inserts into the phospholipid bilayer, serving as a membrane anchor. Mutations in this gene are associated with a rare disorder called C7 deficiency.

Images

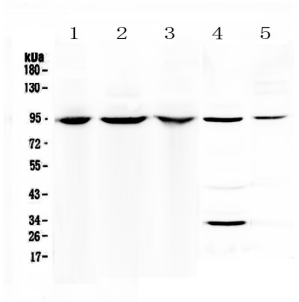


Figure 1. Western blot analysis of Complement C7 using anti-Complement C7 antibody (ABO12891).

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