

#65055 Store at -20°C

CD59 Antibody



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TECHNOLOGY®

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For Research Use Only. Not for Use in Diagnostic Procedures.

Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source:	UniProt ID:	Entrez-Gene Id:
WB	H	Endogenous	18	Rabbit	#P13987	966

Product Usage Information	Application Western Blotting	Dilution 1:1000
Storage	Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA and 50% glycerol. Store at –20°C. Do not aliquot the antibody.	
Specificity / Sensitivity	CD59 Antibody recognizes endogenous levels of total CD59 protein.	
Source / Purification	Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Gln99 of human CD59 protein. Antibodies are purified by protein A and peptide affinity chromatography.	
Background	CD59 is a GPI-anchored membrane protein that functions as an inhibitor of the complement membrane attack complex (MAC). CD59 binds to complement components C8 and C9, preventing C9 polymerization and insertion into membranes, therefore inhibiting the complement-dependent cytotoxicity (CDC) (1). CD59 is a ubiquitously expressed cell membrane protein that protects cells from CDC. Rare cases of CD59 deficiency have been reported to cause paroxysmal nocturnal hemoglobinuria in human patients (2,3). Expression of CD59 on tumor cells and viral infected cells makes them resist antibody-dependent complement-mediated lysis. Potent inhibitors for CD59 have been actively pursued for therapeutic applications (4,5). In addition, CD59 may regulate insulin secretion by modulating exocytosis (6).	
Background References	<ol style="list-style-type: none"> 1. Sugita, Y. and Masuho, Y. (1995) <i>Immunotechnology</i> 1, 157-68. 2. Mevorach, D. (2015) <i>Mol Immunol</i> 67, 51-5. 3. Höchsmann, B. and Schrezenmeier, H. (2015) <i>Hematol Oncol Clin North Am</i> 29, 495-507. 4. Cai, B. et al. (2014) <i>J Biol Chem</i> 289, 12109-25. 5. Lan, J. et al. (2014) <i>J Immunol</i> 193, 3577-89. 6. Krus, U. et al. (2014) <i>Cell Metab</i> 19, 883-90. 	

Species Reactivity	Species reactivity is determined by testing in at least one approved application (e.g., western blot).
Western Blot Buffer	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°C with gentle shaking, overnight.
Applications Key	WB: Western Blotting
Cross-Reactivity Key	H: human M: mouse R: rat Hm: hamster Mk: monkey Vir: virus Mi: mink C: chicken Dm: D. melanogaster X: Xenopus Z: zebrafish B: bovine Dg: dog Pg: pig Sc: S. cerevisiae Ce: C. elegans Hr: horse GP: Guinea Pig Rab: rabbit All: all species expected
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