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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 Astral™ 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 Isotype Control, Monoclonal Mouse IgG1 Kappa (IGG1/1331) for this antibody.

Exosome Stains and Antibodies

Biotium also offers ExoBrite™ CD81 Flow Antibody and ExoBrite™ 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 CF® Dyes for superior signal and clarity
- Also available with Astral Leap™ tandem dyes for expanding multiplexing
- New antibody clones and dye conjugates continuously in development

View our full catalog of Biotium Choice antibodies

Product attributes

Antibody number	#P014
SwissProt	P60033
Biotium Choice Antibody	Primary
Antibody type	Biotium Choice, Primary
Clonality	Monoclonal, 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 of antigen	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/0.05% azide
Volume per assay	5 uL/test
Storage Conditions	Store at 2 to 8 °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				
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				
RPE-Astral™616	496, 546, 566/617 nm	100 ug/mL	25 tests (125 uL)	P014-R616-125	RPE-Astral™616 Features
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				
RPE-Astral™775	496, 546, 565/774 nm	100 ug/mL	25 tests (125 uL)	P014-R775-125	RPE-Astral™775 Features
100 tests (500 uL)	P014-R775-500				
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 (200 uL)	P014-1MG	
5 mg (1 mL)	P014-5MG				

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Product link: https://biotium.com/product/cd81-recombinant-monoclonal-mouse-antibody-230481-biotium-choice/