

SM1783LE**Monoclonal Antibody to CD2 - Azide Free**

Alternate names:	Erythrocyte receptor, LFA-2, LFA-3 receptor, Rosette receptor, SRBC, T-cell surface antigen CD2, T-cell surface antigen T11/Leu-5
Quantity:	0.5 mg
Concentration:	1.0 mg/ml
Background:	CD2 which is also known as E-rosette receptor, T11 and lymphocyte-function antigen-2 (LFA-2) is expressed on T cells, thymocytes, and subset of natural killer cells. Human CD2 functions as the receptor for sheep erythrocytes, human CD58 (LFA-3), and CD15s (Sialyl Lewis X). p56lck, p59fyn, CD3eta and CD3epsilon are tyrosine-phosphorylated after CD2 stimulation. CD2 play a role in T cell activation, T- or NK-cell-mediated cytotoxicity, apoptosis in activated peripheral T cells, and regulation of T cell anergy.
Uniprot ID:	P06729
NCBI:	9606
GeneID:	914
Host / Isotype:	Mouse / IgG2b
Recommended Isotype Controls:	SM12A
Clone:	LT2
Immunogen:	Normal Human peripheral blood lymphocytes. Spleen cells from immunised BALB/c mice were fused with cells of the mouse X63.653 myeloma cell line.
Format:	State: Liquid purified IgG fraction (Low Endotoxin) Purification: Affinity Chromatography on Protein G Buffer System: PBS, pH 7.4 Preservatives: None Stabilizers: None Endotoxin Level: < 0.01 EU/μg
Applications:	Flow Cytometry: Use 10 μl of 1/50-1/100 diluted antibody to label 10 ⁶ cells in 100 μl. Immunoprecipitation. Functional Studies. Immunohistochemistry on Frozen Sections: 1/200-1/400. The epitope recognized by this antibody is reported to be sensitive to formaldehyde fixation and tissue processing. We recommend the use of Acetone fixation for frozen sections. <u>Recommended Positive Control:</u> Human Tonsil. Other applications not tested. Optimal dilutions are dependent on conditions and should be determined by the user.

Specificity: SM1783LE is a single chain transmembrane glycoprotein of 50kD, expressed by T cells, NK cells and thymocytes. CD2 is a receptor for CD58 (LFA-3), and is important in mediating the interaction between T cells and target cells or antigen presenting cells. This antibody inhibits NK cell mediated cytotoxicity, and ConA and PHA mediated blast transformation.

Species Reactivity: **Tested:** Human, Chimpanzee, Cynomolgus Monkey, Rhesus Monkey.

Add. Information: Does **not** work on paraffin sections.

Storage: Upon receipt, store undiluted (in aliquots) at -20°C.
Avoid repeated freezing and thawing.
Shelf life: one year from despatch.

General Readings:

1. Moingeon P, Chang HC, Sayre PH, Clayton LK, Alcover A, Gardner P, et al. The structural biology of CD2. *Immunol Rev.* 1989 Oct;111:111-44. PubMed PMID: 2576417.
2. Beyers AD, Barclay AN, Law DA, He Q, Williams AF. Activation of T lymphocytes via monoclonal antibodies against rat cell surface antigens with particular reference to CD2 antigen. *Immunol Rev.* 1989 Oct;111:59-77. PubMed PMID: 2576418.
3. Lin CW, Liu TY, Chen SU, Wang KT, Medeiros LJ, Hsu SM. CD94 1A transcripts characterize lymphoblastic lymphoma/leukemia of immature natural killer cell origin with distinct clinical features. *Blood.* 2005 Nov 15;106(10):3567-74. Epub 2005 Jul 26. PubMed PMID: 16046525.
4. Kap YS, van Meurs M, van Driel N, Koopman G, Melief MJ, Brok HP, et al. A monoclonal antibody selection for immunohistochemical examination of lymphoid tissues from non-human primates. *J Histochem Cytochem.* 2009 Dec;57(12):1159-67. doi: 10.1369/jhc.2009.954123. Epub 2009 Sep 3. PubMed PMID: 19729671.

Pictures: Staining of Human peripheral blood lymphocytes with Mouse anti Human CD2 Antibody Azide Free, Low Endotoxin Cat.-No SM1783LE

