

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

CAT. NO. GAU 013-16

OVERVIEW

Product Name	Anti-Complement component C3a/C3a/(desArg)/C3 (human)	Conjugation	Unconjugated
Description	Mouse monoclonal antibody	Host	Mouse
Isotype	IgG1/k	Clone	K13/16-5.7
Tested Applications	ELISA, WB, IHC, IF		

SPECIFICITY

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)
	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)
Immunogen	Human C3a
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).
Species Reactivity	Human
POSITIVE	
	Species Reactivity Not determined
	NEGATIVE

PROPERTIES

Form	Liquid	Unit Size	0,4 mL and 1 mL
Concentration	1 mg/mL ±15%, See CoA for lot details		
Purification	Protein A or Protein G purified	Purification Notes	BSA free
Storage buffer	0.01 M phosphate buffer, pH 7.4, with 0.5 M NaCl and 15 mM sodium azide		
Storage condition	2-8°C without exposure to light		
Safety	Wear protective clothing		

TESTED APPLICATIONS

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 013-16 was used in IF with a dilution of 1:75.

SCIENTIFIC REFERENCES

- 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.
- Nezlin R, Freywald A, Oppermann M (1993) Proteins separated from human IgG molecules. *Mol. Immunol.* 30:935-940.
- 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.

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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.

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