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CD81 Monoclonal Mouse Antibody (5A6) - Biotium Choice



CD81 (clone 5A6) is a validated mouse monoclonal antibody that recognizes the human tetraspanin protein CD81. The antibody belongs to the Biotium Choice list of select antibodies that have been validated and optimized in-house for optimal performance.

Product Description

Note: CD81 clone 5A6 is being discontinued and has been replaced by CD81 Recombinant Monoclonal Mouse Antibody (2304.81) – Biotium Choice, which has been validated to have the same bright and specific staining of human CD81.

CD81 (clone 5A6) is a mouse monoclonal antibody that recognizes the human tetraspanin protein CD81. This antibody belongs to the Biotium Choice list of select antibodies that have been validated and optimized in-house for optimal performance. This antibody has been validated in flow cytometry, in immunofluorescence microscopy, and in western blot. The antibody is available conjugated to R-Phycoerythrin (R-PE or PE) or RPE-Astral™616. It is supplied in PBS, 0.1% BSA, 0.05% azide.

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	#P005S
Storage Conditions	Store at 2 to 8 °C
Shelf life	Guaranteed for at least 24 months from date of receipt when stored as recommended
Antibody/conjugate formulation	Purified: 0.5 mg/mL in PBS/0.05% azide, Conjugates: PBS/0.1% BSA/0.05% azide
Antibody research areas	Exosomes/EVs, Immunology
Antibody application notes	Flow Cytometry: 0.5-1 ug/mL (or, 0.05-0.1 ug/million cells), Immunofluorescence: 1 ug/mL, Western Blot: 0.1 ug/mL
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.
Verified antibody applications	Flow (surface) (verified), IF (verified), WB (verified)
Cell/tissue expression	Exosomes, Hepatocytes, Lymphocytes, Monocytes/macrophages
Antibody target cellular localization	Exosomes/EVs, Plasma membrane
Molecular weight of antigen	26 kDa
SwissProt	P60033
Unigene	54457
Entrez gene ID	975
Human gene symbol	CD81
Species reactivity	Baboon, Cynomolgus monkey, Human, Mouse (low reactivity), Non-human primates
Synonyms	CD81; Target of the antiproliferative antibody 1 (TAPA-1); Tetraspanin-28; Tspan-28
Antibody reactivity (target)	CD81
Isotype	IgG1, kappa
Clone	5A6
Host species	Mouse
Clonality	Monoclonal
Biotium Choice Antibody	Primary
Volume per assay	5 uL/test
Antibody type	Biotium Choice, Primary
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.

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Conjugation	Ex/Em	Conc.	Size	Catalog No.	Availability
CF®405M	416/452 nm	100 ug/mL	25 tests (125 uL)	P005S-405M-125	Discontinued, see replacement P014-405M
100 tests (500 uL)	P005S-405M-500				
CF®488A	490/516 nm	100 ug/mL	25 tests (125 uL)	P005S-488A-125	Discontinued, see replacement P014-488A
100 tests (500 uL)	P005S-488A-500				
CF®568	562/584 nm	100 ug/mL	25 tests (125 uL)	P005S-568-125	Discontinued, see replacement P014-568
100 tests (500 uL)	P005S-568-500				
RPE-Astral™616	496, 546, 566/617 nm	100 ug/mL	25 tests (125 uL)	P005S-R616-125	Available
100 tests (500 uL)	P005S-R616-500				
CF®700	696/721 nm	100 ug/mL	25 tests (125 uL)	P005S-700-125	Discontinued, see replacement P014-700
100 tests (500 uL)	P005S-700-500				
R-PE	496, 546, 565/576 nm	100 ug/mL	25 tests (125 uL)	P005S-RPE-125	Available
100 tests (500 uL)	P005S-RPE-500				
Purified (BSA-free, 0.5 mg/mL)	N/A	0.5 mg/mL	200 uL (100 ug)	P005-200uL	Discontinued, see replacement P014

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