Website: thermofisher.com
Customer Service (US): 1 800 955 6288 ext. 1
Technical Support (US): 1 800 955 6288 ext. 441
thermofisher.com/contactus

Performance guaranteed

CD8 Monoclonal Antibody (4B11)

Catalog Number MA1-80231

Product data sheet

Details	
Size	100 µL
Host/Isotope	Mouse / IgG2b
Class	Monoclonal
Type	Antibody
Clone	4B11
Immunogen	Synthetic peptide derived from the carboxy terminal region of the human CD8 alpha chain coupled to a N-terminal cysteine, with the sequence C-KSDGKPSLSARYV (amino acid range 223-235). The peptide was coupled to bovine serum albumin and keyhole limpet hemocyanin.
Conjugate	Unconjugated
Form	Liquid
Concentration	Conc. Not Determined
Storage buffer	tissue culture supernatant
Contains	<0.1% sodium azide
Storage Conditions	4° C, do not freeze

Species Reactivity	
Species reactivity	Human
Published species	Human, Mouse, Not Applicable

Tested Applications	Dilution *
Immunohistochemistry (Frozen) (IHC (F))	1:50
Immunohistochemistry (Paraffin) (IHC (P))	1:50

Published Applications	
Immunohistochemistry (IHC)	See 5 publications below
Immunohistochemistry (Paraffin) (IHC (P))	See 1 publications below

* Suggested working dilutions are given as a guide only. It is recommended that the user titrate the product for use in their own experiment using appropriate negative and positive controls.

Product specific information

Heat-mediated antigen retrieval using Tris/EDTA (pH 8) is recommended for the staining of paraffin sections. A suggested positive control for this product is human tonsil Mouse anti Human CD8 antibody, clone 4B11 recognizes the human CD8 cell surface antigen, a approximately 32 kDa glycoprotein expressed by the cytotoxic/suppressor subset of T-cells and weakly by NK cells.

Background/Target Information

Cluster of differentiation 8 (CD8), a type I transmembrane glycoprotein of the immunoglobulin family of receptors, plays an integral role in signal transduction, and T cell differentiation and activation. CD8 is predominantly expressed on T cells as a disulfide-linked heterodimer of CD8alpha and CD8beta, where it functions as a co-receptor, along with T cell receptor (TCR), for major histocompatibilty complex class I (MHC-I) molecules; whereas its counterpart, CD4, acts as a co-receptor for MHC-II molecules. CD8 exists on the cell surface, where the CD8alpha chain is essential for binding to MHC-I. CD8 is also expressed on a subset of T cells, NK cells, monocytes and dendritic cells as disulfide-linked homodimers of CD8alpha. Ligation of MHC-I/peptide complexes presented by antigen-presenting cells (APCs), triggers the recruitment of lymphocyte-specific protein tyrosine kinase (Lck), which leads to lymphokine production, motility and cytotoxic T lymphocyte (CTL) activation. Once activated, CTLs play a crucial role in the clearance of pathogens and tumor cells. Differentiation of naive CD8+ T cells into CTLs is strongly enhanced by IL-2, IL-12 and TGF-beta1.

For Research Use Only. Not for use in diagnostic procedures. Not for resale without express authorization.

PubMed References For CD8 Monoclonal Antibody (4B11)

5 Immunohistochemistry References

Species / Dilution	Summary
Human / Not Cited	MA1-80231 was used in immunohistochemistry to compare the prognostic value of immune criteria versus the AJCC /UICC-TNM staging system in colorectal cancer Journal of clinical oncology : official journal of the American Society of Clinical Oncology (2011; 29: 610) **"Histopathologic-based prognostic factors of colorectal cancers are associated with the state of the local immune reaction."** Author(s):Mlecnik B,Tosolini M,Kirilovsky A,Berger A,Bindea G,Meatchi T,Bruneval P,Trajanoski Z,Fridman WH,Pagès F, Galon J PubMed Article URL:http://dx.doi.org/10.1200/JCO.2010.30.5425
Human / Not Cited	MA1-80231 was used in Immunohistochemistry to map the early transcriptional changes in AD skin in response to nb-UVB treatment. Experimental dermatology (2021; 30: 249) **"Early transcriptional changes after UVB treatment in atopic dermatitis include inverse regulation of IL-36 and IL-37."** Author(s):Lossius AH,Berents TL,Saetre F,Nilsen HR,Bradley M,Asad S,Haraldsen G,Sundnes O,Holm JØ PubMed Article URL:http://dx.doi.org/10.1111/exd.14217
Human / Not Cited	MA1-80231 was used in immunohistochemistry to study the correlation of intratumoral immune markers and human colorectal cancer escape Cancer research (2009; 69: 2685) **"Coordination of intratumoral immune reaction and human colorectal cancer recurrence."** Author(s):Camus M,Tosolini M,Mlecnik B,Pagès F,Kirilovsky A,Berger A,Costes A,Bindea G,Charoentong P,Bruneval P, Trajanoski Z,Fridman WH,Galon J PubMed Article URL:http://dx.doi.org/10.1158/0008-5472.CAN-08-2654
Mouse / 1:1000	MA1-80231 was used in Immunohistochemistry-immunofluorescence to conclude that multiplex IHC describes the histological context of the immune system in melanoma. Methods in molecular biology (Clifton, N.J.) (2021; 2265: 557) **"Multiplex Immunohistochemistry Analysis of Melanoma Tumor-Infiltrating Lymphocytes."** Author(s):Nguyen T,Kocovski N,Macdonald S,Yeang HXA,Wang M,Neeson PJ PubMed Article URL:http://dx.doi.org/10.1007/978-1-0716-1205-7_39
Human / Not Cited	MA1-80231 was used in immunohistochemistry to use biomolecular network reconstruction to investigate the immune responses in colorectal cancer patients Gastroenterology (2010; 138: 1429) **"Biomolecular network reconstruction identifies T-cell homing factors associated with survival in colorectal cancer."** Author(s):Mlecnik B,Tosolini M,Charoentong P,Kirilovsky A,Bindea G,Berger A,Camus M,Gillard M,Bruneval P,Fridman WH,Pagès F,Trajanoski Z,Galon J PubMed Article URL:http://dx.doi.org/10.1053/j.gastro.2009.10.057

1 Immunohistochemistry (Paraffin) References

Species / Dilution	Summary
Mouse / Not Cited	MA1-80231 was used in Immunohistochemistry (Paraffin) to evaluate the effects of IL11 in regulating the response of CD4+ T cell-mediated antitumor in mice models. Cancer immunology research (2021; 9: 735) **"Host IL11 Signaling Suppresses CD4⁺ T cell-Mediated Antitumor Responses to Colon Cancer in Mice."** Author(s):Huynh J,Baloyan D,Chisanga D,Shi W,O'Brien M,Afshar-Sterle S,Alorro M,Pang L,Williams DS,Parslow AC, Thilakasiri P,Eissmann MF,Boon L,Masson F,Chand AL,Ernst M PubMed Article URL:http://dx.doi.org/10.1158/2326-6066.CIR-19-1023

Thermo Fisher Scientific
3747 N. Meridian Road
Rockford, IL 61105 USA

thermofisher.com/contactus