

## Datasheet: MCA1806T

**BATCH NUMBER 163289**

<b>Description:</b>	MOUSE ANTI HUMAN CD10
<b>Specificity:</b>	CD10
<b>Other names:</b>	CALLA
<b>Format:</b>	S/N
<b>Product Type:</b>	Monoclonal Antibody
<b>Clone:</b>	56C6
<b>Isotype:</b>	IgG1
<b>Quantity:</b>	0.1 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](http://www.bio-rad-antibodies.com/protocols).

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

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 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: Cynomolgus monkey

**N.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

Tissue Culture Supernatant - liquid

### Preservative

<0.1% Sodium Azide (NaN<sub>3</sub>)

## Stabilisers

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**Immunogen** Recombinant human CD10.

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## External Database Links

### UniProt:

[P08473](#)    [Related reagents](#)

### Entrez Gene:

[4311](#)    MME    [Related reagents](#)

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**Synonyms** EPN

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**RRID** AB\_323793

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**Fusion Partners** Spleen cells from immunised mice were fused with cells of the mouse p3-NS1-Ag4-1 myeloma cell line

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## Specificity

**Mouse anti Human CD10 antibody, clone 56C6** recognizes human Neprilysin, also known as CD10, Atriopeptidase, Common acute lymphocytic leukemia antigen (CALLA), Enkephalinase, Neutral endopeptidase 24.11, Neutral endopeptidase or Skin fibroblast elastase. CD10 is a 749 amino acid, ~100 kDa single pass type II transmembrane glycoprotein, expressed on a variety of cell types including immature and germinal centre B cells, lymphoblastic leukaemia cells and also on the brush border of kidney epithelial cells.

Mutations in the MME gene (encoding CD10) are involved in the development of Charcot-Marie-Tooth disease 2T ([CMT2T](#)), a disorder of the peripheral nervous system, demonstrating progressive peripheral muscle weakness and atrophy ([Higuchi et al. 2016](#)). Mutations of the MME gene can also lead to Spinocerebellar ataxia 43 ([SCA43](#)) characterized by a progressive loss of gait coordination along with hand, speech and eye coordination. Degeneration of the cerebellum, with variable involvement of the brain stem and spinal cord are apparent in this slow progressive autosomal dominant form of the disease ([Depondt et al. 2016](#)).

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## Histology Positive Control Tissue

Tonsil, Intestine or kidney

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## References

1. Angelin-Duclos, C. *et al.* (2000) Commitment of B lymphocytes to a plasma cell fate is associated with Blimp-1 expression *in vivo*. [J Immunol. 165 \(10\): 5462-71.](#)
2. Carvounis, E.E. *et al.* (2003) Undifferentiated carcinoma with osteoclast-like giant cells of the pancreas. [Int J Gastrointest Cancer. 33: 103-6.](#)
3. Scholzen, T.E. *et al.* (2007) Terminating the stress: peripheral peptidolysis of proopiomelanocortin-derived regulatory hormones by the dermal microvascular endothelial cell extracellular peptidases neprilysin and angiotensin-converting enzyme. [Endocrinology. 148: 2793-805.](#)
4. de Moraes Schenka, N.G. *et al.* (2007) Use of p63 and CD10 in the differential diagnosis of papillary neoplasms of the breast. [Breast J. 14: 68-75.](#)
5. Matsumoto, T. *et al.* (2005) Increase of bone marrow-derived secretory lineage

epithelial cells during regeneration in the human intestine. [Gastroenterology. 128: 1851-67.](#)

6. Rasini, V. *et al.* (2013) Mesenchymal stromal/stem cells markers in the human bone marrow. [Cytotherapy. 15 \(3\): 292-306.](#)

7. Nishimoto-Kakiuchi, A. *et al.* (2016) Characteristics of histologically confirmed endometriosis in cynomolgus monkeys. [Hum Reprod. 31 \(10\): 2352-9.](#)

8. Tasaki K *et al.* (2007) CD5-positive mucosa-associated lymphoid tissue (MALT) lymphoma of ocular adnexal origin: usefulness of fluorescence *in situ* hybridization for distinction between mantle cell lymphoma and MALT lymphoma. [Pathol Int. 57 \(2\): 101-7.](#)

9. Mizowaki, T. *et al.* (2015) STAT3 activation is associated with cerebrospinal fluid interleukin-10 (IL-10) in primary central nervous system diffuse large B cell lymphoma. [J Neurooncol. 124 \(2\): 165-74.](#)

10. Ince, T.A. *et al.* (2007) Transformation of different human breast epithelial cell types leads to distinct tumor phenotypes. [Cancer Cell. 12 \(2\): 160-70.](#)

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**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.

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**Guarantee** Guaranteed until date of expiry. Please see product label.

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**Health And Safety Information** Material Safety Datasheet documentation #10055 available at: <https://www.bio-rad-antibodies.com/SDS/MCA1806T10055>

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**Regulatory** For research purposes only

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## Related Products

### Recommended Secondary Antibodies

Rabbit Anti Mouse IgG (STAR12...) [RPE](#)  
Goat Anti Mouse IgG IgA IgM (STAR87...) [HRP](#)  
Goat Anti Mouse IgG (STAR76...) [RPE](#)  
Goat Anti Mouse IgG (STAR70...) [FITC](#)  
Rabbit Anti Mouse IgG (STAR13...) [HRP](#)  
Goat Anti Mouse IgG (Fc) (STAR120...) [FITC](#), [HRP](#)  
Rabbit Anti Mouse IgG (STAR9...) [FITC](#)  
Goat Anti Mouse IgG (STAR77...) [HRP](#)  
Goat Anti Mouse IgG (H/L) (STAR117...) [Alk. Phos.](#), [DyLight@488](#), [DyLight@550](#),  
[DyLight@650](#), [DyLight@680](#), [DyLight@800](#),  
[FITC](#), [HRP](#)

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To find a batch/lot specific datasheet for this product, please use our online search tool at: [bio-rad-antibodies.com/datasheets](https://bio-rad-antibodies.com/datasheets)

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