

CD81 Recombinant Monoclonal Mouse Antibody (2304.81) - Biotium Choice

CD81 (clone 2304.81) is a validated recombinant mouse monoclonal antibody that recognizes the human tetraspanin protein CD81. The antibody belongs to the Biotium Choice list of select antibodies that have been formulated and validated in-house for optimal performance.



Product Description

CD81 (clone 2304.81) is a recombinant mouse monoclonal antibody that recognizes the human tetraspanin protein CD81. This antibody belongs to the Biotium Choice list of select antibodies that have been formulated and validated in-house for optimal performance. This antibody has been validated in flow cytometry and immunofluorescence microscopy. The antibody is available unlabeled or conjugated to CF® Dyes and AstralTM tandem dyes.

CD81 has a very broad cellular distribution, being expressed on T- and B-lymphocytes, NK cells, thymocytes, eosinophils, fibroblasts, epithelial and endothelial cells. Neutrophils, erythrocytes and platelets are negative, while monocytes are variably positive. CD81 is a member of a family of tetraspanin transmembrane proteins, including CD9, CD37, CD53, CD63, and CD82. It associates with CD19, CD21, Leu 13, and integrins on cell membrane and is involved in signal transduction in B lymphocyte development and cell adhesion. CD81 also acts as a receptor for the envelope protein E2 of chronic hepatitis C virus. Antibodies to CD81 have anti-proliferative effects on different lymphoid cell lines, particularly those derived from large cell lymphomas.

Tetraspanin proteins CD9, CD63, and CD81, are the most common proteins used as exosome markers. Tetraspanins are plasma membrane proteins with many proposed functions, including activation and sorting of other membrane proteins. They are also thought to play a role in the targeting of proteins to multivesicular bodies (MVBs) and exosomes. These tetraspanins are broadly expressed on many cell types and can therefore be detected on many types of exosomes, but their expression levels vary depending on the cell type of origin.

As an isotype control, we recommend <u>Isotype Control, Monoclonal Mouse IgG1 Kappa (IGG1/1331)</u> for this antibody.

Exosome Stains and Antibodies

Biotium also offers ExoBriteTM CD81 Flow Antibody and ExoBriteTM CD81 Western Antibody that are validated for optimal detection of isolated exosomes by flow cytometry or western blotting. Learn more about our products for exosome research.

Discover Sharper Signals and Unmatched Panel Flexibility with Biotium Choice Antibodies

Powered by CF® Dyes and Astral Leap™ Tandem Dyes

Biotium Choice antibodies are carefully curated and validated in-house to offer exceptional signal-to-noise. Labeled with our advanced CF® Dyes and Astral Leap™ tandem dyes, they are our top-recommended antibodies for flow cytometry and other applications.

Biotium Choice Antibody Features

- Robust and validated clones against common targets
- Developed and optimized for flow cytometry and other applications
- Conjugated to bright, photostable <u>CF® Dyes</u> for superior signal and clarity
- Also available with <u>Astral Leap™ tandem dyes</u> for expanding multiplexing
- New antibody clones and dye conjugates continuously in development

View our full catalog of Biotium Choice antibodies

Call us: 800-304-5357

Product attributes

Antibody number	#P014		
SwissProt	P60033		
Biotium Choice Antibody	Primary		
Antibody type	Biotium Choice Flow Antibodies, Primary		
Clonality	Recombinant Monoclonal		
Host species	Mouse		
Clone	2304.81		
Isotype	IgG1, kappa		
Antibody reactivity (target)	CD81		
Synonyms	CD81; Target of the antiproliferative antibody 1 (TAPA-1); Tetraspanin-28; Tspan-28		
Species reactivity	Baboon, Cynomolgus monkey, Human, Mouse (low reactivity), Non-human primates		
Human gene symbol	CD81		
Entrez gene ID	975		
Unigene	54457		
Molecular weight	26 kDa		
Antibody target cellular localization	Exosomes/EVs, Plasma membrane		
Cell/tissue expression	Exosomes, Hepatocytes, Lymphocytes, Monocytes/macrophages		
Verified antibody applications	Flow (surface) (verified), IF (verified)		
Shelf life	Guaranteed for at least 24 months from date of receipt when stored as recommended		
Positive control	Ramos, Daudi, Raji, U266, HUT-78, HUT-102, Jurkat, HL-60, KG1a, A293, A431, MG63, MCF-7, and human lymphocytes. Tonsil or liver tissue.		
Antibody application notes	Immunofluorescence: 1 ug/mL, Western Blot: 0.1 ug/mL, Flow cytometry: 0.5-1 ug/million cells		
Antibody research areas	Exosomes/EVs		
Antibody/conjugate formulation	Conjugates: PBS/0.1% BSA/0.05% azide, Purified, BSA-free: 5 mg/mL in PBS without azide		
Volume per assay	5 uL/test		
Storage Conditions	Note: store unconjugated formats at -10 $^{\circ}\text{C}$ to -35 $^{\circ}\text{C}$, Store conjugates at 2 $^{\circ}\text{C}$ to 8 $^{\circ}\text{C}$		
Regulatory status	For research use only (RUO)		
Product origin	Product may contain either bovine serum albumin (BSA) from bovine serum (Bos taurus), or recombinant BSA produced in Chinese hamster ovary cells. Inquire for the specific lot.		

Conjugation	Ex/Em	Conc.	Size	Catalog No.	Dye Features
CF®405M	416/452 nm	100 ug/mL	25 tests (125 uL)	P014-405M-125	CF®405M Features
100 tests (500 uL)	P014-405M-500	100 ag/m²	20 10010 (120 02)	<u>1 0 1 1 100W 120</u>	<u>or o room roataroo</u>
CF®488A	490/516 nm	100 ug/mL	25 tests (125 uL)	P014-488A-125	CF®488A Features
100 tests (500 uL)	P014-488A-500				
CF® 568	562/584 nm	100 ug/mL	25 tests (125 uL)	P014-568-125	CF®568 Features
100 tests (500 uL)	P014-568-500		, ,		
CF® 583R	585/609 nm	100 ug/mL	25 tests (125 uL)	P014-583R-125	CF®583R Features
100 tests (500 uL)	P014-583R-500	Ü	,		
RPE-AstralTM616	496, 546, 566/617 nm	100 ug/mL	25 tests (125 uL)	P014-R616-125	RPE-Astral TM 616
	, ,	Ü	,		<u>Features</u>
100 tests (500 uL)	P014-R616-500				
CF® 647Plus	652/668 nm	100 ug/mL	25 tests (125 uL)	P014-647P-125	CF®647Plus Features
100 tests (500 uL)	P014-647P-500				
CF®700	696/721 nm	100 ug/mL	25 tests (125 uL)	P014-700-125	CF®700 Features
100 tests (500 uL)	P014-700-500				
R-PE	496, 546, 565/576 nm	100 ug/mL	25 tests (125 uL)	P014-RPE-125	
100 tests (500 uL)	P014-RPE-500	•			
APC	651/660 nm	100 ug/mL	25 tests (125 uL)	P014-APC-125	
100 tests (500 uL)	P014-APC-500	-			
Purified (BSA-free)	N/A	5 mg/mL	1 mg	P014-1MG	
5 mg	P014-5MG	-	-		

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