

**Anti-Complement component C3a/C3a/(desArg)/C3 (human)****Mouse monoclonal antibody**

Subclass: IgG1/k

Clone: K13/16-5.7

CAT. NO.

**GAU 013-16**

---

SPECIFICITY	GAU 013-16 is specific for human C3, C3a and C3a (desArg) (1) and does not cross-react with C4a or C5a (2, 3).
IMMUNOGEN	Human C3a
TESTED APPLICATIONS	ELISA, WB, IHC, IF
SPECIES REACTIVITY (POSITIVE)	Human
SPECIES REACTIVITY (NEGATIVE)	Not determined
EPITOPE SPECIFICITY	GAU 013-16 recognizes a different epitope on the 9 kDa C3a than GAU 017-01 (2, 3). No reaction is seen with a synthetic octapeptide representing the C3a C-terminal (2).

---

**PRESENTATION**

Content:	Available in 200 µL and 1 mL size. 1 mg/mL +/- 15%. See Certificate of Analysis for details.
Preparation:	Protein-A purified
Form:	Liquid
Solvent:	0.01 M phosphate buffer, pH 7.4, containing 0.5 M NaCl and 15 mM sodium azide
Storage:	4-8°C without exposure to light. No precautions necessary during handling.

---

**APPLICATION**

**ELISA:** GAU 013-16 can be used as a capture antibody in sandwich ELISA with GAU 017-01 as a biotinylated detection antibody (4, 5). GAU 013-16 can also be used to immunopurify C3a (3). GAU 013-16 effectively inhibits the biological activity of C3a in a guinea-pig platelet activation assay (2).

**WB:** GAU 013-16 was used in Western blotting (2, 3, 5).

**IHC:** GAU 013-16 was used in IHC in formaline fixed paraffin embedded tissue with a dilution of 1:150.

**IF:** GAU 103-16 was used in IF with a dilution of 1:75.

**TARGET**

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).

**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. 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.
4. Khodoun M, Strait R, Orekov T, Hogan S, Karasuyama H, Herbert DBR, Köhl J, Finkelman FD (2009) Peanuts can contribute to anaphylactic shock by activating complement. *J Allergy Clin Immunol* 123:342-351.
5. Thomas SN, van der Vlies AJ, O'Neil CP, Reddy ST, Yu SS, Giorgio TD, Swartz MA, Hubbell JA (2011) Engineering complement activation on polypropylene sulfide vaccine nanoparticles. *Biomaterials* 32: 2194-2203.

**CONDITIONS**

Unless otherwise marked, all products are for research use only. Not for use in diagnostic procedures. Not for use in human therapeutic applications. For in vitro use or further manufacture only. The information and product are offered without guarantee as the ultimate conditions of use are beyond our control. The foregoing is in lieu of all warranties, expressed or implied, including implied warranties of merchantability and fitness for a particular purpose. In no event shall BioPorto Diagnostics A/S be responsible for loss of profits or indirect consequential losses resulting from use of its products.