



**Mouse Anti-Human Leucocyte Common,
Antigen (CD45; T200; Ly5), monoclonal**

CatNo

K005

BatchNo: See Label

Expiration Date: See Label

Storage: 2-8°C

Background:

CD45 is a transmembrane glycoprotein expressed on most nucleated cells of haematopoietic origin. CD45, encoded by a single gene mapped to chromosome 1, has various isoforms based on differential splicing of exons 4, 5 and 6. On human leucocytes, five different isoforms of CD45, named ABC, AB, BC, B and 0, have been identified. These isoforms are recognized by CD45RA, CD45RB, CD45RC and CD45R0 antibodies. The isoforms range in Mr from 180 000 to 220 000. All the CD45 isoforms share the same intracellular segment, which has been shown to have tyrosine phosphatase activity. Various leucocytes express characteristic CD45 isoforms, thus T cells express CD45 isoforms corresponding to their development and activation, B cells predominantly express the ABC isoform, and monocytes and dendritic cells predominantly express the B and 0 isoforms. Granulocytes principally express only the B and 0 isoforms (4).

Clone Number:

2B11 + PD7/26

Volume/Quantity:

0,5 ml

Preparation:

Cell culture supernatant dialysed against 0.05 mol/L Tris/HCl, pH 7.2,

Preservatives Stabilisers:

15 mM Sodium Azide (NaN₃)

Immunogen:

2B11: Isolated neoplastic cells from a case of T-cell lymphoma/leukaemia (1).
PD7/26: Human peripheral blood lymphocytes maintained in T-cell growth factor (1).

Fusion Partners:

Spleen cells from an immunised BALB/c mouse were fused with cells of the mouse NS1 myeloma cell line.

Isotype:

IgG1 (Mouse)

Specificity:

Anti-CD45 is a mixture of two monoclonal antibodies, clones 2B11 and PD7/26, directed against different epitopes. Clone 2B11 was clustered as anti-CD45 at the Third International Workshop and Conference on Human Leucocyte Differentiation Antigens, held in Oxford in 1986 and reacts with all the known isotypes of the CD45 family (5). Clone PD7/26 was clustered as anti-CD45RB at the Fifth International Workshop and Conference on Human Leucocyte Differentiation Antigens, held in Boston in 1993 (6).

The antibody labels CD45 in both normal and neoplastic cells, and is a useful tool for identifying tumour cells of lymphoid origin (1-3). Differential identification is aided by the results from a panel of antibodies. Interpretation must be made within the context of the patient's clinical history and other diagnostic tests by a qualified pathologist.

Applications:

Suggested Working Dilution

FlowCytometry	Not tested	
Immunohistology-frozen	Yes	1/50 – 1/100
Immunohistology-paraffin	Yes	1/50 – 1/100
Immunohistology-resin	Not tested	
ELISA	Not tested	
Immunoprecipitation	Not tested	
Western Blotting	Not tested	
Radioimmunoassay	Not tested	

Where this antibody 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 antibody for use in their own system using appropriate negative/positive controls.

K005 230109-1/2

Manufacturer

BIOZOL
FIT FOR SCIENCE

BIOZOL

Diagnostica Vertrieb GmbH
Leipziger Straße 4
85386 Eching

Phone +49 (89) 3799 666 6
Fax +49 (89) 3799 666 99
E-Mail info@biozol.de
www biozol.de

Page 1 of 2



Management System
ISO 9001:2015
www.tuv.com
ID 900019771





**Mouse Anti-Human Leucocyte Common,
Antigen (CD45; T200; Ly5), monoclonal**

CatNo

K005

Immunohistology

Pre-treatment:	Pretreatment of tissues with heat-induced epitope retrieval is recommended.
Positive Control Tissue:	Spleen, thymus and lymph node
Recommended Secondary Reagents:	F(ab') ₂ rabbit anti-mouse IgG HRP conjugate – (LINARIS CatNo LST0013B) Vectastain [®] ABC Mouse IgG (Vector CatNo AK-5002) and Substrate-Kit e.g. Vector [®] Red (Vector CatNo SK-5100). Vectastain [®] ABC-Elite Mouse IgG (Vector CatNo PK-6102) and Peroxidase Substrate-Kit e.g. DAB (LINARIS CatNo E108) or HistoGreen (LINARIS CatNo E109).
Recommended Negative Controls:	Mouse IgG1 Negative Control (LINARIS CatNo ITC0928)

References

1. Warnke RA, Gatter KC, Falini B, Hildreth P, Woolston R-E, Pulford K, et al. Diagnosis of human lymphoma with monoclonal antileukocyte antibodies. *N Engl J Med* 1983;309:1275-81.
2. Kurtin PJ, Pinkus GS. Leukocyte common antigen - a diagnostic discriminant between hematopoietic and nonhematopoietic neoplasms in paraffin sections using monoclonal antibodies: Correlation with immunologic studies and ultrastructural localization. *Hum Pathol* 1985;16:353.
3. Michie SA, Spagnolo DV, Dunn KA, Warnke RA, Rouse RV. A panel approach to the evaluation of the sensitivity and specificity of antibodies for the diagnosis of routinely processed histologically undifferentiated human neoplasms. *Am J Clin Pathol* 1987;88:457-62.
4. Sewell WA, Cooley MA, Hegen M. NL6. CD45 workshop panel report. In: Kishimoto T, Kikutani H, von dem Borne AEG, Goyert SM, Mason DY, Miyasaka M, et al., editors. *Leukocyte typing VI. White cell differentiation antigens. Proceedings of the 6th International Workshop and Conference; 1996 Nov 10-14; Kobe, Japan.* New York, London: Garland Publishing Inc.; 1997. p. 499-502.
5. Cobbold S, Hale G, Waldmann H. Non-lineage, LFA-1, and leukocyte common antigens: new and previously defined clusters. In: McMichael AJ, Beverley PCL, Cobbold S, Crumpton MJ, Gilks W, Gotch FM, et al., editors. *Leukocyte typing III. White cell differentiation antigens. Proceedings of the 3rd International Workshop and Conference; 1986 Sep 21-26; Oxford, England.* Oxford, New York, Tokyo: Oxford University Press; 1987. p. 788-803.
6. Morimoto C. T18. CD45 cluster report. In: Schlossman SF, Boumsell L, Gilks W, Harlan JM, Kishimoto T, Morimoto C, et al., editors. *Leukocyte typing V. White cell differentiation antigens. Proceedings of the 5th International Workshop and Conference; 1993 Nov 3-7; Boston, USA.* Oxford, New York, Tokyo: Oxford University Press; 1995. p. 386-9.
7. Herman GE and Elfont E. Aberrant CD45 (leukocyte common antigen) staining of non-malignant breast lesions in zinc formalin fixed tissue. *J Histotechnol* 1993;16:151-3.
8. Hall PA, d'Ardenne AJ, Stansfeld AG. Paraffin section immunohistochemistry. I. Non-Hodgkin's lymphoma. *Histopathol* 1988;13:149- 60.

Storage Conditions:	Store at 2-8°C. Should this product contain a precipitate we recommend microcentrifugation before use.
Shelf Life:	12 months from date of despatch.
Health and Safety Information:	(A full Health and Safety assessment is available upon request) This product contains sodium azide: a POISONOUS and HAZARDOUS SUBSTANCE which should be handled by trained staff only.

K005 230109-2/2

For Research purposes only. Not for therapeutic or diagnostic use.

Manufacturer

BIOZOL
FIT FOR SCIENCE

BIOZOL

Diagnostica Vertrieb GmbH
Leipziger Straße 4
85386 Eching

Phone +49 (89) 3799 666 6
Fax +49 (89) 3799 666 99
E-Mail info@biozol.de
www biozol.de



Management System
ISO 9001:2015
www.tuv.com
ID 9000019771



Page 2 of 2