

## Datasheet: MCA5698 BATCH NUMBER 167830

Description:	MOUSE ANTI HUMAN N-CADHERIN
Specificity:	N-CADHERIN
Other names:	CD325
Format:	Purified
Product Type:	Monoclonal Antibody
Clone:	13A9
Isotype:	lgG1
Quantity:	0.2 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 <u>www.bio-rad-antibodies.com/protocols</u>.

	Yes	No	Not Determined	Suggested Dilution
Flow Cytometry			•	
Immunohistology - Frozen				
Immunohistology - Paraffin (1)	■			
ELISA				
Immunoprecipitation				
Western Blotting				1/100 - 1/1000
Immunofluorescence				

The PrecisionAb label is reserved for antibodies that meet the defined performance criteria within Bio-Rad's ongoing antibody validation programme. Click <u>here</u> to learn how we validate our PrecisionAb range. Where this antibody 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 antibody for use in their own system using appropriate negative/positive controls.

(1) This product requires antigen retrieval using steam heat treatment prior to staining of paraffin sections. Sodium citrate buffer pH 6.0 is recommended for this purpose.

Target Species Human

Species Cross Reactivity	Reacts with: Rat <b>N.B.</b> Antibody reactivity and working conditions may vary between species. Cross reactivity is derived from testing within our laboratories, peer-reviewed publications or personal communications from the originators. Please refer to references indicated for further information.				
Product Form	Purified IgG - liquid				
Preparation	Purified IgG prepared by affinity chromatography on Protein A from tissue culture supernatant				
Buffer Solution	Phosphate buffered saline				
Preservative Stabilisers	0.09% Sodium Azide (NaN <sub>3</sub> )				
Carrier Free	Yes				
Approx. Protein Concentrations	IgG concentration 1.0mg/ml				
Immunogen	Recombinant MBP fusion protein containing the entire cytoplasmic domain of human N-cadherin.				
External Database Links	UniProt: $P19022$ Related reagents $Q9Z1Y3$ Related reagentsEntrez Gene: $1000$ CDH2Related reagents $83501$ Cdh2Related reagents				
Synonyms	CDHN, NCAD				
RRID	AB_11152772				
Specificity	Mouse anti Human N-cadherin antibody, clone 13A9 recognizes neural cadherin, otherwise known as CD325, a calcium dependent cell-cell adhesion glycoprotein, and member of the cadherin superfamily, which links to the actin cytoskeleton via catenins, and plays a role in cell-matrix adhesion, cell growth and differentiation, and the establishment of left-right asymmetry. N-cadherin is expressed by neurons, endothelial cells, muscle cells, and stem cells, and is one of the primary cadherins recruited to the site of neuronal synapse formation. N-cadherin is directly involved in the differentiation of early hematopoietic progenitors, and is commonly expressed by cancer cells, playing a role in transendothelial migration and metastasis, through the up-regulation of the src kinase pathway, and subsequent failure of the intercellular connection between two adjacent endothelial cells.				

	Mouse anti Human N-cadherin antibody, clone 13A9 does not recognize E-cadherin, M-cadherin or P-cadherin ( <u>Knudsen <i>et al.</i> 1995</u> ). Mouse anti Human N-cadherin antibody, clone 13A9 is a reliable marker for the differential diagnosis of pleural mesotheliomas and lung adenocarcinomas, when used in conjunction with E-cadherin ( <u>Han <i>et al.</i> 1997</u> ).
Western Blotting	MCA5698 detects a band of approximately 135-140kDa in human HeLa cell lysates.
References	<ol> <li>Sacco, P.A. <i>et al.</i> (1995) Identification of plakoglobin domains required for association with N-cadherin and alpha-catenin. J Biol Chem. 270: 20201-6.</li> <li>Peralta Soler, A. <i>et al.</i> (1995) The differential expression of N-cadherin and E-cadherin distinguishes pleural mesotheliomas from lung adenocarcinomas. Hum Pathol. 26 (12): 1363-9.</li> <li>Knudsen, K.A. <i>et al.</i> (1995) Interaction of alpha-actinin with the cadherin/catenin cell-cell adhesion complex via alpha-catenin. J Cell Biol. 130 (1): 67-77.</li> <li>Islam, S. <i>et al.</i> (1996) Expression of N-cadherin by human squamous carcinoma cells induces a scattered fibroblastic phenotype with disrupted cell-cell adhesion. J Cell Biol. 135 (6 Pt 1): 1643-54.</li> <li>Han, A.C. <i>et al.</i> (1997) Differential expression of N-cadherin in pleural mesotheliomas and E-cadherin in lung adenocarcinomas in formalin-fixed, paraffin-embedded tissues. Hum Pathol. 28 (6): 641-5.</li> <li>Peralta Soler, A. <i>et al.</i> (1999) N-cadherin expression in breast carcinoma indicates poor survival. <u>Cancer. 86: 1263-72.</u></li> <li>Nieman, M.T. <i>et al.</i> (2000) Developmental expression and distribution of N- and E-cadherin in the rat ovary. <u>Biol Reprod. 63 (3): 797-804.</u></li> <li>Van Aken, E.H. <i>et al.</i> (2002) Structure and function of the N-cadherin/catenin complex in retinoblastoma. <u>Invest Ophthalmol Vis Sci. 43 (3): 595-602.</u></li> <li>Wahl, J.K. 3rd <i>et al.</i> (2003) N-cadherin-catenin complexes form prior to cleavage of the proregion and transport to the plasma membrane. <u>J Biol Chem. 278 (19): 17269-76.</u></li> <li>Shintani, Y. <i>et al.</i> (2007) NHERF links the N-cadherin/catenin complex to the plate-tervined growth factor receptor to modulate the actin cytoskeleton and regulate cell motility. <u>Mol Biol Cell. 18: 1220-32.</u></li> <li>Theisen, C.S. <i>et al.</i> (2007) NHERF links the N-cadherin/catenin complex to the plate-tervined growth factor receptor to modulate the actin cytoskeleton and regulate cell motility. <u>Mol Biol Cell. 18: 1220</u></li></ol>
SIGNAGE	<ul> <li>Avoid repeated freezing and thawing as this may denature the antibody. Storage in frost-free freezers is not recommended.</li> </ul>

Guarantee	12 months from date of despatch
Acknowledgements	PrecisionAb is a trademark of Bio-Rad Laboratories
Health And Safety Information	Material Safety Datasheet documentation #10040 available at: https://www.bio-rad-antibodies.com/SDS/MCA5698 10040
Regulatory	For research purposes only

# **Related Products**

### **Recommended Secondary Antibodies**

Rabbit Ar	nti Mouse IgG (STAR12)	RPE			
Goat Ant	i Mouse IgG IgA IgM (STAR87	HRP			
Goat Ant	Mouse IgG (STAR76)	RPE			
Goat Ant	i Mouse IgG (STAR70)	FITC			
Goat Ant	i Mouse IgG (H/L) (STAR117)	Alk. Phos., DyLight®488, DyLight®550,			
		DyLight®650, DyLight®680, DyLight®800	<u>),</u>		
		FITC, HRP			
Rabbit Ar	nti Mouse IgG (STAR9)	FITC			
Goat Ant	i Mouse IgG (STAR77)	HRP			
Goat Ant	i Mouse IgG (Fc) (STAR120)	FITC, HRP			
Rabbit Ar	nti Mouse IgG (STAR13)	HRP			
Recomn	nended Negative Controls				
MOUSE Ig	G1 NEGATIVE CONTROL (MCA92	8)			
North & South America	Tel: +1 800 265 7376 Worldwid Fax: +1 919 878 3751 Email: antibody_sales_us@bio-rad.com	e Tel: +44 (0)1865 852 700 Europe Fax: +44 (0)1865 852 739 Email: antibody_sales_uk@bio-rad.com	Tel: +49 (0) 89 8090 95 21 Fax: +49 (0) 89 8090 95 50 Email: antibody_sales_de@bio-rad.com		
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