



PC-209-T025

Monoclonal Antibody to CD10 PerCP (25 tests)

Clone:	MEM-78
Isotype:	Mouse IgG1
Specificity:	The antibody MEM-78 reacts with CD10 antigen (CALLA - Common acute lymphatic leukemia antigen), a 100 kDa type II integral membrane protein. HLDA IV; WS Code B 506 HLDA V; WS Code B CD10.4
Immunogen:	NALM-6 human pre-B cell line
Species Reactivity:	Human
Preparation:	The purified antibody is conjugated with Peridinin-chlorophyll-protein complex (PerCP) under optimum conditions. The conjugate is purified by size-exclusion chromatography and adjusted for direct use. No reconstitution is necessary.
Storage Buffer:	The reagent is provided in phosphate buffered saline (PBS) containing 15 mM sodium azide and 0.2% (w/v) high-grade protease free Bovine Serum Albumin (BSA) as a stabilizing agent.
Storage / Stability:	Store in the dark at 2-8°C. Do not freeze. Avoid prolonged exposure to light. Do not use after expiration date stamped on vial label. Short-term exposure to room temperature should not affect the quality of the reagent. However, if reagent is stored under any conditions other than those specified, the conditions must be verified by the user.
Usage:	The reagent is designed for Flow Cytometry analysis of human blood cells using 10 µl reagent / 100 µl of whole blood or 10 ⁶ cells in a suspension. The content of a vial (0.25 ml) is sufficient for 25 tests.
Expiration:	See vial label
Lot Number:	See vial label
Background:	CD10 (neutral endopeptidase – NEP, common acute lymphocytic leukemia antigen – CALLA, membrane metallo-endopeptidase – MME, enkephalinase) is a 100-kDa cell surface zinc metalloprotease cleaving peptide bonds on the N-terminus of hydrophobic amino acids and inactivating multiple physiologically active peptides. CD10 is expressed on various normal cell types, including lymphoid precursor cells, germinal center B lymphocytes, and some epithelial cells, and its expression level serves as a marker for diagnostics of many carcinomas. CD10 is also a differentiation antigen for early B-lymphoid progenitors in the B-cell differentiation pathway and has a key role in regulation of growth, differentiation and signal transduction of many cellular systems.

For laboratory research only, not for drug, diagnostic or other use.

**Antibodies****References:**

- *Suzuki T, Ino K, Kikkawa F, Uehara C, Kajiyama H, Shibata K, Mizutani S: Neutral endopeptidase/CD10 expression during phorbol ester-induced differentiation of choriocarcinoma cells through the protein kinase C- and extracellular signal-regulated kinase-dependent signalling pathway. *Placenta*. 2002 Jul;23(6):475-82.
- *Yada K, Kashima K, Daa T, Kitano S, Fujiwara S, Yokoyama S: Expression of CD10 in basal cell carcinoma. *Am J Dermatopathol*. 2004 Dec;26(6):463-71.
- *Braham H, Trimeche M, Ziadi S, Mestiri S, Mokni M, Amara K, Hachana M, Sriha B, Korbi S: CD10 expression by fusiform stromal cells in nasopharyngeal carcinoma correlates with tumor progression. *Virchows Arch*. 2006 Aug;449(2):220-4.
- *Dall'Era MA, True LD, Siegel AF, Porter MP, Sherertz TM, Liu AY: Differential expression of CD10 in prostate cancer and its clinical implication. *BMC Urol*. 2007 Mar 2;7:3.
- *Horejsi V, Angelisova P, Bazil V, Kristofova H, Stoyanov S, Stefanova I, Hausner P, Vosecky M, Hilgert I.: Monoclonal antibodies against human leucocyte antigens. II. Antibodies against CD45 (T200), CD3 (T3), CD43, CD10 (CALLA), transferrin receptor (T9), a novel broadly expressed 18-kDa antigen (MEM-43) and a novel antigen of restricted expression (MEM-74). *Folia Biol (Praha)*. 1988;34(1):23-34.
- *Leukocyte Typing IV., Knapp W. et al. (Eds.), Oxford University Press (1989).
- *Leukocyte Typing V., Schlossman S. et al. (Eds.), Oxford University Press (1995).
- *Angelisová P, Drbal K, Horejsí V, Cerný J: Association of CD10/neutral endopeptidase 24.11 with membrane microdomains rich in glycosylphosphatidylinositol-anchored proteins and Lyn kinase. *Blood*. 1999 Feb 15;93(4):1437-9.

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