



Mouse anti-CD10 (CALLA)

Cat. No.: BMS043 (16 ml Ready-to-use)

Instructions for use

Intended use

This antibody is designed for the specific localisation of CD10 in formalin-fixed, paraffin-embedded tissue sections. Anti-CD10 antibody is intended for in vitro diagnostic use.

Specifications

Specificity:	Human CD10
Clone:	56C6
Isotype:	Mouse IgG1
Species reactivity:	Human +, others not tested

Summary and Description

CD10 (CALLA, Common Acute Lymphoblastic Leukemia Antigen) is an integral Type II-membrane protein with a molecular weight of 100 kDa. CD10 was identified as a human membrane-associated neutral metalloendopeptidase. Synonyms are NEP, encephalokinase or neprilysin.

CD10 is present on precursor B-cells, a subset of precursor T-cells, mature granulocytes, approximately 75 % of B-ALL, a subset of T-ALL/T-LBL, and on all ALL-subtypes. Burkitt's lymphomas and myelomas stain positive for CD10, as well as some diffuse large-cell B-cell lymphomas and most follicular lymphomas. Few tumours of epithelial origin like carcinomas of the kidney, bladder, prostate, uterus and liver stain also positive.

MALT lymphomas and mantel cell lymphomas are negative for CD10.

CD10 is a frequently utilised marker for differential diagnosis of lymphomas but is also used for discrimination of e.g. hepatocellular carcinomas vs. liver metastases of other origins.

Reagent provided

Mouse monoclonal antibody in buffer with carrier protein and preservative for stabilisation in the following formats:

Ready-to-use 16 ml (Cat. No. BMS043)

Dilution of primary antibody

None

Storage and handling

The antibody should be stored at 2-8°C without further dilution.

If necessary, dilutions of the antibody should be done with a suitable antibody dilution buffer (e.g. ZUC025 from Zytomed Systems). The diluted antibody should be stored at 2-8°C after use. Stability of this working solution depends on various parameters and has to be confirmed by appropriate controls.

The antibody provided is suitable for use until the expiry date indicated on the label, if stored at 2-8°C. Do not use product after the expiry date. Positive and negative controls should be run simultaneously with all specimens. If unexpected staining is observed which cannot be explained by variations in laboratory procedures and a problem with the antibody is suspected, contact Zytomed Systems' technical support or your local distributor.

Precautions

Use through qualified personnel only. Wear protective clothing to avoid contact of reagents and specimens with eye, skin and mucous membranes. If reagents or specimens come in contact with sensitive area, wash with large amounts of water.

Microbial contamination of the reagent must be avoided, since otherwise non-specific staining may occur.

ProClin300 and sodium azide (NaN_3) are used for stabilisation. Reaction of sodium azide with lead or copper in drainage pipes can result in the formation of highly explosive metallic azides. Discard the antibody solution in a large volume of running water to avoid formation of deposits. A material safety data sheet (MSDS) for the pure substances is available upon request.

Staining procedure

Refer to the following table for conditions specifically recommended for this antibody. Also refer to detection system data sheets for guidance on specific staining protocols or other requirements.

Parameters	Zytomed Systems recommendations
*Pre-treatment	Heat Induced Epitope Retrieval (for example in Citrate buffer pH 6.0)
*Control tissue	Tonsil, lymph nodes, kidney
*Working dilution	None
*Incubation time	60 minutes

Quality control

The recommended positive control tissues for this antibody are tonsil, lymph nodes and kidney. Please refer to the instructions of the detection system for guidance on general quality control procedures.

Troubleshooting

If you observe unusual staining or other deviations from the expected results please read these instructions carefully, refer to the instructions of the detection system for relevant information or contact your local distributor.

Expected results

This antibody stains positive in the cytoplasmic membrane of CD10 expressing cells in formalin-fixed, paraffin-embedded tissue sections. Further details about the expression pattern of CD10 can be found in the chapter 'Summary and Description'. Interpretation of the staining results is solely the responsibility of the user. Any experimental result should be confirmed by a medically established diagnostic procedure.

Limitations of the Procedure

Immunohistochemistry is a complex technique involving both histological and immunological detection methods. Tissue processing and handling prior to immunostaining, for example variations in fixation and embedding or the inherent nature of the tissue can cause inconsistent results (Nadji and Morales, 1983). Endogenous peroxidase, pseudoperoxidase activity in erythrocytes or biotin may cause non-specific staining depending on the detection system used. Tissues containing Hepatitis B Surface Antigen (HBsAg) may give false positive results with HRP (horse radish peroxidase) detection systems (Omata *et al*, 1980). Inadequate counterstaining and mounting can influence the interpretation of the results.

Zytomed Systems warrants that the product will meet all requirements described from its shipping date until the expiry date is reached, if the product is stored and utilised as recommended. No additional guarantees can be given. Under no circumstances shall Zytomed System be liable for any damages arising out of the use of the reagent provided.

Performance characteristics

Zytomed Systems has conducted studies to evaluate the performance of the antibody for use with a standard detection system. The product has been found to be sensitive and specific to the antigen of interest with minimal or no cross-reactivity.

Bibliography

Hoefnagel JJ *et al.*, Br J Dermatol 149:1183-1191, 2003
Borscheri N *et al.*, Am J Surg Pathol 25:1297-1303, 2001
de Leval L *et al.*, Am J Surg Pathol 25:1277-1282, 2001
Kaufmann O *et al.*, Am J Clin Pathol 111:117-122, 1999
McIntosh G *et al.*, Am J Pathol 154:77-82, 1999
Omata M *et al.*, Am J Clin Pathol 73:626-632, 1980
Laurent C, *et al.* Haematologica. 2010; 95: 356-8

Ordi J *et al.*, Am J Surg Pathol 27:178-186, 2003
Sasaoka A *et al.*, Clin Nephrol 60:305-314, 2003
McCluggage WG *et al.*, Histopathol 39:273-278, 2001
Chu P *et al.*, Am J Clin Pathol 113:374-382, 2000
Nadji M and Morales AR., Ann NY Acad Sci 420:134-139, 1983
Maguer-Satta V, *et al.* Stem Cells. 2011; 29:389-96
Onak NK, *et al.* Turk J Med Sci. 2010; 40:177-84



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Explanations of the symbols on the product label

Symbols are used in accordance with ISO 15223-1. Further symbols on the product label might be:



GSH07: Warning / Attention

RUO

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