

#73663 Store at -20C

Integrin  $\beta 2$  (D4N5Z) Rabbit mAbCell Signaling  
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3 Trask Lane | Danvers | Massachusetts | 01923 | USA

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Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
WB	H	Endogenous	95	Rabbit IgG	#P05107	3689

<b>Product Usage Information</b>	<b>Application</b> Western Blotting	<b>Dilution</b> 1:1000
<b>Storage</b>	Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 $\mu$ g/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at $-20^{\circ}\text{C}$ . Do not aliquot the antibody.	
<b>Specificity / Sensitivity</b>	Integrin $\beta 2$ (D4N5Z) Rabbit mAb recognizes endogenous levels of total Integrin $\beta 2$ protein.	
<b>Source / Purification</b>	Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Leu49 of human Integrin $\beta 2$ protein.	
<b>Background</b>	Integrins are transmembrane glycoproteins that form heterodimers consisting of one $\alpha$ and one $\beta$ subunit. Integrin dimers act as receptors for extracellular matrix proteins and cell-surface ligands. Integrin signaling to (inside-out) and from (outside-in) extracellular molecules regulates multiple cellular processes, such as development, wound healing, immune response, invasion, metastasis, and angiogenesis (1,2). Integrin $\beta 2$ (CD18) is the $\beta$ subunit of the leukocyte-specific integrin family. Leukocyte integrins include Integrin $\beta 2$ (CD18)/ $\alpha$ L (CD11a) (LFA-1, lymphocyte function associated antigen 1), Integrin $\beta 2$ (CD18)/ $\alpha$ M (CD11b) (Mac-1), Integrin $\beta 2$ (CD18)/ $\alpha$ X (CD11c), and Integrin $\beta 2$ (CD18)/ $\alpha$ D (CD11d). These integrins bind to immunoglobulin superfamily members, such as ICAM-1 and VCAM-1 on endothelial cells, to mediate firm adhesion and transendothelial migration of leukocytes (3). Integrin $\beta 2$ (CD18) deficiency results in LAD (leukocyte adhesion deficiency), a disease characterized by impairment of leukocyte recruitment resulting in inability to fight infection (4).	
<b>Background References</b>	<ol style="list-style-type: none"> <li>1. Calderwood, D.A. et al. (2000) <i>J Biol Chem</i> 275, 22607-10.</li> <li>2. French-Constant, C. and Colognato, H. (2004) <i>Trends Cell Biol</i> 14, 678-86.</li> <li>3. Zen, K. and Parkos, C.A. (2003) <i>Curr Opin Cell Biol</i> 15, 557-64.</li> <li>4. Schmidt, S. et al. (2013) <i>Mol Immunol</i> 55, 49-58.</li> </ol>	

<b>Species Reactivity</b>	Species reactivity is determined by testing in at least one approved application (e.g., western blot).
<b>Western Blot Buffer</b>	IMPORTANT: For western blots, incubate membrane with diluted primary antibody in 5% w/v nonfat dry milk, 1X TBS, 0.1% Tween® 20 at $4^{\circ}\text{C}$ with gentle shaking, overnight.
<b>Applications Key</b>	<b>WB:</b> Western Blotting
<b>Cross-Reactivity Key</b>	<b>H:</b> human <b>M:</b> mouse <b>R:</b> rat <b>Hm:</b> hamster <b>Mk:</b> monkey <b>Vir:</b> virus <b>Mi:</b> mink <b>C:</b> chicken <b>Dm:</b> D. melanogaster <b>X:</b> Xenopus <b>Z:</b> zebrafish <b>B:</b> bovine <b>Dg:</b> dog <b>Pg:</b> pig <b>Sc:</b> S. cerevisiae <b>Ce:</b> C. elegans <b>Hr:</b> horse <b>GP:</b> Guinea Pig <b>Rab:</b> rabbit <b>All:</b> all species expected
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