Datasheet: HCA011

Description:	HUMAN ANTI MOUSE Padi2
Specificity:	Padi2
Other names:	PROTEIN ARGININE DEIMINASE TYPE II
Format:	Purified
Product Type:	Monoclonal Antibody
Clone:	AbD02121
Isotype:	HuCAL Fab bivalent
Quantity:	0.1 mg

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	▪			3.6 ug/ml
Immunohistology - Paraffin			▪	
ELISA	▪			2.0 ug/ml
Immunoprecipitation			▪	
Western Blotting	▪			2.0 ug/ml

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 appropriate negative/positive controls.

Target Species

Mouse

Product Form

A lyophilised bivalent human recombinant Fab selected from the HuCAL® GOLD phage display library. Expressed in E. coli and purified using NiNTA affinity chromatography. This Fab fragment is dimerized via a helix-turn-helix motif. The antibody is tagged with a myc-tag (EQKLISEEDL) and a his-tag (HHHHHH) at the C-terminus of the antibody heavy chain.

Reconstitution

Reconstitute with 0.1 ml distilled water

Preparation

Metal chelate affinity chromatography

Buffer Solution

Phosphate buffered saline

Preservative Stabilisers	None present
Approx. Protein Concentrations	Antibody concentration 1.0 mg/ml following reconstitution
Immunogen	A fusion protein of a domain of murine mKIAA0994 (amino acid residues 203-389, MW 21 kDa) expressed in *E. coli*.
External Database Links	**UniProt:** Q08642 Related reagents **Entrez Gene:** 18600 Padi2 Related reagents
Synonyms	Pdi, Pdi2
RRID	AB_2236663
Specificity	**Human anti mouse Padi2 antibody** recognizes Peptidylarginine deiminase II also known as Padi2 or mKIAA0994. Human anti mouse Padi2 may bind to protein-arginine deiminase type II of others species, due to a high sequence identity in the antigen region. The cross-species identity is: human 98%, rat 98%, chimpanzee 97%, dog 97%, chicken 87%. The mKIAA0994 protein catalyzes the deimination of arginine residues of proteins. Protein L-arginine reacts to protein L-citrulline and ammonia. The enzyme requires calcium as cofactor. mKIAA0994 is expressed in various tissues including muscle, uterus, spinal cord, salivary gland and pancreas. It is expressed during the estrous cycle. During diestrus and proestrus cycle, the expression level drops eight fold. The protein belongs to the protein-arginine deiminase family.
References	1. Ohara, R. *et al.* (2006) Antibodies for proteomic research: comparison of traditional immunization with recombinant antibody technology. Proteomics. 6 (9): 2638-46.
Further Reading	1. Tsuchida, M. *et al.* (1993) cDNA nucleotide sequence and primary structure of mouse uterine peptidylarginine deiminase. Detection of a 3'-untranslated nucleotide sequence common to the mRNA of transiently expressed genes and rapid turnover of this enzyme's mRNA in the estrous cycle. Eur J Biochem. 215 (3): 677-85. 2. Strausberg, R.L. *et al.* (2002) Generation and initial analysis of more than 15,000 full-length human and mouse cDNA sequences. Proc Natl Acad Sci U S A. 99 (26): 16899-903. 3. Terakawa, H. *et al.* (1991) Three types of mouse peptidylarginine deiminase: characterization and tissue distribution. J Biochem. 110 (4): 661-6.
Storage	Prior to reconstitution store at +4^{o}C. After reconstitution store at -20^{o}C.

	Storage in frost-free freezers is not recommended. Avoid repeated freezing and thawing as this may denature the antibody.
Guarantee	6 months from date of reconstitution
Acknowledgements	Sold under license of U.S. Patents 6,300,064, 6,696,248, 6,708,484, 6,753,136, European patent 0,859,841 and corresponding patents. This antibody was developed by Bio-Rad, a wholly owned subsidiary of Bio-Rad Laboratories Inc., Zeppelinstr. 4, 82178 Puchheim, Germany, in collaboration with the Kazusa DNA Research Institute, 2-6-7 Kazusa-kamatari, Kisarazu, Chiba 292-0818 JAPAN. His-tag is a registered trademark of EMD Biosciences.
Health And Safety Information	Material Safety Datasheet documentation #10162 available at: 10162: https://www.bio-rad-antibodies.com/uploads/MSDS/10162.pdf
Licensed Use	For in vitro research purposes only, unless otherwise specified in writing by Bio-Rad.
Regulatory	For research purposes only
Technical Advice	Recommended protocols and further information about HuCAL recombinant antibody technology can be found in the HuCAL Antibodies Technical Manual

Related Products

Recommended Secondary Antibodies

Mouse Anti Synthetic Peptide HISTIDINE TAG (MCA5995...)	HRP
Goat Anti Human IgG F(ab')2 (0500-0099...)	Alk. Phos., HRP
Mouse Anti Human C-MYC (MCA2200...)	Purified

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