

PRODUCT SPECIFICATION

Anti-Complement component C3a/C3a (desArg) (human)

Mouse monoclonal antibody, biotinylated

Subclass: IgG1/k

PRODUCT NO.

GAU 017-01 B

PRESENTATION

Preparation: Protein-A/G purified
 Content: 100 µL, 1 mg/mL
 Solvent: 0.01 M phosphate buffer, pH 7.4, with 0.14 M NaCl and 15 mM sodium azide
 Storage: In the dark at 4-8°C

ANTIGEN

Complement C3a is an anaphylatoxin of 77 amino acid residues released by the action of the C3 convertases on the N-terminal of the alpha chain of C3. It is rapidly inactivated by serum carboxypeptidase N which removes the C-terminal arginine residue generating C3a (desArg).

IMMUNOGEN

Human C3a (1, 2)

SPECIFICITY

Recognizes an epitope that is present on human C3, C3a and C3a (desArg) (2, 3).
 Does not cross-react with C4a or C5a (2, 3).

EPI TOPE SPECIFICITY

GAU 017-01 recognizes different epitopes on the 9 kDa C3a than GAU 013-16 (2, 3). No reaction is seen with a synthetic octapeptide representing the C3a C-terminal (2).

REACTIVITY

GAU 017-01 can be used as a biotinylated detection antibody in sandwich ELISA with GAU 013-16 capture antibody. Does not inhibit the biological activity of C3a (4).

CULTURE MEDIUM

RPMI 1640 with 10% fetal calf serum

FUSION PARTNER

IMMUNIZATION

BALB/c mice immunized by intraperitoneal injection

APPLICATION

Method	Usability	Dilution guideline	References
ELISA	Yes	1/40,000	
Immunoblotting			
Immunohistochemistry			

The dilution guideline for ELISA is based on use as detection antibody for C3a (desArg) coated at 1 µg/ml. Users should determine the optimal dilutions for their own purposes.

REFERENCES

1. Oppermann M, Haubitz M, Quintin E, Götze O (1988) Complement activation in patients with renal failure as detected through the quantitation of fragments of the complement proteins C3, C5, and Factor B. *Klin Wochenschr* 66:857-864.
2. Nezlín R, Freywald A, Oppermann M (1993) Proteins separated from human IgG molecules. *Mol. Immunol.* 30:935-940.
3. Oppermann M, Liebmann F, Götze O. (1987) Purification and quantification of human C3a anaphylatoxin using monoclonal antibodies. *Complement* 4:205-206
4. Puschel GP, Oppermann M, Muschol W, Gotze O, Jungermann K. (1989) Increase of glucose and lactate output and decrease of flow by human anaphylatoxin C3a but not C5a in perfused rat liver. *FEBS Lett.* 16;243(1):83-7.
5. Oppermann M, Kurts C, Zierz R, Quintin E, Weber MH, Gotze O (1991) Elevated plasma levels of the immunosuppressive complement fragment Ba in renal failure. *Kidney Int.* 40:939-947.
6. Ammon HPT, Ege W, Oppermann M, Göpel W, Eisele S (1995) Improvement in the long-term stability of an amperometric glucose sensor system by introducing a cellulose membrane of bacterial origin. *Anal. chem.* 67:466-471.
7. Lhotta K, Würzner R, Kronenberg F, Oppermann M, König P (1998) Rapid activation of the complement system by cuprophane depends on complement component C4. *Kidney Int.* 53:1044-1051.

CONDITIONS

All products are supplied on the understanding that they are for in vitro use only. The information and product are offered without guarantee as the ultimate conditions of use are beyond our control. The animals from which this product was derived have not been exposed to or inoculated with any livestock or poultry disease agents exotic to the United States or Western Europe, and did not originate from facilities where work with exotic disease agents affecting livestock or avian species is carried out.