Complement C4d Monoclonal Mouse Antibody (TDM16)

Product Description

This MAb is specific to Complement 4d (C4d) and it reacts with the secreted as well as cell-bound C4d.C4d is a degradation product of the activated complement factor C4b. Complement 4b is typically activated by binding of Abs to specific target molecules. Following activation and degradation of the C4 molecule, thio-ester groups are exposed, which allow transient, covalent binding of the degradation product Complement 4d to endothelial cell surfaces and extracellular matrix components of vascular basement membranes near the sites of C4 activation. The presence of C4d in peritubular capillaries is a key indicator for acute humoral (i.e. antibody-mediated) rejection of kidney, heart, pancreas and lung allografts. As an established marker of antibody-mediated acute renal allograft rejection and its proclivity for endothelium, this component can be detected in peritubular capillaries in chronic renal allograft rejection as well as hyperacute rejection, acute vascular rejection, acute cellular rejection, and borderline rejection. It has been shown to be a significant predictor of transplant kidney graft survival. Anti-C4d, combined with anti-C3d, can be utilized as a tool for diagnosis of allograft rejection that may warrant a prompt and aggressive anti-rejection treatment.

Primary antibodies are available purified, or with a selection of fluorescent CF® dyes and other labels. CF® dyes offer exceptional brightness and photostability. See the CF® Dye Brochure for more information. Note: Conjugates of blue fluorescent dyes like CF®405S and CF®405M are not recommended for detecting low abundance targets, because blue dyes have lower fluorescence and can give higher non-specific background than other dye colors.

Stock status: Because Biotium offers a large number of antibody and conjugation options, primary antibody conjugates may be made to order. Typical lead times are up to one week for CF® dye and biotin conjugates, and up to 2-3 weeks for fluorescent protein and enzyme conjugates. Please email order@biotium.com to inquire about stock status and lead times before placing your order.

Catalog number key for antibody number 1232, Anti-Complement C4d (TDM16)

Oradust attributes

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Product attributes			
Antibody number	#1232		
Antibody reactivity (target)	Complement C4d		
Antibody type	Primary		
Host species	Mouse		
Clonality	Monoclonal		
Clone	TDM16		
Isotype	IgG1		
Molecular weight	192 kDa (predicted)		
Synonyms	Acidic Complement C4; Basic C4; C4-1; C4a Anaphylatoxin; C4A; C4A2; C4A3; C4A4; C4A6; C4B12; C4d fragment, C4F; C4S; Complement C4 Gamma Chain; Complement Component 4A; Complement Component 4B		
Human gene symbol	C4A		
Entrez gene ID	720 & 721		
SwissProt	P0C0L4 & P0C0L5		
Unigene	534847 & 720022		
Immunogen	Human Complement 4d protein		
Antibody target cellular localization	Secreted (extracellular), Vesicular		
Species reactivity	Human		
Species reactivity Antibody application notes	Human For coating for ELISA, order Ab without BSA, Higher concentration may be required for direct detection using primary antibody conjugates than for indirect detection with secondary antibody. Optimal dilution and staining procedure for a specific application should be determined by user, Recommended starting concentrations for titration are 1-2 ug/mL for most applications, or 1 ug/million cells/100 uL for flow cytometry		
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Email: techsupport@biotium.com

Antibody # prefix	Conjugation	Ex/Em (nm)	Laser line	Detection channel	Dye Features
BNC04	CF®405S	404/431	405	DAPI (microscopy), AF405	CF®405S Features
BNC88	CF®488A	490/515	488	GFP, FITC	CF®488A Features
BNC68	CF®568	562/583	532, 561	RFP, TRITC	CF®568 Features
BNC94	CF®594	593/614	561	Texas Red®	CF®594 Features
BNC40	CF®640R	642/662	633-640	Cy®5	CF®640R Features
BNC47	CF®647	650/665	633-640	Cy®5	CF®647 Features
BNC74	CF®740	742/767	633-685	775/50	CF®740 Features
BNCB	Biotin	N/A	N/A	N/A	
BNUB	Purified	N/A	N/A	N/A	
BNUM	Purified, BSA-free	N/A	N/A	N/A	

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References

Collins AB et. al. J Am Soc Nephrol. 1999;10(10):2208-14. | Racusen LC et. al. Am J Transplant. 2003;3(6):708-14. | Sacks SH et. al. Curr Opin Nephrol Hypertens. 2002;11(6):627-8

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