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Polyclonal Anti- C5a Picoband™ Antibody

Catalog Number: PB9187

Description

Gene Name	complement component 5
Recommended Protein Name	Complement C5
Lot No.	0911412Da8287120
Size	100μg/vial
Form	lyophilized
Ig type	Rabbit IgG
Specificity	No cross reactivity with other proteins.
Purification	Immunogen affinity purified.
Species	**Reacts with:** rat
Immunogen	E.coli-derived rat C5a recombinant protein (Position: D1-R77). Rat C5a shares 62% and 82% amino acid (aa) sequence identity with human and mouse C5a, respectively.
Contents	Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na_2HPO_4, 0.05mg NaN_3.

Application

	Concentration	Tested Species	Antigen Retrieval
Western blot	0.1-0.5μg/ml	Rat	-
Immunohistochemistry (Paraffin-embedded Section)	0.5-1μg/ml	Rat	By Heat

WB: The detection limit for C5a is approximately 0.25ng/lane under reducing conditions.

Tested Species: In-house tested species with positive results.

By Heat: Boiling the paraffin sections in 10mM citrate buffer, pH6.0, for 20mins is required for the staining of formalin/paraffin sections.

Other applications have not been tested.

Optimal dilutions should be determined by end users.

Preparation and storage

Reconstitution: 0.2ml of distilled water will yield a concentration of 500μg/ml.

Storage: At -20˚C for one year. After reconstitution, 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.

Relevant detection systems

Boster provides a series of assays reacted with primary antibodies. Antibody can be supported by chemiluminescence kit EK1002 in WB, supported by SA1022 in IHC(P).

Background

C5a is a protein fragment released from complement component C5. This gene is mapped to 9q33.2. The protein encoded by this gene is the fifth component of complement, which plays an important role in inflammatory and cell killing processes. This protein is comprised of alpha and beta polypeptide chains that are linked by a disulfide bridge. An activation peptide, C5a, which is an anaphylatoxin that possesses potent spasmogenic and chemotactic activity, is derived from the alpha polypeptide via cleavage with a convertase. C5a plays a key role in increasing migration and adherence of neutrophils and monocytes to vessel walls. Mutations in this gene cause complement component 5 deficiency, a disease where patients show a propensity for severe recurrent infections. Defects in this gene have also been linked to susceptibility to liver fibrosis and to rheumatoid arthritis.

Reference

1. Delgado-Cervino, E., Fontan, G., Lopez-Trascara, M. C5 complement deficiency in a Spanish family: molecular characterization of the double mutation responsible for the defect. Molec. Immun. 42: 105-111, 2005.
2. Pfarr, N., Prawitt, D., Kirschfink, M., Schroff, C., Knuf, M., Habermehl, P., Mannhardt, W., Zepp, F., Fairbrother, W. G., Loos, M., Burge, C. B., Pohlenz, J. Linking C5 deficiency to an exonic splicer enhancer mutation. J. Immun. 174: 4172-4177, 2005. Note: Erratum: J. Immun. 182: 5152 only, 2009.