

Datasheet: 0300-0230

BATCH NUMBER 173674

Description:	RABBIT ANTI HUMAN C4d
Specificity:	C4d
Other names:	COMPLEMENT COMPONENT 4d
Format:	Purified
Product Type:	Polyclonal Antibody
Isotype:	Polyclonal IgG
Quantity:	0.25 ml

Product Details

Applications

This product has been reported to work in the following applications. This information is derived from testing within our laboratories, peer-reviewed publications or personal communications from the originators. Please refer to references indicated for further information. For general protocol recommendations, please visit www.bio-rad-antibodies.com/protocols.

	Yes	No	Not Determined	Suggested Dilution
Immunohistology - Frozen	▪			1/20 - 1/80
Immunohistology - Paraffin (1)	▪			1/20 - 1/80
Immunofluorescence	▪			1/20 - 1/80

Where this product has not been tested for use in a particular technique this does not necessarily exclude its use in such procedures. Suggested working dilutions are given as a guide only. It is recommended that the user titrates the product for use in their own system using the appropriate negative/positive controls.

(1)This product requires antigen retrieval using heat treatment prior to staining of paraffin sections. TRIS/EDTA buffer pH 8.5 is recommended for this purpose.

Target Species	Human
Product Form	Purified Ig - liquid
Preparation	Purified Ig prepared by affinity chromatography on Protein G.
Buffer Solution	Phosphate buffered saline.
Preservative Stabilisers	0.1% ProClin 950
Immunogen	Synthetic peptide corresponding to amino acids 1241-1256 of C4 conjugated to Keyhole limpet Haemocyanin.

External Database Links	UniProt: P0C0L4 Related reagents P0C0L5 Related reagents Entrez Gene: 720 C4A Related reagents 721 C4B Related reagents
Synonyms	CO4, CPAMD2, CPAMD3
RRID	AB_620313
Specificity	<p>Rabbit anti Human C4d antibody is a polyclonal antibody specific for human complement split product C4d.</p> <p>This antibody is raised against a 15-mer peptide corresponding to amino acids 1242 to 1256 of human C4. It is validated for immunohistological and immunofluorescent staining in both frozen and formalin-fixed paraffin-embedded sections.</p> <p>C4d is a breakdown product of complement factor C4b. Although C4d does not have any known biological activity, it is commonly used as a biomarker for studies investigating the classical pathway of complement activation as well as antibody-mediated rejection (AMR) in transplant patients (Cohen, et al. 2012).</p>
References	<ol style="list-style-type: none"> 1. Regele, H. <i>et al.</i> (2001) Endothelial C4d deposition is associated with inferior kidney allograft outcome independently of cellular rejection. Nephrol Dial Transplant. 16 (10): 2058-66. 2. Viana, H. <i>et al.</i> (2009) C4d presence in kidney allograft biopsy: sensitivity and specificity of immunoperoxidase vs. immunofluorescence. N: 10th Banff Conference on Allograft Pathology, 2009, 9 a 14 Ago. Banff, Alberta, Canada 3. Santos, A. <i>et al.</i> (2012) C4d detection in renal allograft biopsies: immunohistochemistry vs. immunofluorescence Port J Nephrol Hypert 26 (4): 272-7. 4. Sreedharanunni, S. <i>et al.</i> (2014) An analysis of transplant glomerulopathy and thrombotic microangiopathy in kidney transplant biopsies. Transpl Int. 27 (8): 784-92. 5. Sethi, S. <i>et al.</i> (2015) C4d as a Diagnostic Tool in Proliferative GN. J Am Soc Nephrol. 26 (11): 2852-9. 6. Mahakur, S. <i>et al.</i> (2018) Allo-specific immune response profiles indicative of acute rejection in kidney allografts using an <i>in vitro</i> lymphocyte culture-based model. Clin Exp Nephrol. 22 (2): 465-73. 7. Hanaoka, K. <i>et al.</i> (2019) Benefits of a loading dose of tacrolimus on graft survival of kidney transplants in nonhuman primates Transplant Immunology. 52: 32-9.
Storage	This product is shipped at ambient temperature. It is recommended to aliquot and store at -20°C on receipt. When thawed, aliquot the sample as needed. Keep aliquots at 2-8°C for short term use (up to 4 weeks) and store the remaining aliquots at -20°C.

Avoid repeated freezing and thawing as this may denature the antibody. Storage in frost-free freezers is not recommended.

Guarantee	Guaranteed until date of expiry. Please see product label.
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Acknowledgements	ProClin is a trademark of The Dow Chemical Company (“Dow”) or an affiliated company of Dow.
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Health And Safety Information	Material Safety Datasheet documentation #20479 available at: https://www.bio-rad-antibodies.com/SDS/0300-0230
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Regulatory	For research purposes only.
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Related Products

Recommended Secondary Antibodies

Goat Anti Rabbit IgG (H/L) (STAR124...) [HRP](#)

Goat Anti Rabbit IgG (Fc) (STAR121...) [Biotin](#), [FITC](#), [HRP](#)

Sheep Anti Rabbit IgG (STAR35...) [RPE](#)

Recommended Useful Reagents

[ANTIGEN RETRIEVAL BUFFER, pH8.0 \(BUF025A\)](#)

Product inquiries: www.bio-rad-antibodies.com/technical-support

To find a batch/lot specific datasheet for this product, please use our online search tool at: bio-rad-antibodies.com/datasheets
'M432683:240912'

Printed on 11 May 2026