

CD63 Recombinant Monoclonal Mouse Antibody (2304.63) - Biotium Choice

A validated recombinant mouse monoclonal antibody that recognizes the human tetraspanin protein CD63. The antibody belongs to the Biotium Choice list of select antibodies that have been formulated and validated in-house for optimal performance.



Product Description

CD63 (clone 2304.63) is a recombinant mouse monoclonal antibody that recognizes the human tetraspanin protein CD63. 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.

The tetraspanins are integral membrane proteins expressed on cell surface and granular membranes of hematopoietic cells and are components of multi-molecular complexes with specific integrins. The tetraspanin CD63 is a lysosomal membrane glycoprotein that translocates to the plasma membrane after platelet activation. CD63 is expressed on activated platelets, monocytes and macrophages, and is weakly expressed on granulocytes, T cell and B cells. It is located on the basophilic granule membranes and on the plasma membranes of lymphocytes and granulocytes. CD63 is a member of the TM4 superfamily of leukocyte glycoproteins that includes CD9, CD37 and CD53, which contain four transmembrane regions. CD63 may play a role in phagocytic and intracellular lysosome-phagosome fusion events. CD63 deficiency is associated with Hermansky-Pudlak syndrome and is strongly expressed during the early stages of melanoma progression.

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 CD63 Flow Antibody and ExoBriteTM CD63 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 <a>CF® Dyes 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

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Antibody number	#P013				
SwissProt	P08962				
Biotium Choice Antibody	Primary				
Antibody type	Biotium Choice Flow Antibodies, Primary				
Clonality	Recombinant Monoclonal				
Host species	Mouse				
Clone	2304.63				
Isotype	lgG1, kappa				
Antibody reactivity (target)	CD63				
Synonyms	gp55; granulophysin; Lysosomal-associated membrane protein (LAMP-3); Mast cell antigen AD1; melanoma 1 antigen; Melanoma-associated antigen MLA1; Melanoma-associated antigen ME491; MLA1; NGA; Ocular melanoma-associated antigen; OMA81H; PTLGP40; Tetraspanin-30; TSPAN30				
Species reactivity	Baboon, Cynomolgus monkey, Human, Non-human primates				
Human gene symbol	CD63				
Entrez gene ID	967				
Unigene	445570				
Molecular weight	26 kDa (core protein); 30-60 kDa (glycosylated)				
Antibody target cellular localization	Exosomes/EVs, Lysosomes, Plasma membrane, Membrane/vesicular, Multivesicular bodies				
Cell/tissue expression	Exosomes, Platelets, Granulocytes, Lymphocytes, Monocytes/macrophages				
Verified antibody applications	Flow (surface) (verified), IF (verified)				
Positive control	U87MG, SK-MEL-28, HL60, THP-1, NIH/3T3, or MCF-7 cells. Human melanoma, spleen or lymphoma 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				
Shelf life	Guaranteed for at least 24 months from date of receipt when stored as recommended				
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)	P013-405M-125	CF®405M Features
100 tests (500 uL)	P013-405M-500				
<u>CF®488A</u>	490/516 nm	100 ug/mL	25 tests (125 uL)	P013-488A-125	CF®488A Features
100 tests (500 uL)	P013-488A-500				
<u>CF® 568</u>	562/584 nm	100 ug/mL	25 tests (125 uL)	P013-568-125	CF®568 Features
100 tests (500 uL)	P013-568-500				
<u>CF® 583R</u>	585/609 nm	100 ug/mL	25 tests (125 uL)	P013-583R-125	CF®583R Features
100 tests (500 uL)	P013-583R-500				
CF® 647Plus	652/668 nm	100 ug/mL	25 tests (125 uL)	P013-647P-125	CF®647Plus Features
100 tests (500 uL)	P013-647P-500				
CF®700	696/721 nm	100 ug/mL	25 tests (125 uL)	P013-700-125	CF®700 Features
100 tests (500 uL)	P013-700-500				
R-PE	496, 546, 565/576 nm	100 ug/mL	25 tests (125 uL)	P013-RPE-125	
100 tests (500 uL)	P013-RPE-500				
APC	651/660 nm	100 ug/mL	25 tests (125 uL)	P013-APC-125	
100 tests (500 uL)	P013-APC-500				
Purified (BSA-free)	N/A	5 mg/mL	1 mg	P013-1MG	
5 mg	P013-5MG				

This datasheet was generated on December 21, 2025 at 12:17:15 AM. Visit product page to check for updated information before use. Product link: https://biotium.com/product/cd63-recombinant-monoclonal-mouse-antibody-230463-biotium-choice/