Datasheet: MCA1806T

Description:	MOUSE ANTI HUMAN CD10
Specificity:	CD10
Other names:	CALLA
Format:	S/N
Product Type:	Monoclonal Antibody
Clone:	56C6
Isotype:	IgG1
Quantity:	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.

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

<0.1% sodium azide (NaN_3)

Immunogen	Recombinant human CD10.
External Database Links	**UniProt:** P08473 Related reagents **Entrez Gene:** 4311 MME Related reagents
Synonyms	EPN
RRID	AB_323793
Fusion Partners	Spleen cells from immunised mice were fused with cells of the mouse p3-NS1-Ag4-1 myeloma cell line
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 progerssive 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).
Histology Positive Control Tissue	Human tonsil, intestine or kidney
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. Matsumoto, T. *et al.* (2005) Increase of bone marrow-derived secretory lineage epithelial cells during regeneration in the human intestine. Gastroenterology. 128: 1851-67. 4. 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. 5. 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.

6. 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.
7. 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.
8. Rasini, V. *et al.* (2013) Mesenchymal stromal/stem cells markers in the human bone marrow. Cytotherapy. 15 (3): 292-306.
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. Nishimoto-Kakiuchi, A. *et al.* (2016) Characteristics of histologically confirmed endometriosis in cynomolgus monkeys. Hum Reprod. 31 (10): 2352-9.

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	12 months from date of despatch
Health And Safety Information	Material Safety Datasheet documentation #10055 available at: https://www.bio-rad-antibodies.com/SDS/MCA1806T 10055
Regulatory	For research purposes only

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

Recommended Negative Controls

MOUSE IgG1 NEGATIVE CONTROL (MCA928)

North & South America Tel: +1 800 265 7376
Fax: +1 919 878 3751
Email: antibody_sales_us@bio-rad.com

Worldwide Tel: +44 (0)1865 852 700
Fax: +44 (0)1865 852 739
Email: antibody_sales_uk@bio-rad.com

Europe Tel: +49 (0) 89 8090 95 21
Fax: +49 (0) 89 8090 95 50
Email: antibody_sales_de@bio-rad.com

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

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