

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

Subclass: IgG1/k

**Mouse monoclonal antibody**

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 400 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**

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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**

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