

Complement

Monoclonal Antibodies: Murine Anti-Human C3a

For Research Use Only. Not for use in Diagnostic Procedures.

Background

The human complement component, C3, consists of two disulfide-bonded subunits (Alpha – 115,000 kD and Beta – 75,000 kD). The concentration of C3 in serum is approximately 1.25 ± 0.52 mg/ml. Under normal conditions, activation of either the Classical, Lectin or Alternative Complement Pathways produces C3 convertase which cleaves C3 into two fragments – C3a, an anaphylatoxin, and C3b.

Quidel's monoclonal antibodies to complement antigens were prepared using standard techniques. They are purified from mouse ascites fluid via Protein A affinity chromatography. Quidel's Anti-Human C3a monoclonal antibody was raised against highly pure human C3 protein.

Specificity

The specificity of the monoclonal antibody was established via a series of immunoassays utilizing highly purified C3 and C3 fragments. First, the antibody was shown by ELISA to bind purified C3 and C3a immobilized in microtiter wells; but not to C3b, iC3b, C3c or C3dg. An inhibition ELISA employing identical dilutions of normal human plasma, normal human serum, and normal human serum activated by cobra venom factor (CVF, A600) confirmed that this antibody binds to a non-neoantigenic determinant which resides in the C3 domain of native C3 and is also expressed on isolated C3a. Binding of the antibody to the C3a domain of water-hydrolyzed C3, C3(H₂O), was not examined.

Applications

EIA ¹	RIA	IHC	WB ²	FACS
>1:5,000	N/T	N/T	>1:1,000	N/T

N/T = Not tested.

Specifications

Catalog Number:	A203
Concentration:	1.0-1.2 mg/ml
Purity:	≥ 95% by SDS PAGE
Volume/Vial:	100 µl
Storage:	
≤ 30 Days	2-8 °C
> 30 Days	≤ -20 °C
Buffer:	Borate Buffered Saline (pH 8.4 ± 0.2)
Isotype:	IgG ₁ k

Species Cross Reactivity: Human, baboon, Cynomologus macaque, Rhesus macaque, pig.

References

- 1 On file with Quidel Corporation.
- 2 Murray, I. et al. Functional bioactive recombinant acylation stimulating protein is distinct from C3a anaphylatoxin. *J Lipid Res. Sci.* 38(12):2492-2501 (1997).

Ordering and Additional Information

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