

## CD9 Recombinant Monoclonal Mouse Antibody (2310.9) - Biotium Choice



CD9 (clone 2310.9) is a validated recombinant mouse monoclonal antibody that recognizes the human tetraspanin protein CD9. The antibody belongs to the Biotium Choice list of select antibodies that have been developed and validated in-house for optimal performance.

### Product Description

CD9 (clone 2310.9) is a recombinant mouse monoclonal antibody that recognizes the human tetraspanin protein CD9. This antibody belongs to the Biotium Choice list of select antibodies that have been developed and validated in-house for optimal performance. This antibody has been validated in flow cytometry, immunofluorescence microscopy, and in western blot. The antibody is available unlabeled or conjugated to CF® Dyes and Astral™ tandem dyes.

CD9 is a type IV transmembrane glycoprotein with four transmembrane domains. CD9 on pre-B cells may play a role in cell-cell adhesion. In addition, CD9 may play a role in signal transduction mediated by interaction with low molecular weight GTP binding proteins. CD9 is expressed on early B cells, eosinophils, basophils and activated T cells and is a major component of the platelet cell surface. It is also expressed on most non-T acute lymphoblastic leukemia cells and on some acute myeloid and chronic lymphoid leukemia.

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™ CD9 Flow Antibody](#) and [ExoBrite™ CD9 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	#P015
SwissProt	P21926
Biotium Choice Antibody	Primary
Antibody type	Biotium Choice Flow Antibodies, Primary
Clonality	Recombinant Monoclonal
Host species	Mouse
Clone	2310.9
Isotype	IgG1, kappa
Antibody reactivity (target)	CD9
Synonyms	Tetraspanin-29 (TSPAN29); BA-2/p24 antigen; BA2; BTCC1; CD9; Cell growth-inhibiting gene 2 protein; DRAP27; GIG2; Leukocyte antigen MIC3; MIC3; Motility-related protein (MRP1); p24
Species reactivity	Baboon, Bovine, Cynomolgus monkey, Dog, Horse, Human, Non-human primates, Rabbit, Sheep
Human gene symbol	CD9
Entrez gene ID	928
Unigene	114286
Molecular weight	24 kDa
Antibody target cellular localization	Exosomes/EVs, Plasma membrane
Cell/tissue expression	Exosomes, Platelets, Basophils, Eosinophils, Epithelial cells, Lymphocytes
Verified antibody applications	Flow (surface) (verified), WB (verified), IF (verified)
Positive control	MCF-7 cells, MCF-7 derived exosomes
Antibody application notes	Flow Cytometry: 0.5-1 ug/mL (or, 0.05-0.1 ug/million cells), Immunofluorescence: 1 ug/mL, Western Blot: 0.05 ug/mL
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
Storage Conditions	Note: store unconjugated formats at -10 °C to -35 °C, Store conjugates at 2 °C to 8 °C
Volume per assay	5 uL/test
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
<a href="#">CF@405M</a>	416/452 nm	100 ug/mL	25 tests (125 uL)	<a href="#">P015-405M-125</a>	<a href="#">CF@405M Features</a>
			100 tests (500 uL)	<a href="#">P015-405M-500</a>	
<a href="#">CF@488A</a>	490/516 nm	100 ug/mL	25 tests (125 uL)	<a href="#">P015-488A-125</a>	<a href="#">CF@488A Features</a>
			100 tests (500 uL)	<a href="#">P015-488A-500</a>	
<a href="#">CF@ 568</a>	562/584 nm	100 ug/mL	25 tests (125 uL)	<a href="#">P015-568-125</a>	<a href="#">CF@568 Features</a>
			100 tests (500 uL)	<a href="#">P015-568-500</a>	
<a href="#">CF@ 583R</a>	585/609 nm	100 ug/mL	25 tests (125 uL)	<a href="#">P015-583R-125</a>	<a href="#">CF@583R Features</a>
			100 tests (500 uL)	<a href="#">P015-583R-500</a>	
<a href="#">RPE-Astral™616</a>	496, 546, 566/617 nm	100 ug/mL	25 tests (125 uL)	<a href="#">P015-R616-125</a>	<a href="#">RPE-Astral™616 Features</a>
			100 tests (500 uL)	<a href="#">P015-R616-500</a>	
<a href="#">CF@647Plus</a>	652/668 nm	100 ug/mL	25 tests (125 uL)	<a href="#">P015-647P-125</a>	
			100 tests (500 uL)	<a href="#">P015-647P-500</a>	
<a href="#">CF@700</a>	696/721 nm	100 ug/mL	25 tests (125 uL)	<a href="#">P015-700-125</a>	<a href="#">CF@700 Features</a>
			100 tests (500 uL)	<a href="#">P015-700-500</a>	
<a href="#">APC-Astral™813</a>	633, 638/813 nm	100 ug/mL	25 tests (125 uL)	<a href="#">P015-A813-125</a>	<a href="#">APC-Astral™813 Features</a>
			100 tests (500 uL)	<a href="#">P015-A813-500</a>	
<a href="#">R-PE</a>	496, 546, 565/576 nm	50 ug/mL	25 tests (125 uL)	<a href="#">P015-RPE-125</a>	
			100 tests (500 uL)	<a href="#">P015-RPE-500</a>	
<a href="#">APC</a>	651/660 nm	20 ug/mL	25 tests (125 uL)	<a href="#">P015-APC-125</a>	
			100 tests (500 uL)	<a href="#">P015-APC-500</a>	
<a href="#">Purified (BSA-free)</a>	N/A	2 mg/mL	1 mg	<a href="#">P015-1MG</a>	
			5 mg	<a href="#">P015-5MG</a>	