

## CD63 Recombinant Monoclonal Mouse Antibody (2304.63) - Biotium Choice



CD63 (clone 2304.63) is 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 [Isotype Control, Monoclonal Mouse IgG1 Kappa \(IGG1/1331\)](#) for this antibody. [View our full catalog of Biotium Choice antibodies](#), optimized and validated for the best results in flow cytometry.

### Exosome Stains and Antibodies

Biotium also offers [ExoBrite™ CD63 Flow Antibody](#) and [ExoBrite™ 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.](#)

### Product attributes

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	IgG1, kappa
Antibody reactivity (target)	CD63
Synonyms	gp55; granulophysin; Lysosomal-associated membrane protein 3 (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 °C to -35 °C, Store conjugates at 2 °C to 8 °C
Regulatory status	For research use only (RUO)
Product origin	Product may contain either bovine serum albumin (BSA) from bovine serum ( <i>Bos taurus</i> ), or recombinant BSA produced in Chinese hamster ovary cells. Inquire for the specific lot.

Conjugation	Ex/Em	Conc.	Size	Catalog No.	Dye Features
<a href="#">CF@405M</a>	416/452 nm	100 ug/mL	25 tests (125 uL)	<a href="#">P013-405M-125</a>	<a href="#">CF@405M Features</a>
			100 tests (500 uL)	<a href="#">P013-405M-500</a>	
<a href="#">CF@488A</a>	490/516 nm	100 ug/mL	25 tests (125 uL)	<a href="#">P013-488A-125</a>	<a href="#">CF@488A Features</a>
			100 tests (500 uL)	<a href="#">P013-488A-500</a>	
<a href="#">CF@ 568</a>	562/584 nm	100 ug/mL	25 tests (125 uL)	<a href="#">P013-568-125</a>	<a href="#">CF@568 Features</a>
			100 tests (500 uL)	<a href="#">P013-568-500</a>	
<a href="#">CF@ 583R</a>	585/609 nm	100 ug/mL	25 tests (125 uL)	<a href="#">P013-583R-125</a>	<a href="#">CF@583R Features</a>
			100 tests (500 uL)	<a href="#">P013-583R-500</a>	
<a href="#">CF@ 647Plus</a>	652/668 nm	100 ug/mL	25 tests (125 uL)	<a href="#">P013-647P-125</a>	<a href="#">CF@647Plus Features</a>
			100 tests (500 uL)	<a href="#">P013-647P-500</a>	
<a href="#">CF@700</a>	696/721 nm	100 ug/mL	25 tests (125 uL)	<a href="#">P013-700-125</a>	<a href="#">CF@700 Features</a>
			100 tests (500 uL)	<a href="#">P013-700-500</a>	
<a href="#">R-PE</a>	496, 546, 565/576 nm	100 ug/mL	25 tests (125 uL)	<a href="#">P013-RPE-125</a>	
			100 tests (500 uL)	<a href="#">P013-RPE-500</a>	
<a href="#">APC</a>	651/660 nm	100 ug/mL	25 tests (125 uL)	<a href="#">P013-APC-125</a>	
			100 tests (500 uL)	<a href="#">P013-APC-500</a>	
<a href="#">Purified (BSA-free)</a>	N/A	5 mg/mL	1 mg	<a href="#">P013-1MG</a>	
			5 mg	<a href="#">P013-5MG</a>	