

Monoclonal Antibody to CD45 / LCA - Purified

Alternate names:	L-CA, Leukocyte common antigen, PTPRC, Receptor-type tyrosine-protein phosphatase C, T200
Catalog No.:	SM035P
Quantity:	0.25 mg
Concentration:	0.5 mg/ml
Background:	CD45 is a family of single chain transmembrane glycoproteins consisting of at least four isoforms (220, 205, 190, 180 kDa) which share a common large intracellular domain. Their extracellular domains are heavily glycosylated. The different isoforms are produced by alternative messenger RNA splicing of three exons of a single gene on chromosome 1. CD45 is expressed on cells of the human hematopoietic lineage (including hematopoietic stem cells) with the exception of mature red cells. It is not detected on differentiated cells of other tissues. It is likely that CD45 plays an important role in signal transduction, inhibition or upregulation of various immunological functions. Antibodies recognising a common epitope on all of the isoforms are termed CD45 whilst those recognising only individual isoforms are termed CD45RA or CD45RO etc.
Uniprot ID:	P06800
NCBI:	10090
Host / Isotype:	Rat / IgG1
Clone:	IBL3/16
Immunogen:	Purified B cells from mouse lymph nodes. Remarks: Spleen cells from an immunised Wistar rat were fused with cells of the SP2/0-Ag14 mouse myeloma cell line.
Format:	State: Liquid purified Ig fraction Purification: Affinity Chromatography Protein G Buffer System: PBS, pH 7.2 with 0.1% BSA as stabilizer and 0.09% Sodium Azide as preservative
Applications:	Flow Cytometry: Use 10 µl of 1/50-1/100 diluted antibody to label 10e6 cells in 100 µl. Immunofluorescence. Immunoprecipitation. Immunohistochemistry on Frozen Sections: 1/50-1/100. Not suitable for Paraffin, Resin Sections and Western blotting. Other applications not tested. Optimal dilutions are dependent on conditions and should be determined by the user.
Specificity:	Recognizes Mouse CD45. It Enhances the MHC Class II induced cluster formation of mouse B cells.
Species Reactivity:	Tested: Mouse. Does not react with Rat or Human.

For research and in vitro use only. Not for diagnostic or therapeutic work.

Material Safety Datasheets are available at www.acris-antibodies.com or on request.

Antibody Hotline - Technical Questions - Antibody Location Service
Free Call: 0800-2274746 (Germany only) - www.acris-antibodies.com

Storage:

Store the antibody undiluted at 2-8°C for up to one month or (in aliquots) at -20°C for longer.

Avoid repeated freezing and thawing.

Shelf life: one year from despatch.

General References:

1. Clausen, B.H. et al. (2008) Interleukin-1beta and tumor necrosis factor-alpha are expressed by different subsets of microglia and macrophages after ischemic stroke in mice. *J. Neuroinflammation*. 5:46.
2. Balogh, P., Balázs, M. and A. Kumánovicx (1995) Modulatory effect of CD45 on the MHC Class II-induced homotypic aggregation of B cells in mice. In 9th International Congress of Immunology, Abstract book p. 72. No. 422.
3. Paris, D. et al. (2010) Reduction of beta-amyloid pathology by celastrol in a transgenic mouse model of Alzheimer's disease. *Neuroinflammation*. 7:17.
4. Kondo, Y. et al. (2011) Macrophages counteract demyelination in a mouse model of globoid cell leukodystrophy. *J Neurosci*. 31: 3610-24.
5. Boger, H.A. et al. (2007) Long-term consequences of methamphetamine exposure in young adults are exacerbated in glial cell line-derived neurotrophic factor heterozygous mice. *J Neurosci*. 27: 8816-25.
6. Boger, H.A. et al. (2009) Minocycline restores striatal tyrosine hydroxylase in GDNF heterozygous mice but not in methamphetamine-treated mice. *Neurobiol Dis*. 33: 459-66.
7. Cuadros, M.A. et al. (2006) Specific immunolabeling of brain macrophages and microglial cells in the developing and mature chick central nervous system. *J Histochem Cytochem*. 54: 727-38.
8. Jiang, H.R. et al. (2001) Total dose and frequency of administration critically affect success of nasal mucosal tolerance induction. *Br J Ophthalmol*. 85: 739-44.
9. Peng, Y. et al. (2010) L-3-n-butylphthalide improves cognitive impairment and reduces amyloid-beta in a transgenic model of Alzheimer's disease. *J Neurosci*. 30: 8180-9.
10. Richards, J.G. et al. (2003) PS2APP transgenic mice, coexpressing hPS2mut and hAPPswe, show age-related cognitive deficits associated with discrete brain amyloid deposition and inflammation. *J Neurosci*. 23: 8989-9003.
11. Li, L. et al. (2008) GRK5 deficiency exaggerates inflammatory changes in TgAPPsw mice. *J Neuroinflammation*. 5: 24.
12. Rahman, A. et al. (2011) Chronic colitis induces expression of β -defensins in murine intestinal epithelial cells. *Clin Exp Immunol*. 163: 123-30.

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