# CD13 (EP117)

## Rabbit anti-human CD13 Monoclonal Antibody (Clone EP117)

**REFERENCES AND PRESENTATIONS[1]**

- **ready-to-use (manual or LabVision AutoStainer)**
  MAD-000669QD–3
  MAD-000669QD–7
  MAD-000669QD–12

- **Ready-to-use (MD-Stainer)[2]**
  MAD-000669QD-3/V
  MAD-000669QD/V

- **concentrated**
  MAD-000669Q - 1:50 recommended dilution

**COMPOSITION**
Anti-human CD13 rabbit monoclonal antibody purified from serum and prepared in 10mM PBS, pH 7.4, with 0.2% BSA and 0.09% sodium azide
**INTENDED USE** IVD : Immunohistochemistry (IHC) on paraffin embedded tissues. Not tested on frozen tissues or Western-Blotting
**CLONE:** EP117[3]
**Ig ISOTYPE:** Rabbit IgG
**IMMUNOGEN:** A synthetic peptide corresponding to residues in human CD13 protein.
**SPECIES REACTIVITY:** In vitro diagnostics in humans. Not tested in other species
**DESCRIPTION AND APPLICATIONS**: CD13, also known as aminopeptidase N, was originally identified as a cell surface glycoprotein expressed by cells of granulocytic and monocytic lineages at various differentiation stages. Sequence comparisons showed that the cDNA sequence of CD13 is identical to aminopeptidase N (APN), a prominent membrane-anchored metallopeptidase expressed by the brush borders of the small intestinal and renal microvillar membrane, and also in other plasma membranes.

Human APN is a receptor for one strain of human coronavirus that is an important cause of upper respiratory tract infections. Human CD13 may also mediate HCMV infection by a process that increases binding, but not its enzymatic domain.
CD13 has been used as a myeloid marker. The antibody labels leukemic blasts in acute myeloid leukemia (AML) and is helpful in identifying AML subtype M0 acute lymphoid leukemia (ALL).
Additionally, CD13 is a sensitive but not entirely specific marker for anaplastic lymphoma kinase positive (ALK+) anaplastic large cell lymphomas (ALCLs).
CD13 is also expressed in nonhematopoietic cells including fibroblasts, bone marrow stromal cells, osteoclasts and epithelial cells. A canalicular staining pattern of CD13 in hepatocellular carcinoma (HCC) is useful in differentiation between HCC and non- HCC in liver.

**IHC POSITIVE CONTROL**: Tonsil or liver
**VISUALIZATION:** Cell membrane

**IHC RECOMMENDED PROCEDURE:**
- 4μm thick section should be taken on charged slides; dry overnight at 60ºC
- Deparaffinise, rehydrate and HIER (heat induced epitope retrieval) – boil tissue in the Pt Module using Vitro S.A Citrate buffer pH6[4] for 20 min at 95ºC. Upon completion rinse with 3-5 changes of distilled or deionised water followed by cooling at RT for 20 min
- Endogenous peroxidase block - Blocking for 10 minutes at room temperature using peroxidase solution (ref. MAD-021540Q-125)
- Primary antibody: incubate for 10 minutes [The antibody dilution (when concentrated) and protocol may vary depending on the specimen preparation and specific application. Optimal conditions should be determined by the individual laboratory]
- For detection use Master Polymer Plus Detection System (HRP) (DAB included; ref. MAD-000237QK)
- Counterstaining with haematoxylin and final mounting of the slide

**STORAGE AND STABILITY:** Stored at 2-8ºC. Do not freeze. Once the packaging has been opened it can be stored until the expiration date of the reagent

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[1] These references are for presentation in vials of Low Density Polyethylene (LDPE) dropper. In case the products are used in automated stainers, a special reference is assigned as follows:
 - / L: Cylindrical screw-cap vials (QD-3 / L, QD-7 / L, QD-12 / L).
 - / N: Polygonal screw-cap vials (QD-3 / N, QD-7 / N, QD-12 / N).
For different presentations (references / volumes) please contact the supplier.
[2] For Technical specifications for MD-Stainer, please contact your distributor.
[3] **CD13 clone EP 117 is manufactured using Epitomics's RabMAb® technology under U.S. Patent Nos. 5,675,063 and 7,402,409**

[4] Ref: MAD-004071R/D

CE  IVD

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indicated on the label. If the reagent has been stored under other conditions to those indicated in this document, the user must first check its correct performance taking into account the product warranty is no longer valid.

## WARNINGS AND PRECAUTIONS:
1. Avoid contact of reagents with eyes and mucous membranes. If reagents come into contact with sensitive areas, wash with copious amounts of water.
2. This product is harmful if swallowed.
3. Consult local or state authorities with regard to recommended method of disposal.
4. Avoid microbial contamination of reagents.

## SAFETY RECOMMENDATIONS
This product is intended for laboratory professional use only. The product is NOT intended to be used as a drug or for domestic purposes. The current version of the Safety Data Sheet for this product can be downloaded by searching the reference number at www.vitro.bio or can be requested at regulatory@vitro.bio.

## BIBLIOGRAPHY
1. Griffin J.D., Davis R., Nelson D.A., Davey F.R., Mayer R.J. Schiffer C. Use of surface marker analysis to predict outcome of adult acute myeloblastic leukemia, Blood 68: 1232–1241. 1986.
2. Schwarzinger I., Valent P., Koller U., Marosi C., Schneider B. Haas O. Prognostic significance of surface marker expression on blasts of patients with de novo acute myeloblastic leukemia, J Clin Oncol; 8: 423–430. 1990.
3. Legrand O., Perrot J., Baudard Y., Cordier M., Lautier A. Simonin R. The immunophenotype of 177 adults with acute myeloid leukemia: proposal of a prognostic score, Blood; 96: 870–877. 2000.
4. Luan Y, Xu W. The structure and main functions of aminopeptidase N; 14: 639-47. 2007.
5. Mason K.D., Juneja S.K., Szer J.The immunophenotype of acute myeloid leukemia: is there a relationship with prognosis?. Blood Reviews 20: 71–82. 2006.
6. Swerdlow SH, Campos E,Harris NL, Jaffe ES, Harris NL, Pileri SA, Stein H, Thiele J, Vardiman JW. World Health Organization Classification of Tumours of Haematopoietic and Lymphoid Tissues. Lyon, France: IARC Press; 2008.

## LABEL AND BOX SYMBOLS
Explanation of the symbols of the product label and box:

| | |
|---|---|
| ⧗ | Expiration date |
| 🌡 | Temperature limit |
| 🏭 | Manufacturer |
| ∑ | Sufficient content for <n> assays |
| REF | Catalog number |
| LOT | Lot code |
| 📖 | Refer to the instructions of use |
| IVD | Medical product for *in vitro* diagnosis. |
| e-SDS | Material safety data sheet |