Datasheet

Mouse mAb to **CD45**
Clone **135-4C5**
Isotype **IgG2b-κ**

Source

A BALB/c mouse was immunized with stimulated human leucocytes. Splenocytes were fused with mouse myeloma NS1 cells.

Specifications

CD45 glycoproteins have various molecular weights on various cell types: B-cells 240 kDa, thymocytes 180 kDa, T-cells multiple bands. Reduced in PAGE gels: 180 and 240 kDa. Isoforms are produced by alternative splicing. Various isoforms are expressed differently on different lymphocytes. All hematopoietic cells express CD45 proteins except erythrocytes. Relevant epitopes are termed CD45RA (exon 4), CD45RB (exon 5), CD45RC (exon 6) and CD45R or CD45R0 (exons 4-6 spliced out). 135-4C5 was clustered in Vienna at the IV international Workshop on human leucocyte differentiation antigens.

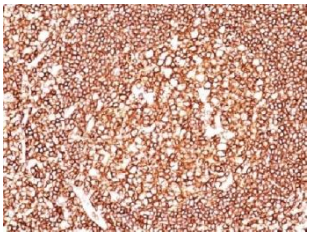

Figure 1: Human tonsil stained with 135-4C5 (paraffin).

Species reactivity

Positive: human.

Applications

MAbs against CD45 can be used to differentiate lymphomas from carcinomas. While CD45RA is expressed mainly on B-cell lymphomas, CD45R is mainly expressed on T-cell lymphomas. In Hodgkin's disease CD45 is usually not expressed. 135-4C5 requires an antigen retrieval step in paraffin sections.

ELISA	Flow cytometry	Frozen sections	Immunofluorescence	Paraffin sections	Western blotting
+	+	+	+	Citrate	+

Format

Produced in tissue culture, contains no host Ig. Antibodies are affinity purified and presented in PBS with 0,02% sodium azide.
Stored at 4°C-8°C, shelf life is at least 24 months after purchase.

Dilution advice

- ELISA (solid phase; 0,1-100 µg/ml for 30 min at RT).
- Flow cytometry (1-2 µg/million cells in 0,1 ml).
- Immunoblotting (1-2 µg/ml).
- Immunofluorescence (1-2 µg/ml).
- Immunohistology (formalin-fixed: 2-4 µg/ml for 30 min at RT; staining of formalin-fixed tissues requires boiling tissue sections in 10mM citrate buffer, pH 6.0, for 10-20 min followed by cooling at RT for 20 minutes).

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Positive control

Toncil, Ramos, U-698, or GA-10 cells.

References

- Alsinet, E. et al., *Eur. J. Immunol*. **20(12)**: 2801-2804, (1990).
- Knapp, W. et al., Leucocyte typing IV, p 531-536. Oxford Univ. Press. (1989).