

CD18 Monoclonal Antibody (YFC118.3), FITC

Catalog Number MA1-80644

Product data sheet

Details		Species Reactivity	
Size	100 Tests	Species reactivity	Dog, Guinea pig, Human
Host/Isotope	Rat / IgG2b	Tested Applications	Dilution *
Class	Monoclonal		
Type	Antibody	Flow Cytometry (Flow)	Neat
Clone	YFC118.3	* 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.	
Immunogen	Human neutrophils.		
Conjugate	FITC		
Form	Liquid		
Concentration	0.1 mg/mL		
Purification	Protein G		
Storage buffer	PBS, pH 7.2, with 1% BSA		
Contains	0.09% sodium azide		
Storage Conditions	Store at 4°C short term. For long term storage, store at -20°C, avoiding freeze/thaw cycles. Store in the dark.		

Product specific information

For FACS analysis, use 10 µL of the suggested working dilution to label 1x10^6 cells in 100 µL. Rat anti Human CD18 antibody, clone YFC118.3 was clustered at the Fourth International Workshop on Leucocyte Differentiation Antigen (code number N221) as recognizing the CD18 antigen.

Background/Target Information

CD18 integrin beta 2 subunit is a 90 kDa type I transmembrane protein expressed on all leucocytes. CD18 can combine with integrin molecules CD11a-c to form heterodimers at the cell surface, and these heterodimers are known to participate in the process of cell adhesion as well as cell-surface mediated signaling. CD18 forms heterodimers with four types of CD11 molecule to constitute leukocyte (beta2) integrins: alphaLbeta2 (CD11a/CD18, LFA-1), alphaMbeta2 (CD11b/CD18, Mac-1, CR3), alphaXbeta2 (CD11c/CD18) and alphaDbeta2 (CD11d/CD18). In most cases, the response mediated by the integrin is a composite of the functions of its individual subunits, and these integrins are essential for proper leukocyte migration, mediating intercellular contacts. Absence of CD18 leads to leukocyte adhesion deficiency-1, severe reduction of CD18 expression leads to the development of a psoriasiform skin disease. CD18 is also a target of Mannheimia (Pasteurella) haemolytica leukotoxin and is sufficient to mediate leukotoxin-mediated cytolysis. Defects in the CD18 gene are the cause of leukocyte adhesion deficiency type I (LAD1). Two transcript variants encoding the CD18 protein have been identified.

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