

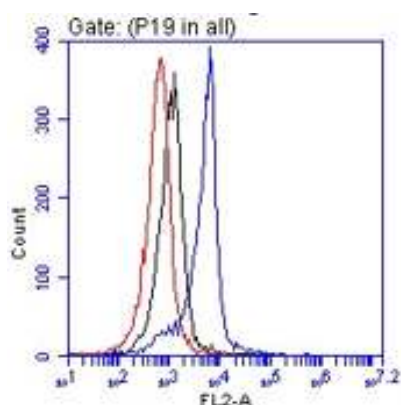
CERTIFICATE OF ANALYSIS – TECHNICAL DATA SHEET

Product name	Activated CD11/CD18 (LFA-1), Human, clone 24		
Catalog number	HM2183-100UG		
Lot number	-	Expiry date	-
Volume	1 ml	Amount	100 µg
Formulation	0.2 µm filtered in PBS+0.1%BSA	Concentration	100 µg/ml
Host Species	Mouse IgG1	Conjugate	None
Endotoxin	<24 EU/mg	Purification	Protein G
Storage	4°C		

Application notes

	IHC-F	IHC-P	IF	FC	FS	IA	IP	W
Reference #	1			1,2,4,6	3		1,2	
Yes	•			•	•		•	
No								
N.D.		•	•			•		•

N.D.= Not Determined; IHC = Immuno histochemistry; F = Frozen sections; P = Paraffin sections; IF = Immuno Fluorescence; FC = Flow Cytometry; FS = Functional Studies; IA = Immuno Assays; IP = Immuno Precipitation; W = Western blot



FC: Flow cytometric detection of human CD11/CD18 on buffy coat (mAb 24, Cat.# HM2183). Red and black represent the controls and the green line represents HM2183 with a concentration of 20 µg/ml, respectively.

Dilutions to be used depend on detection system applied. It is recommended that users test the reagent and determine their own optimal dilutions. The typical starting working dilution is 1:50.

- FC: Antibody 24 stains the extracellular domain of CD11/CD18. (Ref.1)
- FS: Antibody 24 functions as an inhibitor. The antibody was functionally tested by inhibition of antigen-specific T cell proliferation and LAK cell cytotoxicity, which are LEA-1-dependent, and f-Met-Leu-Phe-stimulated chemotaxis, which is a CR3-dependent process (Ref.3).
- Positive control: PMN, monocytes, lymphocytes.

General Information

Description

The monoclonal antibody 24 recognizes an epitope of 174 kD present on leukocyte integrins, CD11/CD18 or beta 2-type integrins. The leukocyte integrins are a family of heterodimeric receptors that mediate divalent cation-dependent cellular adhesion reactions. T cells use integrins in essentially all of their functions. Integrins become active following signalling through other membrane receptors, which cause both affinity alteration and an increase in integrin clustering. The monoclonal antibody 24 recognizes a structural feature and is strictly dependent upon the presence of Mg²⁺. The epitope is located within, or in close proximity to, the three conserved cation binding domains and therefore a measure of Mg²⁺ bound to the leukocyte integrins and thus reflects functionally active molecules. The epitope can be induced on polymorphonuclear leukocytes and on monocytes. Glu173 and Glu175 of the beta(2) I domain are identified as critical for antibody 24 binding. The monoclonal antibody 24 inhibits monocyte-dependent, antigen specific T cell

proliferation and IL-2-activated natural killer cell assays. The antibody does not interfere with mitogen-stimulated T cell proliferation. Furthermore the monoclonal antibody 24 prevents "deadhesion" of receptor/ligand pairs, possible locking leukocyte integrins in an "active" conformation.

Immunogen

Fibronectin-purified human monocytes

References

1. Hogg, N et al; An anti-human monocyte/macrophage monoclonal antibody, reacting most strongly with macrophages in lymphoid tissue. *Cell Immunol* 1985, *92*: 247
2. Dransfield, I et al; Regulated expression of Mg2+ binding epitope on leukocyte integrin alpha subunits. *EMBO J* 1989, *8*: 3759
3. Dransfield, I et al; Interaction of leukocyte integrins with ligand is necessary but not sufficient for function. *J Cell Biol* 1992, *116*: 1527
4. Kamata, T et al; The role of the CPNKEKEC sequence in the beta(2) subunit I domain in regulation of integrin alpha(L)beta(2) (LFA-1). *J Immunol* 2002, *168*: 2296
5. Hogg, N et al; T-cell integrins: more than just sticking points. *J Cell Sci* 2003, *116*: 4695
6. Theodoridis, A. et al; Infection of dendritic cells with herpes simplex virus type 1 induces rapid degradation of CYTIP, thereby modulating adhesion and migration. *Blood* 2011, *118*: 107

Storage&stability

Product should be stored at 4°C. Under recommended storage conditions, product is stable for at least one year.

Precautions

For research use only. Not for use in or on humans or animals or for diagnostics. It is the responsibility of the user to comply with all local/state and federal rules in the use of this product. Hycult Biotech is not responsible for any patent infringements that might result from the use or derivation of this product.

We hereby certify that the above-stated information is correct and that this product has been successfully tested by the Quality Control Department. This product was released for sale according to the existing specifications. This document has been produced electronically and is valid without a signature.

Approved by Manager of QC
Brenda Teunissen

Date
03/12/2019

Do you have any questions or comments regarding this product? Please contact us via support@hycultbiotech.com.