

# CD9 (Mouse) Recombinant Monoclonal Rat Antibody (24MS04.9) – Biotium Choice



CD9 (clone 24MS04.9) is a validated recombinant rat monoclonal antibody that recognizes the mouse 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. This antibody has been validated in flow cytometry.

## Product Description

CD9 (clone 24MS04.9) is a recombinant rat monoclonal antibody that recognizes the mouse tetraspanin protein CD9. This antibody belongs to the Biotium Choice list of select antibodies that were developed and validated in-house for optimal performance. This antibody has been validated in flow cytometry.

CD9 is a surface glycoprotein of the tetraspannin family. It is expressed on a variety of cells, including nerve, muscle cells and many cells of hematopoietic origin. CD9 is found to participate in forming a large molecular cell complex with other membrane proteins, such as MHC class II, CD19, CD5 and other TM4SF molecules. It is reported that CD9 is a marker of marginal zone B cells, B1 cells and plasma cells. The diverse functions of CD9 may largely depend upon its associated molecules on different cells.

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.

Biotium also offers Biotium choice recombinant antibodies against [mouse/rat CD81 \(24MS04.81\)](#) and [human CD9 \(2310.9\)](#).

### Extracellular Vesicle Stains and Antibodies

Biotium also offers [ExoBrite™ CD9 Flow Antibody](#) and [ExoBrite™ CD9 Western Antibody](#) that are validated for optimal detection of isolated extracellular vesicles (EVs) by flow cytometry or western blotting.

[Learn more about our products for EV 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	#P016
SwissProt	P40240
Biotium Choice Antibody	Primary
Antibody type	Biotium Choice Flow Antibodies, Primary
Clonality	Recombinant Monoclonal
Host species	Rat
Clone	24MS04.9
Isotype	IgG2a, kappa
Antibody reactivity (target)	CD9
Synonyms	DRAP-27, MRP-1, p-24
Species reactivity	Mouse
Human gene symbol	CD9
Entrez gene ID	12527
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)
Positive control	NIH 3T3 cells, RAW 264.7 cells
Antibody application notes	Flow Cytometry: 0.5-1 ug/mL (or, 0.05-0.1 ug/million cells), Immunofluorescence: 1 ug/mL
Antibody research areas	Exosomes/EVs
Antibody/conjugate formulation	Purified, BSA-free: 2 mg/mL in PBS without azide, Conjugates: 0.1 mg/mL in PBS/0.1% BSA/0.05% 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 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
<a href="#">CF®405M</a>	416/452 nm	100 ug/mL	25 tests (125 uL)	<a href="#">P016-405M-125</a>	<a href="#">CF®405M Features</a>
			100 tests (500 uL)	<a href="#">P016-405M-500</a>	
<a href="#">CF®488A</a>	490/516 nm	100 ug/mL	25 tests (125 uL)	<a href="#">P016-488A-125</a>	<a href="#">CF®488A Features</a>
			100 tests (500 uL)	<a href="#">P016-488A-500</a>	
<a href="#">CF® 568</a>	562/584 nm	100 ug/mL	25 tests (125 uL)	<a href="#">P016-568-125</a>	<a href="#">CF®568 Features</a>
			100 tests (500 uL)	<a href="#">P016-568-500</a>	
<a href="#">CF® 647Plus</a>	652/668 nm	100 ug/mL	25 tests (125 uL)	<a href="#">P016-647P-125</a>	<a href="#">CF®647Plus Features</a>
			100 tests (500 uL)	<a href="#">P016-647P-500</a>	
<a href="#">Purified (BSA-free)</a>	N/A	2 mg/mL	1 mg	<a href="#">P016-1MG</a>	
			5 mg	<a href="#">P016-5MG</a>	