

**Anti Complement component C3 (human), beta-chain genetic variant
Mouse monoclonal antibody**Subclass: IgG_{2a}/k

PRODUCT NO.	HAV 004-01
PRESENTATION	Preparation: Protein-A purified Content: Available in 200 µL and 1 mL, 1 mg/mL Solvent: 0.01 M phosphate buffer, pH 7.4, containing 0.5 M NaCl and 15 mM sodium azide Storage: In the dark at 4-8°C
ANTIGEN	C3 is a key component of the complement system since classical and alternative activation pathways merge at the C3 activation step when C3 is split into C3a and C3b. The molecular mass of C3 is 185 kDa and it consists of alpha and beta chains (110 kDa and 75 kDa respectively) held together by disulfide bonds (1,2).
IMMUNOGEN	C3 isolated from human plasma
SPECIFICITY	HAV 004-01 is specific for an allotypic marker on human C3 (Leu instead of Pro in codon 314 of exon 9), which occurs regulasaly in the beta-chain of C3F and occasionally in the beta-chain of C3S (3,4). F and S mean fast and slow, respectively, on agarose gel electrophoresis. HAV 004-01 reacts with the 75-kDa beta-chain band on SDS-PAGE immunoblotting of reduced C3, and reacts with 20-kDa and 17-kDa beta-chain fragments produced by cyanogen bromide cleavage (5).
EPI TOPE SPECIFICITY	Epitope specificity differs from that of HAV 003-05
REACTIVITY	HAV 004-01 reacts strongly with C3. Strong reaction is seen in ELISA with C3 coated directly onto the microtiter well, and also when used as detection antibody in sandwich ELISA in wells coated with a polyclonal antibody against C3. In Western blotting after SDS-PAGE, HAV 004-01 detects the above-mentioned allotypic marker on the beta-chain of C3, closely related but not completely specific to the fast-moving form of C3, C3F. HAV 004-01 can be cleaved by papain to produce Fab fragments.
CULTURE MEDIUM	RPMI 1640 with 10% fetal calf serum
FUSION PARTNER	X63-Ag8.653.
IMMUNIZATION	Female CF1 x BALB/c mice immunized i.p. with immunogen adsorbed onto Al(OH) ₃
APPLICATION	

Method	Usability	Dilution guideline	References
ELISA	Yes	1:8000	3,5
Immunoblotting	Yes		
Immunohistochemistry	Not determined		

The dilution guideline for ELISA is based on sandwich ELISA in combination with a polyclonal antibody against the antigen. Users should determine the optimal dilutions for their own purpose.

REFERENCES

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3. Koch C, Behrendt N (1986) A novel polymorphism of human complement component C3 detected by means of a monoclonal antibody. Immunogenetics 23:322-325.
4. Botto M, Fong KY, So AK, Koch C, Walport MJ (1990) Molecular basis of polymorphisms of human complement component C3. J Exp Med 172:1011-1017.
5. Behrendt N, Hansen OC, Ploug M, Barkholt V, Koch C (1987) Localization and functional significance of a polymorphic determinant in the third component of human complement. Mol Immunol 24:1097-1103.

CONDITIONS

All products are supplied on the understanding that they are for in vitro use only. The information and product are offered without guarantee as the ultimate conditions of use are beyond our control. The animals from which this product was derived have not been exposed to or inoculated with any livestock or poultry disease agents exotic to the United States or Western Europe, and did not originate from facilities where work with exotic disease agents affecting livestock or avian species is carried out.