

AM05608PU-N**Monoclonal Antibody to Complement C3 (Neoantigen, iC3b) - Purified**

Alternate names:	C3 and PZP-like alpha-2-macroglobulin domain-containing protein 1, CPAMD1, Complement component 3
Quantity:	0.1 mg
Concentration:	1.0 mg/ml
Background:	Cleavage of C3b into iC3b by the protease factor I, in the presence of cofactors, changes the structure and resulting binding properties, preventing binding by complement factor B and properdin. This prevents further progression of the complement pathway, providing another mechanism by which the complement pathway may be regulated. iC3b is thought to play a role in inducing tolerance, binding complement receptor type 3 on antigen presenting cells and stimulating them to produce transforming growth factor beta2 and interleukin-10. It is thought to stimulate B-cells via the CD21 receptor providing a link between the innate and adaptive immune responses. Additionally iC3b acts as an opsonin which is recognised by complement receptor 3 expressed on leukocytes or complement receptor of the immunoglobulin superfamily (CRIg) on Kupffer cells, stimulating phagocytosis of the tagged cells. iC3b levels are often elevated in diseases such as Systemic Lupus Erythematosus and Rheumatoid arthritis.
Uniprot ID:	P01024
NCBI:	NP_000055
GeneID:	718
Host / Isotype:	Mouse / IgG2b
Recommended Isotype Controls:	SM12P, AM03110PU-N
Clone:	013III-1.16
Immunogen:	Purified Human iC3b
Format:	State: Liquid purified IgG fraction Purification: Affinity Chromatography on Protein A Buffer System: Borate buffered saline pH 8.2-8.4 Preservatives: 0.09% Sodium Azide
Applications:	ELISA. Western blot. Flow Cytometry. Immunohistochemistry on Frozen Sections. <i>Histology Positive Control Tissue:</i> Kidney from post streptococcal glomerulonephritis patients.

Other applications not tested. Optimal dilutions are dependent on conditions and should be determined by the user.

Specificity:

AM05608PU-N Recognises 42kDa inactive complement component 3b (iC3b) neoantigen present in blood serum.

Species Reactivity:

Tested: Human.

Storage:

Store undiluted at 2-8°C for one month or (in aliquots) at -20°C for longer.
Avoid repeated freezing and thawing.
Shelf life: one year from despatch.

General Readings:

1. Janssen BJ, Gros P. Structural insights into the central complement component C3. Mol Immunol. 2007 Jan;44(1-3):3-10. Epub 2006 Jul 27. PubMed PMID: 16875735.
2. Bergmann-Leitner ES, Leitner WW, Tsokos GC. Complement 3d: from molecular adjuvant to target of immune escape mechanisms. Clin Immunol. 2006 Nov;121(2):177-85. Epub 2006 Aug 17. PubMed PMID: 16914381.
3. Sohn JH, Bora PS, Suk HJ, Molina H, Kaplan HJ, Bora NS. Tolerance is dependent on complement C3 fragment iC3b binding to antigen-presenting cells. Nat Med. 2003 Feb;9(2):206-12. Epub 2003 Jan 6. PubMed PMID: 12514742.